



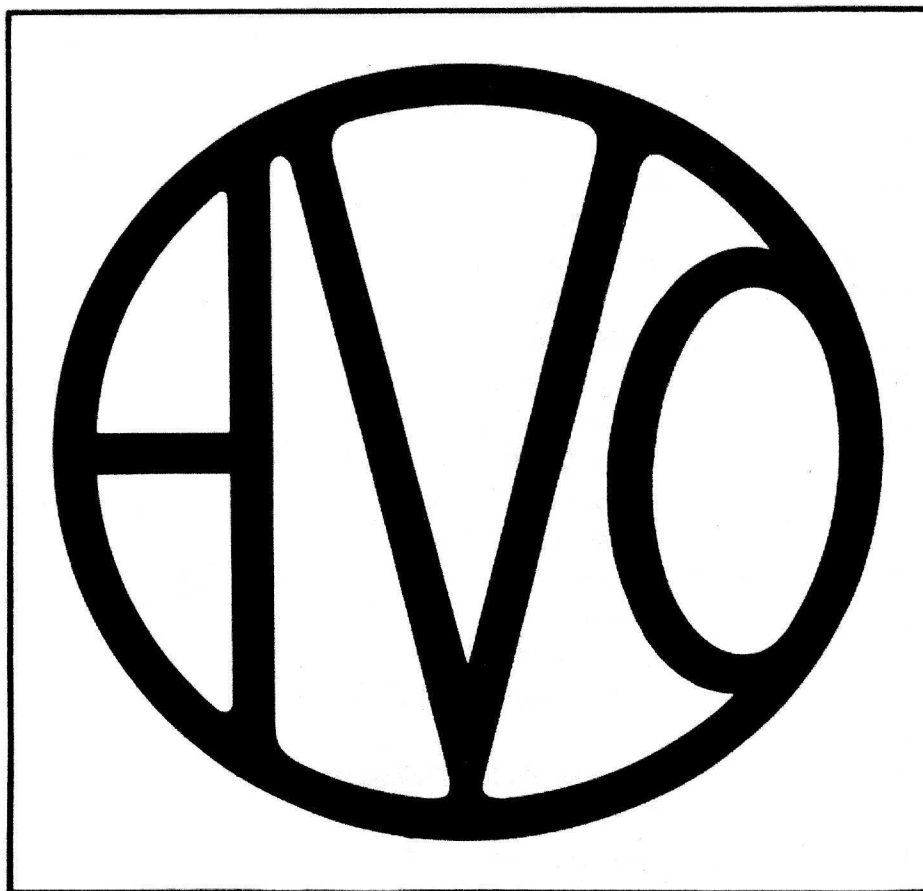
Valve Data Manual

Edition · 20

for models

CT 160 · VT 160

VCM mk 1 · VCM mk 2 · VCM mk 3 · VCM mk 4 · VCM 163



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Edition · 20

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VCM mk 1 · VCM mk 2 · VCM mk 3 · VCM mk 4 · VCM 163

ABBREVIATIONS

CCR	Cold Cathode Rectifier
D	Diode
DD	Double Diode
DDD	Triple Diode
DDDD	Quadruple Diode
DT	Diode Triode
DDT	Double Diode Triode
DP	Diode Pentode
DDP	Double Diode Pentode
gm	Mutual Conductance in milliamps per volt
H	Heptode or Hexode
Ia	Anode current in milliamps
N	Nonode
O	Octode
P	Pentode or Tetrode
PP	Double Pentode or Double Tetrode
T	Triode
TH	Triode Heptode or Triode Hexode
THY	Thyratron
TI	Tuning Indicator
TP	Triode Pentode
TT	Double Triode
TTT	Triple Triode
R	Half-wave rectifier
RR	Full-wave rectifier
Ra	Anode Circuit resistance
Va	Anode voltage
Vf	Heater voltage
Vg ₁	Control grid voltage
Vg ₂	Screen grid voltage
VCM	Valve Characteristic Meter
X, Y, Z	Are positions on the Pin Selector switches on the VCM 163

SYMBOLS

• INTERNAL CONNECTION

Among Selector Switch settings, this indicates that the valve pin is connected inside the valve to an electrode for the purpose of improving mechanical rigidity. As the internal connection may be to a different electrode for any given valve type, **it is essential that this pin be left unconnected** to the valve tester (Selector Switch to 0). If it is required to know which electrode is internally connected to the asterisked pin, this may be done with an ohmmeter on a sufficiently low range to discriminate between heater resistance and a direct connection.

† TRIPLE DIODE TESTING

Among Selector Switch settings, this indicates the pin connecting the third diode (d'''). With the earlier generations of testers (all other than VCM 163) this requires a special testing procedure for d'''. Please refer to the Operating Instructions for the tester concerned.

† EXTERNAL ANODE LOAD

A dagger appearing in the gm data column indicates that the figure given is the value of the external anode load (Ra) to be inserted for the test. Please see notes on Testing Tuning Indicators, Cold Cathode Rectifiers, Gas-filled Rectifiers and Thyratrons.

() HIGH CURRENT HEATERS

Brackets around heater voltage, e.g. (5), indicate that a tester voltage setting higher than that specified by the valve manufacturer should be used to compensate for voltage drop at the valve base, occurring in the case of high current heaters.

§ SECONDARY EMISSION

This symbol against a type number indicates a valve susceptible to secondary emission (back emission) from the anode. For these valves two alternative sets of figures are given.

φ GRID CURRENT ERRORS (VCM1 and VCM2 only)

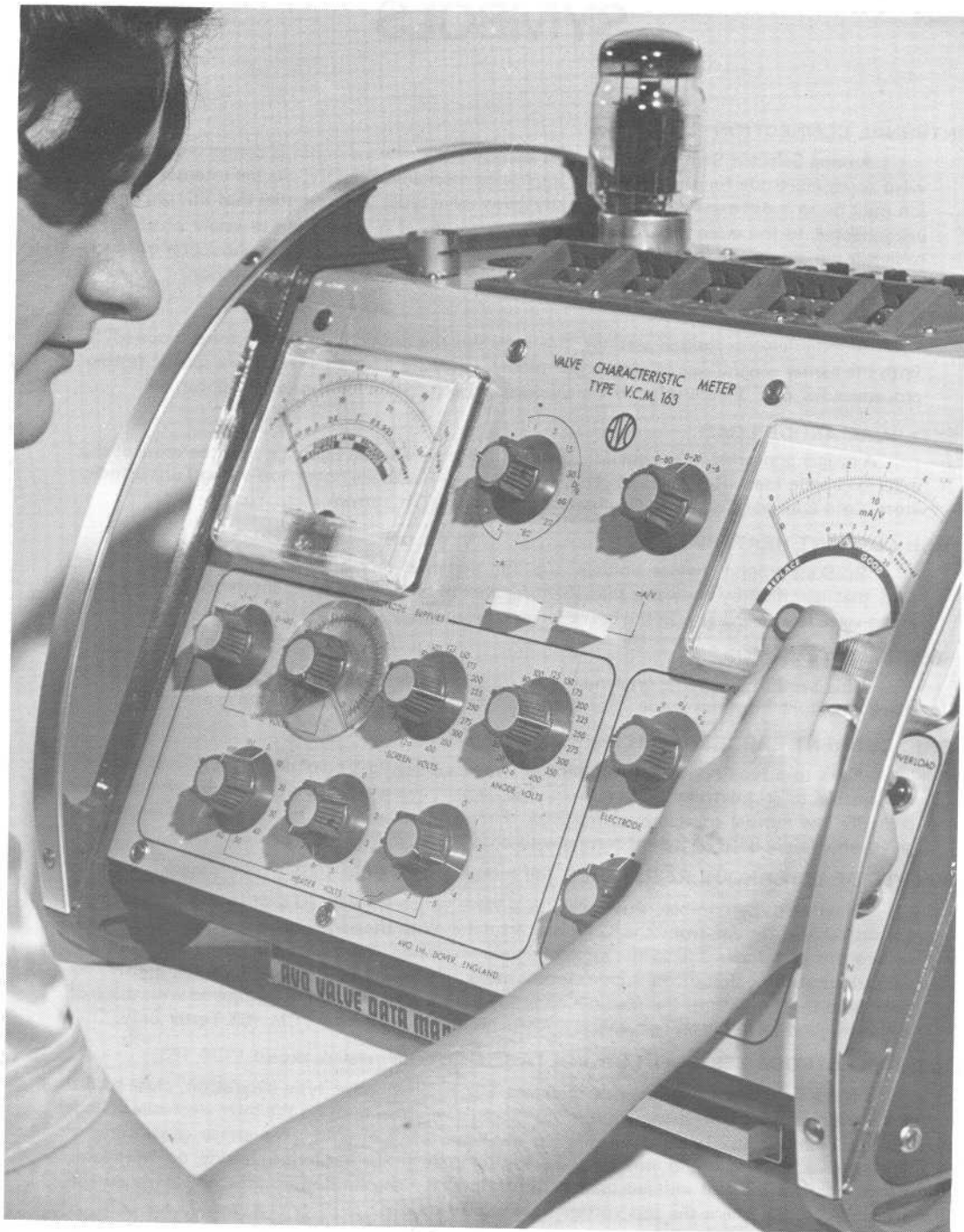
Next to a type number, this indicates a valve calling for V_{g1} of less than 1V and which is susceptible to grid current. This current may increase the grid bias voltage, giving rise to unexpectedly low mutual conductance readings. For these valves, two alternative sets of figures are given which only need be used if testing with a VCM1 or VCM2.

△ VALVES OF LOW ANODE RESISTANCE (all testers except VCM 163)

Next to type number, this indicates a valve which is likely to give Ia and gm readings considerably different from the valve makers data. With the earlier generations of AVO valve testers this effect was due to the internal anode resistance of the valve (ra) being of a very low value, approaching that of the anode current measuring circuit of the tester (approx. 200Ω). To overcome this limitation, the readings of Ia and gm obtained should be compared with those of a known good valve. Ia and gm values quoted are for use with the VCM 163 Tester only.

□ INTER-ELECTRODE TESTS AT LOW VOLTAGE ONLY (all testers except VCM 163)

Next to a type number, this indicates a specialised valve type (thyatron, close-spaced VHF triode etc.) whose manufacturer has placed a very low limit on the inter-electrode voltage ratings. These restrictions apply whether the valve is hot or cold. The earlier generations of AVO valve testers should not be used for inter-electrode insulation testing on these few types, because the test voltage used is 150V (peak). The limitation does not apply to the tester VCM 163 where the test voltage used is 50V d.c.



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WARNINGS

USE OPERATING INSTRUCTIONS

This book does not replace Operating Instructions supplied with the various AVO Valve Tester models.

ELECTRIC SHOCK

Users of AVO Valve Testers are warned that voltages of up to 450V may be present on valve sockets and link terminals (where provided) for external component connections.

CONSTANT VOLTAGE TRANSFORMERS

In the interests of accuracy, it is recommended that AVO Valve Testers should NOT be powered from a constant voltage transformer, unless it is known that the 3rd and 5th harmonic content is of negligible proportion.

DAMAGE TO VALVES

While every care has been taken in the preparation of this manual, the publishers cannot accept any responsibility for damage caused to any valve under test, or to the instrument, resulting from incorrect information.

TRADE MARKS

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USING THE AVO VALVE MANUAL

USE WITH AVO VALVE TESTERS

This manual is published primarily as an aid to users of AVO valve testers in setting up their instrument for each valve type. The operating procedure and some instrument limitations vary according to the tester model concerned and users should obtain this class of information from the Operating Instructions supplied with the tester.

The AVO instruments covered by this manual are:

VCM 163	Valve Characteristic Meter
VCM mk 1	Valve Characteristic Meter
VCM mk 2	Valve Characteristic Meter
VCM mk 3	Valve Characteristic Meter
VCM mk 4	Valve Characteristic Meter
VT 160	Valve Tester, Commercial Version
CT 160	Valve Tester, Services Version

USE FOR INDEPENDENT REFERENCE

The manual is also a useful source of basic valve data, indexed by type number only, without the need to know the valve manufacturer. Valve characteristics are given directly, in tabular form and pin connections may be obtained by decoding the selector switch settings for VCM 163 (p. xi).

MULTIPLE VALVES

For multiple valves (e.g. triode-pentodes), two lines of characteristic data are given in this manual. The section with the fewer electrodes is given on the top line (e.g. triode, in a triode-pentode). This is usually obvious from the absence or presence of a V_{g2} value in the tables. Where the two sections have identical characteristics (e.g. a double triode) only one line is given. For quadruple diodes (e.g. 6JU8) the anodes of D1 and D3 are coupled internally to the cathodes of D2 and D4. In these cases, two lines of pin Selector Switch settings are given in order that each diode pair may be tested separately.

TYPE VARIANTS

Usually indicated by suffix letters added by the manufacturer to the basic type numbers;

Example 1	Basic type	6L6
	Variants	6L6A, 6L6B, 6L6G, 6L6GT, 6L6GTA

In this example, the variations concern the glass bulb or base and do not affect the characteristics. Therefore only one entry is given in this manual, under basic type 6L6, which is equally valid for testing all the variants shown in the example.

Example 2	Basic type	PL81
	Variant	PL81A

In some cases the variant does have different characteristics from the basic type and in these cases the manual gives separate entries.

FLYING LEAD VALVES

AVO Valve Testers VCM 163, VCM 4, CT 160 and VT 160 have special connecting sockets for flying leads valves. In other tester models valves with solder-in wire leads, in place of the normal plug-in type of base, may be tested by inserting the wires carefully into a suitable valve holder on the tester. As each flying lead valve is usually a variant of a normal based type, it is best to use the socket appropriate to the based type.

In the case of Brimar flying lead valves, these have prefix letters F/, FF/, SF/, SX/, or XF/ before the basic type number, e.g. F/6064. The AVO Valve Manual gives the test data under the basic type number 6064 but not under the flying lead variant F/6064.

TUNING INDICATORS

Special procedures are required for testing cathode ray tuning indicators, full details of which are given in the Operating Instruction book with each tester. Testers type VCM 1 and VCM 2 are not suitable for testing tuning indicators.

The tester screen-grid switch is used to connect the target supply and the voltage required is given in the V_{g2} column of this manual. An external anode load resistor is required and this may be connected between the Anode Link terminals on the tester. The value of the resistor required is given in the gm data column, keyed with a dagger symbol †. At the approximate bias given in the V_{g1} column, the triode section should be at cut-off and the display showing the minimum area.

On reducing the grid bias to zero, the illuminated area should increase to maximum and the anode current should be approximately that given in the Ia column.

For dual sensitivity indicators, two lines of data are given, the upper line relating to the more sensitive indication.

THYRATRONS

Special procedures are required for testing thyratrons, full details of which are given in the Operating Instructions book with each tester. Testers VCM 1 and VCM 2 are not suitable for the testing of thyratrons.

The applied anode voltage for testing thyratrons is given in the V_a column of this manual in the usual way. The resistance figure given in the gm column is the value of external load to be connected between the Anode Link terminals on the tester. With Ia meter on the highest range, V_{g_1} is set to maximum and then reduced until the valve strikes. The value of current flow to be expected is given in the Ia column of this manual.

COLD CATHODE and GAS FILLED RECTIFIERS

Testing valves of these types requires the external connection of a suitable range limiting resistor between the Anode Link terminals of the AVO tester, in order to protect the valve from damage. The value of resistor to use is given in the gm column of this manual. Testers VCM 1 and VCM 2 are not suitable for testing these rectifiers.

HIGH VOLTAGE RECTIFIERS

Test data for high voltage rectifiers requires a different format and special test procedure. The information on testing these types appears separately in Appendix 1 in this manual.

VOLTAGE STABILISERS

Voltage stabiliser valves (e.g. OA2, QS75/20, STV108-30, VR75/30) are not included in this manual because they cannot be fully tested on AVO Valve Characteristic Meters.

SETTING UP TESTER

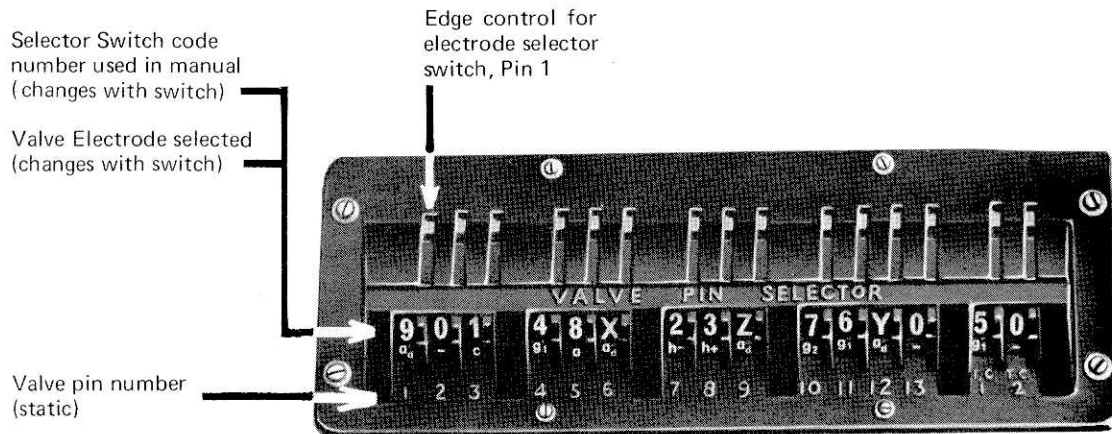
FROM

VALVE MANUFACTURER'S DATA

This Valve Data Manual lists over 7,900 different types but should a valve be encountered which is not included, AVO testers may be set up from data supplied by the valve manufacturer.

PROCEDURE

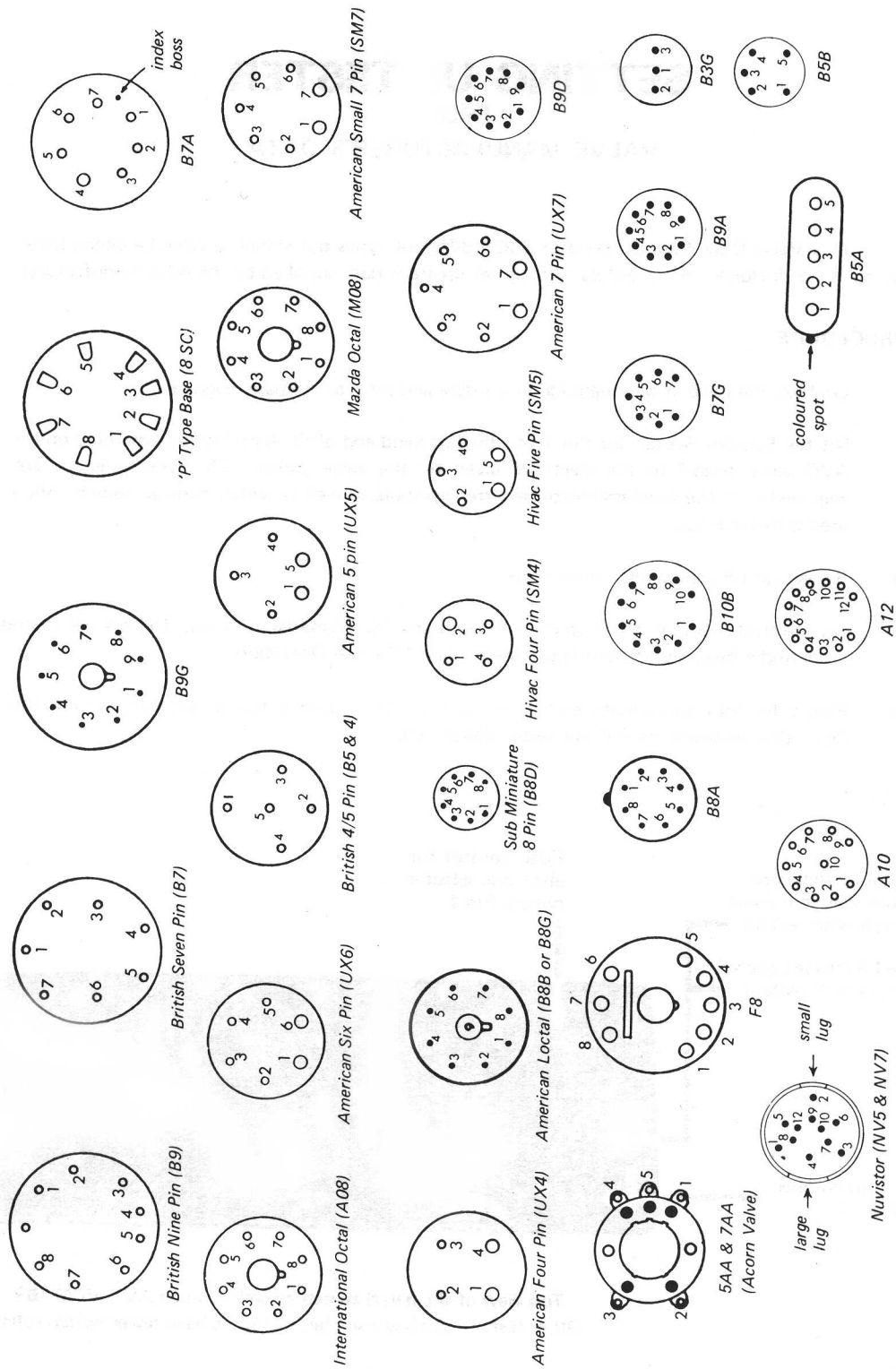
- 1 Look up the valve in the manufacturer's data and refer to the base diagram.
- 2 Set the Selector Switch for Pin 1 (on the left hand end of the barrel switch assembly on the AVO valve tester) to the electrode given by the valve maker. The roller selectors are engraved with the standard electrode letter symbols, as well as switch position code numbers used in this manual.
- 3 Repeat for remaining pin connections
- 4 Set electrode supplies from valve manufacturer's "Characteristics" data. Do not use figures given under headings of "Maximum Ratings" or "Typical Operation".
- 5 Plug valve into appropriate socket and proceed with normal test in accordance with the Operating Instructions for the tester concerned.



Top view of the barrel switch assembly on an AVO VCM 163.
Other tester models are similar, but some have fewer switch rollers

STANDARD NUMBERING OF VALVE PINS (viewed from underside of socket)

x



NOTE: This is not a diagram of the socket panel of any AVO valve tester

FINDING PIN CONNECTIONS

FROM

AVO VALVE DATA MANUAL

for models

CT 160 · VT 160

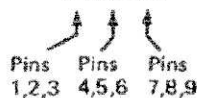
VCM mk 1 · VCM mk 2 · VCM mk 3 · VCM mk 4

PIN DECODING TABLES

VALVE TYPE	VCMs Mk 1-4 incl and CT/VT 160	
	SELECTOR SWITCH	TOP CAP

PCL82

414 237 516



It will be seen that the Selector Switch comprises nine thumb control rollers, numbered from left to right 1—9. This numbering appears on the moulded cacutcheon immediately behind the rollers and corresponds to the valve pins in the order of their standard pin numbering. Thus valves with any number of base connections up to nine can be accommodated. Further, to accommodate top cap and other external valve connections a socket panel is provided with nine sockets marked G1, S, A1, A2, D1, D2, C, H—, H+, the markings corresponding to the valve electrode connections which are made externally to the valve.

Rotation of the rollers by the finger rim provided will reveal that each roller can be set in any one of ten positions, the setting in question being indicated in the window opening at the front of the cacutcheon. The ten positions on the roller are marked as under:—

1	2	3	4	5	6	7	8	9	0
C	H—	H+	G	S	A	A2	D1	D2	—

The numbers are provided for ease of memorising and noting base combinations, but the corresponding electrode denominations are shown by the letter appearing in the cacutcheon window immediately underneath the number, thus:—

- (1) C corresponds to Cathode, or to an electrode normally connected to cathode e.g., G3.
- (2) H— Heater normally Earthy or connected to negative L.T. in the case of a battery valve.
- (3) H+ the other Heater connection or centre tap.
- (4) G Control Grid
- (5) S Screen Grid or g₂.
- (6) A normal anode of single or multiple valve. In the case of an Oscillator mixer valve, A represents the Oscillator anode.
- (7) A2 second anode of double valves, and in the case of Oscillator mixer valves, the mixer anode.
- (8) D1 the first diode anode of half and full wave signal diode and rectifier valves, diode and rectifier/amplifier combinations.
- (9) D2 the second diode anode of signal diode and rectifier valves, diode and rectifier/amplifier combinations.
- (0) — a disconnected valve pin or to a pin upon which an internal electrode is anchored. Such pins are marked "I.C." in manufacturers' literature, or by an asterisk (*) in the "AVO" valve data manual. This switch position leaves the particular valve pin completely disconnected.

EXAMPLE

For PCL82, Pin 1 is shown in the AVO Manual as Electrode Code 4. Decoding table shows Code Number 4 always represents Control Grid. Hence Pin 1 is Control Grid. The position of Pin 1 is found from the Standard Pin Numbering Diagram.

FINDING PIN CONNECTIONS

FROM

AVO VALVE DATA MANUAL

model VCM163

When using the AVO Valve Data Manual for independent reference in servicing work, the valve characteristics information is read out directly, but the valve pin connections need decoding.

This is easily done by taking the 'Selector Switch' and 'Top Cap' code numbers given in the VCM 163 columns of the AVO Valve Data Manual and decoding them by reference to the following tables and to the standard valve pin numbering diagrams on the facing page.

PIN DECODING TABLES

VALVE TYPE	VCM163 only	
	SELECTOR SWITCH	TOP CAP

PCL82

415 238 718 0000 00

Pins Pins Pins Pins
1,2,3 4,5,6 7,8,9 10,11,12,13

Electrode Selector Switch Code Number in Valve Manual	Electrode Symbol	Electrode
0	—	None
1	C	Cathode
2	h—	Heater
3	h+	Heater
4	g ₁ ' "	Control grid
5	g ₁ " "	Control grid of second section
6	g ₁ " "	Control grid of third section
7	g ₂	Screen grid
8	a	Anode
9	ad ' "	First Diode anode
X	ad " "	Second Diode anode
Y	ad " "	Third Diode anode
Z	ad " "	Fourth Diode anode

EXAMPLE

For PCL82, Pin 1 is shown in the AVO Manual as Electrode Code 4. Decoding table shows Code Number 4 always represents Control Grid. Hence Pin 1 is Control Grid. The position of Pin 1 is found from the Standard Pin Numbering Diagram.

VALVE SOCKET ADAPTORS

If the required valve socket is not already fitted to your AVO valve tester, one of the socket adaptors may provide a solution.

The following adaptors were available, at the time of going to press, from:

AVO Ltd,
Archcliffe Road,
Dover, Kent. CT17 9EN
Telephone: Dover (0304) 202620

ADAPTORS

VCM 163 ONLY			VCM 3 VT 160		VCM 4 CT 160		VCM 1		VCM 2	
Adaptor No		Plugs in to Socket type	Adaptor No		Plugs in to Socket type	Adaptor No		Plugs in to Socket type		
2	B9G	AO8	5	Fit your own socket	AO8	1	B7G and B8A			
3	B8B (loctal)	AO8	6	SM7 (to fit SA7 base)	AO8		(Miniature and Rimlock)	AO8		
4	B3G	AO8	9	B7A	AO8	2	B9G	AO8		
5	Fit your own socket	AO8	10	5AA and 7AA (Acorn)	AO8	3	B8B (Loctal)	AO8		
6	SM7 (fits SA7 base)	AO8	11	B5A (5 flying leads)	AO8	4	B3G	AO8		
9	B7A	AO8				5	Fit your own socket	AO8		
10	5AA and 7AA (Acorn)	AO8				6	SM7 (fits SA7 base)	AO8		
15	UX4 (American 4-pin)	SP14				9	B7A	AO8		
17	UX6 (American 6-pin)	SP14				10	5AA and 7AA (Acorn)	AO8		
18	UX7 (American 7-pin)	SP14				11	B5A (5 flying leads)	AO8		
19	MO8 (Mazda octal)	SP14								
20	B7 (British 7-pin)	SP14								

AVO VALVE DATA MANUAL 19th EDITION

TEST DATA FOR RECEIVING AND SMALL TRANSMITTING VALVES

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
0Z4	008 080 101 0000	00	007 060 010				250		58	†3k	A08	CCR
00	384 200 000 0000	00	364 200 000		5	0	40		1.0	0.66	UX4	T
00A	384 200 000 0000	00	364 200 000		5	0	40		1.5	0.66	UX4	T
01	384 200 000 0000	00	364 200 000		5	4.5	90		2.5		UX4	T
01A	384 200 000 0000	00	364 200 000		5	9	150		3	0.8	UX4	T
01AA	384 200 000 0000	00	364 200 000		5	4.5	90		3.2	0.9	UX4	T
01B	384 200 000 0000	00	364 200 000		5	4.5	90		2.5	0.72	UX4	T
06F90	873 420 000 0000	00	653 420 000		0.6	1.1	20	20	.05	0.1	B5A	P
054V	842 310 000 0000	00	642 310 000		4		100			4	B5	T
084	842 300 000 0000	00	642 300 000		4	2.0	150		4.0	1.4	B4	T
1	291 300 000 0000	00	281 300 000		6				60		UX4	R
1A3	291 009 300 0000	00	281 008 300		1.4						B7G	D
1A4	387 200 000 0000	40	365 200 000	G1	2	3	150	75	2.2	0.6	UX4	P
1A4E	387 200 000 0000	40	365 200 000	G1	2	3	150	75	2.2	0.6	UX4	P
1A4P	387 200 000 0000	40	365 200 000	G1	2	3	90	75	2.2	0.7	UX4	P
1A4T	287 300 000 0000	40	265 300 000	G1	2	3	150	75	2.2	0.6	UX4	P P
1A5	038 740 200 0000	00	036 540 200		1.4	4.5	90	90	4	0.85	A08	P
1A6	288 473 000 0000	40	266 453 000	G1	2	0	150	75	3	0.4	UX6	P
1A7	9X2 300 000 0000	00	892 300 000		4				60		B4	RR
1A7	028 748 300 0000	40	026 546 300	G1	1.4	0	90	50	1.8	0.5	A08	H
1A8	328 748 290 0000	40	327 546 280	G1	1.4		90	90	1.2	0.7	A08	DTP
1AB5	387 004 220 0000	00	365 004 220		1.2	1.5	150	150	6.8	1.35	B8B	P
1AB6	287 481 300 0000	00	265 461 300		1.4	4.1	60	60	1.65	0.1	B7G	H
1AC5	040 230 870 0000	00	*4* 23* 650		1.2	4.5	60	60	2.0	0.75	B8D	P
1AC6	288 484 300 0000	00	266 464 300		1.4	4.0	60		4	2.2	B7G	H
1AD2	200 000 000 0030	90			1.25				30		A12	R
1AD4	872 430 000 0000	00	652 430 000		1.2	1.6	90	90	5.7	2.3	B5A	P
1AD5	040 230 870 0000	00	*4* 23* 650		1.2	3.0	60	60	1.85	0.73	B8D	P
1AE4	287 024 300 0000	00	265 024 300		1.2	0	90	90	3.5	1.55	B7G	P
1AE5	842 473 000 0000	00	642 453 000		1.2		40	40	0.9	0.2	B5A	P
1AF4	287 024 300 0000	00	265 024 300		1.4	0	90	90	1.65	0.95	B7G	P
1AF5	209 784 300 0000	00	208 564 300		1.4	0	90	90	1.1	0.6	B7G	DP
1AF33	209 784 300 0000	00	208 564 300		1.4		60	60	1.6	0.5	B7G	DP
1AF34	209 784 300 0000	00	208 564 300		1.2		60	60	1.6	0.5	B7G	DP
1AG4	873 420 000 0000	00	653 420 000		1.2	3.6	40	50	2.4	1	B5A	P
1AG5	879 243 000 0000	00	658 243 000		1.2	2	40	40	0.2	0.2	B5A	DP
1AH4	872 473 000 0000	00	652 453 000		1.2		40	40	0.7	0.7	B5A	P
1AH5	209 784 300 0000	00	208 564 300		1.4	1.5	60	60	0.17	0.17	B7G	DP
1AJ4	287 124 300 0000	00	265 124 300		1.4	0.8	75	75	1.4	0.65	B7G	P
1AJ5	879 243 000 0000	00	658 243 000		1.2		40	40	1	0.4	B5A	DP
1AK4	872 430 000 0000	00	652 430 000		1.2		40	40	0.7	0.7	B5A	P
1AL4	387 004 020 0000	00	365 004 020		1.4	4.5	90	90	4	0.8	B8B	P
1AM4	287 024 300 0000	00	265 024 300		1.4		90	60	2.4	0.3	B7G	P
1AN5	287 224 300 0000	00	265 224 300		1.4	0	60	60	1.0	0.7	B7G	P
1AQ5	288 424 300 0000	00	266 424 300		1.4		90	40			B7G	H
1AR5	209 784 300 0000	00	208 564 300		1.4		60	60	0.9	0.5	B7G	DP
1AS4	287 024 300 0000	00	265 024 300		1.4	0	90	90	1.6	0.85	B7G	P
1AS5	287 904 300 0000	00	265 804 300		1.4		60	60	0.9	0.5	B7G	DP
1AU3	030 000 200 0000	90	030 000 200	D1	1.2						A08	D
1AX2	230 232 032 0000	00	230 232 032	D1	1.4						B9A	D
1AY2	230 000 000 0000	90	020 000 300	D1	1.25						B3G	D
1B1P	209 784 300 0000	00	208 564 300		1.2	0	60	40	1.0	0.25	B7G	P
1B3	020 000 300 0000	90	020 000 300	D1	1.2						A08	D
1B4	387 200 000 0000	40	365 200 000	G1	2	3	200	60	1.7	0.6	UX4	P
1B4P	387 200 000 0000	40	365 200 000	G1	2	3	90	75	1.6	0.6	UX4	P

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
1B4T(T)	287 300 000 0000	40	265 300 000	G1	2	3	150	75	1.7	0.6	UX4	P
1B5	289 X43 000 0000	00	268 943 000		2	3	150		0.8	0.57	UX6	DDT
1B5L	389 X42 000 0000	00	368 942 000		2	3	100		0.8	0.5	UX6	DDT
1B6	287 408 300 0000	00	265 406 300		1.4	1.5	90	75	1.5	0.75	B7G	P
1B7	028 748 300 0000	40	026 546 300	G1	1.4	0	90	50	1.5	0.8	A08	H
1B8	038 748 290 0000	40	037 546 280	G1	1.4	[6	90		0.1	0.3]	A08	DTP
	038 758 290 0000	40				6	90	90	6.3			
1BC2	100 010 000 0000	00		A	1.25		100		10.0		B9A	D
1BY2	110 011 010 0110	00		A	1.25		225		7.0		A12	D
1C	29X 300 000 0000	00	289 300 000		6						UX4	DD
1C1	288 424 300 0000	00	266 424 300		1.4	4	75		4.5	1.2	B7G	H
1C3	288 484 300 0000	00	266 464 300		1.4		60		3		UX4	P
1C4	387 200 000 0000	40	365 200 000	G1	2	0	150	75	2.5	1	A08	P
1C5	038 740 200 0000	00	036 540 200		1.4	7.5	90	90	7.5	1.5	A08	P
1C6	388 472 000 0000	40	366 452 000	G1	2	0	150	75		1	UX6	H
1C7	028 748 300 0000	40	026 546 300	G1	2	0	150	75		1	A08	H
1C8	240 238 740 0000	00	240 236 540		1.2	0	30	30	0.3		B8D	H
1C91	824 300 000 0000	00	624 300 000		1.2	2.5	150		7		B5A	T
1C91	028 448 300 0000	00	026 447 300		1.2	2.5	125		7		A08	TT
1D3	402 308 080 0000	00	402 306 060		1.2	5	90		12.5	3.4	B8A	T
1D4	284 730 000 0000	00	264 530 000		2	6	150	150	9.5	2.4	UX5	P
1D5	902 310 000 0000	00	802 310 000		40				120		B5	R
1D5EG	028 700 300 0000	40			2	3	150	60	2.2	0.7	A08	P
1D5GT	028 700 300 0000	40	026 500 300	G1	2	3	150	75	2.2	0.6	A08	P
1D6	290 193 000 0000	00	280 183 000		25						UX6	R
1D7	038 748 200 0000	40	036 546 200	G1	2	0	150	75	3	0.42	A08	P
1D8	038 748 290 0000	50	037 546 280	G1	1.4	[0	90		1.1	0.5]	A08	DTP
						9	90	90	5			
1DN5	287 904 300 0000	00	265 804 300		1.4		60	60	2.1	0.6	B7G	DP
1E3	402 203 080 0000	00	402 203 060		1.2	0	150		20	3.5	B9A	T
1E4	028 040 300 0000	00	026 040 300		1.4	3	90		1.4	0.76	A08	T
1E5	038 700 200 0000	40	036 500 200	G1	2	3	150	75	1.7	0.6	A08	P
1E7	038 458 270 0000	00	036 447 250		2	4.5	150	150	7.5	1.43	A08	PP
1E8	240 238 740 0000	00	240 236 540		1.2	0	60	60	1.8	0.74	B8D	H
1F2	287 024 300 0000	00	265 024 300		1.4	1.0	90	75	2.9	0.92	B7G	P
1F3	287 024 300 0000	00	265 024 300		1.4	1.0	90	50	1.9	0.75	B7G	P
1F4	384 720 000 0000	00	364 520 000		2	3	90	90	4	1.4	UX5	P
1F5	038 740 200 0000	00	036 540 200		2	3	90	90	4	1.4	A08	P
1F6	387 9X2 000 0000	40	365 892 000	G1	2	1.5	150	75	2.2	0.6	UX6	DDP
1F7	038 9X7 200 0000	40	036 895 200	G1	2	1.5	150	75	2.2	0.6	A08	DDP
1F33	287 024 300 0000	00	265 024 300		1.4		90	60	3.5	0.7	B7G	P
1F34	287 024 300 0000	00	265 024 300		1.2		90	60	3.5	0.7	B7G	P
1F860	141 230 871 0000	00	141 230 651		20		200	175	10	7.5	B9A	P
1FD1	209 784 300 0000	00	2*8 564 300		1.4	1.5	60	60	0.17	0.17	B7G	DP
1FD9	209 784 300 0000	00	208 564 300		1.4	1.0	75	75	1.6	0.63	B7G	DP
1G3	020 000 300 0000	90	*2* 0*0 3*0	D1	1.2						A08	D
1G4	038 040 200 0000	00	036 040 200		1.4	6	90		2.3	0.82	A08	T
1G5	038 740 200 0000	00	036 540 200		2	6	90	90	8.5	1.5	A08	P
1G6	028 458 300 0000	00	026 447 300		1.4	0	90		1.0	0.67	A08	TT
1H1	028 458 300 0000	00			2.1		150		3.2	2.1	A08	TT
1H2	230 232 032 0000	90	23* 232 *32	D1	1.4						B9A	D

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
1H3C	028 458 300 0000	00	026 447 300		1.2	5.5	150		2.3	0.8	A08	TT
1H4	028 040 300 0000	00	026 040 300		2	9	150		3	0.9	A08	T
1H5	238 090 200 0000	40	036 080 200	G1	1.4	0.5	100		0.1	0.2	A08	DT
1H6	038 9X4 200 0000	00	036 894 200		2	3	150		0.8	0.57	A08	DDT
1H33	287 424 300 0000	00	265 424 300		1.4		90	60	1.6		B7G	H
1H34	287 424 300 0000	00	265 424 300		1.2		90	60	1.6		B7G	H
1H35	287 474 300 0000	00	265 454 300		1.4		90	40	0.6		B7G	H
1J3	020 000 300 0000	90	020 000 300	D1	1.2						A08	D
1J5			036 540 200		2	16.5	150	150	7	0.95	A08	P
1J6	028 457 300 0000	00	026 447 300		2	3	150		1.7		A08	TT
1J6GX	028 457 300 0000	00	026 447 300		2	0	150		2		A08	TT
1K1P	287 024 300 0000	00	265 014 300		1.2	0.5	60	40	1.7	0.65	B7G	P
1K3	020 000 300 0000	90	020 000 300	D1	1.2						A08	D
1K4	387 200 000 0000	40	365 200 000	G1	2		150	75	2.5	1	UX4	P
1K5	028 700 300 0000	40	026 500 300	G1	2		125	75	2.5	1	A08	P
1K5B	028 700 300 0000	40	026 500 300	G1	2		125	75	1	1	A08	P
1K6	38X 972 000 0000	40	369 852 000	G1	2	3	150	90	0.9	0.6	UX6	DDP
1K7	028 9X7 300 0000	40	026 895 300	G1	2	4.4	150	150	1.5	0.7	A08	DDP
1L4	287 024 300 0000	00	265 024 300		1.4	0	90	75	2.9	0.92	B7G	P
1L5	028 740 300 0000	00	026 540 300		2	6	200	200	10	2.4	A08	P
1L6	288 471 300 0000	00	266 451 300		1.4	0	90	50	4	0.55	B7G	H
1L33	284 728 300 0000	00	264 526 300		1.4	7	90	60	7.4	1.4	B7G	P
1L34	274 728 300 0000	00	254 526 300		1.2	7	90	60	7.4	1.4	B7G	P
1L60	842 300 000 0000	00	642 300 000		1		150		6.0	1.2	B4	T
1L84	387 004 020 0000	00	365 004 020		1.4	4.5	90	90	4	0.85	B8B	P
1L91	872 430 000 0000	00	652 430 000		1.2	4.5	40	40	1.2	0.5	B5A	P
1L861	041 230 871 0000	00	041 230 651		20		200	200	15	9	B9A	P
1LA4	387 004 020 0000	00	361 004 020	S	1.4	4.5	90	90	4	0.85	B8B	P
1LA4E	387 004 020 0000	00	365 004 020		1.4	4.5	90	90	3.5	0.8	B8B	P
1LA6	388 474 020 0000	00	366 454 020		1.4	0	90	50	1.8	0.55	B8B	H
1LB4	387 004 020 0000	00	365 004 020		1.4	9	90	90	5	0.9	B8B	P
1LB6	288 774 430 0000	00	266 554 430		1.4	0	90	75	0.4	0.1	B8B	H
1LB7	287 104 130 0000	00	265 104 130		1.4	3	40	40	1	0.3	A08	P
1LC5	387 124 020 0000	00	365 124 020		1.4	0	90	50	1.15	0.77	B8B	P
1LC6	288 474 030 0000	00	266 454 030		1.4	0	90	50	3	0.55	B8B	H
1LD5	387 904 020 0000	00	365 804 020		1.4	0	90	50	0.6	0.57	B8B	DP
1LE3	370 004 020 0000	00	350 0*4 020		1.4	3	90		1.4	0.76	B8B	T
1LF3	280 004 030 0000	00	260 004 030		1.4	3	90		1.4	0.76	B8B	T
1LG5	387 124 020 0000	00	365 124 020		1.4	1.5	90	90	3.7	1.15	B8B	P
1LH4	280 904 030 000	00	360 804 020		1.4	0	90		0.15	0.27	B8B	DT
1LN5	387 124 020 0000	00	365 124 020		1.4	0	90	90	1.6	0.8	B8B	P
1M1	400 230 080 0000	00	4*0 230 060		1.4	34	250	0	0.99	†2.2	B8B	TI
1M3	400 230 080 0000	00	4*0 230 060		1.4	23	200	0	0.1	†1.0	B8D	TI
1M5G	038 700 200 0000	40	036 500 200	G1	2		150	75	2.5	1	A08	P
1M90	824 300 000 0000	00	624 300 000		1.4		90		0.25		B4A	T
1N2	020 000 300 0000	90	*2* *** 3*0	D1	1.2						A08	D
1N5	038 700 200 0000	40	036 500 200	G1	1.4		90	90	1.2	0.7	A08	P
1N6	038 749 200 0000	00	036 548 200		1.4	4.5	90	90	3.4	0.8	A08	DP
1NA31	902 209 300 0000	00	802 208 300		5				15		B7G	R
1P1	387 024 300 0000	00	365 024 300		1.4	5.2	90	90	5.0	1.4	B7G	P

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
1P5	038 700 200 0000	40	036 500 200	G1	1.4		90	90	2.3	0.7	A08	P
1P10	284 738 200 0000	00	264 536 200		1.4	7	90	75	7.4	1.57	B7G	P
1P11	387 024 300 0000	00	365 024 300		1.4	4.5	90	90	9.5	2.15	B7G	P
1Q5	038 740 200 0000	00	036 540 200		1.4	4.5	90	90	9.5	2.2	A08	P
1Q6	040 239 870 0000	00	040 238 650		1.25	0	60	60	1.6	0.6	B8D	DP
1R	028 710 300 0000	40	026 510 300	G1	1.4		90	90	1.2	0.7	A08	P
1R4	200 900 130 0000	00	200 800 130		1.4						B88	D
1R5	288 424 300 0000	00	266 424 300		1.4	4	75		5	1.2	B7G	H
1R5T	281 427 300 0000	00	261 425 300		1.4		90	70	1.15	0.3	B7G	H
1R6	230 232 032 0000	90	230 232 032	D1	1.2						B9A	D
1S2A	320 323 023 0000	90	32* 323 *23	D1	1.4						B9A	D
1S4	284 728 300 0000	00	264 526 300		1.4	7	90	75	7.4	1.57	B7G	P
1S5	209 784 300 0000	00	208 564 300		1.4	0	75	75	1.6	0.62	B7G	DP
1S6	804 239 070 0000	00	604 238 050		1.2	0	60	60	1.6	0.6	B8D	DP
1SA6	021 407 380 0000	00	021 405 360		1.4	0	90	75	2.45	0.97	A08	P
1SB6	038 790 240 0000	00	036 580 240		1.4	0	90	75	1.45	0.66	A08	DP
1T	038 700 320 0000	40	036 500 320	G1	1.4	4.5	90	90	0.9	2.1	A08	P
1T2	123 000 000 0000	90	123 000 000	D1	1.4						B3G	D
1T4	387 200 000 0000	00	365 200 000		2	0	150	75	2.5	1	UX4	P
1T4	287 024 300 0000	00	265 024 300		1.4	0	90	75	3.5	0.9	B7G	P
1T5	038 740 200 0000	00	036 540 200		1.4	6	90	90	6.5	1.15	A08	P
1T6	804 239 070 0000	00	604 238 050		1.2	0	60	60	1.6	0.6	B8D	DP
1U4	287 024 300 0000	00	265 024 300		1.4	0	90	90	0.8	0.68	B7G	P
1U5	287 904 300 0000	00	265 804 300		1.4	0	75	75	1.6	0.62	B7G	DP
1U6	288 741 300 0000	00	266 541 300		1.4	0	75	50	1.7	0.3	B7G	H
1V	291 300 000 0000	00	281 300 000		6				60		UX4	R
1V2	900 230 009 0000	00	8** 230 **8		0.625						B9A	D
1V4	285 024 300 0000	00	265 *24 300		1.25	0	150	100	1.6		B7G	P
1V5	040 230 870 0000	00	*4* 23* 650		1.2	4.5	60	60	2	0.75	B7G	P
1V6	875 248 300 0000	00	654 247 300		1.25	0	45		4.4		B7B	TP
1W4	9X2 300 000 0000	00	892 300 000		4		45	45	0.4	0.2	B4	RR
1W4	287 004 300 0000	00	265 004 300		1.4	9	90	90	5	0.92	B7G	P
1W5	040 230 870 0000	00	040 230 650		1.25	0	60	60	1.8	0.73	B84	P
1W50	942 310 000 0000	00	842 010 000		1.0	0.5	100		0.2	0.2	B5	T
1X2	230 232 032 0000	90	230 232 032	D1	1.2						B9A	D
1X2B	020 000 003 0000	90			1.2						B9A	D
1Y2	200 300 000 0000	90	200 300 000	D1	1.4						UX4	R
1Y32	232 232 300 0000	90	232 232 300	D1	1.4						B7G	D
1Z1	020 000 300 0000	90	020 000 300	D1	0.7						A08	D
1Z2	232 232 300 0000	90	232 232 300	D1	1.2						B7G	D
2	842 300 000 0000	00	642 300 000		2	4	150		1.5		B4	T
2/25A	200 300 000 0000	90	200 300 000	D1	6				30		UX4	R
2/50A	200 300 000 0000	90	200 300 000	D1	5				60		UX4	R
2A1M	028 748 300 0000	40	026 546 300	G1	2		150	75	2.2		A08	H
2A3	284 300 000 0000	00	264 300 000		2.5	45	250		60	5.2	UX4	T
2A3H	384 200 000 0000	00	364 200 000		2.5	62	300		40	5.25	UX4	T
2A3W	284 300 000 0000	00	264 300 000		2.5	45	250		60	5.2	UX4	T

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
2A5	287 413 000 0000	00	265 413 000		2.3(3)	16.5	250	250	34	2.5	UX6	P
2A6	28X 913 000 0000	40	269 813 000	G1	2.5	2	250		0.9	1.1	UX6	DDT
2A7	287 741 300 0000	40	265 541 300	G1	2.5	8	250	100	3.5	1.1	Sm7	H
2AF4	842 314 800 0000	00	642 314 600		2.5	4.0	100		15	6.6	B7G	T
2AH2	200 000 000 0030	90			2.5						A12	D
2AS2	220 002 002 0030	90							5		A12	D
2AV2	900 230 009 0000	00			1.8						B9A	D
2AZ2	230 232 032 0000	90			2.1						B9A	D
2B3	020 000 300 0000	90	*20 000 3*0	D1	1.7						A08	D
	280 413 000 0000	00										
2B5	208 413 000 0000	00	267 413 000		2.5		300		9		UX6	TT
2B5	834 225 380 0000	00	634 224 370		1.2	1	90		2.6	1.1	B8A	TT
2B7	287 9X1 300 0000	40	265 891 300	G1	2.5	3	250	125	9	1.1	UX7	DDP
2B21	300 200 000 0000	90	300 200 000	D1	2.5				5		UX4	R
2B22	021 010 310 0000	90	021 010 310	D1	6						A08	D
2B25	200 900 300 0000	00	200 800 300		1.4						B7G	D
2B26	290 300 000 0000	00	280 300 000		2.5				120		UX4	R
2BN4	142 381 400 0000	00	142 361 400		2	1.5	150		9	6.8	B7G	T
2BU2	220 000 030 0030	80		A	2.5		60		7.0		A12	R
2C21	218 481 300 0000	50	217 461 300	G1	6	16.5	250		8.3	1.3	UX7	TT
2C22	020 000 310 0000	84	020 000 310	A1 G1	6	10.5	300		11	3	A08	T
2C23	284 300 000 0000	00	264 300 000		7.5	32	350		16	1.55	UX4	T
2C25	284 300 000 0000	00	264 300 000		7	100	350		50		UX4	T
2C26	020 000 310 0000	84	020 000 310	A1 G1	6	15	350		16		A08	T
2C34	204 150 300 0000	88	204 140 300	A1 A2	6.3	36	300		80		Sm7	TT
2C40	021 010 310 0000	84	*21 010 310	A1 G1	6	5	250		20		A08	T
2C43	021 010 310 0000	84	*21 010 310	A1 G1	6.3		400		38		A08	T
2C45	384 200 000 0000	00	364 200 000		7	40	250		29		UX4	T
2C48	287 004 130 0000	00	265 004 130		6	15	250	250	70		B8B	P
2C50	481 581 230 0000	00	461 471 230		12.6		200		18	2.9	A08	TT
2C50	287 004 130 0000	00	265 004 130		12	15	250	250	70		B8B	P
2C51	214 808 513 0000	00	214 607 413		6	2	150		8.2	5.5	B9A	TT
2C52	481 581 230 0000	00	461 471 230		12.5	2	250		1.3	1.9	A08	TT
2CN3A					1.8	.6	150		9.0	7.7	B7G	T
2CW4	080 400 010 2030	00			2.1	1	100		7.6	9.8	NV5	T
2CY5	412 387 100 0000	00	412 365 100		2.5	1	150	80	10	8	B7G	P
2D1	29X 130 000 0000	00	289 130 000		2.5						UX5	DD
2D2	9X2 310 000 0000	00	892 310 999		2						B5	DD
2D4	9X2 310 000 0000	00	892 310 000		4						B5	DD
2D4B	0X1 231 900 0000	00	091 231 800		4						B7	DD
2D13	023 190 000 0000	X0	023 180 000	D2	13						B5	DD
2D13A	923 1X0 000 0000	00	823 190 000		13						B5	DD
2D13C	9X2 310 000 0000	00	892 310 000		13						B5	DD
2D21	412 318 100 0000	00	412 316 100		6		400		50	6k	B7G	THY
2DL4	414 234 484 0000	00	414 234 464		2		150		12.5	14	B9A	T
2DS4	080 400 010 2030	00			2.1	0.8	100		6.5	9	NV5	T
2DV4	880 404 100 2030	00			2.1	1	75		10.5	11.5	NV7	T
2DZ4	842 314 800 0000	00			2.35		75		15	6.7	B7G	T
2E5	284 713 000 0000	00	264 513 000		2.5	8	250		0.2	†1.0	A08	TI

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
2E22	274 130 000 0000	80	254 130 000	A1	6	15	400	250	60	5.5	UX5	P
2E24	237 242 300 0000	80	235 242 300	A1	3	18.5	400	200	16	3.2	A08	P
2E25	020 740 320 0000	00	020 540 320		6	22.5	400	250	40		A08	P
2E26	127 141 300 0000	80	125 141 300	A1	6	20	200	200	20	3.5	A08	P
2E30	413 387 200 0000	00	413 365 200		3	20	250	250	40	3.7	B7G	P
2E31	872 430 000 0000	00	652 430 000		1.25	0	20	20	0.4	0.5	B5A	P
2E35	872 430 000 0000	00	652 430 000		1.25	0	20	20	0.27	0.38	B5A	P
2E41	879 243 000 0000	00	658 243 000		1.25	0	20	20	0.36	0.37	B5A	P
2E50	412 287 300 0000	00	412 265 300		6	20	250	250	10	3.4	B7G	P
2EA5	412 387 100 0000	00	412 365 100		2.3	1	250	150	10	8	B7G	P
2EN5	0X2 310 900 0000	00	092 310 800		2.1						B7G	DD
2ER5	142 380 100 0000	00	142 360 100		2.3	1.2	200		10		B7G	T
2ES5	142 380 100 0000	00	142 360 100		2.3	1	200		15	9.5	B7G	T
2EV5	412 387 100 0000	00	412 365 100		2.4		250	75	11.5	8.8	B7G	P
2F7	287 841 300 0000	50	275 641 300	G1	2.5	[3 3	100 250	100	4 2.8		UX7	TP
2FH5	142 380 100 0000	00	142 360 100		2.3	1	150		11	9	B7G	T
2FQ5	142 380 100 0000	00	142 360 100		2.3	1.2	150		11.5	11	B7G	T
2FS5	412 387 100 0000	00	412 365 100		2.4	0.2	275	150	10	10	B7G	P
2FV6	287 424 300 0000	00	265 424 300		2.4	1	150	75	10	8	B7G	P
2FY5	142 380 100 0000	00	142 360 100		2.4	1.2	150		11	12	B7G	T
2G5	284 713 000 0000	00	264 513 000		2.5	22	250	250	0.2		UX6	TI
2GK5	142 380 100 0000	00	142 360 100		2.3	1.2	150		11	15	B7G	T
2GW5	842 314 100 0000	00			2.4	1	150		13	15	B7G	T
2GU5	412 381 100 0000	00	412 261 100		2.4	0.4	135	135	10	15.5	B7G	H
2H1			026 447 300		2.1		150		3.2	2.1	A08	TT
2HA5	412 380 100 0000	00			2.2		200		19	20	B7G	T
2HK5	412 380 100 0000	00			2.3		150		12.5	15	B7G	T
2HM5	412 387 100 0000	00	412 365 100		2.4	1.2	150		12.5	14.5	B7G	T
2HMD	[472 310 000 0000 572 310 000 0000	80 08	452 310 000	A1 A2	4		200	100	3.8	1.1	B5	PP
2HQ5	412 381 100 0000	00	412 361 100		2.4	1	150		11.5	15	B7G	T
2HR8	701 238 014 0000	00	501 236 014		2.1		250	150	3	1.8	B9A	P
2J2	230 232 032 0000	90	230 232 032	D1	2						B9A	D
2K2	028 700 300 0000	40	026 500 300	G1	2	2	100	100	2.5	0.9	A08	P
2L32	284 738 200 0000	00	264 536 200		1.4	7	60	60	7	1.5	B7G	P
2L33	287 438 200 0000	00	265 436 200		1.4	8.4	150	90	14.1	1.9	B7G	P
2L35	287 143 200 0000	00	265 143 200		1.2	8.8	150	90	14.2	2.1	B7G	P
2M2M	284 738 200 0000	00	264 536 200		1.2	3.5	60	60	3.7	1.1	B7G	P
2-01C	200 000 300 0000	90	2** *** 300	D1	5						B7G	D
2P	842 300 000 0000	00	642 300 000		2	22	250		40	7	B4	T
2P1P	284 738 200 0000	00	204 510 300		1.2	3.5	60	60	2.8	0.9	B7G	P
2S	29X 130 000 0000	00	289 130 000		2.5				15		UX5	RR
2S/140G	209 130 900 0000	00	208 130 800		6.3				5		B7G	R
2S/280F			*12 3** *00	D1	4				30		B7G	R
2SC10	842 300 000 0000	00	642 300 000		2.5	1	250		15	2.4	B4	T
2T4	842 310 800 0000	00	642 310 600		2.3	2.7	75		18	7	B7G	T
2T/270K	112 311 100 0000	90	112 311 100	D1	4						B7G	R
2U14	842 300 000 0000	00	642 300 000		2		150		2	0.6	B4	T
2U15	842 300 000 0000	00	642 300 000		2		150		4	0.8	B4	T
2V2	020 000 030 0000	90	020 000 030	D1	2.5						A08	D

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
2V3	020 000 300 0000	90	020 000 300	D1	2.5(3)						A08	R
2W3	020 900 030 0000	00	020 800 030		2.5				60		A08	R
2X2	300 200 000 0000	90	300 200 000	D1	2.5(3)						UX4	R
2X3	020 900 030 0000	00	020 800 030		2.5				120		A08	R
2XP	842 300 000 0000	00	642 300 000		2	36	300		50	7	B4	T
2Y2	200 300 000 0000	90	200 300 000	D1	2.5				5		UX4	R
2Z2	290 300 000 0000	00	280 300 000		2.5				60		UX4	R
2.5C9	842 300 000 0000	00	642 300 000		2.5	4	250		8	2.2	B4	T
3	842 300 000 0000	00	642 300 000		2	7.5	150		3.4	0.9	B4	T
3A2	230 232 032 0000	90	230 232 032	D1	3						B9A	D
3A3	020 000 300 0000	90	*2* 0*0 3*0	D1	3						A08	D
3A3A	020 000 300 0000	80	020 000 300	A	3.15		100		7.0			R
3A3B	020 000 300 0000	80	020 000 300	A	3.15		100		7.0			R
3A8	238 748 390 0000	50	237 546 380	G1	1.4	[0	90		0.2	0.3]	A08	DTP
3A/107A	284 300 000 0000	00	26 300 000		4	[0	90	90	12	0.7]	UX4	T
						8	150		6.5	1.6		
3A/107B	842 300 000 0000	00	642 300 000		4	8	150		6.5	1.6	B4	T
3A/108A	284 300 000 0000	00	264 300 000		2	1.5	150		0.9	0.5	UX4	T
3A/108B	842 300 000 0000	00	642 300 000		2	1.5	150		0.9	0.5	B4	T
3A/109A	284 300 000 0000	00	264 300 000		4	8	150		19	1.2	UX4	T
3A/109B	842 300 000 0000	00	642 300 000		4	8	150		19	1.2	B4	T
3A/154M	280 004 130 0000	00	260 0*4 130		6	2	250		12	3	B8B	T
3A/167M	200 810 430 0000	00	2*0 61* 430		6.3	3.5	200		10	30	B8G	T
3AE4	387 004 230 0000	00	365 004 230		1.4	9	90	90	1.8	1.6	A08	P
3AF4	842 314 800 0000	00	642 314 600		3	4	100		15	6.6	B7G	T
3AJ8	751 238 584 0000	00	541 237 464		3.1	[3	100		5	2.3]	B9A	TH
						2	250	100	6.5	2.4		
3AL5	1X2 310 900 0000	00	192 310 800		3				5		B7G	DD
3AT2A	220 000 030 0030	80	020 000 300	A	3.15		140		20.0		A12	R
3AT2	200 000 000 0030	90			3.15						A12	D
3AT4	802 304 100 0000	00	602 304 100		3.1	1	200		11.5	6.7	B7G	T
3AU6	412 387 100 0000	00	412 365 100		3	1.0	250	150	10	5.2	B7G	P
3AV6	412 3X9 800 0000	00	412 398 600		3	2	250		1.2	1.6	B7G	DDT
3AW2A	220 000 030 0030	80	020 000 300	A	3.15		60		7.0		A12	R
3AW3	020 000 300 0000	90	*2* 0*0 3*0	D1	3.1						A08	D
3AY6	412 39X 800 0000	00	412 389 600		3	2	250		1.2	1.6	B7G	DDT
3AZ4	020 90X 030 0000	00	020 809 030		5				60		A08	RR
3B2	020 000 300 0000	90	*2* 0** 3*0	D1	3						B8A	D
3B4	724 332 800 0000	00	524 332 600		1.25	10	150	125	30	2.2	B7G	P
3B5	038 740 320 0000	00	036 540 320		1.4	7	75	75	6.7	1.5	A08	P
3B7	384 205 830 0000	00	364 204 730		1.4	0	90		5.2	1.85	B8B	TT
3B24	320 200 000 0000	90	320 200 000	D1	2.5				30		UX4	R
3B29	300 200 000 0000	90	300 200 000	D1	2.5						UX4	R
3B/102B	843 210 000 0000	00	643 210 000		6		400		100	6	B5	T
3B/240M	214 444 130 0000	80	214 444 130	A1	6	1	300		50	27	B8B	T
3B/241M	214 444 130 0000	80	214 444 130	A1	19	1	300		50	27	B8B	T
3B/252B	842 310 000 0000	00	642 310 000		6	20	400		60	10	B5	T
3BA6	412 387 100 0000	00	412 365 100		3	1	250	100	11	4.4	B7G	P
3BC5	412 387 100 0000	00	412 365 100		3	1.3	250	150	7.5	5.7	B7G	P
3BE6	412 388 100 0000	00	412 365 100		3.1	6	150	100	7.5	3.5	B7G	H
3BF2	200 200 200 3030	90			3.6						A12	D
3BF6	142 380 100 0000	00	142 360 100		3.1	9	250		9.5	1.9	B7G	T

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
3BL2A	110 011 011 0010	00		A	3.3		50		7.0		A12	R
3BM2A				A	3.0		50		7.0		A12	R
3BN2A	230 000 000 0000	00	230 000 000	A	3.15		150		7.0		A12	R
3BN4	142 381 400 0000	00	142 361 400		2.8	2	150		9	6.8	B7G	T
3BN4A	142 381 400 0000	00	142 361 400	A	3.0	-6	150		9	7.7	B7G	T
3BN6	412 374 800 0000	00	412 354 600		3	1	60	60	0.5	1	B7G	P
3BU8	178 231 401 0000 170 231 481 0000	00 00	157 231 461		3	1	100	60	1	1.5	B9A	PP
3BX6	141 230 871 0000	00	141 230 651		3.4	2	200	175	10	7.2	B9A	P
3BY6	412 387 400 0000	00	412 365 400		3	2.5	250	100	6.5	2.4	B7G	H
3BY7	141 230 871 0000	00	141 230 651		3.2	1.8	250	75	8	5.7	B9A	P
3BZ6	412 387 100 0000	00	412 365 100		3	1.0	150	125	14	8	B7G	P
3C2	020 030 200 0000	00	020 *3* 2*0		1.5						A08	D
3C5	038 740 320 0000	00	036 540 320		1.4	9	90	90	6	1.4	A08	P
3C6	208 458 320 0000	00	206 447 320		1.4	0	90		4.5	1.3	B8D	TT
3C24	200 300 000 0000	84	200 300 000	A1 G1	6.3	3	400		4.5	1.2	UX4	T
3C36	412 387 100 0000	00	412 365 100		3	2.2	200	150	9.5	6.2	B7G	P
3CA3	030 000 200 0000	90			3.6						A08	D
3CB6	412 387 100 0000	00	412 365 100		3	1.0	150	125	13	8.0	B7G	P
3CE5	412 387 100 0000	00	412 365 100		3.1	2.1	200	150	9.5	6.2	B7G	P
3CF5	402 387 100 0000	00	402 365 100		3.1		150	125	11	7.6	B7G	P
3CF6	412 387 100 0000	00	412 365 100		3	1.0	150	125	12	7.8	B7G	P
3CN3A	020 000 300 000	80	020 000 300	A	3.15		60		7.0			R
3CS6	412 387 100 0000	00	412 365 100		3	1.0	100	30	1.0	1.1	B7G	H
3CU3	020 000 300 0000	80	020 000 300	A	3.15		50		7.0			R
3CY5	412 387 100 0000	00	412 365 100		2.9	1	150	75	10	9	B7G	P
3CZ3	020 000 300 0000	80	020 000 300	A	3.15		60		7.0		B8B	R
3D21A	320 704 210 0000	80	320 504 210	A1	6.3	30	400	300		5.5	A08	P
3DB3	230 000 000 0000	80	230 000 000	A	3.15		100		7.0		A08	R
3DC3	230 000 000 0000	80	230 000 000	A	3.15		50		7.0		A08	R
3DG4	101 090 X00 0000	00	1*1 080 900		3.3				120		A08	RR
3DJ3	230 000 000 0000	80	230 000 000	A	3.15		70		7.0		B8-25	R
3DK6	412 387 100 0000	00	412 365 100		3.1	0.9	150	125	12	9.8	B7G	P
3DL4	414 234 484 0000	00	414 234 464		2.6	1.2	150		12	14	B9A	T
3DT6	412 387 100 0000	00	412 365 100		3	2.2	150	100	1.1	0.8	B7G	P
3DT6A	412 287 400 0000	00	412 38 110		3.15	5.2	150	100.0	1.55	1.35	B7G	P
3DZ4	842 314 800 0000	00			3.2		75		15	6.7	B7G	T
3E5	387 024 300 0000	00	365 024 300		1.4	8	90	90	6	1.2	B7G	P
3E6	287 134 020 0000	00	265 134 020		1.4	0	90	90	2.5	1.8	A08	P
3EA5	402 387 100 0000	00	402 365 100		3	1	250	100	10	8	B7G	P
3EH7	141 230 871 0000	00	141 230 651		3.4	2	200	90	12	12.5	B9A	P
3EJ7	141 230 710 0000	00	141 230 510		3.4	2.5	200	200	10	15	B9A	P
3ER5	142 380 100 1000	00	142 360 100		3.6	1.2	250		10	10.5	B7G	T
3ES5	142 380 100 0000	00	142 360 100		3	1	200		15	9.5	B7G	T
3EV5	412 387 100 0000	00	412 365 100		2.9		250	75	11.5	8.5	B7G	P
3FH5	142 380 100 0000	00	142 360 100		3	1	250		11	9	B7G	T
3FQ5	142 380 100 0000	00	142 360 100		2.8	1.2	150		11.5	11	B7G	T
3FS5	412 387 100 0000	00	412 365 100		2.9	0.2	300	150	9	10	B7G	P
3FY5	142 380 100 0000	00	142 360 100		3.1	1	150		11	13	B7G	T

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
3G10	9X2 300 000 0000	00	892 300 000		2.5				30		B4	RR
3GK5	142 380 100 0000	00	142 360 100		2.8	1	150		11.5	15	B7G	T
3GS8	[178 231 401 0000 170 231 481 0000]	00 00	156 231 471		3.1		100	75	2	1.2	B9A	PP
3GW5	842 314 100 0000	00			3	1	150		13	15	B7G	T
3HA5	412 380 100 0000	00			2.7		200		19	20	B7G	T
3HK5	412 380 100 0000	00			2.9		150		12.5	15	B7G	T
3HM5	412 380 100 0000	00	412 360 100		2.9	1.2	150		12.5	14.5	B7G	T
3HM6	141 230 871 0000	00			3.15	3.9	125	125	13	15	B9A	P
3HQ5	412 381 100 0000	00	412 361 100		3	1	150		11.5	15	B7G	T
3HS8	[178 231 401 0000 170 231 481 0000]	00 00	157 231 461		3.1		100	75	2	0.4	B9A	PP
3JC6	141 230 871 0000	00	141 230 851		3.5	3	125	125.0	14.0	16	B9A	P
3JC6A	141 230 871 0000	00			6.3	3	125	125.0	14.0	16	B9A	P
3JD6	141 230 871 0000	00	141 230 651		3.5	0	125	125.0	15.0	1.4	B9A	P
3JD6A	141 230 871 0000	00	141 230 651		3.5	0	125	125.0	15.0	14	B9A	P
3KF8	[170 231 481 0000 178 231 501 0000]	00 00			3.1	1	150	150	4	1	B9A	PP
3KT6	141 230 871 0000	00	140 230 651		6.3	0	330	330.0	17.0	18.0	B9A	P
3L31	287 438 200 0000	00	265 436 200		1.4	8.7	150	90	14.2	2.1	B7G	P
3L35	287 243 200 0000	00	265 243 200		1.4		150	125	18.5		B7G	P
3LE4	387 004 230 000	00	365 004 230		1.4	9	90	90	1.8	1.6	A08	P
3LF4	387 004 230 0000	00	365 004 230		1.4	4.5	90	90	8	2	B8B	P
3Q4	384 728 300 0000	00	364 526 300		1.4	5	90	90	6.9	1.97	B7G	P
3Q5	038 740 320 0000	00	036 540 320		1.4	4.6	90	90	9	2	A08	P
3S4	384 728 300 0000	00	364 526 300		1.4	7	90	75	7.4	1.57	B7G	P
3SB6	038 740 200 0000	00	036 540 200		1.4		90	60	1.4	0.6	A08	P
3V4	387 024 300 0000	00	365 024 300		1.4	4.5	90	90	7.7	2	B7G	P
3W4	284 738 200 0000	00	264 536 200		1.4	5.2	90	90	6.8	1.7	B7G	P
3Y4	284 738 200 0000	00	264 536 200		1.4	5.4	60	60	5	1.2	B7G	P
3Y6A1	023 104 780 0000	00	023 104 560		6.3		400	300		2	F8	P
3Z4	284 738 200 0000	00	264 536 200		1.4	7	60	60	6.5	1.4	B7G	P
4	842 300 000 0000	00	642 300 000		2	1	150		1	0.9	B4	T
4A6G	028 458 230 0000	00	026 447 230		2	1.5	90		1.2	0.9	A08	TT
4A07	842 300 000 0000	00	642 300 000		4	2	100		1.4	1.2	B4	T
4A08N	842 300 000 0000	00	642 300 000		4		200		6	2.4	B4	T
4A10	842 300 000 0000	00	642 300 000		4	2.5	150		6	1.8	B4	T
4A15	842 300 000 0000	00	642 300 000		4		100		7	2.2	B4	T
4A80	842 310 000 0000	00	642 310 000		4		150		6	2	B5	T
4A80N	842 310 000 0000	00	642 310 000		4		200		6	2.4	B5	T
4A90	842 310 000 0000	00	642 310 000		4		200		8	3.5	B5	T
4A120	842 310 000 0000	00	642 310 000		4		150			1.4	B5	T
4AU6	412 387 100 0000	00	412 365 100		4	1	250	150	10	5.2	B7G	P
4AV6	412 39X 800 0000	00	412 389 600		4.2	2	250		1.2	1.6	B7G	DDT
6BA6	412 387 100 0000	00	412 365 100		4.2	1	250	100	11	4.4	B7G	P
4BC5	412 387 100 0000	00	412 365 100		4.2	1.3	250	150	7.5	5.7	B7G	P
4BC8	841 238 510 0000	00	741 236 410		4.2	2.2	150		10	6.2	B9A	TT
4BE6	412 388 100 0000	00	412 365 100		4.2	6	150		7.5	3.5	B7G	H
4BL8	857 238 114 0000	00	645 237 114		4.5	2	100		14	5		
4BN4	142 381 400 0000	00	142 361 400		4	2.2	150	175	10	6.2	B9A	TP
									9	7	B7G	T

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
4BN6	142 374 800 0000	00	142 354 600		4.2	1	60	60	0.5	1.0	B7G	P
4BQ7	851 238 410 0000	00	741 236 410		4	2	150		9	6.4	B9A	TT
4BS8	841 238 510 0000	00	641 237 410		4.2	4.4	150		10	7.2	B9A	TT
4BU8	170 231 481 0000	00	157 231 461		4.2	1	150	100	4	3.5	B9A	PP
4BX8	178 231 581 0000	00										
	841 238 510 0000	00	641 237 410		4.2		150		11	7.5	B9A	TT
4BZ6	412 387 100 0000	00	412 365 100		4.2	1	100	100	12	8	B7G	P
4BZ7	851 238 410 0000	00	741 236 410		4.2	2.2	150		10	6.8	B9G	TT
4BZ8	841 238 510 0000	00	641 237 410		4.2	2	150		10	8	B9A	TT
4BZ11	841 238 510 0000	00	741 236 410		4	2.2	150		10	6.8	B9A	TT
4C1	284 300 000 0000	00	264 300 000		3	3	90		5	1	UX4	T
4C2	842 310 000 0000	00	642 310 000		4	5	150		11	2.5	B5	T
4C3	842 310 000 0000	00	642 310 000		4	3.5	200		6	2.4	B5	T
4C5	842 300 000 0000	00	642 300 000		4	10	400		30	4	B4	T
4C101	023 004 080 0000	00	023 004 060		4	45	250		60	6	F8	T
4C102	842 300 000 0000	00	642 300 000		4	45	250		40	2	B4	T
4C103	842 300 000 0000	00	642 300 000		4	35	250		45	3.5	B4	T
4CB6	412 387 100 0000	00	412 365 100		4.2	1	150	125	13	8	B7G	P
4CC1	842 301 850 0000	00	642 301 140		4	3.5	200		6	3.2	F8	TT
4CE5	412 387 100 0000	00	412 365 100		4.2	1	150	125	11	7.6	B7G	P
4CF6	412 387 100 0000	00	412 365 100		4.2	2	200	150	9.5	6.2	B7G	P
4CF8	701 238 014 0000	00	501 236 014		4.5	2	250	150	3	2	B9A	P
4CM4	841 234 148 0000	00	641 234 146		3.6	1.5	200		12	14	B9A	T
4CS6	412 387 100 0000	00	412 365 100		4	1	100	30	1	11	B7G	P
4CX7	841 238 510 0000	00	641 237 410		4.2	10	150		9	6.4	B9A	TT
4CY5	412 387 100 0000	00	412 365 100		4.2	1	150	80	10	8	B7G	P
4D1	000 231 800 0000	40	000 231 600	G1	13	3	250		10	5	B7	T
4D80	842 310 000 0000	00	642 310 000		4		100		2	1	B5	T
4DE6	412 387 100 0000	00	412 365 100		4.2	1.1	150	125	15.5	8	B7G	P
4DK6	412 387 100 0000	00	412 365 100		4.2	0.9	150	125	12	9.7	B7G	P
4DL4	414 234 484 0000	00	414 234 464		4	1.2	150		12	14	B9A	T
4DT6	412 387 100 0000	00	412 365 100		4.2		150	150	12	9	B7G	P
4E2	023 19X 780 0000	40	923 189 560	G1	4	14	250	275	72		8SC	DDP
4E4	023 110 780 0000	40	023 110 560	G1	4	2	250	100	3	2.1	8SC	P
4E104	287 004 130 0000	00	265 004 130		4	6	250	250	36	9	B8G	P
4E204	023 110 780 0000	00	023 110 560		4	3	250	100	8	1.8	F8	P
4EH7	141 230 871 0000	00	141 230 651		4.4	2	200	100	12	12.5	B9A	P
4EJ7	141 230 871 0000	00	141 230 651		4.4	2.5	200	200	10	15	B9A	P
4ER5	142 380 100 0000	00	142 360 100		4.2	1.2	200		10	10.5	B9A	T
4ES8	851 238 410 0000	00	741 236 410		4	1.2	90		15	12.5	B9A	TT
4EW6	412 387 100 0000	00	412 365 100		4.2	0.8	150	125	11	14	B7G	P
4FC7	148 234 118 0000	00	146 234 117		3.8	1.2	90		15	12.3	B9A	T
4FS7	151 234 887 0000	00	141 234 675		4.6	3	100		14	5.5		
						1.2	200	150	10	1.2	B9A	TP
4G30	9X2 300 000 0000	00	892 300 000		4				15		B4	RR
4G105	9X2 300 000 0000	00	892 300 000		4				30		B4	RR
4G200	9X2 300 000 0000	00	892 300 000		4				60		B4	RR
4G5000	023 000 000 0000	90	023 000 000	D1	4						F8	R
4GG1	9X2 300 000 0000	00	892 300 000		4				30		B4	RR
4GG2	9X2 300 000 0000	00	892 300 000		4				60		B4	RR

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
4GG3	9X2 300 000 0000	00	892 300 000		4				120		B4	RR
4GG4	023 090 0X0 0000	00	023 080 090		4				30		F8	RR
4GK5	142 380 100 0000	00	142 360 100		4	1	150		11.5	15	B7G	T
4GM6	412 387 100 0000	00	412 365 100		4.2		150	125	14	13	B7G	P
4GS8	178 231 401 0000	00	156 231 471		4.2		100	75	2	1.2	B9A	PP
4GW5	842 314 100 0000	00			4.2	1	150		13	15	B7G	T
4GX7	151 238 784 0000	00	141 236 574		4.2	[1	125		13	8.5		
						1	125	125	8	11	B9A	TP
4GZ5	142 347 800 0000	00	142 345 600		4		250	250	16	8.5	B7G	P
4H07	842 300 000 0000	00	642 300 000		4		150		3	1.1	B4	T
4H08	842 300 000 0000	00	642 300 000		4		150		5	1.2	B4	T
4H80	842 300 000 0000	00	642 300 000		4		150		3	1.1	B4	T
4HA5	412 380 100 0000	00			3.9		200		19	20	B7G	T
4HA7	281 100 005 8430	00	261 100 004		4.2	[8.5	250		10.5	2.2		
						2	250		1.2	1.6	A12	TT
4HK5	412 380 100 0000	00			4.0		150		12.5	15	B7G	T
4HM5	412 387 100 0000	00	412 365 100		4	1.2	150		12.5	14.5	B7G	T
4HM6	141 230 871 0000	00			4.2	3.9	125	125	13	15	B9A	P
4HQ5	412 380 100 0000	00	412 361 100		4.2	1.0	150		11.5	15	B7G	T
4HS8	178 231 481 0000	00	157 231 461		4.2		100	75	2	0.4	B9A	PP
4JC6	141 230 871 0000	00	141 230 851 000		4.5	0	330	330	14	1.6	B9A	P
4JK6	412 387 100 0000	00			3.7	0.9	125	125	11.5	18	B7G	P
4JL6	412 387 100 0000	00			3.7	0.9	125	60	12.5	15.5	B7G	P
4JD6	141 230 871 0000	00			4.5	0	125	125	15	14	B9A	P
4JL6					6.3	0	125	60	12.5	15.5	B7G	P
4K30	842 300 000 0000	00	642 300 000		4	10	150		20	3.6	B4	T
4K32	842 300 000 0000	00	642 300 000		4	15	200		30	3.6	B4	T
4K50	842 300 000 0000	00	642 300 000		4	20	200		60	5	B4	T
4K60	842 300 000 0000	00	642 300 000		4	20	300		60	3.5	B4	T
4K61	842 300 000 0000	00	642 300 000		4		300			3	B4	T
4K100	842 300 000 0000	00	642 300 000		4	3	300	200	50	4	B4	T
4KE8	047 230 100 0000		045 230 000		6.3	0	125	125	10	12	B9A	PT
4KF8	170 231 481 0000	00			4.2	1	150	150	4	1	B9A	PP
4KT6	800 230 014 0000	00	800 000 014		6.3	0	330	330	17.0	18	B9A	P
4L11	842 300 000 0000	00	642 300 000		4		150		7	1.4	B4	T
4L12	842 300 000 0000	00	642 300 000		4		150		9	2	B4	T
4L13	842 300 000 0000	00	642 300 000		4		200		8	2	B4	T
4L13A	842 300 000 0000	00	642 300 000		4	11	200		14	2.5	B4	T
4L14	842 300 000 0000	00	642 300 000		4		200		10	2.2	B4	T
4L15	842 300 000 0000	00	642 300 000		4		100			2.2	B4	T
4L16	842 300 000 0000	00	642 300 000		4	8	150		100	2.2	B4	T
4L20	842 300 000 0000	00	642 300 000		2		100			1.4	B4	T
4L28	842 300 000 0000	00	642 300 000		4	4	150		10.5	4	B4	T
4L29	842 300 000 0000	00	642 300 000		4	8	150		20	3.6	B4	T
4LJ8	481 230 010 0000		461 230 010		6.3	[0	280	0	12	8.0	B9A	PP
	000 238 714 0000		000 236 514									
						0	280	125	13.0	13.0		
4LMBT	842 310 000 0000	00	642 310 000		4	1	200		3.4	2.6	B5	T
4MBT	842 310 000 0000	00	642 310 000		4	1	200		3.4	2.6	B5	T
4MP12	412 387 400 0000	00	412 365 400		4	6	200	175	25	5.5	B7G	P
4N08	842 300 000 0000	00	642 300 000		4		100		8	1.2	B4	T

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V fRa MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
4N100	842 310 000 0000	00	642 310 000		4		150			3.5	B5	T
4N110	842 310 000 0000	00	642 310 000		4		200		5	1.5	B5	T
4NG	9X2 300 000 0000	00	892 300 000		4				30		B4	RR
4P25	842 300 000 0000	70	642 300 000	G2	4	19	250	150	12	1.3	B4	P
4R-HH2	751 238 410 0000	00	741 236 410		4.2	1	90		8.5	8	B9A	TT
4R-HH8	841 238 510 0000	00	641 237 410		4.2	1	100		16	16	B9A	TT
4R-HH9	841 238 510 0000	00	641 237 410		4.2		90		16	16	B9A	TT
4S	29X 130 000 0000	00	289 130 000		2.5						UX5	DD
4S-09	742 300 000 0000	80	542 300 000	A1	4	1	200	100	4.5	0.9	B4	P
4S120	742 310 000 0000	80	542 310 000	A1	4	2	200	60	4	0.5	B5	P
4S121	742 310 000 0000	80	542 310 000	A1	4		200	100	6	1	B5	P
4S126	742 310 000 0000	80	542 310 000	A1	4	2	200	100	3	2	B5	P
4T1	842 314 800 0000	00	642 314 600		4.7	2.3	80		16	6.6	B7G	T
4THA	847 231 800 0000	40	645 231 700	G1	4	5	100		1.5	1.5	B7	TH
4TP	548 231 700 0000	80	446 231 500	A2	4	5	150	150	16	4.5	B7	TP
4TPB	081 321 700 0000	40	061 321 500	G1	4	3	250	150	12	8	B7	P
4TSA	047 231 800 0000	80	045 231 600	A1	4		250	100	5	1.6	B7	P
4TSP	041 231 700 0000	80	041 231 500	A1	4	3	250	150	12	8	B7	P
4U130	843 210 000 0000	00	643 210 000		3.5		100			2.8	B5	T
4W08	842 300 000 0000	00	642 300 000		4		150		4	1.5	B4	T
4W100	842 310 000 0000	00	642 310 000		4		200		1.5	3.5	B5	T
4W120	842 310 000 0000	00	642 310 000		4		200		2	0.7	B5	T
4W200	842 310 000 0000	00	642 310 000		4		150			3.3	B5	T
4X150A	712 101 314 0000	80	512 1*1 314	A1	6.3	30	250	200	32	4.0	B9G	P
4XP	842 300 000 0000	00	642 300 000		4	28.5	250		48	5	B4	T
4Z60A	023 090 0X0 0000	00	023 080 090		4				30		F8	RR
5A6	801 227 413 0000	00	601 225 413		2.5	15	150	150	20		B9A	P
5A/102D	028 710 310 0000	40	026 510 310	G1	7.5	18	200	150	42	2.5	A08	P
5A/136D	028 710 310 0000	40	026 510 310	G1	7.5	5.5	250	150	5.2	2	A08	P
5A/137D	028 710 310 0000	40	026 510 310	G1	6.3	2	250	100	1.8		A08	P
5A/150A	287 113 000 0000	40	265 113 000	G1	10	5.5	250	150	5.2	2	UX6	P
5A/152M	287 104 130 0000	00	265 104 130		6	2	250	150	10	7.5	B8B	P
5A/155M	278 101 403 0000	00	256 101 403		6	2	250	250		6.5	B9G	P
5A/156M	287 114 113 0000	00	265 114 113		6	1.7	250	250	10	7.7	B9G	P
5A/157D	018 710 310 0000	40	026 510 310	G1	6	2	250	100		1.8	A08	P
5A/163K	141 238 117 0000	00	141 236 115		6	1.5	200	200	15	15	B9A	P
5A/170K	141 230 817 0000	00	141 230 615		6.3	1.5	200	150	13	16.3	B9A	P
5A/171G	102 713 410 0000	80	102 513 410	A1	6	5	100	100	20	2.7	B8D	P
5A/180M	287 104 130 0000	00	365 104 130		6.3		200	150	26	32	B8G	P
5A/189KY	412 381 700 0000	00	412 361 500		6.3	2	250	250	10	7.6	B7G	P
5A/201K	412 381 970 0000	00	412 361 500		6.3	3.3	200	200	7.1	4	B7G	DP
5A/206K	*41 23* 876 0000	00	*41 23* 678		6.3	2.0	200	115	10.0	8.4	B9A	P
5A/210K	412 381 700 0000	00	412 361 500		6	5	100	100	12.5	4	B7G	P
5A/220K	801 227 413 0000	00	601 225 413		5	10	150	150	28	4.4	B9A	P
5AM8	147 238 191 0000	00	145 236 181		4.7	1.7	200	150	11.5	7.0	B9A	DP
5AN8	841 238 751 0000	00	641 237 541		5	6	200		13	3.3		
						2.2	200	150	9.5	6.2	B9A	TP
5AQ5	412 387 400 0000	00	412 365 400		5	12.5	250	250	45.0	4.1	B7G	P
5AR4	030 90X 020 0000	00	*30 809 020		5				120		A08	RR

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
5AS4	030 X09 020 0000	00	030 908 020		5				120		A08	RR
5AS8	741 239 118 0000	00	541 238 116		5	2.2	200	150	9.5	6.2	B9A	DP
5AT4	030 90X 020 0000	00	030 809 020		5.0						A08	RR
5AT8	481 238 715 0000	00	461 237 514		5	[1 1.8	100 250	150	8.5 7.7	5.8 4.6	B9A	TP
5AU4	920 90X 030 0000	00	020 809 030		5				180		A08	RR
5AV8	148 235 178 0000	00	146 234 157		5	[6 2.2	200 200	150	13 9.5	3.3 6.2	B9A	TP
5AW4	020 90X 030 0000	00	020 809 030		5				120		A08	RR
5AX4	020 90X 030 0000	00	020 809 030		5				60		A08	RR
5AZ3	299 0XX 990 9930	00			5				120		A12	RR
5AZ4	020 90X 030 0000	00	020 809 030		5				60		B8B	RR
5B1	742 300 000 0000	80	542 300 000	A1	2	1	150	90	2	1.4	B9A	P
5B8	148 235 178 0000	00	146 234 157		5	[6 1.8	200 200	150	13 9.5	3.3 6.3	B9A	TP
5B/104D	028 740 310 0000	00	026 540 310		24	2	24	24	3	3	A08	T
5B/110M	287 104 130 0000	00	265 104 130		6	6	250	150	38	6.5	B8B	P
5B/152D	320 704 210 0000	80	320 504 210	A1	6.3	30	400	300	50	5.5	A08	P
5B/250A	274 130 000 0000	80	254 130 000	A1	6	12.5	400	250	83	6.3	UX5	P
5B/251M	217 044 130 0000	80	215 044 130	A1	6	15	250	250	72	6	B8B	P
5B/252M	287 044 130 0000	00	265 044 130		6	15	250	250	72	6	B8B	P
5B/253M	287 044 130 0000	00	265 044 130		19	15	150	250	72	6	B8B	P
5B/254M	217 144 130 0000	80	215 144 130	A1	6	20	300	250	50	5.6	B8B	P
5B/255M	287 144 130 0000	00	265 144 130		6	20	300	250	50	5.6	B8B	P
5B/256M	217 144 130 0000	80	215 144 130	A1	19	20	300	250	50	5.6	B8B	P
5B/257M	287 144 130 0000	00	265 144 130		12	20	300	250	50	5.6	B8B	P
5B258M	217 144 130 0000	80	215 144 130	A1	19	14	250	250	72	6	B8B	P
5B/280D			*26 541 310		6.3	60	400	300	100	6.3	A08	P
5B/351D	020 740 310 0000	80	020 540 310	A1	6.3	10	150	150	200	14	A08	P
5B/354D	038 741 210 0000	00	*36 541 210		6.3	20	300	150	90	10	A08	P
5B/355D	030 740 210 0000	80	*30 540 210	A1	6.3	10	150	150	200	14	A08	P
5B/900A	204 178 300 0000	00	2*4 156 300		26	14	150	150	500	35	B7A	T
5B/901A	204 178 300 0000	00	2*4 156 300		26	30	150	150	500	25	B7A	P
5BC3	203 0X0 009 0000	00	2*3 *9* **8		5				120		B9B	RR
5BC3A	203 0XX 099 0000	00	203 087 099		5.0		40		200			RR
5BE8	481 238 715 0000	00	461 237 514		4	[1 1	150 250	100	18 10	8.5 5.2	B9A	TP
5BK7	851 238 411 0000	00	741 236 411		5	2	150		10.7	9.3	B9A	TT
5BQ7	851 238 410 0000	00	741 236 410		5.6	2	150		9	6.4	B9A	TT
5BR8	481 238 715 0000	00	461 237 514		5	[1 0.9	150 250	100	18 10	8.5 5.2	B9A	TP
5BS8	841 238 510 0000	00	641 237 410		5.6		150		10	7.2	B9A	TT
5BT8	X91 238 741 0000	00	981 236 541		4.7	2.2	200	150	9.5	6.2	B9A	DDP
5BW8	X19 234 178 0000	00	918 234 156		4.7	1.1	250	100	10	5.2	B9A	DDP
5BZ7	841 238 510 0000	00	741 236 410		5.6	2.2	150		10	6.8	B9A	TT
5CG4	030 90X 020 0000	00	030 809 020		5				60		A08	RR
5CG8	481 238 715 0000	00	461 237 514		4.7	[0.9 1.9	100 250	150	8.5 7.7	5.8 4.6	B7G	TP
5CL8	481 238 715 0000	00	461 237 514		4.7	[0.9 1	150 150	125	15 12	8 5.8	B9A	TP
5CL8A	481 230 000 0000	00	461 230 000		4.7	[1 1	125 100	70 125	14 12	8.0 6.5	B9A	TP
5CM6	704 234 108 0000	00	504 234 106		4.7	12.5	250	250	45	4.1	B9A	P
5CM8	851 238 714 0000	00	641 237 514		4.7	[2 2.2	250 200	150	1.8 9.5	2 6.2	B9A	TP
5CQ8	857 238 114 0000	00	645 237 114		4.2	[0.8 1	150 150	125	15 12	8 5.8	B7G	TP

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
5CR8	851 238 714 0000	00	641 237 514		4.7	[2	125 125	125	12 13	4 7.7	B9A	TP
5CU4	190 90X 030 0000	00	120 809 030		5				180		A08	RR
5CZ5	704 234 108 0000	00	504 234 a*6		45	6.7	100	100	43	9	B9A	P
5DH8	481 238 715 0000	00	461 237 514		5.2	[2.5 1	250 150	125	7 13	4.4 8.6	B9A	TP
5DJ4	229 9XX 330 0000	00	228 899 330		5.0				120		A08	RR
5DN4	229 9XX 330 0000	00	228 899 330		5				120		A08	RR
5E255	842 370 000 0000	00	642 350 000		2	4.5	150	150	9.5	2.5	B5	P
5E415	842 370 000 0000	00	642 350 000		4	25	300	200	20	1.7	B5	P
5EA8	857 238 114 0000	00	645 237 114		4.7	[1 1	150 150	125	18 12	8.5 6.4	B9A	TP
5EH8	148 231 578 0000	00	146 231 457		4.7	[1 1	150 150	125	13.5 12	7.5 6	B9A	TP
5ES8	841 238 510 0000	00	641 237 410		5.6	1.2	90		15	12.5	B9A	TT
5EU8	848 231 517 0000	00	746 231 415		4.7	[1 1	150 150	125	18 12	8.5 6.4	B9A	TP
5EW6	412 387 100 0000	00	412 365 100		5.6	0.8	150	125	11	14	B7G	P
5FC7	148 235 118 0000	00	146 234 117		5.1	1.2	100		15	12.3	B9A	TT
5FG7	481 238 715 0000	00	461 237 514		4.7	[1 1	150 150	125	13 11	7.5 6	B9A	TP
5FV8	481 238 715 0000	00	461 237 514		4.7	[1 1	150 150	125	14 12	8 6.5	B9A	TP
5GK18	020 90X 030 0000	00	020 809 030		5						A08	RR
5GK20	030 90X 020 0000	00	030 809 020		5				120		A08	RR
5GK22	030 90X 020 0000	00	030 809 020		5						A08	RR
5GK24	030 90X 020 0000	00	030 809 020		5				120		A08	RR
5GH8	857 238 114 0000	00	645 237 114		4.7	[1 1	150 150	125	13 12	8.5 7.5	B9A	TP
5GH8A	[800 230 014 0000	00	000 230 014		4.7	[1 1	125 125	125	13.5 12.0	8.5 7.5	B9A	PT
5GM6	047 328 100 0000	00	045 230 014		5.6	56	150	150	14	13	B7G	P
5GX6	412 387 000 0000	00	412 365 000		4.7		150	100	3.7	3.7	B7G	P
5GX7	151 238 784 0000	00	141 236 574		5.6	[1 1	125 125	125	13 8	8.5 11	B9A	TP
5HA7	281 100 005 8430	00	261 100 004		5.6	[8.5 2	250 250		10.5 1.2	22 1.6	A12	TT
5H26	412 387 100 0000	00	412 365 100		6.3		150	100	3.2		B7G	P
5HB7	151 238 784 0000	00			4.7	1	150		18	8.5	B9A	TP
5HG8	151 234 887 0000	00			5.3	3	100		14	5.5	B9A	TP
5J6	882 345 100 0000	00	672 344 100		5	[0.8 3	100 150		8.5 5	5.3 4.5	B7G	TT
5JK6	412 387 100 0000	00			4.9	0.9	125	125	11.5	18	B7G	P
5JL6	412 387 100 0000	00			4.9	0.9	125	60	12.5	15.5	B7G	P
5KD8	857 238 114 0000	00			5.6	1	125		13.5	7.5	B9A	TP
5KE8	857 238 114 0000	00	645 237 114		5.6	[1 0.4	125 125	125	13 10	8 12	B9A	TP
5K28					4.7	[1 1	125 125	125	13.5 12.0	8.5 7.5	B9A	TP
5LJ8	481 238 715 0000	00			5.6	[0.7 0.5	125 125	125	13 12	8 13	B9A	TP
5MB8	481 238 715 0000	00			5.6	[0.7 0.4	125 125	125	13 10	8 12	B9A	TP

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
5MK9	002 390 000 0000	00	002 380 000		5				60		B7G	R
5MHH3	882 345 100 0000	00	672 344 100		4.7	1	100		11	7.5	B7G	TT
5M-HH3	142 380 100 0000	00	142 360 100		4.7	1	100		11	7.5	B7G	T
5MQ8	800 230 014 0000	00	00 230 014		5.6	[0	330	125	18	8.5	9AE	TP
						0	330		12	10		
5P29	120 740 310 0000	80	120 540 310	A1	6	7	250	250	100	14.3	A08	P
5Q5	038 740 320 0000	00	036 540 320		1.4	4.6	90	90	4.5	2	A08	P
5R4	020 90X 030 0000	00	020 809 030		5(5.7)				60		A08	RR
5R4GY	020 90X 030 0000	00	020 809 030		5(5.7)				60			
5RDDH1	X11 239 841 0000	00	911 238 641		4.7	2	250		1.6	1.6	B9A	DDT
5RHH5	841 228 513 0000	00	641 227 413		4.6	1	100		0.6	0.3	B9A	TT
5RK16	900 230 0X0 0000	00	800 230 090		5				120		B9A	RR
5T4	020 90X 030 0000	00	020 809 030		5				120		A08	RR
5T4A	041 231 700 0000	80	041 231 500	A1	4	4.5	250	150	4.5	1.7	B7	P
5T8	9X1 23Y 148 0000	00	*91 238 146		5	3	250		1.0	1.2	B9A	DDDT
5U4	020 90X 030 0000	00	020 809 030		5(5.7)				120		A08	RR
5U4-GA	020 X09 030 0000	00	020 908 030		5.0		750		525		B5-15	RR
5U8	857 238 114 0000	00	645 237 114		5	[1	150		18	8.5	B9A	TP
						1	250	100	10	5.2		
5V3	020 90X 030 0000	00	020 809 030		5				120		A08	RR
5V4	030 90X 020 0000	00	030 809 020		5(5.7)				60		A08	RR
5V6	028 740 310 0000	00	026 540 310		4.7	12.5	250	250	45	4.1	A08	P
5W4	020 90X 030 0000	00	020 809 030		5				60		A08	RR
5X3	29X 300 000 0000	00	289 300 000		5				15		A08	RR
5X4	009 0X0 230 0000	00	008 090 230		5				120		A08	RR
5X8	148 231 578 0000	00	146 231 457		5	[1	100		8.5	5.8	B9A	TP
						1.8	250	150	7.7	4.6		
5Y3	020 90X 030 0000	00			5				60		A08	RR
5Y3GB	030 90X 020 0000	00	030 809 020		5(5.7)				60		A08	RR
5Y3GR	020 90X 030 0000	00	020 809 030		5(5.7)				60		A08	RR
5Y3GT	020 90X 030 0000	00	020 809 030		5(5.7)				60		A08	RR
5Y4	009 0X0 230 0000	00	008 090 230		5				60		A08	RR
5Y4SG	009 0X0 230 0000	00	008 090 230		5				60		A08	RR
5Z3	29X 300 000 0000	00	289 300 000		5(5.7)				120		UX4	RR
5Z4	030 90X 020 0000	00	030 809 020		5(5.7)				60		A08	RR
5Z4G	030 90X 020 0000	00	030 809 020		5(5.7)				60		A08	RR
5Z10	020 X09 030 0000	00	020 908 030		5				120		B8A	RR
6/30L2	851 238 410 0000	00	741 236 410		6.3	7.9	200		10	3.4	B9A	TT
6A3	284 300 000 0000	00	264 300 000		6	36	250		60	5.25	UX4	T
6A4	284 730 000 0000	00	264 530 000		6	9	150	150	14	1.9	UX5	P
6A5	028 040 310 0000	00	026 040 310		6	45	250		60	5.25	A08	T
6A6	285 148 300 0000	00	274 146 300		6	5	250		3.0	1.6	UX7	TT
6A7	287 741 300 0000	40	265 541 300	G1	6	8	250	100	3.5	1.1	Sm7	H
6A8	028 747 310 0000	40	026 545 310	G1	6	8	250	100	3.5	1.1	A08	H
6A10C	028 741 340 0000	00	026 541 340		6		250	100	3.5		A08	H
6AB4	802 304 100 0000	00	602 304 100		6	2	250		10	5.5	B7G	T
6AB5	284 713 000 0000	00	264 513 000		6.3	15.5	150	150	0.1	†1.0MΩ	UX6	TI
6AB7	021 417 380 0000	00	021 415 360		6	3	300	200	12.5	5	A08	P
6AB8	*41 238 175 0000	00	641 237 154		6	2	100		4	1.4	B9A	TP
						8	200	200	17.5	3.5		
6AC5	028 040 310 0000	00	026 040 310		6	0	250		2.5		A08	T

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
6AC6	[020 840 310 0000 028 050 310 0000	00 00]	026 740 310		6	2	300	150	10	9	A08	P
6AC7	021 417 380 0000	00	021 415 360		6	2	300					
6AC9	2X1 100 114 7830	00			6.3	1	125	125	12	10	A12	DDP
6AD4	402 013 080 0000	00	402 013 080		6	11.5	100		1.4	2	B8B	T
6AD5	028 040 310 0000	00	026 040 310		6	1	250		0.9	1.5	A08	T
6AD6	028 740 310 0000	00	026 540 310		6.3	[3 50	150 150	150			A08	TI
6AD7	428 758 310 0000	00	427 546 310		6	[25 16.5	250 250	250	4 34	0.3 2.5	A08	TP
6AD8	741 238 9X1 0000	00	541 236 891		6	2.0	250	90	6.7	1.1	B9A	DDP
6AE4			026 040 310		6	15	100		7	1.2	A08	T
6AE5	028 040 310 0000	00			6	15	100		7	1.2	A08	T
6AE6	[020 840 310 0000 028 050 310 0000	00 00]	026 740 310		6	1.5	250		6.5	1	A08	TT
6AE7	028 415 310 0000	00	026 414 310		6	13.5	250		10	3	A08	TT
6AE8	[051 230 480 0000 751 238 500 0000	00 00]	541 237 46*		6	[2 2	100 250	90	5.2 3.5	2.2	B9A	TH
6AF3	000 230 009 0000	10	*** 23* **8	C	6				120		B9A	R
6AF4	842 314 800 0000	00	642 314 600		6	4	100		15	6.6	B7G	T
6AF4A			642 314 600		6	3	100		20	7.5	B7G	T
6AF5	028 040 310 0000	00	026 040 310		6	18	200		7	1.5	A08	T
6AF6	028 740 310 0000	00	026 540 310		6.3	81	150	125			A08	TI
6AF7	[028 470 310 0000 020 478 310 0000	00 00]	026 457 310		6.3	[45 15	200 200	200	0.16 0.15	†1 †1	A08	TI
6AF11	285 814 181 7630	00			6.3	[2 3	200 200	150	9.2 24	4.4 11	A12	TTP
6AG5	412 387 100 0000	00	412 365 100		6	1.5	250	150	6.5	5	B7G	P
6AG6	028 740 310 0000	00	026 540 310		6	6	250	250	32	10	A08	P
6AG7	120 417 380 0000	00	120 415 360		6	3	300	150	30	11	A08	P
6AG11	219 148 851 X130	00	218 146 641		6.3	1	125		7.5	7.8	A12	DDTT
6AH4	420 080 310 0000	00	420 060 310		6	23	250		30	4.5	A08	T
6AH5	720 804 310 0000	00	520 604 310		6	18	350	250	54	5.2	A08	P
6AH6	412 387 100 0000	00	412 365 100		6	2	300	150	10	9	B7G	P
6AH7	518 148 230 0000	00	417 146 230		6.3	9	250		12	2.4	A08	TT
6AH9	248 100 000 0030	00			6.3	9	[250 250	128 150	8.0 25.0	2.75 21	A12	PT
6AJ4	414 484 234 0000	00	414 464 234		6	2	125		8	7	B9A	T
6AJ5	412 387 100 0000	00	412 365 100		6	7.5	200	175	2.9	2.7	B7G	P
6AJ7	020 417 380 0000	00	020 415 360		6		300	150	10	9	A08	P
6AJ8	751 238 084 0000	00	541 237 164		6	[3 2	100 250	100	5 6.5	2.3 2.4	B9A	TH
6AK4	402 013 080 0000	00	402 013 060		6	2.5	250		9.5	3.8	B8D	T
6AK5	412 387 100 0000	00	412 365 100		6	2.3	150	150	7	4.3	B7G	P
6AK6	412 387 100 0000	00	412 365 100		6	9	200	175	15	2.3	B7G	P
6AK7	120 417 380 0000	00	120 415 360		6	3	300	150	30	11	A08	P
6AK8	Y91 23X 148 0000	00	†91 238 146		6	3	250		1.0	1.2	B9A	DDDT
6AL3	000 230 009 0000	10	*** 23* **8	C	6						B9A	D
6AL5	1X2 310 900 0000	00	192 310 800		6						B7G	DD
6AL6	020 740 310 0000	80	020 540 310	A1	6	14	250	250	72	6	A08	P

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
6AL11	215 118 741 7830	00			6.3	2	15	100	1.3	1	A12	PP
6AM4	414 484 234 0000	00	414 464 234		6	1	200		10	9.8	B9A	T
6AM5	412 380 700 0000	00	412 360 500		6	13.5	250	250	16	2.6	B7G	P
ξ 6AM6	412 381 700 0000	00	412 361 500		6	2	250	250	10	7.5	] B7G	P
						1.5	200	150	4	6.4		
6AM8	147 238 191 0000	00	145 236 181		6	1.7	200	150	11.5	7	B9A	DP
6AN4	842 314 800 0000	00	642 314 600		6	1.3	200		13	10	B7G	T
6AN5	412 387 100 0000	00	412 365 100		6	6	150	125	35	8	B7G	P
6AN6	29X YZ1 300 0000	00	289 111 300		6						B7G	DDDD
	051 230 084 0000	00				2	100		5	2	] B9A	TP
6AN7	751 230 805 0000	00	541 230 764		6	2	250	100	3	0.7		
						6	200		13	3.3	] B9A	TP
6AN8	841 238 751 0000	00	641 237 541		6	2.2	200	150	9.5	6.2		
6AQ4	412 314 800 0000	00	412 314 600		6	2	250		6	8.5	B7G	T
6AQ5	412 387 400 0000	00	412 365 400		6	12.5	250	250	45	4.1	B7G	P
6AQ6	412 39X 800 0000	00	412 398 600		6	3	250		1.0	1.2	B7G	DDT
6AQ7	91X 481 230 0000	00	918 461 230		6	2	250		2.3	1.6	A08	DDT
6AQ8	851 238 410 0000	00	741 236 410		6	2.3	250		10	5.5	B9A	TT
6AR5	412 387 000 0000	00	412 365 000		6	16	250	250	34	2.4	B7G	P
6AR6	108 072 430 0000	00	106 052 430		6	36	300	300	58	4.3	A08	P
6AR7	481 9X1 230 0000	00	461 891 230		6	2	250		1.3	1	A08	DDT
6AR7GT	208 7X9 130 0000	40	206 598 130	G1	6	2	250	100	7	2.5	A08	DDP
6AR8	117 324 188 0000	00	115 324 166		6	3	250	250	10	4	B9A	P
6AR11	287 151 187 4130	00			6.3	0.7	125	125	11	10.5	A12	PP
6AS4	001 090 230 0000	00	001 080 230		6						A08	R
6AS5	142 347 800 0000	00	142 345 600		6	8.5	150	125	35	5.6	B7G	P
6AS6	412 387 100 0000	00	412 365 100		6	2	150	125	5.5	3.5	B7G	P
6AS7	501 481 230 0000	00			6	40	100		50	7	A08	TT
	581 401 230 0000	00	471 461 230									
6AS8	741 239 118 0000	00	541 238 116		6	2.2	200	150	9.5	6.2	B9A	DP
						2	200		7	5.5	] A12	TTP
6AS11	285 814 181 7630	00			6.3	2	200		9.2	4.4		
						2	200	125	24	10.5		
6AT6	412 39X 800 0000	00	412 389 600		6	3	250		1	1.2	B7G	DDT
						2	250		10	5.5	] B9A	TT
6AT7	851 228 413 0000	00	641 237 410		6	1	100		3.7	4		
						1	100		8.5	5.8	] B9A	TP
6AT8	481 238 715 0000	00	461 237 514		6	1.8	250	150	7.7	4.6		
6AU4	001 090 230 0000	00	001 080 230		6				120		A08	R
6AU5	421 080 370 0000	00	421 060 350		6	20	200	150	50	5.6	A08	P
6AU6	412 387 100 0000	00	412 365 100		6	1	250	150	10	5.2	B7G	P
6AU7	841 228 513 0000	00	641 227 413		3	8.5	250		10	2.2	B9A	TT
6AU8	148 231 578 0000	00	146 213 457		6	1.2	150		8.5	4.8	] B9A	TP
						1.5	200	125	15	7		
6AV4	902 30X 100 0000	00	802 309 100		6				30		B7G	RR
6AV5	421 080 370 0000	00	421 060 350		6	22.5	250	150	57	5.9	A08	P
6AV6	412 39X 800 0000	00	412 389 600		6	2	250		1.2	1.6	B7G	DDT

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
6AV8	485 231 871 0000	00	464 231 751		6	[6 2.2	200 200	150	13 9.5	3.3 6.2	B9A	TP
6AV11	281 181 504 8630	00			6.3	8.5	250		10.5	2.2	A12	TTT
6AW4	29X 130 000 0000	00	289 130 000		6				30		UX5	RR
6AW5	209 1X0 310 0000	00	208 190 310		6				30		A08	RR
6AW6	412 387 100 0000	00	412 365 100		6	1.8	250	150	7	5	B7G	P
6AW7	14X 918 230 0000	00	149 816 230		6	0	100		1.4	1.2	A08	DDT
6AW8	148 231 578 0000	00	146 231 457		6	[2 3	200 200	150	4 13	4 9	B9A	TP
6AX2	230 232 032 0000	90	23* 232 *32	D1	6				120		B9A	R
6AX3	200 900 100 8030	00			6.3				120		A12	R
6AX4	001 090 230 0000	00	001 080 230		6				120		A08	R
6AX5	02X 090 310 0000	00	029 080 310		6				60		A08	RR
6AX6	029 1X0 310 0000	00	028 190 310		6				120		A08	RR
6AX7	841 228 513 0000	00	641 227 413		3	2	250		1.2	1.6	B9A	TT
6AX8	857 238 114 0000	00	645 237 114		6	[1 1.2	150 250	100	18 10	8.5 4.8	B9A	TP
6AY3	090 230 901 0000	00	*8* 23* 8*1		6.3				120		B9D	R
6AY5	023 740 310 0000	80	023 540 310	A1	6	12.5	250	250	47	4.1	A08	P
6AY8	028 79X 310 0000	40	026 589 310	G1	6	5	250	100	52	9.5	A08	DDP
6AY11	219 158 841 X130	00			6.3	2	250		1.2	1.9	B8A	DD
6AZ5	910 230 1X0 0000	00	810 230 190		6						B8A	DD
6AZ6	093 113 X00 0000	00	083 113 900		6						B8A	DD
6AZ8	871 325 184 0000	00	751 324 164		6	[6 2.3	200 200	150	13 9.5	3.3 6	B9A	TP
6B2P	472 389 100 0000	00	452 368 100		6.3	3	250	100	6.7	1.85	B7G	P
6B3	090 230 909 0000	10	080 230 808	C	6						B9A	D
6B4	028 040 300 0000	00	026 040 300		6	45	250		60	5.2	A08	T
6B6	028 9X0 310 0000	40	026 890 310	G1	6	2	250		0.9	1.1	A08	DDT
6B7	289 9X1 300 0000	40	265 891 300	G1	6	3	250	150	9	1.1	Sm7	DDP
6B8	028 X97 310 0000	40	026 985 310	G1	6	3	250	150	10	1.3	A08	DDP
6B10	215 848 1X1 9030	00			6.3	9.5	250		.7	1.8	A12	DDTT
6B11	288 474 130 0000	00	276 454 130		6	[3 100	150 125		5 5	2.3	B9A	TH
6B31	921 013 X00 0000	00	821 013 900		6.3						B7G	DD
6B32	192 310 X00 0000	00	182 311 900		6.3				5		B7G	DD
6BA3	090 230 901 0000	00	*8* 23* 8*1		6.3				180		B9A	R
6BA5	402 083 710 0000	00	402 063 510		6	2	100	100	5.5	2.1	B8A	P
6BA6	412 387 100 0000	00	412 365 100		6	1	250	100	11	4.4	B7G	P
6BA7	841 231 108 0000	00	641 231 106		6	2	100		18	7.0	B9A	H
6BA8	148 231 578 0000	00	146 231 457		6	[8 2.5	200 200	150	8 13	2.7 9	B9A	TP
6BA11	2Y7 418 114 1830	00			6.3	[11 100	250 60		5.0 1.7	1.8	A12	TPP
6BC4	844 231 448 0000	00	644 231 446		6	1.5	150		14.5	10	B8A	T
6BC5	412 387 100 0000	00	412 365 100		6	1.3	250	150	7.5	5.7	B7G	P
6BC7	190 23X 1Y1 0000	00	180 239 111		6				5		B9A	DDD
6BC8	841 238 510 0000	00	741 236 410		6	2.2	150		10.0	6.2	B9A	TT
6BC32	412 39X 800 0000	00	412 389 600		6.3	2	250		1	1.6	B7G	DDT
6BD5	421 080 370 0000	00	421 060 350		6	12	200	200		5	A08	P
6BD6	412 387 100 0000	00	412 354 100		6	3	250	100	9	2	B7G	P

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V $\uparrow R_a$ M Ω	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
6BD7	841 239 0X0 0000	00	641 238 09*		6	3.0	250		1.0	1.2	B9A	DDT
6BD11	285 814 181 7630	00			6.3	[11	250		5.0	1.8	A12	TPP
							100	60		1.7		
6BE3	200 900 100 9030	00			6	[8	200		8	2.7	B9A	TP
							2.5	200	150	9		
6BE6	412 388 400 0000	00	412 366 400		6	6	150		7.5	3.5	B7G	H
6BE7	741 238 114 0000	00	541 236 114		6	1	250	20	0.95	0.7	B9A	N
6BE8	481 238 715 0000	00	461 237 514		6	[1	150		18	8.5	B9A	TP
							1	250	100	10		
6BF5	412 387 400 0000	00	412 365 400		6	7.5	100	100	36	7.5	B7G	P
6BF6	412 3X9 800 0000	00	412 398 600		6	9	250		9.5	1.9	B7G	DDP
6BF7	842 113 580 0000	00	642 113 470		6	0.8	100		8	4.8	B8D	TT
							6	150	100	2.6		
6BF11	215 017 841 7830	00			6.3	[1.8	150	100	1.3	1	A12	PP
6BG6	021 040 370 0000	80	021 040 350	A1	6	15	250	250	75	6	A08	P
6BG7	852 113 480 0000	00	742 113 460		6	0.8	100		8	4.8	B9A	TT
6BH3	090 230 901 0000	00	*8* 23* 8*1		6.3				180		B9D	R
6BH3A	080 230 801 0000	00	060 230 601		6.3		32		350			R
6BH5	741 238 000 0000	00	541 236 000		6	2.5	250	100	6	1.7	B9A	P
6BH6	412 385 100 0000	00	412 365 100		6	1	250	150	7.4	4.6	B7G	P
							5	250		9.5		
6BH8	148 321 578 0000	00	146 321 457		6	[1.6	200	125	15	3.3	B9A	TP
							1	125		8.5		
6BH11	281 514 867 8130	00			6.3	[1	125	125	12	7.5	A12	TTP
							1	125		10.5		
6BJ5	412 380 700 0000	00	412 36* 500		6	5	250	250	35		B7G	P
6BJ6	412 387 100 0000	00	412 365 100		6	1	250	100	9.2	3.6	B7G	P
6BJ7	1Y0 23X 191 0000	00	110 239 181		6						B9A	DDD
6BJ8	911 23X 841 0000	00	811 239 641		6	9	250		8	2.8	B9A	DDT
6BK4B	120 040 300 0000	00	120 040 030	A	6.3	[7	27000	0	1.6	0.2	B8-71	T
							0	40				
6BK5	804 231 470 0000	00	604 231 450		6	5	250	250	35	8.5	B9A	P
6BK6	412 39X 800 0000	00	412 389 600		6	2	250		1.2	1.6	B7G	DDT
6BK7	851 238 410 0000	00	741 236 410		6	1.0	100		9	6.1	B9A	TT
6BK7A	851 238 410 0000	00	741 236 410		6	2	150		10.7	9	B9A	TT
6BK7B	[000 230 410 0000	00	000 236 410									
	841 230 000 0000	00	841 230 000		6.3	11	150		18	9.3	B9A	TT
6BK8	701 238 014 0000	00	501 236 014		6		150	150	3	1.8	B9A	P
6BL4	001 090 230 0000	00	**1 *8* 230		6				180		A08	R
6BL7	581 481 230 0000	00	471 461 230		6	9	250		40	7	A08	TT
6BL8	857 238 114 0000	00	645 237 114		6	[2	100		14	5	B9A	TP
							2	200	175	10		
6BM5	412 387 400 0000	00	412 365 400		6	6	250	250	30	7	B9A	P
6BM8	415 238 718 0000	00	414 237 516		6	[1	200		3.7	2.5	B9A	TP
							16	200	200	35		
6BN4	142 381 400 0000	00	142 361 400		6	2.2	150		9	7	B7G	T
6BN4A	142 381 000 0000	00	142 361 400		6.3	6	150		9	7.7	B7G	T
6BN5	441 231 817 0000	00	441 231 615		6	10.8	250	225	25	3.2	B9A	P
6BN6	142 374 800 0000	00	142 354 600		6	1	60	60	0.5	1.0	B7G	P
6BN7	851 231 408 0000	00	741 231 406		6	[15	250		24	5.5	B9A	TT
							1	125		5		
6BN8	911 23X 841 0000	00	811 239 641		6.3	3	250		1.6	2.5	B9A	DDT
6BN11	214 780 517 0830	00	214 560 415	A	6.3	0.8	150	125	11	14	A12	PP
6BP16	280 173 041 0000	00	260 153 041		6.3		150	150	50	26	B9A	P
6BQ5	041 230 807 0000	00	*41 23* 6*5		6	7.3	250	250	48	11.3	B9A	P
6BQ6	020 740 310 0000	80	020 540 310	A1	6	22.5	250	150	57	5.9	A08	P

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V † Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
6BQ7	851 238 410 0000	00	741 236 410		6	2	150		9	6	B9A	TT
6BR5	410 230 807 0000	00	41* 23* 6*5		6.3	14	200	200	0.4	†0.5	B9A	TT
6BR7	041 230 871 0000	00	041 230 651		6	3	250	100	2	1.2	B9A	P
6BR8	481 238 715 0000	00	461 237 514		6	[1 0.8	150 250		18 10	8.5 5.2	B9A	TP
6BR8A	[481 230 000 0000 000 238 715 0000	[00 00	461 230 000 000 236 514	]]	6.3	[1 1	125 125	110	3.5 9.5	7.5 5.0	B9A	TP
6BS3	090 230 901 0000	00	*8* 23* 8*1		6.3				180		B9D	R
6BS3A	080 230 801 0000	00	060 230 601		6.3		12			140		R
6BS4	842 314 800 0000	00	642 314 600		6	4	100		16	8	B7G	T
6BS5	741 238 001 0000	00	541 236 **1		6	7.5	250	250	50	7	B9A	P
6BS7	001 230 871 0000	40	001 230 651	G1	6	3	250	100	2	1.2	B9A	P
6BS8	841 238 510 0000	00	641 237 410		6	2.2	150		10	7.2	B9A	TT
6BT4	290 00X 130 0000	00	280 009 130		6				30		B8A	RR
6BT6	412 39X 800 0000	00	412 389 600		6	3	250		1	1.2	B7G	DDT
6BT8	9X1 238 741 0000	00	891 236 541		6	2.2	200	150	9.5	6.2	B9A	DDP
6BU6	412 39X 800 0000	00	412 389 600		6	9	150		9.5	1.9	B7G	DDT
6BU8	[178 231 401 0000 170 231 581 0000	[00 00	157 231 461	]]	6		100	60	2.2	1.5	B9A	PP
6BV7	987 23X 141 0000	00	865 239 141		6	5	250	250	38	10	B9A	DDP
6BV8	148 23X 119 0000	00	146 239 118		6	3.7	200		11	5.6	B9A	DDT
6BW4	900 230 X01 0000	00	800 230 901		6				30		B9A	RR
6BW6	041 230 871 0000	00	*41 230 651		6	13	300	225	34	3.7	B9A	P
6BW7	141 230 871 0000	00	141 230 651		6	2.4	250	250	9.7	8.2	B9A	P
6BW8	X19 234 178 0000	00	918 234 156		6.3	1.1	250	100	10	5.2	B9A	DDP
6BW11	214 780 087 1530	00			6.3	0.8	150	125	11	14	A12	PP
6BX4	902 30X 100 0000	00	802 309 100		6				30		B7G	RR
6BX6	141 230 871 0000	00	141 230 651		6	3	200	200	8	7.2	B9A	P
6BX7	581 481 230 0000	00	471 461 230		6	16.4	250		42	7.6	A08	TT
6BX8	841 238 510 0000	00	641 237 410		6	5	150		11	7.5	B9A	TT
6BY5	120 X90 310 0000	00	120 980 310		6				60		A08	RR
6BY6	412 387 400 0000	00	412 365 400		6	2.5	250	100	6.5	2.4	B7G	H
6BY7	141 230 871 0000	00	141 230 651		6	2	250	100	10	6	B9A	P
6BY8	411 239 871 0000	00	411 238 651		6.3	1.1	100	100	5	3.9	B9A	DP
6BZ6	412 387 100 0000	00	412 365 100		6	1	100	125	14	8	B7G	P
6BZ7	851 238 410 0000	00	741 236 410		6	2.2	150		10	6.8	B9A	TT
6BZ8	841 238 510 0000	00	641 237 410		6	1	150		10	8	B9A	TT
6C2C	028 458 300 0000	00	026 447 300		6.3	8	250		9	2.6	A08	TT
6C3M	028 040 300 0000	00	026 040 300		2	2.5	150		1.5	1.3	A08	T
6C4	802 384 100 0000	00	602 364 100		6	8.5	250		10.5	2.2	B7G	T
6C4A	028 040 300 0000	00	026 040 300		6.3		250		60	5.2	A08	T
6C5	028 040 310 0000	00	026 040 310		6	8	250		8	2	A08	T
6C6	287 113 000 0000	40	265 113 000	G1	6	3	250	100	2	1.2	UX6	P
6C7	280 9X1 300 0000	40	260 891 300	G1	6	9	250		4.5	1.2	Sm7	DDT
6C8	028 148 310 0000	50	026 147 310	G1	6	4.5	250		3.2	1.6	A08	TT
6C9	[208 405 130 0000 280 575 130 0000	[00 00	276 454 130	]]	6	[2.5 2.5	100 150		5 8	3 2.5	B8A	TH
6C10	[280 405 130 0000 208 575 130 0000	[00 00	276 454 130	]]	6	[2 2	100 250		5 8	2.2 2.4	B8A	TH
6C12	751 238 084 0000	00	541 237 164		6.3	[3 2	100 250		3 6.5	2 2.4	B9A	TH

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
6C16	857 238 114 0000	00	645 237 114		6	[2 2	100 200		14 10	5 6.2	] B9A	TP
6C18	878 231 514 0000	00			6.3	[3 1.5	100 125	175	14 10	5.5 11		
6C31	[020 048 310 0000 028 750 310 0000	40 50	027 546 310	G1	6	[4 3	100 250		7 5	3.4 2.8	] A08	TH
6C31	412 344 800 0000	00	412 344 600		6.3	15	150	100		12		
6C93	200 800 100 803	00			6.3		20		600		A12	R
6CA4	901 230 X00 0000	00	8*1 23* 9**		6				60		B9A	RR
6CA5	142 347 800 0000	00	142 345 600		6	4.5	150	125	36	9.2	B7G	P
6CA7	128 740 310 0000	00	126 540 310		6	14.5	250	250	57	8.5	A08	P
6CB5	721 441 370 0000	80	521 441 350	A	6.3	30	175	175	90	8.8	A08	P
6CB5A	721 441 370 0000	80	521 441 350	A	6.3	[0 30	75 175	150 125	460 90	8.8		P
6CB6	412 387 100 0000	00	412 365 100		6	1	150	125	13	8	B7G	P
6CB6A			412 365 100		6.3	2	200	150	9.5	6.2	B7G	P
6CC10	481 581 230 0000	00	461 471 230		6.3	9	250		6.5	2.2	B8A	TT
6CC31	882 354 100 0000	00	672 344 100		6.3		200		6	3	B7G	TT
6CC40	841 238 510 0000	00	641 237 410		6.3	8.5	250		10.5	2.2	B9A	TT
6CC41	851 238 410 0000	00	741 236 410		6.3	1.5	250		2.3	2	B9A	TT
6CC42	214 808 513 0000	00	214 607 413		6.3	2	150		8	5.2	B9A	TT
6CC43	841 238 510 0000	00	641 237 410		6.3	2.3	250		10	5.9	B9A	TT
6CD6	021 040 370 0000	80	021 040 350	A1	6	30	200	175	75	7.7	A08	P
6CK6G			021 040 350		6.3	30	200	150	64	6.7	A08	P
6CD6GA	021 040 370 0000	80	021 040 350	A	6.3	30	175	175	75	7.7	B8G	P
6CD7	028 748 310 0000	00	026 546 310		6.3	[4.2 12.5	250 250	250		†1.0	] A08	TI
6CE3	200 900 100 9030	00			6.3				180			
6CE5	412 387 100 0000	00	412 365 100		6	1	200	125	11	7.6	A12 B7G	R P
6CF5	402 387 100 0000	00	402 365 100		6.3		150	125	11	7.6	B7G	P
6CF6	412 387 100 0000	00	412 365 100		6	1	200	125	12	7.8	B7G	P
6CF8	701 238 014 0000	00	501 236 014		6	2	250	150	3	1.85	B9A	P
6CG6	412 387 100 0000	00	412 365 100		6	8	250	150	9	2	B7G	P
6CG7	841 238 510 0000	00	641 237 410		6	8	250		9	2.6	B9A	TT
6CG8	481 238 715 0000	00	461 237 514		6	[2 2	100 250		8.5 7.7	5.8 4.6	] B9A	TP
6CH3	090 230 901 0000	00	080 230 801		6.3				180			
6CH6	041 230 871 0000	00	041 230 651		6	4.5	250	250	40	11	B9A	R
6CH7	851 238 410 0000	00	741 236 410		6	2.2	150		10	6.8	B9A	P
6CH8	187 321 548 0000	00	175 321 446		6	[2 2.2	200 200		13 9.5	3.3 6.3	] B9A	TP
6CH40	751 238 584 0000	00	541 237 464		6.3	[2 2	100 250		4.5 10	3.2		
6CJ3	080 230 801 0000	00	060 230 601		6.3		16	100	350		B9A	TH
6CJ5	280 074 130 0000	00	260 054 130		6	2.5	250	100	6	2.2	B8A	R
6CJ6	041 230 071 0000	80	041 230 051	A1	6		200	200	45	6.2	B9A	P
6CK3	080 230 801 0000	00	060 230 601		6.3		16		350			R
6CK4	424 080 310 0000	00	424 060 310		6	28	250		40	5.5	A08	T
6CK5	281 074 130 0000	00	261 054 130		6	7	250	250	36	10	B8A	P
6CK6	741 231 800 0000	00	541 231 600		6	5.5	250	250	36	10	B9A	P
6CL3	080 230 801 1000	00	060 230 601		6.3		16		350		B9A	R
6CL5	721 441 370 0000	80	521 441 350	A1	6.3	40	150	150	80	6.3	A08	P

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
6CL6	147 238 174 0000	00	145 236 154		6	3	250	150	30	11	B9A	P
6CL8	481 238 715 0000	00	461 237 514		6	[0.8	150		150	8	B9A	TP
6CM4	841 234 148 0000	00	641 234 146		6	1.0	150	125	12	5.8	B9A	T
6CM6	704 234 108 0000	00	504 234 106		6		200		12	14	B9A	P
6CM7	801 238 451 0000	00	701 236 441		6	12.5	250	250	45	4.1	B9A	TT
					6	[7	200		5	2	B9A	
						8	250		20	4.4		
6CM8	851 238 714 0000	00	641 237 514		6	[2	250		1.8	2	B9A	TP
6CN5	028 740 310 0000	00	026 540 310		6.3		200	150	9.5	6.2	A08	P
6CN6	120 740 310 0000	00	120 540 310		6	18	350	250	66	5.2	A08	P
6CN7	X91 331 482 0000	00	981 331 462		3	7	250	250	100	14.3	B7G	DDT
6CQ4	001 090 230 0000	00	**1 080 230		6.3	3	250		1	1.2	A08	R
6CQ6	412 381 700 0000	00	412 361 500		6		2.5	250	200	8	B7G	P
6CQ8	857 238 114 0000	00	645 237 114		6	[0.8	150		15	8	B9A	TP
6CR4	414 484 234 0000	00	414 464 234		6.3	1	150	125	12	5.8	B9A	T
6CR5	174 231 741 0000	80	154 231 541	A1	6.3		150		16	6	B9A	P
6CR6	192 387 400 0000	00	182 365 400		6	22.5	250	150	65	6	B7G	DT
					6	2	250	100	9.5	2		
6CR8	851 238 714 0000	00	641 237 514		6	[2	150		12	4	B9A	TP
6CS5	714 234 108 0000	00	514 234 1*6		6		150	125	13	7.7	B9A	P
6CS6	412 387 100 0000	00	412 365 100		6	10	200	125	47	8	B7G	H
6CS7	805 238 411 0000	00	604 237 411		6	1	100	30	1	1.1	B9A	TT
6CS8	841 238 714 0000	00	641 237 514		6	[8.5	250		10.5	2.2	B9A	TP
						10.6	250		19	4.5		
					6	[2	150		12	4	B9A	
						0.9	150	125	13	7.7		
6CT3	080 238 001 0000	00	060 236 001		6.3		16		350		B9A	R
6CT7	289 174 130 0000	00	268 154 130		6	2	250	100	5	1.8	B8A	DP
6CU5	142 347 800 0000	00	142 345 600		6	8	125	100	50	7.5	B8G	P
6CU6	020 740 310 0000	80	020 540 310	A1	6	22.5	250	150	57	5.5	A08	P
6CU7	[288 475 130 0000]	00	276 454 130		6	[2	100		5	2	B8A	TH
						2	250	100	8	2		
6CU8	187 231 548 0000	00	175 231 446		6	[6	200		13	3.3	B9A	TP
6CV7	284 09X 130 0000	00	264 089 130		6	2.2	200	150	9.5	6.2	B8A	DDT
6CW4	080 400 010 2030	00	*41 23* 6*5		6.3	3	250		1	1.3	NV5	T
6CW5	041 230 807 0000	00	147 234 116		6	1	100		7.6	9.8	B9A	P
6CW7	148 235 118 0000	00			6	12.5	200	175	70	10	B9A	TT
					6	1.5	90		12	6		
6CX7	841 238 511 0000	00	641 237 411		6	2	150		9	6.4	B9A	TT
6CX8	148 231 578 0000	00	146 231 457		6	[1.5	150		9	4.6	B9A	TP
6CY5	412 387 100 0000	00	412 365 100		6	2	200	125	24	10	B7G	P
6CY7	805 238 411 0000	00	714 236 411		6	1	150	75	10	8	B9A	TT
6CZ5	704 234 108 0000	00	504 234 1*6		6	[3	250		1.2	1.3	B9A	P
						18.5	150		30	5.4		
					6	14	250	250	46	4.8		
6D1	213 000 000 0000	90	123 000 000	D1	6						B3G	D
6D2	1X2.310 900 0000	00	192 310 800		6						B7G	RR
6D3	912 390 000 0000	00	812 380 000		6						B7G	R
6D4	402 310 000 0000	00	402 310 000		6.3	110	18		100		B7G	T
6D5	028 040 310 0000	00	026 040 310		6	40	300		31	2.1	A08	T

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
6D6	287 113 000 0000	40	265 113 000	G1	6	3	250	100	2	1.2	Sm7	P
6D7	287 101 300 0000	00	265 101 300		6	3	250	100	2	12.2	A08	P
6D8			027 546 310	G1	6	[3	150	100	4.2		A08	H
6D10	281 181 506 8430	00			6.3	1.0	125		4.2	4.2	A12	TTP
6DA4	001 090 230 0000	00	**1 080 230		6				120		A08	R
6DA6	041 230 871 0000	00	041 230 651		6	2	250	100	9	3.6	B9A	P
6DA7	805 238 411 0000	00	604 237 411		6	[8	250		9	2.6	B9A	TT
6DB5	714 234 108 0000	00	514 234 1*6		6	17.5	150		40	5.7	B9A	P
6DB6	412 387 100 0000	00	412 365 100		6	9.6	200	125	46	8	B9A	P
6DC6	412 387 100 0000	00	412 365 100		6	1	150	150	5.8	2	B7G	P
					6	2.2	200	150	9.5	5.5	B7G	P
6DC8	741 238 8X1 0000	00	541 236 891		6	2	250	100	9	3.8	B9A	DDP
6DDHV1	157 238 984 0000	00	145 237 864		6	[2	250		90	1.6	B9A	DTP
6DE4	001 090 230 0000	00	001 080 230		6	1	250	100	9	3.5	A08	R
6DE6	412 387 100 0000	00	412 365 100		6	1.1	150	125	16	8	B7G	P
6DE7	855 238 411 0000	00	744 236 411		6	[17.5	150		32	6.5	B9A	TT
						11	250		5.5	2		
6DG6	028 740 310 0000	00	026 540 310		6	7.5	200	125	47	8	A08	P
6DG7	041 230 871 0000	00	041 230 651		6	20	250	100	11	4.4	B9A	P
6DJ8	841 238 511 0000	00	641 237 411		6	1.3	90		15	12.5	B9A	TT
6DK6	412 387 100 0000	00	412 365 100		6	0.9	150	125	12	9.8	B7G	P
6DL4	414 234 484 0000	00	414 234 464		6		150		12.5	14	B9A	T
6DL5	412 387 400 0000	00	412 365 400		6	7.3	250	225	26	5.5	B7G	P
6DM4	001 090 230 0000	00	001 080 230		6				180		A08	R
6DN3	080 230 801 0000	00	060 230 601		6.3		14		350		B9A	R
6DN6	021 040 370 0000	80	021 040 350	A1	6	18	200	125	70	9	A08	P
6DN7	481 581 230 0000	00	461 471 230		6	9.5	250		34	7.4	A08	TT
6DQ4	001 090 230 0000	00			6.3				120		A08	R
6DQ5	421 741 370 0000	80	421 541 350	A1	6	17.5	150	100	10.5		A08	P
6DQ6	020 740 310 0000	80	020 540 310	A1	6	22.5	250	150	75	6.6	A08	P
6DQ8	481 238 141 0000	00	461 237 141		6.3	[1.7	200		3	11		
						2.1	200	175	18	6.5	B9A	TP
6DR4	123 000 000 0000	90	123 000 000	D1	6						B3G	D
6DR6	041 230 071 0000	00	*41 23* *51		6	23	200	175	45	6.6	B9A	P
6DR7	855 238 411 0000	00	644 237 411		6	[17.5	150		35	6.5	B9A	TT
6DR8	741 238 9X1 0000	00	541 236 891		6	3	250		1.4	1.6	B9A	DDP
6DS4	080 400 010 2030	00			6.3		12	12	45		B9A	T
						0.9	100		6.5	9	NU5	
6DS5	412 387 100 0000	00	412 365 100		6	8.5	250	200	29	5.8	B7G	P
6DS8	751 238 584 0000	00	541 237 564		6	[12	12		0.7	1.4	B9A	TP
							12	12	0.4	0.7		
6DT5	704 230 108 0000	00	504 230 1*6		6.3	16.5	250	250	38	6.5	B9A	P
6DT6	412 387 100 0000	00	412 365 100		6.3	2.2	150	100	11	0.8	B7G	P
6DT6A	412 387 100 0000	00	412 365 100		6.3	5.2	150	100	1.55	1.35	G7-1	P
6DT8	851 238 410 0000	00	741 236 410		6.3	2.5	250		10	5.5	B9A	TT
6DV4	880 404 100 2030	00			6.3	1	75		10.5	11.5	NV7	T
6DW4	090 230 901 0000	00	*8* 23* 8*1		6.3				180		B9D	R
6DW4B	080 230 801 0000	00	060 230 601		6.3		25		350			R
6DW5	704 234 108 0000	00	504 234 106		6.3	22.5	200	150	55	5.5	B9A	P

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
6DX8	481 238 157 0000	00	461 237 145		6.3	[1.7 2	200 170		3 18	4 10.4	B9A	TP
6DY7	041 230 807 0000	00	041 230 605		6.3	12.5	250	150	50	6	B9A	P
6DZ4	842 314 800 0000	00	642 314 600		6.3	0.3	75		15	6.7	B7G	T
6DZ7	428 718 310 0000	00	426 517 310		6.3	7.3	250	250	48	11.3	A08	PP
6DZ8	415 238 718 0000	00	414 237 516		6	[	150 150		0.8 45	1.4 7.5	B9A	TP
6E4	751 238 584 0000	00	541 237 464		6.3	2.6	200		5.4		B9A	TH
6E5	284 713 000 0000	00	264 513 000		6.3	7.5	250	250	0.2	†1.0	UX6	TI
6E6	285 148 300 0000	00	274 146 300		6	27.5	250		18	1.7	UX7	TT
6E7	287 101 300 0000	40	265 101 300	G1	6	2	250	100	8.2	1.6	Sm7	P
6E8	[020 748 310 0000 028 740 310 0000	50 50	027 546 310	G1	6	[4.8 2.3	150 250		3.3 2.3	2.8 3.5	A08	TH
6E102	802 310 470 0000	00	602 301 450		6.3	7	250	250	72	15	F8	P
6EA5	412 387 100 0000	00	412 365 100		6.3	1	250	150	10	8	B7G	P
6EA6	481 581 230 0000	00			6.3	25	200		48	6.5	A08	TT
6EA7	481 581 230 0000	00	461 471 230		6.3	25	200		48	6.5	A08	TT
6EA8	857 238 114 0000	00	645 237 114		6.3	[1 1	150 125		18 12	8.5 6.4	B9A	TP
6EB5	192 310 X00 0000	00	182 310 900		6.3				7		B9G	DD
6EB8	148 231 578 0000	00	146 231 457		6	[2 2	250 200		2 25	2.7 12	B9A	TP
6EF6	028 740 310 0000	00	026 540 310		6.3	18	250	250	50	5	A08	P
6EH5	142 347 800 0000	00	142 345 600		6	3.2	100	125	42	14.6	B7G	P
6EH6	412 387 100 0000	00	412 365 100		6	1	250	150	7.4	4.6	B7G	P
6EH7	141 230 871 0000	00	141 230 651		6.3	2	200	90	12	12.5	B9A	P
6EH8	148 231 578 0000	00	146 231 457		6	[1 1	150 150		13 12	7.5 6	B9A	TP
6EJ7	141 230 871 0000	00	141 230 651		6.3	2.5	200	200	10	15	B9A	P
6EL7	141 230 871 0000	00	141 230 651		6.3	1.8	200	175	10	8.8	B9A	P
6EM5	704 234 108 0000	00	504 234 106		6	18	250	250	35	5.1	B9A	P
6EM7	581 481 230 0000	00	471 461 230		6.3	[3 20	250 150		1.4 50	1.6 7.2	A08	TT
6EQ7	141 237 890 0000	00	141 235 680		6.3		100	100	9	3.9	B9A	DP
6ER5	142 381 010 0000	00	142 361 *10		6.3	1.2	200		10	10.5	B7G	T
6ES5	142 380 100 0000	00	142 360 100		6.3	1	200		15	9.5	B7G	P
6ES6	412 387 100 0000	00	412 365 100		6.3	0.7	12	12			B9A	P
6ES8	841 238 510 0000	00	641 237 410		6.3	1.2	90		15	12.5	B9A	TT
6ET6	412 387 100 0000	00	412 365 100		6.3	1	12	12	4.8	3	B7G	P
6ET7	19X 231 478 0000	00	189 231 456		6.3		200	150	25	11.5	B9A	DDP
6EU7	230 148 851 0000	00	230 146 741		6.3	2	250		1.2	1.6	B9A	TT
6EU8	848 231 517 0000	00	746 231 415		6	[1 1	150 150		18 12	8.5 6.4	B9A	TP
6EV5	412 387 100 0000	00	412 365 100		6.3		200	80	11.5	8.8	B7G	P
6EV6	841 238 510 0000	00	641 237 410		6.3	2	250		9.2	5.2	B9A	TT
6EV7	841 238 510 0000	00	641 237 410		6.3	2.0	250		9.2	5.2	B9A	TT
6EW6	412 387 100 0000	00	412 365 100		6	0.8	150	125	11	14	B7G	P
6EW7	855 238 411 0000	00	744 236 411		6.3	[17.5 11	150 250		45 5.5	7.5 2	B9A	TT
6EX4	902 30X 100 0000	00	802 309 100		6				30		B9A	RR
6EX6	021 040 370 0000	80	021 040 350	A1	6.3		200	150	67	7.7	A08	P

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
6EY6	028 740 310 0000	00	026 540 310		6.3	17.5	250	250	44	4.4	A08	P
6EZ5	028 740 310 0000	00	026 540 310		6.3	20	250	250	43	4.1	B8A	P
6EZ8	168 238 584 0000	00	141 237 464		6.3	1	150		4.2	4.2	B9A	TTT
6F1	281 714 130 0000	00	261 514 130		6	1.8	200	200	10	9	B8A	P
6F5	020 800 310 0000	40	020 600 310	G1	6	2	250		0.9	1.5	A08	T
6F6	028 740 310 0000	00	026 540 310		6	16.5	250	250	34	2.5	A08	P
6F7	287 841 300 0000	50	275 641 300	G1	6	[3	100		3.5	0.5	Sm7	TP
						3	100	100	6.3	1		
6F7B			275 641 300	G1	6	[3	100		3.5	0.5	UX7	TP
						3	100	100	6.3	1		
6F7M	023 878 410 0000	50	275 641 300	G1	6	[3	100		3.5	0.5	UX7	TP
						3	100	100	6.3	1		
6F8	028 158 310 0000	40	027 146 310	G1	6	8	250		9	2.6	A08	TT
6F10	021 417 380 0000	00	021 415 360		6.3	2	300	150	10	9	A08	P
6F11	280 174 130 0000	00	260 154 130		6	1.8	250	100	4.4	2.2	B8A	P
ξ 6F12	412 381 700 0000	00	412 361 500		6	[2	250	250	10	7.5	B7G	P
						1.5	200	150	4	6.4		
6F13	280 174 130 0000	00	260 154 130		6	1.8	200	200	10	9	B8A	P
6F14	280 174 130 0000	00	260 154 130		6	1.25	150	150	28	10.6	B8A	P
6F15	281 174 130 0000	00	261 154 130		6	2.5	250	100	7	2.3	B8A	P
6F16	281 174 130 0000	00	261 154 130		6	2.5	250	100	6	2.2	B8A	P
6F17	412 381 700 0000	00	412 361 500		6	5	100	100	12.5	4.0	B7G	P
6F18	141 230 871 0000	00	141 230 651		6	1.3	200	100	12	4.5	B9A	P
6F19	141 230 871 0000	00	141 230 651		6	2	250	100	10	6	B9A	P
6F20	141 230 871 0000	00	141 230 651		6.3	2	200	175	10	6	B9A	P
6F21	412 381 700 0000	00	412 361 500		6	2.5	250	200	7.8	2.5	B7G	P
6F22	701 238 014 0000	00	501 236 014		6	2	250	150	3	1.8	B9A	P
6F23	141 231 871 0000	00	141 230 650		6.3	1.9	150	150	10	9.2	B9A	P
6F24	141 230 871 0000	00	141 230 651		6.3	1.9	150	150	10	15	B9A	P
6F24	281 174 130 0000	00	261 154 130		6.3	2.1	250	200	15	10.5	B8B	P
6F25	141 230 871 0000	00	141 230 651		6.3	1.5	200	100	11.5	12.5	B9A	P
6F26	141 230 871 0000	00	141 230 651		6.3	2	250	100	10	6	B9A	P
6F28	041 234 870 0000	00	*41 234 650		6.3	2.9	200	200	10	12.5	B9A	P
6F29	141 230 871 0000	00	141 230 651		6.3	2	200	90	12	12.5	B9A	P
6F30	141 230 871 0000	00	141 239 651		6.3	2.5	200	200	10	15.4	B9A	P
6F31	412 387 100 0000	00	412 365 100		6.3	1	250	100	11	4.2	B7G	P
6F32	412 387 100 0000	00	412 365 100		6.3		200	125	8	4.6	B7G	P
6F32	218 710 030 0000	40	216 510 030	G1	6	4.5	200	200	5.1	3	M08	P
6F32V			412 365 000		6.3	3	150	150	7	4.3	B7G	P
6F33	412 381 700 0000	00	412 361 500		6.3	2	125	125	5.2	3.5	B7G	P
6F35	412 387 100 0000	00	412 365 100		6.3		40	30	2.7	2.7	B7G	P
6F36	412 387 100 0000	00	412 365 100		6.3		300	150	10	9	B7G	P
6F40	111 231 874 0000	00	111 231 654		6.3	2	250	150	3	2	B9A	P
6F41	141 230 871 0000	00	141 230 651		6.3	2.0	150	150	10	7.4	B9A	P
6F60	041 230 887 0000	00	041 230 665		6.3	23	250	200	55	5	B9A	P
6F80	741 231 800 0000	00	541 231 600		6.3		200	200	36	10	B9A	P
6FA7			841 236 541		6.3	[0	100	100	2.2	1.9	B9A	DPP
						0	100	100	3.8	3.2		
6FC7	148 235 018 0000	00	146 234 017		6.3	1.2	90		15	12	B9A	TT
6FD6	412 387 100 0000	00	412 365 100		6.3		12	12		1.4	B7G	P
6FD7	855 238 411 0000	00	644 237 411		6.3	[17.5	150		45	7.5	B9A	TT
							250		6	1.6		

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
6FD12	741 238 9X1 0000	00	541 236 891		6.3	2	250	100	9	3.8	B9A	DDP
6FE5	028 740 310 0000	00	026 540 310		6.3	12.5	100	100	94	9.5	A08	P
6FG5	412 387 100 0000	00	412 365 100		6.3	0.2	250	250	9	9.5	B7G	P
6FG6	401 237 805 0000	00	401 235 607		6.0	22	250	250	0.5	†0.5	B9A	TI
6FG7	481 238 715 0000	00	461 237 514		6.3	[1	125		13	7.5	B9A	TP
						1	125	125	11	6		
6FH5	142 380 100 0000	00	142 365 100		6.3	1	150		11	9	B7G	T
6FH6	020 740 310 0000	80	020 540 310	A1	6.3	22.5	250	150	75	6	A08	P
6FJ7	204 080 101 5830	00	204 060 101		6.3	[8	250		8	2.5	A12	TT
						9.5	250		41	7.7		
6FJ8	210 741 390 0000	80	210 541 380	A1	6.3	22.5	250	150	75	6.6	A08	DP
6FLD12	741 238 9X1 0000	00	541 236 891		19	2	250	100	9	3.8	B9A	DDP
6FM7	205 080 151 4830	00	204 060 141		6.3	[3	250		2	2.2	A12	TT
						25	175		40	6		
6FM8	191 23X 148 0000	00	181 239 146		6.3	3	250		1	1.2	B9A	DDT
6FN5	721 441 370 0000	00	521 441 350		6.3	22.5	200	150	100	10	B8A	P
6FQ5	142 380 100 0000	00	142 360 100		6.3	1.2	150		11	11	B7G	T
6FQ7	841 238 510 0000	00	741 236 410		6.3	8	250		9	2.6	B9A	TT
6FR7	855 238 411 0000	00	644 237 411		6.3	[3	250		1.4	6.8	B9A	TT
						20	150	50	5.4			
6FS5	412 387 100 0000	00	412 365 100		6.3	0.2	300	150	9	10	B7G	P
6FV6	402 387 100 0000	00	402 365 100		6.3	1	150	75	10	8	B9A	P
6FV8	481 238 715 0000	00	461 237 514		6	[1	150		14	8	B9A	TP
						1	150	125	12	6.5		
6FW5	421 080 370 0000	00	421 060 350		6.3	22.5	250	150	65	7.3	A08	P
6FW8	851 238 410 0000	00	741 236 410		6.3	1.2	100		15	13	B9A	TT
6FX4	902 30X 100 0000	00	802 309 100		6				30		B7G	RR
6FY5	142 380 100 0000	00	142 360 100		6.3	1	150		11	13	B9A	T
6FY7	205 080 101 4830	00	205 080 101		6.3	[3	250		1.4	1.6	A12	TT
						17.5	150		35	6.5		
6FY8	415 238 718 0000	00	414 237 516		6	[1.5	125		2.5	2	B9A	TP
						13.5	125	125	50	7		
6G5	284 713 000 0000	00	264 513 000		6.3	22	250	250	0.2	†1.0	UX6	TI
6G6	028 740 310 0000	00	026 540 310		6	9	200	175	15	2.3	A08	P
6G7	028 X97 310 0000	40	026 985 310	G1	6	3	250	125	10	1.3	A08	DDP
6G8	028 X97 310 0000	40	026 985 310	G1	6	3	250	125	9	1.1	A08	DDP
6G11	215 108 741 7830	00			6.3	[8	125	100	49	7.5	A12	PP
						1.8	150	100	1.3	1.0		
6GA4	028 040 310 0000	00	026 040 310		6.3	18.5	250		50	7	A08	T
6GA7	277 410 810 0930	00			6.3	[22.5	250	150	120	75	A12	RP
							250		8	6.6		
6GA8	841 238 510 0000	00	641 237 410		6.3		250		8		B9A	TT
6GA8	428 040 310 0000	00	426 040 310		6.3	18.5	250		50	7	A08	T
6GB3	030 740 310 0000	80	020 540 310	A1	6.3	7.7	100	100	100	14	A08	P
6GB5			441 235 51*	A1	6.3	20	150	150	70	10	B9A	P
6GB6	020 740 310 0000	80	020 540 310	A1	6.3	22.5	250	150	6.5	6	A08	P
6GB7	020 740 310 0000	80	020 540 310	A1	6.3	7.7	100	100	100	14	A08	P
6GB9	020 740 310 0000	80	020 540 310	A1	6.3	22.5	250	150	75	6.6	A08	P
6GC5	714 234 178 0000	00	514 234 156		6.3	7.5	100	100	50	8	B9D	P
6GC6	021 740 370 0000	80	021 540 350	A1	6.3	22.5	250	150	75	6.6	A08	P
6GD7	481 238 715 0000	00	481 238 715		6.3	[1	125		15	10	B9A	TP
						1	175	150	10			
6GE5	274 100 800 1430	00			6.3	22.5	250	150	65	7.3	A12	P
6GE7	028 47X 310 0000	00	026 457 310	A	6.3	5	250	250			A08	
6GE8	714 238 158 0000	00	514 236 147		6.3	[21	150		35	5	B9A	TP
						2	150	150	5.5	3.2		
6GF5	274 100 800 1430	00			6.3	26.5	250	150	34	4.7	A12	P

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
6GF7	151 238 084 0000	00	141 237 064		6.3	[3 20	250 150		1.4 50	1.6 7.2	B9D	TT
6GF7A	141 23X 095 0000	80	141 239 084	A	6.3	[3 20	250 150	1.4 50			B9D	TT
6GG6	902 300 1X0 0000	00	802 300 190		6				30		F8	RR
6GH8	857 238 114 0000	00	645 237 114		6	[1 1	150 150	125	13.5 12	8.5 7.5	B9A	TP
6GH8A	[800 230 014 0000 047 238 100 0000	00 00	600 230 014 045 236 100	A1	6.3	[1 1	125 125	125	13.5 12.0	8.5 7.5	B9A	TP
6GJ5	741 234 700 0000	80	541 234 5**		6.3		22.5 250	150	70	7.1		
6GJ5A	741 234 700 0000	80	541 234 500	A	6.3		22.5 250	150	70	7.1	B9A	P
6GJ7	151 238 784 0000	00	141 236 574		6.3	[1.2 1	200 150	200	14 10	3.7 11	B9A	TP
6GJ8	857 238 114 0000	00	645 237 114		6.3	[1 1	150 125	125	13.5 12	8.5 7.5	B9A	TP
6GK5	142 380 100 0000	00	142 360 100		6.3	1	150		11.5	15	B7G	T
6GK6	141 230 871 0000	00	141 230 651		6.3	7.3	250	250	48	11.3	B9A	P
6GK17	001 090 230 0000	00	001 080 230		6.3				120		A08	R
6GL7	[481 000 230 0000 000 481 230 0000]	00	461 000 230 000 461 230		6.3	[3 25	250 175		2.0 46	2.2 6.4	B8B	TT
6GM5	700 234 108 0000	00	500 234 106		6.3	10	300	300	60	10.2	B9A	P
6GM6	412 387 100 0000	00	412 365 100		6.3	56	150	25	14	13	B7G	P
6GM8			641 237 410		6.3	0.3	12		2.4	4.6	B9A	TT
6GN6	412 387 900 0000	00	412 365 800		6.3	68	250	100	11	4.4	B7G	DP
6GN8	148 231 578 0000	00	146 231 457		6.3	[2 3	250 200	150	2 25	2.7 11.5	B9A	TP
6GQ7	1Y0 23X 191 0000	00	11* 239 181		6.3				5		B9A	DDD
6GS8	[170 231 481 0000 178 231 501 0000	00 00	156 231 471		6.3		100	75	2	1.2	B9A	PP
6GT5	741 234 708 0000	00	541 234 5*6		6.3	42	250	150	70	7.1	B9D	P
6GT5A	741 234 708 0000	00	541 234 506		6.3		22.5 250	150	70	7.1	B9A	TP
6GU5	412 387 100 0000	00	412 365 100		6.3	[0.4 10.5	150 250	150	9 11.5	15 3.1	B7G B9A	P TT
6GU7	851 238 410 0000	00			6.3		22.5 250	150	65	7.3	A12	P
6GV5	207 140 704 173	80			6.3		100		14	5.5	B9A	TP
6GV7	878 231 514 0000	00	657 231 414		6.3	[1.5 0.6	150 100	150	11 5	11 6.5	B9A	TP
6GV8	841 238 715 0000	00	641 237 514		6.3	[15 15	100 200	175	41	7.5	B9A	TP
6GW5	842 314 100 0000	00	642 314 100		6.3	1	150		13	15	B7G	T
6GW6	020.740 310 0000	80			6.3	22.5	250	150	70	7.1	A08	P
6GW8	417 238 158 0000	00	415 237 146		6.3	[1.7 7	250 250	250	1.2 36	1.6 10	B9A	TP
6GX6	412 387 100 0000	00	412 365 100		6.3		150	100	3.7	3.7	G7G	P
6GX7	151 238 784 0000	00			1	125	125	8	11		B9A	TP
6GY5	207 140 704 1730	80			6.3	20	125	125	50	9.1	A12	P

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
6H1	412 380 700 0000	00	412 360 500		6	1.8	250	100		2.1	B7G	H
6H4	020 900 310 0000	00	020 800 310		6						A08	D
6H5	284 713 000 0000	00	264 513 000		6.3	22	250	250	0.2	†1.0	UX6	TI
6H6	02X 190 310 0000	00	029 180 310		6						A08	DD
6H7C	028 458 310 0000	00	026 447 310		6.3	5	250		3	1.6	A08	TT
6H7G	128 458 310 0000	00	126 447 310		6.3		300		35	3.2	A08	TT
6H8C	481 581 230 0000	00	461 471 230		6.3	8	250		9	3	A08	TT
6H8G	028 X97 310 0000	40	026 985 310	G1	6	2	250	125	8.5	2.4	A08	DDP
6H8MG	028 X97 310 0000	40	026 985 310	G1	6	2	250	125	6	1.8	A08	DDP
6H9C	481 581 230 0000	00	461 471 230		6.3	2	250		2.2	1.6	A08	TT
6H10C	084 581 230 0000	00	064 471 230		6.3	2	250		2	1.3	A08	TT
6H13C	481 581 230 0000	00	461 471 230		6.3	30	90		80	5	A08	TT
6H31	412 387 100 0000	00	412 365 100		6.3		250	100	3		B7G	H
6HA5	412 380 100 0000	00	412 360 100		6.3	1	150		11.5	14.5	B7G	T
6HB5	274 100 800 1430	00	254 100 600		6.3	20	125	125	50	9.1	A12	P
6HB6	141 230 871 0000	00	141 230 651		6.3	33	250	125	40	24	B9A	P
6HB7	151 238 784 0000	00	141 236 574		6.3	[1	150		18	8.5	B9A	TP
						1	125	125	12	6.4		
6HC8	415 238 718 0000	00	414 237 516		6.3	[3	250		1.4	2	B9A	TP
						18	250	250	38	5.1		
6HD5	207 140 804 1730	00			6.3	22	150	150	65	10	A12	P
6HE5	243 108 004 7130	00			6.3	20	250	250	43	4.1	A12	P
6HE7	290 180 014 0730	00			6.3	[22	125	125	60	8.8	A12	RP
									120			
6HF5	207 147 074 1730	80			6.3	28	175	175	100	11	A12	P
6HF8	148 231 578 0000	00	146 231 457		6.3	[2	200		4	4	B9A	TP
							200	125	25	12.5		
6HG8	151 234 887 0000	00	141 234 675		6.3	[3	100		14	6	B9A	TP
						1.2	200	150	10	12		
6HJ8	147 238 191 0000	00	145 236 181		6.3	6	150	125	11.5	9.3	B9A	DP
6HK5	412 380 100 0000	00			6.3		150		12.5	15	B7G	T
6HK8	841 238 510 0000	00	641 237 410		6.3	1	90		8.5	8	B9A	TT
6HL8	857 238 114 0000	00			6.3	[1	125		12.5	7	B9A	TP
						1	125	125	12	10		
6HM5	412 380 100 0000	00	412 360 100		6.3	1.2	150		12.5	14.5	B7G	T
6HM6	141 230 871 0000	00			6.3	3.9	125	125	13	15	B9A	P
6HQ5	412 381 100 0000	00	412 361 100		6.3	1	150		11.5	15	B7G	T
6HR6	412 387 100 0000	00	412 365 100		6.3	1.2	200	100	13.2	8.5	B7G	P
6HS6	412 387 100 0000	00	412 365 100		6.3	0.8	150	75	8.8	9.5	B7G	P
6HS8	[178 231 401 0000	00	157 231 461		6.3		100	75	2	0.4	B9A	PP
	170 231 581 0000	00										
6HU8	748 235 187 0000	00	546 234 175		6.3	9	250	250	24	6	B9A	PP
6HW8	187 234 181 0000	00	165 234 161		6.3	3.5	250	250	13	4	B9A	P
6HZ6	412 387 100 0000	00	412 387 100		6.3	1.1	150	100	3.2	3.4	B7G	P
6HZ8	148 231 578 0000	00	146 231 457		6.3	[2	200		3.5	4	B9A	TP
							250	175	29	12.6		
6J4	412 344 800 0000	00	412 344 600		6	1.5	150		15	12	B7G	T

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
6J5	028 040 310 0000	00	026 040 310		6	8	250		9	2.6	A08	T
6J6	882 345 100 0000	00	762 344 100		6	[3	150		5	4.5	] B7G	TT
6J7	028 710 310 0000	40	026 510 310	G1	6	0.8	100		8.5	5.3		
6J8	[020 048 310 000	50	] 027 546 310	G1	6.3	[3	250	100	2	1.2	A08	P
	028 740 310 0000	50				3	100		3	1.6	] A08	TH
6J9	861 238 485 0000	00			6.3	3	100	100	1.3	1.2		
6J10	271 807 518 0430	00			6.3	1	125		6	5.2	A10	TTT
6J11	278 041 718 0530	00			6.3	[8	100	100			] A12	PP
					6.3	0.8	250	250	35	6.5		
					6.3		125	125	11	13	A12	PP
6JA8	148 231 578 0000	00	146 231 457		6.3	[2	150		1	1.5	] B9A	TP
						1.5	150	150	18	13		
6JB6	741 234 710 0000	80	541 234 51*	A1	6.3	22.5	250	150	70	7.1	B9D	P
6JB8	857 238 114 0000	00	645 237 114		6	[8.5	250		10.5	2.2	] B9A	TP
						3	250	100	3	1.6		
6JC8	157 238 148 0000	00	145 237 146		6.3	[1	150		12	6.5	] B9A	TP
6JD5	247 100 800 7430	00			6.3	1	150	125	9	5.5		
6JD6	141 230 878 0000	00	141 230 656		6.3	10	125	125	1.0	55	A12	T
					6.3	0	125	125	15	14	B9A	P
6JE6	741 234 710 0000	80	541 234 51*	A1	6.3		150	100	100	10	B9D	P
6JE8	148 231 578 0000	00	146 231 457		6.3	[2	200		4.5	4.2	] B9A	TP
							200	175	22	12		
6JF6	741 235 760 0000	80	541 234 550	A	6.3	20	130	125	80	10	B9D	P
6JF8	210 741 390 0000	80	210 541 380	A1	6.3	22.5	250	150	75	6.6	A08	DP
6JG6	741 231 708 0000	00	541 231 5*6		6.3		150	100	80	10	B9D	P
6JG6A	741 231 708 0000	00	541 231 506	A	6.3	[26	125				] B9A	P
						0	50	125	525			
						20	130	125	80	10.0		
6JH6	412 387 100 0000	00	412 387 100		6.3	1	125	125	14	8	B7G	P
6JH8	117 324 188 0000	00	115 324 166		6.3		250	250	14	4.4	B9A	P
6JK6	412 387 100 0000	00			6.3	0.9	125	125	11.5	18	B7G	P
6JK8	841 238 510 0000	00	741 236 410		6.3	[1	100		5.3	6.8	] B9A	TT
						1.2	150		10	13		
6JL6	412 387 100 0000	00			6.3	0.9	125	60	12.5	15.5	B7G	P
6JM6	217 140 000 1030	80			6.3	22.5	250	150	65	7.3	A12	P
6JN6	217 100 800 1430	00			6.3	22.5	250	150	65	7.3	A12	P
6JN8	481 238 715 0000	00			6.3	[1	125		12	7.5	] B9A	TP
						1	125	125	13.5	8.5		
6JQ6	807 231 400 4000	00	605 231 100		6.3	18	140	140	25	4.2	B9A	P
6JR6	741 236 708 0000	00	541 234 506		6.3	20	50	125	45	7.0	B9A	P
6JS6	217 140 000 1730	00			6.3	27	175	125	100	11	A12	P
6JS6A	217 040 000 0730	80			6.3	25	175	125	125	11.3	A12	P
6JT6			541 231 5*6		6.3	22.5	250	150	70	7.1	B9D	P
6JT6A	741 231 708 0000	00	541 231 506		6.3	[22.5	150				] B9A	P
						0	60	150	390	7.1		
						22.5	250	150	70			
6JT8	148 231 578 0000	00			6.3	[2	250		1.5	2.7	] B9A	TP
						1.6	200	100	17	20		
6JU8	[Z11 230 X11 0000	00			6.3				[5		] B9A	DDDD
	ZY1 230 X91 0000	00							5			
6JU8A	810 230 000 0000	00	610 230 0000		6.3		10		60		B9A	DDDD
6JV8	148 231 578 0000	00	146 231 457		6.3	[2	200		4	4	] B9A	TP
						2.9	200	200	22	11.5		
6JZ6	217 040 000 0030	80	040 000 003		6.3	20	125	125	46	9	A12	P
6JZ8	280 805 571 4130	00			6.3	[5	150		5.5	23.	] A12	TP
						8	125	100	46	7.1		
6K1P	412 387 100 0000	00	412 365 100		6.3	1.5	250	100	6.5	2.0	B7G	DD
6K4P	412 387 100 0000	00	412 365 100		6.3	1.0	250	100	11	4.4	B7G	P

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
6K5	028 000 310 0000	40	026 000 310	G1	6	3	250		1.1	1.4	A08	T
6K6	028 740 310 0000	00	026 540 310		6	18	250	250	32	2.3	A08	P
6K7	028 710 310 0000	40	026 510 310	G1	6		250	100	10.5	1.5	A08	P
6K8	020 048 310 0000	50	027 546 310	G1	6	[1 3]	100		8	2.5	] A08	TH
	028 750 310 0000	50					250	100	4	1.2		
6K11	281 181 504 8630	00			6.3	[8.5 2.5]	250		10.5	2.2	] A12	TTT
6K25	028 040 310 0000	00	026 040 310		6		250		1.2	1.6		
6KA8	841 235 178 0000	00	141 237 564		6.3	[3 10]	250		1.4	1.6	] B9D	TP
6KD5	217 040 004 0730	80	215 040 004		6.3	22.5	150	100	39	8.4		
6KD6	217 040 004 0730	80			6.3	22.5	150	110	120	14	A12	P
6KD8	857 238 114 0000	00			6.3	[1 1]	125		13.5	7.5	] B9A	TP
							125	100	9	5		
6KE8	857 238 114 0000	00			6.3	[1 0.4]	125		13	8	] B9A	TP
6KF8	170 231 481 0000	00			6.3	1	125	125	10	10		
	178 231 501 0000	00					150	150	4	1	B9A	PP
6KH2P	192 310 X00 0000	00	182 310 900		6.3				5.0		B7G	RR
6KM8	889 231 478 0000	00	668 231 456		6.3		100	100	4.2	3.4	B9A	DP
6KN6	217 140 000 1030	00			6.3	20	125	125	100	16	A12	P
6KR8	148 231 578 0000	00	146 231 457		6.3	[1 2]	100		15	10.4	] B9A	TP
							200	100	19.5	20		
6KT8	148 321 578 0000	00			6.3	[2 1]	250		1.8	3.2	] B9A	TP
							125	125	12	10		
6KU8	1X9 231 478 0000	00			6.3	1.6	200	100	17	20	B9A	DDP
6KV8	148 231 578 0000	00			6.3	[1.8 1.6]	200		4	4	] B9A	TP
							200	125	20	23		
6KY8	151 238 784 0000	00			6.3	[3 10]	250		1.4	1.6	] B9D	TP
							150	100	39	8.4		
6KZ8	851 238 715 0000	00	641 237 514		6.3	[1.0 1.0]	150		13.5	8.5	] B9A	TP
							150	150	12	7.5		
6L1	285 184 130 0000	00	274 164 130		6	8.6	200		10	2.8	B8A	TT
6L5	028 040 310 0000	00	026 040 310		6	9	250		8	1.9	A08	T
6L6	028 740 310 0000	00	026 540 310		6	18	350	250	54	5.2	A08	P
6L7	028 740 310 0000	40	026 540 310	G1	6	3	250	100	6.3	1.1	A08	H
6L10	120 417 380 0000	00	120 415 360		6.3	3	300	150	30	11	B8A	P
6L12	851 238 410 0000	00	741 236 410		6	2.3	250		10	5.9	B9A	TT
6L13	851 228 413 0000	00	741 226 413		6	2	250		1.2	1.6	B9A	TT
6L15	158 234 118 0000	00	147 234 116		6.3	1.2	90		15	9	B9A	TT
6L16	148 235 108 0000	00	146 234 107		6.3	1.5	90		12	6.2	B9A	TT
6L18	280 084 130 0000	00	260 064 130		6	13.3	250		12	5.5	B8A	T
6L19	285 184 130 0000	00	274 164 130		6	1.8	200		5	3.1	B8A	TT
6L31	412 387 400 0000	00	412 365 400		6.3	12.5	250	250	45	4.1	B7G	P
6L34	412 314 800 0000	00	412 314 600		6	1.5	250		10	9	B7G	T
6L41	801 237 144 0000	00	602 235 144		6.3	17.2	250	250	45	7	B9A	P
6L43	147 238 174 0000	00	145 236 154		6.3	3	300	150	30	11	B9A	P
6L50	214 471 130 0000	80	214 451 130	A1	6.3	12.6	200	250	70	5	B9A	P
6L50V	217 447 113 0000	80	215 445 113	A1	6.3	25	400	250	30	3.5	B9A	P
6LB6	217 540 000 5730	80			6.3	[20 0.9]	150	110	105	13.4	] A12	P
6LB8	148 231 578 0000	00			6.3	[1.6 200]	125	100	13	5		
							200		17	20	B9A	TP

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
6LC8	841 235 178 0000	00			6.3	[2 1.2	200 150	100	4 4	4 4.4	B9A	TP
6LD3	284 0X9 130 0000	00	264 098 130		6	1.9	250		0.85	1.95	B8A	DDT
6LD12	YX1 239 148 0000	00	†91 238 146		6.3	1.0	100		0.8	1.45	B9A	DDDT
6LD13	841 239 0X0 0000	00	641 238 09*		6	1.9	250		0.85	1.2	B9A	DDT
6LD20	284 0X9 130 0000	00	264 098 130		6	5.9	250		5	2.3	B8A	DDT
6LE8	[811 230 174 0000 011 238 174 0000	00	611 230 154		6.3	2.5	100	100	8	5.8	B9A	PP
6LF8	148 231 578 0000	00	146 231 456		6.3	[2 2.5	200 100	150	4 20	4 11	B9A	TP
6LFD12	741 238 9X1 0000	00	541 236 891		19	2	150	100	9	3.8	B9A	DDP
6LJ8	481 238 715 0000	00			6.3	[0.7 0.5	125 125	125	13 12	8 13	B9A	TP
6LM8	[800 230 014 0000 047 238 100 0000	00	600 230 140 045 230 610		6.3	0	[330 350	330	13.5 12	8.5 6.0	B9A	T
6LQ8	[148 230 000 0000 000 231 478 0000	00	146 230 000 000 231 456		6.9	0	[125 200	125	15 20	3.1 3.5	B9A	PT
6LR6	217 140 000 173	80			6.3	0	60	220	740	16		TP
6LR8	151 238 784 0000	00	141 236 564		6.3	[4 10	250 150	125	2.3 56	3.6 9.3	B9A	TP
6LU8	280 805 571 4130	00			6.3	[4 10	250 150	125	2.3 56	3.6 9.3	A12	TP
6LY8	[148 230 000 0000 000 231 478 0000	00	146 230 000 146 230 000		6.3	2.0	[19.5 1.0	100	19.5 1	20 1.7	B9A	P
6M1	028 740 310 0000	00	026 540 310		6.3	22.5	250	250	0.2	†1.0	A08	TI
6M2	027 478 310 0000	00	*25 456 310		6.3	[4 2	250 250	250	0.12 0.25	†0.2 †0.1	A08	TI
6M3	029 000 030 0000	00	*28 0*0 *30		6						A08	R
6M5	741 230 800 0000	00	541 230 600		6	7	250	250	36	10	B9A	P
6M6	028 740 310 0000	00	026 540 310		6	6	250	250	36	9.5	A08	P
6M7	028 710 310 0000	40	026 510 310	G1	6	2.5	250	125	10.5	3.4	A08	P
6M8	138 748 290 0000	50	137 546 280	G1	6	[1 3	100 100	100	0.5 8.5	1.1 1.9	A08	DTP
6M11	267 158 841 0830	00	2*5 146 641		6.3	[2 0.8	250 150		10 11	5.5 14	A12	TTP
6M40	410 230 807 0000	00			6.3	20	250		0.5	†1.0	B9A	TI
6MB8	481 237 516 0000	00	410 230 605 461 230 000		6.3	0	[125 125	125	13 10	8.0 12	B9A	T
6MD3	901 390 100 0000	00	200 236 514		6.3				10		B7G	R
6MD4	102 310 900 0000	00	802 380 100		6.3						B7G	D
6MD8	YX9 234 156 0000	00	102 310 800 996 234 144		6.3	10.5	250		11.5	3.1		TTT
6ME8	XY7234 168 0000	00	895 234 167		6.3	16	250		[1.3 1.3	4.4	B9A	DT
6MF8	[280 000 000 4130 200 804 560 0030	00			6.3	[4 20	250 250	0 250	2.6 50	4.1 4.1		P
6MH1	412 344 800 0000	00	412 344 600		6.3		150		14.5	13	B7G	T
6MHH3	882 345 100 0000	00	672 344 100		6.3	1	100		11	7.5	B7G	TT
6MJ8	281 907 050 463	00			6.3	[10.5 0.0 5.0	250 100 100		10.0 0 67.5	3.0 0 2.0	A12	TTT DP

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
6M-L2	842 384 100 0000	00	642 364 100		6.3	4.5	150		14	5	B7G	T
6M-L4	842 314 800 0000	00	642 314 600		6.3		100		17	6.5	B7G	T
6MK7	028 710 310 0000	40	026 510 310	G1	6		250	100	5	2.3	A08	P
6MK8	178 239 589 0000	00	159 231 481			[0.0 5.0	100 100	67.5 63.5	0 2.0		E9-1	DP
6MN8	2Y1 X09 040 563	00			6.3	0	[200 125		4.5 11.0	4.0 7.5	B9A	TP
6MP2	412 387 000 0000	00	412 365 000		6.3	6	200	175	25	5.5	B7G	P
6MP17	412 387 400 0000	00	412 365 400		6.3	8	250	250	32	5.2	B7G	P
6MU8	[800 230 014 0000 047 238 100 0000	00 00	600 230 014 045 236 0000	]	0.6	0	[125 150		11.5 9.0	6.0 9.0	B9A	TP
6N1P	841 238 410 0000	00	641 237 410		6.3	4.8	250		8	4.3	B9A	T
6N2P	841 228 413 0000	00	641 237 410		6.3	1.5	250		2.3	2	B9A	T
6N3	001 230 009 0000	00	***1 23* **8		6				180		B9A	R
6N4	412 381 400 0000	00	412 361 400		6	3	200		12	6	B7G	T
6N5	284 713 000 0000	00			6.3	15.3	150	150	0.2	†1.0	UX6	TI
6N6	028 850 310 0000	00	020 610 310		6.3	[0	300 300		9 42	2.5	A08	TT
6N6P		00	641 237 410		6.3	2	125		30	10	B9A	TT
6N7	028 548 310 0000	00	027 446 310		6	5	250		3	1.6	A08	TT
6N7	028 710 310 0000	40	026 510 310	G1	6	2.5	250	125	10.5	3.4	A08	P
6N8	741 238 9X1 0000	00	541 236 891		6	2	250	90	5	2.2	B9A	DDP
6N15P	882 345 100 0000	00	762 344 100		6.3	2	100		8.5	5.6	B7G	TT
6NK7	028 710 310 0000	40	026 510 310	G1	6	2.5	250	125	10.5	3.4	A08	P
6P1	028 740 310 0000	00	026 540 310		6	8.5	250	250	30	8.8	A08	P
6P2	412 387 100 0000	00	412 365 100		6.3	68	250	150	10.6	5.2	B7G	P
6P5	028 040 310 0000	00	026 040 310		6	13.5	250		5	1.25	A08	T
6P6	217 413 000 0000	80	215 413 000	A1	6	8	250	150	34		UX6	P
6P7	023 878 410 0000	50	023 756 410	G1	6	[3 3	100 100		3.5 6.3	0.5 1	A08	TP
6P8	[020 748 310 0000 028 750 310 0000	50 50	027 546 310	G1	6	[8	100 250		2.2 75	0.7	A08	TH
6P9	412 387 400 0000	00	412 366 400		6	6	250	250	30	7	B9A	P
6P15	041 230 807 0000	00	*41 23* 6*5		6	7.5	250	250	49	11.3	B9A	P
6P17	412 380 700 0000	00	412 360 500		6	13.5	250	250	16	2.6	B7G	P
6P28	020 740 310 0000	80	020 540 310	A1	6.3	8.8	350	250	72	9.5	A08	P
6P1P	871 238 417 0000	00	651 230 400		6.3	12.5	250	250	45	4.5	B9A	P
6P2P	412 387 100 0000	00	412 365 000		6.3	5.5	125	125	35	8	B7G	P
6P4P	902 310 X00 0000	00	802 310 900		6.3				30		B7G	RR
6PL12	415 238 718 0000	00	414 237 516		6.3	[8.5	100 250		3.5 250	2.5 40	B9A	P
6PX6	028 740 310 0000	00	026 540 310		6	6	250		35	9.2	A08	P
6PZ8	028 7X9 310 0000	40	026 598 310	G1	6	6	250	250	36	9.2	A08	DDP
6Q4	441 230 448 0000	00	441 230 446		6	1.5	250		15	12	B9A	T
6Q6	028 090 310 0000	00	026 080 310		6	3	250		1.2	1.05	A08	DT
6Q7	028 X90 310 0000	40	026 980 310	G1	6	3	250		1	1.2	A08	DDT
6Q11	281 181 514 8630	00			6.3	[2.0	150 250		2.2 1.2	2.5 1.6	A12	TTT
6QL6	741 238 174 0000	00	541 236 154		6	11.5	200	175	52	9.5	B9A	P
6R	028 710 310 0000	40	026 510 310	G1	6	2	250	100	3.7	2	A08	P
6R4	410 230 080 0000	00	401 230 060		6	2	150		30	5.5	B9A	T
6R6	028 700 310 0000	40	026 500 310	G1	6	3	250	100	7	1.45	A08	P
6R7	028 X90 310 0000	40	026 980 310	G1	6	9	250		9.5	1.9	A08	DDT
6R8	9Y1 23X 148 0000	00	8†1 239 146		6	9	250		9.5	1.9	B9A	DDDT
6R51P	471 230 807 0000	00	451 23* 6*5		6.3	8	250	250	54	11	B9A	P
6RA2	014 234 008 0000	00	014 234 006		6.3	31	150		100	8.5	B9A	P
6RA5	808 023 041 0000	00	606 023 041		6.3	20	100		80	11	B9A	T

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
6RB11	704 234 108 0000	00	504 234 106		6.3	12.5	200	200	45	7.5	B9A	P
6R-DHV1	157 328 984 0000	00	145 327 864		6.3	[2 1	250 250	100	1.2 9	1.6 3.5	B9A	DTP
6RHH2	851 238 410 0000	00	741 236 410		6.3	1	90		8.5	8	B9A	TT
6R-HH8	841 238 510 0000	00	641 237 410		6.3		100		16	16	B9A	TT
6RHV1	157 238 184 0000	00	145 237 164		6	[2 1	250 250	100	12 9	1.6 3.5	B9A	TP
6RK19	000 230 009 0000	10	*** 23* **8	C	6.3				180		B9A	R
6RP10	280 173 041 0000	00	260 153 041		6.3	2.6	150	150	36	13.5	B9A	P
6RP15	471 230 807 0000	00	451 23* 6*5		6.3	8	250	250	59	11	B9A	P
6RR8	402 108 073 0000	00	402 106 053		6.3		150	150	13	12.6	B9A	P
6RR21	741 238 9X1 0000	00	541 236 891		6.3		150	150	13.5	15	B9A	DDP
6RV	028 710 310 0000	40	026 510 310	G1	6	2	250	100	6.4	2.1	A08	P
6S1P	812 384 100 0000	00	612 304 000		6.3	7	250		6.3	2.2	B7G	T
6S2	000 230 000 0000	90	230 232 032	D1	6.3						B9A	R
6S2P	412 344 800 0000	00	412 300 600		6.3	1	100		10	11	B7G	T
6S2A			*** 23* ***	D1	6.3						B9A	D
6S4	010 234 008 0000	00	*1* 234 **6		6	8	250		26	4.5	B9A	T
6S4A	014 234 008 0000	00	014 234 006		6.3	-8	250		24	4.5	B9A	T
6S5	028 370 310 0000	00	026 470 310		6.3	8	250		0.23	†1.0	A08	TI
6S6	120 800 370 0000	40	120 600 350	G1	6	2	250	100	13	4	A08	P
6S7	028 710 310 0000	40	026 510 310	G1	6	3	250	100	8.5	1.75	A08	P
6S8	Y19 X18 230 0000	40	†18 916 230	G1	6	2	250		0.9	1.1	A08	DDDT
6SA7	128 841 310 0000	00	126 641 310		6	3.6	100		12	4.3	A08	H
6SC5	028 400 310 0000	00	026 400 310		6	4	250		7.5	2.7	A08	T
6SC7	085 481 230 0000	00	074 461 230		6	2	250		2	1.3	A08	TT
6SD7	021 417 380 0000	00	021 415 360		6	2	250	100	6	3.6	A08	P
6SE7	021 417 380 0000	00	021 415 360		6	1.5	250	100	4.5	3.4	A08	P
6SF5	014 080 320 0000	00	014 060 320		6	2	250		0.9	1.5	A08	T
6SF7	041 791 380 0000	00	041 581 360		6	1	250	100	12.4	2.05	A08	DP
6SG7	021 417 380 0000	00	021 415 360		6	1	250	125	11.8	4.7	A08	P
6SH7	021 417 380 0000	00	021 415 360		6	1	250	150	10.8	4.9	A08	P
6SJ7	021 417 380 0000	00	021 415 360		6	3	250	100	3	1.65	A08	P
6SJ8EG	[028 748 310 0000 028 750 310 0000]		027 546 310	G1	6	[3 3	150 150	100	5 1.3	1.6 1.2	A08	TH
6SJ8G	[028 748 310 0000 028 750 310 0000]	50	021 415 360		6	3	250	100	9.2	2	A08	P
6SK7	021 417 380 0000	00	021 415 360		6	3	250	100	9.2	2	A08	P
6SL7	481 581 230 0000	00	461 471 230		6	2	250		2.3	1.6	A08	TT
6SN7	481 581 230 0000	00	461 471 230		6	8	250		9	2.9	A08	TT
6SQ7	041 9X8 230 0000	00	041 896 230		6	2	250		0.9	1.1	A08	DDT
6SR7	041 X98 230 0000	00	041 986 230		6	9	250		9.5	1.9	A08	DDT
6SS7	021 417 380 0000	00	021 415 360		6	3	250	100	9	1.85	A08	P
6ST7	041 9X8 230 0000	00	041 896 230		6	9	250		9.5	1.9	A08	DDT
6SU7	581 481 230 0000	00	471 461 230		6	2	250		2.3	1.6	A08	TT
6SV7	041 798 230 0000	00	941 586 230		6	1	250	150	7.5	3.4	A08	DP
6SZ7	041 X98 230 0000	00	041 986 230		6	3	250		1	1.2	A08	DDT
6T	207 413 000 0000	80	205 413 000	A1	6	12.5	250	250	4.5	4.1	UX6	P
6T1	841 314 800 0000	00	642 314 600		6		75		16	6.6	B7G	T
6T4	842 314 800 0000	00	642 314 600		6	3	80		18	7	B7G	T

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
6T5	284 713 000 0000	00	264 513 000		6.3	22	250	250		†1.0	UX6	TI
6T6	028 700 310 0000	40	026 500 310	G1	6	1	250	100	10	5.5	A08	P
6T7	028 X90 310 0000	40	026 980 310	G1	6	3	250		1.2	1	A08	DDT
6T8	YX1 239 148 0000	00	†91 238 146		6	3	250		1	1.2	B9A	DDDT
6T9	280 410 051 7830	00			6.3	[2 8	250 250		1.5 37	2.1 6.5	A12	TP
6T10	215 017 841 7830	00			6.3	[8 1.8	250 150	250 100	37 1.3	6.5 1	A12	PP
6T24	848 230 115 0000	00	647 230 114		6	2	150		17	7	B9A	TT
6T26	841 238 510 0000	00	641 237 410		6	2.3	250		10	6	B9A	TT
6T27	841 238 510 0000	00	641 237 410		6		150		10	6.8	B9A	TT
6TD32	9X1 23Y 148 0000	00	891 230 146		6.3	3	250		1	1.2	B9A	DDT
6TD33	9X1 23Y 148 0000	00	891 230 146		6.3	3	250		2.2	2.1	B9A	DDDT
6TE8	728 148 310 0000	50	427 146 310	G1	6	[2 2	100 250		3.7 3.5		A08	TH
6TE9	[801 230 450 0000 071 238 550 0000	[00 00	651 237 440		6	[2.5 7	100 200	90	4 3	2 0.7	B9A	TH
6TH8	[028 748 310 0000 028 750 310 0000	[50 50	027 546 310	G1	6	[1.5 14.5	150 200	75	6 3.5	1.1	A08	TH
6TP	207 413 000 0000	80	205 413 000	A1	6		250	250	12	6	UX6	P
6TP1	857 238 114 0000	00	645 237 114		6	[68 2	150 250		18 10	8.5 5.2	B9A	TP
6TP3	841 238 175 0000	00	641 237 154		6	[2 3	100 200	100	4 8	2 3	B9A	TP
6TP4	157 238 814 0000	00	145 237 614		6	[68 68	150 250	100	18 10	8.5 5.2	B9A	TP
6TP5	751 328 184 0000	00	541 327 164		6	[100 200	100 100		2.2 9	1.3	B9A	TP
6U3	001 230 009 0000	00	**1 23* **8		6				180		B9A	R
6U4	001 090 230 0000	00	001 080 230		6				120		A08	R
6U5	028 740 310 0000	00			6.3	8	250				A08	TI
6U5/6G5	284 713 000 0000	00	264 513 000		6.3	22	250	250	0.2	†1.0	UX6	TI
6U5M	029 0X0 310 0000	00	028 090 310		6				30		A08	RR
6U6	028 740 310 0000	00	026 540 310		6	14	200	150	56	6.2	A08	P
6U7	028 710 310 0000	40	026 510 310	G1	6	3	250	100	8	1.5	A08	P
6U8	857 238 114 0000	00	645 237 114		6	[1 1	150 250	100	18 10	8.5 5.2	B9A	TP
6U10	281 181 504 8630	00			6.3	[6 1.5	200 200		9.6 1.2	2.3 1.6	A12	TTT
6UG56	028 740 310 0000		026 540 310		6.3	8	250	250		†0.1	A08	TI
6V3	092 230 909 0000	10	082 230 808	C	6				120		B9A	RR
6V4	901 230 X00 0000	00	8*1 23* 9**		6				30		B9A	RR
6V5	008 740 230 0000	00	006 540 230		6	12.5	250	250	45	4.1	A08	P
6V6	028 740 310 0000	00	026 540 310		6	12.5	250	250	45	4.1	A08	P
6V7	028 X90 310 0000	40	026 980 310	G1	6	20	250		8	1.1	A08	DDT
6V8	891 234 Y1X 0000	00	681 234 †19		6	3	250		1	1.2	B9A	DDDT
6W2	023 000 000 0000	90	023 000 000	D1	6						B3G	D
6W3	001 230 009 0000	00	**1 23* **8		6				20		B9A	R
6W4	001 090 230 0000	00	001 080 230		6				120		A08	R
6W5	029 0X0 310 0000	00	028 090 310		6				60		A08	RR
6W6	028 740 310 0000	00	026 540 310		6	9.5	150	150	58	8	A08	P
6W7	028 710 310 0000	40	026 510 310	G1	6	3	250	100	2	1.2	A08	P

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
6WC5	288 114 300 0000	00	266 114 300		6	3.6	100		12	4.3	B7G	H
6X2	023 000 000 0000	90	023 000 000	D1	6						B3G	D
6X3	020 000 310 0000	90	020 000 310	D1	6				5		A08	R
6X4	902 30X 100 0000	00	802 309 100		6				30		B7G	RR
6X5	029 0X0 310 0000	00	028 090 310		6				30		A08	RR
6X6	027 740 310 0000	00	025 540 310		5		250	250			A08	TI
6X8	148 231 578 0000	00	146 231 457		6	[1	100		8.5	5.8	] B9A	TP
6Y3	030 000 200 0000	90	030 000 200	D1	6	1.8	250	150	7.5	4.6		
6Y5	209 1X3 000 0000	00	208 193 000		6				5		A08	R
6Y6	028 740 310 0000	00	026 540 310		6		13.5	150	30		UX6	RR
					6			150	58	7	A08	P
6Y6-GA	028 743 1000	00	026 543 100		6.3	[-14	135	135	61	7.0	] A08	P
6Y7	028 458 310 0000	00	027 446 310		6	0	250		5.3	1.8		
6Y50	902 309 001 0000	00	802 308 001		6				180		A08	TT
6Z3	391 200 000 0000	00	381 200 000		6				60		B9A	R
6Z4	29X 130 000 0000	00	289 130 000		6				30		UX4	R
6Z5	329 1X2 000 0000	00	328 192 000		6				30		UX5	RR
											UX6	RR
6Z6	029 1X0 310 0000	00	028 190 310		6				30		A08	RR
6Z7	028 458 310 0000	00	026 447 310		6	0	200		4.2	0.5	A08	TT
6Z31	902 30X 100 0000	00	802 309 100		6.3				30		B7G	RR
6Z40	000 230 009 0000	10	000 230 008		6.3				120		B9A	R
6ZDH3A	284 913 000 0000	00	264 813 000		6	2	250		1.5		UX6	DT
6ZE1	284 713 000 0000	00	264 513 000		6.3	7	250			11.0	UX6	TI
6ZH1P	412 387 100 0000	00	412 365 100		6.3	2.2	125	125	5.5	3.5	B7G	P
6ZH2P	412 387 100 0000	00	412 365 100		6.3	2.2	125	125	7.5	5.2	B7G	P
6ZH3P	412 387 100 0000	00	412 365 100		6.3	2	250	150	7	5	B7G	P
6ZH4P	412 387 100 0000	00	412 365 100		6.3	1	250	100	11	4.4	B7G	P
6ZH5P	412 387 100 0000	00	412 365 100		6.3	2	250	100	10	9	B7G	P
6ZP1	287 413 000 0000	00	265 413 000		6	9	200	200	15	1.7	UX6	P
6ZY5	029 0X0 310 0000	00	028 090 310		6				15		A08	RR
7A2	047 231 800 0000	00	045 231 600		4	17	250	250	40	3.2	B7	P
7A3	045 231 800 0000	00	045 231 600		4	6	250	250	32	10	B7	P
7A4	280 004 130 0000	00	260 0*4 130		6	8	250		9	2.6	B8B	T
7A5	287 004 130 0000	00	265 004 130		6	9	150	125	44	6	B8B	P
7A6	21X 009 130 000	00	219 008 130		6				5		B8B	RR
7A7	287 104 130 0000	00	265 104 130		6	3	250	100	9.2	2	B8B	P
7A8	288 471 130 0000	00	266 451 130		6	1	250	100	14	1.4	B8B	O
7AB7	728 141 310 0000	00	526 141 310		6	2	250	100	4	1.8	B8B	P
7AC7	412 387 100 0000	00	412 365 100		6		300	150	10	9	B7G	P
7AD7	287 104 130 0000	00	265 104 130		6	2.3	300	150	28	9.5	B8B	P
7AF7	218 548 130 0000	00	217 446 130		6	9	250		9	2.1	B8B	TT
7AG7	287 114 130 0000	00	265 114 130		6	2	250	250	6	4.2	B8B	P
7AH7	287 114 130 0000	00	265 114 130		6	2	250	250	6.8	3.3	B8B	P
7AJ7	287 104 130 0000	00	265 104 130		6	3	250	100	2.2	1.5	B8B	P
7AK7	287 104 130 0000	00	265 104 130		6	0	150	90	40	6.5	B8B	P
7AN7	158 234 118 0000	00	147 234 116		7.5	1	90		12	6	B9A	TT
7AU7	851 228 413 0000	00	741 226 413		3.5	8.5	250		10.5	2.2	B9A	TT
7B4	280 004 130 0000	00	260 004 130		6	2	250		0.9	1.5	B8B	T
7B5	287 004 130 0000	00	265 004 130		6	18	250	250	32	2.3	B8B	P
7B6	284 0X9 130 0000	00	264 *98 130		6	2	250		0.9	1.1	B8B	DDT

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
7B7	287 104 130 0000	00	265 104 130		6	3	250	100	8.5	1.7	B8B	P
7B8	287 474 130 0000	00	265 454 130		6	2	250	100		1.1	B8B	H
7C4	200 900 130 0000	00	2*0 800 130		6				5		A08	R
7C5	287 004 130 0000	00	265 004 130		6	12.5	250	250	45	4.1	B8B	P
7C6	284 1X9 130 0000	00	264 198 130		6	1	250		1.3	1	B8B	DDT
7C7	287 114 130 0000	00	265 114 130		6	3	250	100	2	1.3	B8B	P
7CE40	148 235 118 0000	00	146 234 117		7	1.5	90		12	6	B9A	TT
7D3	047 231 800 0000	00	045 231 600		40	20	150	125	36	2.4	B7	P
7D5	047 231 800 0000	00	045 231 600		13	16.5	250	250	34	2.3	B7	P
7D6	047 231 800 0000	00	045 231 600		40	6	250	250	32	10	B7	P
7D7	[208 405 130 0000 280 575 130 0000]	[00 00]	276 454 130		6	[3 3]	150 250		3 100	0.2	[B8B]	TH
7D8	047 231 800 0000	00	045 231 600		13	6	250	250	32	10	B7	P
7D9	412 380 700 0000	00	412 360 500		6	13.5	250	250	16	2.6	B7G	P
7D9	047 231 800 0000	00	045 231 600		13	25	250	250	32	1.8	B7	P
7D10	041 230 871 0000	00	*41 230 651		6	4.5	250	250	40	11	B8A	P
7D11	028 740 310 0000	00	026 540 310		6.3	20	350	250	95	9	A08	P
7DJ8	841 238 510 0000	00	641 237 411		7	1.3	90		15	12.5	B9A	TT
7E5	428 141 830 0000	00	426 141 630		6	3	200		5.5	3	B8B	T
7E6	284 0X9 130 0000	00	264 *98 130		6	8	250		9.5	1.9	B8B	DDT
7E7	28X 974 130 0000	00	269 854 130		6	3	250	100	7.5	1.3	B8B	DDP
7ED7	141 230 871 0000	00	141 230 651		7.3	1.9	200	175	10		B9A	P
7EK7	148 235 118 0000	00	146 234 117		7	1.2	200		15	4	B9A	TT
7ES8	841 238 510 0000	00	641 237 410		7	1.2	90		15	12.5	B9A	TT
7EY6	028 740 310 0000	00	026 540 310		7.2	17.5	250	250	44	4.4	A08	P
7F7	218 548 130 0000	00	217 446 130		6	2	250		2.3	1.6	B8B	TT
7F8	528 118 340 0000	00	427 116 340		6	3	250		6	3.3	B8B	TT
7F16	281 174 130 0000	00	261 154 130		6	2.5	250	100	6	2.2	B8A	P
7FC7	148 235 118 0000	00	146 234 117		7.2	1.2	90		15	12	B9A	TT
7G7	287 114 130 0000	00	265 114 130		6	2	250	100	6	4.5	B8B	P
7G8	287 451 830 0000	00	265 441 730		6	2.5	250	100	4.5	2.1	B8B	PP
7GH8	788 234 151 0000	00	576 234 141		8	[3 1.2]	100 200		14 150		[B9A]	TH
7GV7	878 231 514 0000	00	657 231 414		7.4	[3 2]	100 250		14 250	5.5 11	[]	TP
7H6	287 114 130 0000	00	265 114 130		6	2.5	250	150	9.5	3.5	B8B	P
7H7	287 114 130 0000	00	265 114 130		6	2	250	150	10	4.2	B8B	P
7HG8	151 234 887 0000	00	741 234 675		7.2	[]	125 250	150	15 18		[B9A]	TH
7J7	[208 405 130 0000 280 575 130 0000]	[00 00]	276 454 130		6	[3 3]	150 250	100	6.6 1.4	1.4	[B8B]	TH
7K7	218 4X9 130 0000	00	216 498 130		6	2	250		2.3	1.6	B8B	DDT
7KY6	141 230 871 0000	00	141 230 651		7.3	0	200	135	30	30	B9A	P
7KZ6	141 230 871 0000		141 230 651		7.3	0	250	115	25	24	B9A	P
7L7	287 104 130 0000	00	265 104 130		6	1.5	250	100	4.5	3.1	B8B	P
7MP18	412 387 400 0000	00	412 365 400		7.5	5	200	175	35	11	B9A	P
7N7	218 548 130 0000	00	217 446 130		6	8	250		9	2.6	B8B	TT
7Q7	288 414 130 0000	00	266 414 130		6	2	100		15	6	B8B	H
7R1	290 300 000 0000	00	280 300 000		7.5				60		UX4	R
7R7	28X 974 130 0000	00	269 854 130		6	1	250	100	6.2	3.4	B8B	DDP

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
7S7	[288 405 130 0000	00	276 454 130		6	[1	100		4.8	1.4	B8B	TH
7T7	280 575 130 0000	00	265 104 130		6	2	250	100	4	2	B8B	P
7V7	287 104 130 0000	00	265 114 130		6	1	250	150	10.8	4.9	B8B	P
	287 114 130 0000	00				2	300	150	10	5.8	B8B	P
7X6	219 00X 130 0000	00	218 009 130		6				30		B8B	RR
7X7	284 19X 130 0000	00	264 189 130		6	1	250		1.9	1.5	B8B	DDT
7Y4	209 00X 130 0000	00	208 009 130		6				30		B8B	RR
7Z4	20X 009 130 0000	00	209 008 130		6				60		B8B	RR
8A1	742 310 000 0000	80	542 310 000	A1	4	1.5	200	75	3.5	4	B5	P
8A1	041 231 700 0000	80	041 231 500	A1	4	1.5	200	75	3.5	4	B7	P
8A2	742 310 000 0000	80	542 310 000	A1	4	2.1	200	100	3	2.4	B5	P
8A8	857 238 114 0000	00	645 237 114		9	[2	100		14	5	B9A	TP
8AC9	2X1 100 114 7830	00			8.4	2	200	175	10	6.2	A12	DDP
8AU8	148 231 578 0000	00	146 231 457		8.5	[1.25	150		8.5	4.9	B9A	TP
						1.5	200	125	16	7		
8AW8	148 231 578 0000	00	146 231 457		8.4	[2	200		4	4	B9A	TP
						3	200	150	13	9		
8AW8A	000 231 478 0000	00	000 231 456		8.4	[-2	200		4	4	B9A	TP
						0	65	150	46	9.5		
							150	150	15			
8B8	415 238 718 0000	00	414 237 516		8	[1	100		1	1.9	B9A	TP
8B10	215 848 1X1 9030	00			8.5	16	200	200	35	6.4	A12	DDT
						9.5	250		7	1.8		
6BA8	148 231 578 0000	00	146 231 457		8.4	[8	200		8	2.7	B9A	TP
						3	200	150	13	9		
8BH8	148 231 578 0000	00	146 231 457		8.4	[5	150		9.5	3.3	B9A	TP
						1.6	200	125	15	7		
8BM8	415 238 718 0000	00	414 237 516		7.9	[1	200		3.7	2.5	B9A	TP
						16	200	200	35	6.4		
8BM11	287 015 871 4300	00	265 015 651		6.3	[1	100	125	14	8	A12	PP
8BN8	911 23X 841 0000	00	811 239 641		8.4	0.9	150	125	12	9.8	B9A	DDT
8BQ5	041 230 807 0000	00	*41 23* 6*5		8	3	250		1.6	2.6	B9A	P
						7.3	250	250	48	11.5		
8BQ7A	841 238 510 0000	00	641 237 410		8.4	2	150		9	6.4	B9A	TT
8BU11	218 415 867 8130	00			7.8	[1	125		13.5	8.6	A12	TTP
						11	125	125	12	7.5		
8CF40	857 238 114 0000	00	645 237 114		9	[2	100		14	5	B9A	TP
8CG7	851 238 410 0000	00	741 236 410		8.4	2	200	175	10	6.2	B9A	TT
8CL8	841 235 178 0000	00			8.4	8	250		9	2.6	B9A	TP
						2	200		4	4		
						1.2	150	100	4	4.4		
8CM7	801 238 451 0000	00	701 236 441		8.4	[7	200		5	2	B9A	TT
8CN7	9X1 221 843 0000	00	891 221 643		4.2	8	250		20	4.4	B9A	DDT
8CS7	805 238 411 0000	00	704 236 411		8.4	3	250		1	1.2	B9A	TT
8CW5	071 230 807 0000	00	*51 23* 6*5		8	10.6	250		19	4.5	B9A	P
8CW8	517 238 148 0000	00	415 237 146		8	12.5	200	175	70	10	B9A	TP
						1.7	250		1.2	1.6		
						7	250	250	36	10		
8CX8	148 231 478 0000	00	146 231 456		8	[1.5	150		9	4.6	B9A	TP
						2	200	125	25	10		
8CY7	805 238 411 0000	00	6*4 237 411		7.9	[3	250		1.2	1.3	B9A	TT
						18.5	150		30	5.4		

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
8D2	081 231 700 0000	40	061 231 500	G1	13	3	250	100	2	1.25	B7	P
8D3	412 381 700 0000	00	412 361 500		6	[2	250	250	10	7.5	] B7G	P
8D4	028 710 310 0000	40	026 510 310	G1	6	1.5	200	150	4	6.4		P
						2	250	100	3	1.8	A08	P
8D5	041 230 871 0000	00	041 230 651		6	3	250	100	2	1.2	B9A	P
8D6	141 230 871 0000	00	141 230 651		6	2	200	175	10	2.5	B9A	P
8D7	001 230 871 0000	40	001 230 651	G1	6	3	250	100	2	1.25	B9A	P
8D8	701 238 014 0000	00	501 236 014		6	2	250	150	3	1.9	B9A	P
8DX8	481 238 157 0000	00	461 237 145		7.5	[1.7	200		30	4	] B9A	TP
						2.1	200	175	18	11		
8EB8	148 231 578 0000	00	146 231 457		8	[2	250		2	2.7	] B9A	TP
						2	200	125	25	12.5		
8EM5	704 234 108 0000	00	504 234 106		8.4	18	250	250	35	5.1	B9A	P
8ET7	19X 231 478 0000	00	189 231 456		8	100	200	150	25	11.5	B9A	DDP
8FQ7	851 238 410 0000	00	741 236 410		8.4	8	250		9	2.6	B9A	TT
8G140	9X2 300 000 0000	00	892 300 000		8				60		B4	RR
8GE8			146 231 457		8.2	[2	200		4.5	4.2	] B9A	TP
							200	175	22	12		
8GK6	141 230 871 0000	00	141 230 651		8	7.4	250	250	48	11.3	B9A	P
8GN8	148 231 578 0000	00	146 231 457		8	[2	250		2	2.7	] B9A	TP
						3	200	150	25	11.5		
8GW8	417 238 158 0000	00	415 237 146		7.5	[1.7	250		1.2	1.6	] B9A	TP
						7.0	250	250	36	10		
8GX7	151 238 784 0000	00	151 236 574		7.7	[1	125		13	8.5	] B9A	TP
						1	125	125	8	11		
8HG8	151 234 887 0000	00	141 234 675		8	[3	100		14	5.5	] B9A	TP
						1.2	200	150	10	12		
8JE8	148 231 578 0000	00	146 231 457		8.2	[2	200		4.5	4.2	] B9A	TP
							250	150	22	12		
8JK8	841 238 510 0000	00	741 236 410		8.4	[1.0	100		5.3	6.8	] B9A	TT
						1.2	150		10	13		
8JT8	148 231 578 0000	00			7.7	[2	250		1.5	2.7	] B9A	TP
						1.6	200	100	17	20		
8JV8	148 231 578 0000	00	146 231 457		8.5	[2	200		4	4	] B9A	TP
						2.9	200	200	22	10.7		
8KA8	841 235 178 0000	00			8.4	[2	200		4	4	] B9A	TP
						1.2	150	100	4	4.4		
8LC8	841 235 178 0000	00			8.4	[2	200		4	4	] B9A	TP
						1.2	150	100	4	9.4		
8LE8	811 230 174 0000	00	611 230 154		8	2.5	100	100	8	5.8	B9A	PP
8MP12	412 387 400 0000	00	412 365 400		8.5		200	175	25		B7G	P
8RB11	704 234 108 0000	00	504 234 106		8.5	12.5	200	200	45	7.5	B9A	P
8RHP1	415 238 718 0000	00	414 237 516		8.2	[16	100		3.5	2.5	] B9A	TP
							200	200	35	6.4		
8SN7	481 581 230 0000	00	461 471 230		8.4	8	250		9	2.6	A08	TT
8T27	841 238 510 0000	00	641 237 410		8.4		150		10	6.8	B9A	TT
9A1	742 231 000 0000	80	542 231 000	A1	4	1.5	200	75	5	4.2	B5	P
9A1	947 231 700 0000	80	045 231 500	A1	4	1.5	200	75	5	4.2	B7	P
9A3	081 231 700 0000	40	061 231 500	G1	4	2	250	125	10	1.8	B7	P
9A8	857 238 114 0000	00	645 237 114		9	[2	100		14	5	] B9A	TP
						2	200	175	10	6.2		
9AB4	802 304 100 0000	00	602 304 100		9	2	250		10	5	B7G	T

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
9ABC40	9X1 23Y 148 0000	00	891 230 146		9.5	1.9	170		1	1.4	B9A	DDDT
9AK8	YX1 239 148 0000	00	†91 238 146		9.5	2.3	200		1	1.4	B9A	DDDT
9AQ8	841 238 510 0000	00	641 237 410		9	2.1	200		10	5.8	B9A	TT
9AU7	851 228 413 0000	00	741 226 413		4.7	3.5	250		10.5	2.2	B9A	TT
9BM5	412 387 400 0000	00	412 365 400		9	6	250	250	30	7	B9A	P
9BQ7	841 238 510 0000	00	641 237 410		8.4	2	150		9	6.4	B9A	TT
9BR7	841 22X 913 0000	00	641 229 813		4.7	2.0	250		10	4	B9A	DDT
9BW6	041 230 871 0000	00	*41 230 651		9	12.5	250	250	45	4.1	B9A	P
9C8	857 238 114 0000	00	645 237 114		9	[2	100		14	5	B9A	TP
						2	200	175	10	6.2		
9CL8	481 238 715 0000	00	461 237 514		9.5	[0.75	150		15	8	B9A	TP
						0.1	150	125	12	5.8		
9D2	081 231 700 0000	40	061 231 500	G1	13	3	250	125	10.5	1.65	B7	P
9D6	412 381 700 0000	00	412 361 500		6	2.5	250	200	8	2.5	B7G	P
9D7	141 230 871 0000	00	141 230 651		6	1.5	250	100	10	8.4	B9A	P
9DZ8	415 238 718 0000	00	414 237 516		9	[	150		0.8	1.4	B9A	TP
							150	125	45	7.5		
9EA8	857 238 114 0000	00	857 238 114		18.9	[1	150		18	8.5	B9A	TP
						1	125	125	12	6.4		
9EF6	028 740 310 0000	00	026 540 310		9.4	18	250	250	50	5	A08	P
9EN7	157 238 414 0000	00	157 236 414		9	[	150		6	5	B9A	TP
							200	150	7.6	8.5		
9GV8	841 238 741 0000	00	641 237 541		9.4	[	250		8		B9A	TP
							250	250	12			
9J6	882 345 100 0000	00	762 344 100		9	0.85	100		8.5	5.3	B7G	TT
9JT8	148 231 778 0000	00	148 231 578		7.7	[2	250		1.5	2.7	B9A	TP
						1.6	200	100	1.7	20		
9KC6	140 231 807 0000	00	140 231 605		8.7	[0	400	150	18.0	240	B9A	P
							100	100	1.0			
9KZ8	851 238 715 0000	00			9.4	[1	125		13.5	8.5	B9A	TP
						1	125	125	12	7.5		
9LA6	147 230 856 0000	00			8.7	0	250	150	25	21.0	B9A	P
9MN8	2Y1X09 040 563	00			9.5	0	[200		4.8	4.0	B9A	TTT
							125		11.0	7.5		
9P9	412 387 400 0000	00	412 365 400		9	6	250	250	30	7	B9A	P
9RA6	140 230 408 0000	00	140 230 406		9.5	12	250		26	8.5	B9A	T
9T8	YX1 239 148 0000	00	†91 238 146		9.5	3	250		1	1.2	B9A	DDDT
9T26	841 238 510 0000	00	641 237 410		9.5	2.3	250		10	6	B9A	TT
9TP4	157 238 814 0000	00	145 237 614		9.4	[68	150		18	8.5	B9A	TP
							250	100	10	5.2		
9U8	857 238 114 0000	00	645 237 114		9.5	[1	150		18	8.5	B9A	TP
						1	250	100	10	5.2		
9X8	148 231 578 0000	00	146 231 457		9.5	[3.5	150	150	8.5	5.8	B9A	TP
							150		6.2	2.1		
10	284 300 000 0000	00	264 300 000		7.5	32	250		16	1.55	UX4	T
10AL11	215 118 741 7830	00			9.8	2	15	100	1.3	1	A18	PP
10BM8	415 238 718 0000	00	414 237 516		10	[11.5	150	150	41	2.2	B9A	TP
							250	250	48	7.5		
10BQ5	041 230 807 0000	00	041 230 605		10	7.3	250	250	6	11	B9A	P
10C1	[208 475 130 0000	00	276 454 130		28	[3.3	100		6	3	B9A	TH
	280 575 130 0000	00				2.5	200	100	8	2.5		
10C2	288 475 130 0000	00	276 454 130		28	[3.3	100		6	3	B8A	TP
						1.5	175	100	3	5		

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
10C8	841 238 751 0000	00	641 237 541		10.5	[2.7 1.5	250 150	125	7.3 11.5	4.4 8	B9A	TP
10C14	751 238 184 0000	00	541 237 164		19	[2.2 12.5	100 150	100 150	13.7 5 70	3.7 2.3 10	B9A	TP
10CW5	041 230 807 0000	00	*41 23* 6*5		10						B9A	P
10D1	9X2 310 000 0000	00	892 310 000		13				5		B5	RR
10D2	1X2 310 900 0000	00	192 310 800		19				5		B7G	RR
10DA7	814 238 511 0000	00	614 237 411		10.5	[8 17.5	250 150		9 40	2.6 5.7	B9G	TT
10DA8	804 238 511 0000	00	604 237 411		10.5	[8 17.5	250 150		9 32	2.6 6.5	B9A	TT
10DE7	855 238 411 0000	00	744 236 411		10	[11 17.5	250 150		5.5 35	2 6.5	B9A	TT
10DR7	855 238 411 0000	00	744 236 411		9.7	[3 17.5	250 150		1.4 35	1.6 6.5	B9A	TT
10DX8	481 238 157 0000	00	461 237 145		10	[1.7 2.1	200 200	175	3 18	4 11	B9A	TP
10EB8	148 231 578 0000	00	146 231 457		10.5	[2 2	250 200	125	2 25	2.7 12.5	B9A	TP
10EG7	581 481 230 0000	00	471 461 230		9.7	[11 17.5	350 150		5.5 45	2 7.5	A08	TT
10EM7	581 481 230 0000	00	461 471 230		9.7	[20 3	150 250		50 1.4	7.2 1.6	B9A	TT
10ER5	142 380 100 0000	00	142 360 100		10.8	[1.2 17.5	200 150		10 45	10.5 7.5	B7G	TT
10EW7	855 238 411 0000	00	744 236 411		9.7	[11 11	250 250		5.5 5.5	2.0 2.0	B9A	TT
10F1	281 714 130 0000	00	261 415 130		22	[1.8 2.3	200 200	200	100 6	9 6.5	B8A	P
10F3	280 174 130 0000	00	260 154 130		22	[2.5 1.3	200 200	100	7 12	2.3 4.5	B8A	P
10F9	280 174 130 0000	00	260 154 130		13	[1.3 2	200 250	100	12 6	4.5 1.6	B9A	P
10F18	141 230 871 0000	00	141 230 651		13	[17.5 17.5	150 150		45 45	7.5 7.5	B9A	TT
10FD7	855 238 411 0000	00	644 237 411		9.7	[3 20	250 150		6 50	1.6 7.2	B9A	TT
10FD12	741 238 9X1 0000	00	541 236 891		19	[1.5 20	200 150	200	11 50	4.5 7.2	B9A	DDP
10FG7	151 238 084 0000	00	141 237 064		9.7	[3 20	250 150		1.4 50	1.6 7.2	B9A	TT
10FR7	844 238 511 0000	00	644 237 411		9.7	[3 20	250 150		1.4 50	1.6 7.2	B9A	TT
10GF7	151 238 084 0000	00	141 237 064		9.7	[20 3	150 250		50 1.4	7.2 1.6	B9D	TT
10GF7A	151 238 084 0000	00	151 236 094		9.7	[-3 0 -20 28	250 60 150 250		1.4 95 50 10		B9A	TT
10GN8	148 231 578 0000	00	146 231 457		10.5	[2 3	250 200	150	2 25	2.7 11.5	B9A	TP
10GW8	417 238 158 0000	00	415 237 146		10	[1.7 7	250 250	250	1.2 36	1.6 10	B9A	TP
10FH8	148 231 578 0000	00	146 231 457		10	[2 1	250 250	250	4 25	4 12.5	B9A	TP
10JA8	148 231 578 0000	00			10.5	[2 1.5	150 150	150	1 18	1.5 13	B9A	TP
10JT8	148 231 578 0000	00	148 231 578		10.2	[2 1.6	250 200	100	1.5 17	2.7 20	B9A	TP
10JY8	148 231 578 0000	00	146 231 457		10.5	[125 200	150	15	24	10.4 11	B9A	TP

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
10KR8	148 231 578 0000	00	146 231 457		10.5	[	100		15	10.4	B9A	TP
10KU8	19X 231 478 0000	00	19* 231 478		10.2	1.6	200	100	19.5	20.0	B9A	DDP
10L1	412 314 800 0000	00	412 314 600		19	1.5	250		10	8.5	B7G	T
10L14	841 238 510 0000	00	641 237 410		26	2.1	200		10	5.8	B9A	TT
10LB8	148 231 578 0000	00	148 231 578		10.2	[	0.9	125	13	5	B9A	TP
10LD3	284 0X9 130 0000	00	264 098 130		14	1.1	150	100	17	20	B8A	DDT
10LD11	284 0X9 130 0000	00	264 098 130		15	5.9	250		5	2.3	B8A	DDT
10LD12	YX1 239 148 0000	00	†91 238 146		28	2.3	200		1	1.4	B9A	DDDT
10LD13	841 239 0X0 0000	00	641 238 09*		13	4.4	150		0.5	1.4	B9A	DDT
10LE8	[811 230 174 0000 011 238 174 0000	00 00	011 236 154		10	2.5	100	100	8	5.8	B9A	PP
10M1	028 740 310 0000	00	026 540 310		18	19	200	175	0.2	†1.0	A08	TI
10M2	208 478 130 0000	00	206 456 130		12.6	[	3	200	0.1	†0.2	A08	TI
10P13	280 074 130 0000	00	260 054 130		40	6	150	150	30	7.5	B8A	P
10P14	028 740 310 0000	00	026 540 310		40	9.4	200	175	40	7.2	A08	P
10P18	041 230 807 0000	00	*41 23* 6*5		45	12.5	200	175	70	10	B9A	P
10PL12	415 238 718 0000	00	414 237 516		50	[	16	200	3.5	2.5	B9A	TP
11	382 400 000 0000	00	362 400 000		1.1	4.5	90		2.5	0.4	UX4	T
11A1	010 234 008 0000	00	*1* 234 **6		6.3		150		100	12	B9A	T
11A2	X09 231 800 0000	40	908 231 600	G1	4	2	200		3	2.8	B7	DDT
11A6	284 158 300 0000	00	264 147 300		10	1	100			3.1	A08	TT
11AR11	287 151 187 4130	00			11.2	0.7	125	125	11	10.5	A12	PP
11C5	028 040 310 0000	00	026 040 310		10	1	100			2	A08	T
11CY7	805 238 411 0000	00	7*4 236 411		11	[	3	250	1.2	1.3	B9A	TT
11D3	X09 231 800 0000	40	908 231 600	G1	13	2	250		0.6	5.4	B7	DDT
11D5	X09 231 800 0000	40	908 231 600	G1	13	3	250		3.8	1.5	B7	DDT
11E1	218 740 030 0000	00	216 540 030		6		250	250	50	7.3	M08	P
11E2	020 740 310 0000	80	020 540 310	A1	6	16.5	200	200	25	9	A08	P
11E8	200 848 310 0000	50	200 647 310	G1	11		150		20		A08	TT
11E13	415 228 783 0000	00	414 226 573		6.3	40	300	200	75		B9A	PP
11E14	020 740 310 0000	80			6.3	16	250	250	48	7	A08	P
11F6	028 740 310 0000	00	026 540 310		10	1	100	150		2.5	A08	P
11HM7	141 230 871 0000	00	141 230 651		11.0	0	250	135	30	30.0	B9A	P
11J7	028 700 310 0000	40	026 500 310	G1	10	1	250	100		1.2	A08	P
11JE8	148 231 578 0000	00	146 231 457		10	[	2	200	4.5	4.2	B9A	TP
11K7	028 700 310 0000	40	026 500 310	G1	10	1	250	100		1.4	A08	P
11KV8	148 231 578 0000	00			10.9	[	1.8	200	4	4	B9A	TP
11L6	028 740 310 0000	00	026 540 310		10	1	100	150		6	A08	P
11LQ8	148 231 578 0000	00			10.9	[	1	125	15	10.4	B9A	TP
11N7	028 458 310 0000	00	026 447 310		10	1.6	125	125	16.5	21	A08	TT
11QL8	148 231 578 0000	00	146 231 457		10.9	[	1	125	15	10.4	B9A	TP
11X5	029 0X0 310 0000	00	028 090 310		11	1.4	200	125	20	23	A08	RR
12	384 200 000 0000	00	364 200 000		1.1	4.5	90		2.5	0.42	UX4	T
12A	284 300 000 0000	00	264 300 000		5	4.5	90		5	1.5	UX4	T

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
12A4	142 330 408 0000	00	142 330 406		6	9	250		23	0.8	B9A	T
12A5	287 413 200 0000	00	265 413 200		6	15	100	100	17	1.7	UX7	P
12A6	028 740 310 0000	00	026 540 310		12.5	12.5	250	250	30	2	A08	P
12A7	287 191 300 0000	40	265 181 300	G1	12.5	[12.5	150	150	30	1	Sm7	RP
12A8	028 747 310 0000	40	026 545 310	G1	12.5	3	250	100	3.5	1.15	A08	H
12AB5	704 234 178 0000	00	504 234 156		12	12.5	250	250	45	4.1	B9A	P
12AB5	421 080 370 0000	00	421 060 350		12	22.5	250	150	57	5.9	A08	P
12AC5	280 074 130 0000	00	26* 54 130		12	3	200	125	2.3	2.3	B8A	P
12AC6	412 387 100 0000	00	412 365 100		12.6	10	12.6	12.6	0.5	0.7	B7G	P
12AD5	741 238 000 0000	00	541 236 **0		12.6	2.5	100	100	6	2.2	B9A	P
12AD6	412 387 100 0000	00	412 365 100		12.6		12	12	5	3.8	B7G	P
12AD7	841 228 513 0000	00	641 227 413		6	2	250		1.25	1.6	B9A	TT
12AE6	412 39X 800 0000	00	412 389 600		12.6		12.6		0.7	1	B7G	DDT
12AE7	841 228 513 0000	00	641 227 413		6.3		12.6		0.9	6.5	B9A	TT
12AF3	000 230 990 0000	00	*** 23* 88*		12.6				120		B9A	R
12AF6	412 387 100 0000	00	412 365 100		12.6		12	12	0.7	1.1	B7G	P
12AG6	412 387 100 0000	00	412 365 100		12.6	0.8	12	12	0.5		B7G	H
12AH6	412 389 100 0000	00	412 365 100		12.6	2	300	150	10	9	B7G	P
12AH7	418 158 230 0000	00	417 146 230		12.5	3.6	100		3.7	1.55	A08	TT
12AH8	[051 220 483 0000	00	541 227 463		6	[3	100		14.7	3.5	B9A	TH
12AJ6	751 228 503 0000	00	412 389 600		12.6		250	100	2.6		B7G	DDT
12AJ7	412 39X 800 0000	00	412 389 600		12	[2.5	100		0.7	1.2	B9A	TH
12AK7	741 238 484 0000	00	541 237 464		6	2	250	90	4	2	B9A	TT
	851 228 413 0000	00	741 226 413				250		3	0.6	B9A	TT
12AL5	1X2 310 900 0000	00	192 310 800		12.5				5		B7G	RR
12AL8	875 238 141 0000	00	654 237 141		12.6	[0.9	12		0.2	0.5	B9A	TP
12AL11	215 118 741 7830	00			12.6	0.8	12	12	25	8		
12AQ5	412 387 400 0000	00	412 365 400		12.5	8	250	250	36	6.5	A12	PP
12AS5	412 387 400 0000	00	412 365 400		12.5	12.5	250	250	45	4.1	B7G	P
	142 347 800 0000	00	142 345 600		12	8.5	150	100	35	5.6	B7G	P
12AU4	001 090 230 0000	00	001 080 230		12				120		A08	R
12AU8	148 231 578 0000	00	146 231 457		12.6	[	150		8.5	4.9	B9A	TP
12AV5	421 080 370 0000	00	421 060 350		12.6	22.5	250	150	15	7	A08	P
12AV6	412 39X 800 0000	00	412 389 600		12.5	2	250		1.2	1.6	B7G	DDT
12AV7	851 228 413 0000	00	741 226 413		6	1	150		18	8.5	B9A	TT
12AV7A	X51 239 413 0000	00	961 238 413		12.6	0	100		3.1	6.25	B9A	TT
12AW6	412 387 100 0000	00	412 365 100		12.5	1.5	250	150	7	5	B7G	P
12AX3	200 900 100 8030	00			12.6						A12	D
12AX4	001 090 230 0000	00	001 080 230		12.5				120		A08	R
12AX7A	841 238 410 0000	00	741 237 410		12.6	-1	100		0.5	1.25	B9A	TT
12AY3	090 230 901 0000	00	080 230 801		12.6				180		B9D	R
12AY3A	080 230 801 0000	00	060 230 601		12.6		32		350		B9A	R
12AY7	841 228 513 0000	00	641 227 413		6	4	250		3	1.7	B9A	TT
12AZ7	851 228 413 0000	00	741 226 413		6	2	200		10	5.5	B9A	TT
12AZ7A	X71 239 410 0000	00	941 238 410		12.6	-5	100		3.7	4.0	B9A	TT
12B3	090 230 909 0000	10	080 230 808	C1	12.6						B9A	R
12B4	142 330 408 0000	00	142 330 406		6	17.5	150		34	6.4	B9A	T
12B4A	140 230 408 0000	00	140 230 406		12.6	-17.5	150		34	6.3	B9A	T

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V $\uparrow$ Ra M Ω	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
12B6	028 090 310 0000	40	026 080 310	G1	12.5	2	250		0.9	1.1	A08	DT
12B7	287 104 130 0000	00	265 104 130		12.5	3	250	100	9.2	2	B8B	P
12B8	128 781 340 0000	50	127 561 340	G1	12.5	[1.1 3	100 100		0.6 8	1.5 2.1	A08	TP
12BA6	412 387 100 0000	00	412 365 100		12.5	1	250	100	11	4.4	B7G	P
12BA7	841 231 108 0000	00	641 231 106		12.5	2	100		18	7	B9A	H
12BC32	412 39X 800 0000	00	412 389 600		12	2	250		1	1.6	B7G	DDT
12BD6	412 387 100 0000	00	412 365 100		12.5	3	250	100	9	2	B7G	P
12BE3	200 900 100 9030	00			12.6				120		A12	R
12BE6	412 388 100 0000	00	412 366 100		12.5	6	150		7.5	3.5	B7G	H
12BF6	412 3X9 800 0000	00	412 398 600		12.5	9	250		9.5	1.9	B7G	DDT
12BF11	215 017 841 7830	00	214 015 641	A	12.6	[6 1.8	150 150	100 100	3.8 1.3	8.6 1	A12	PP
12BH7	851 228 413 0000	00	741 226 413		6	10.5	250		11.5	3.1	B9A	TT
12BH7A	X51 234 410 0000	00	841 238 410		12.6	-10.5	250		11.5	3.1	B9A	TT
12BK5	804 231 470 0000	00	604 231 450		12	5	250	250	35	8.5	B9A	P
12BL6	412 387 100 0000	00	412 365 100		12.6	0.6	12	12	1.4	1.3	B7G	P
12BN6	142 374 800 0000	00	142 354 600		12.5	1	60	60	0.5	1	B7G	P
12BQ6	020 740 310 0000	80	020 540 310	A1	12	22.5	250	150	57	5.9	A08	P
12BR7	841 229 X13 0000	00	641 228 913		6	2	250		10	5.5	B9A	DDT
12BR7A	641 228 913		641 228 913		6.3		100		3.7	4	B9A	DDT
12BS3	090 230 901 0000	00	*8* 23* 8*1		12.6				180		B9D	R
12BT6	412 39X 800 0000	00	412 389 600		12.5	3	250		1	1.2	B7G	DDT
12BU6	412 39X 800 0000	00	412 389 600		12.5	9	250		9.5	1.9	B7G	DDT
12BU8	[178 231 401 0000 170 231 581 0000]	[00 00]			12.6	1	100	60	1	1.5	B7G	PP
12BV7	141 223 871 0000	00	141 223 651		6	2.2	250	150	27	13	B9A	P
12BW4	900 230 X01 0000	00	800 230 901		12				30		B9A	RR
12BX6	141 230 871 0000	00	141 230 651		12.6	2	150	150	10	7.4	B9A	P
12BY7	141 223 871 0000	00	141 223 651		6	2.1	250	150	25	12	B9A	P
12BY7A	141 230 871 0000	00	141 230 651		12.6	-11.6	250	180	26	11.0	B9A	P
12BZ6	412 387 100 0000	00	412 365 100		12.6	1	100	125	14	8	B7G	P
12BZ7	851 228 413 0000	00	741 226 413		6	2	250		2.5	3.2	B9A	TT
12C2C	028 040 310 0000	00	026 040 310		12.6	8	250		9	2.6	A08	T
12C5	142 347 800 0000	00	142 345 600		12	7.5	150	100	49	7.5	B7G	P
12C8	028 X97 310 0000	40	026 985 310	G1	12.5	3	250	125	10	1.3	A08	DDP
12CA5	142 347 800 0000	00	142 345 600		12	4.5	125	125	36	9.2	B7G	P
12CD6	021 040 370 0000	80	021 040 350		12.6	55	150	150	75	7.7	A08	P
12CK3	080 230 801 000	00	060 230 601		12.6		16		250		B9A	R
12CL3	080 230 801 000	00	060 230 601		12.6		16		350		B9A	R
12CM6	704 234 108 0000	00	504 234 106		12	12.5	250	250	45	4.1	B9A	P
12CN5	142 347 800 0000	00	142 345 600		12.6		12	12	4.5	3.8	B7G	P
12CR5	174 231 741 0000	80	154 231 541	A1	12.6	22.5	250	150	65	6	B9A	P
12CR6	192 387 400 0000	00	182 365 400		12	2	250	100	6.9	2.2	B7G	DP
12CS5	714 234 108 0000	00	514 234 1*6		12.6	10	200	125	47	8	B9A	P
12CS6	112 387 400 0000	00	112 365 400		12	1	100	30	0.8	1.5	B7G	P
12CT8	841 238 751 0000	00	641 237 541		12	[1.4 1.5	150 200		9 15	4.9 7	B9A	TP
12CU5	142 347 800 0000	00	142 345 600		12	8	150	100	50	7.5	B7G	P
12CU6	020 740 310 0000	80	020 540 310	A1	12	22	250	150	57	5.8	A08	P
12CX6	412 387 100 0000	00	412 365 100		12.6		12	12	3	3.1	B7G	P
12D4	001 090 230 0000	00	**1 *8* 230		12						A08	D

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
12D26	412 387 100 0000	00	412 365 100		12.6		12	12	4.5	3.8	B7G	P
12DA6	041 230 871 0000	00	041 230 651		12	1	200	100	12	4.4	B9A	P
12DB5	814 234 108 0000	00	614 234 1*6		12.6	9.6	200	125	46	8	B9A	P
12DE8	419 238 171 0000	00	418 236 151		12.6	0.8	12	12	1.3	1.5	B9A	DP
12DF5	901 22X 013 0000	00	801 229 013		6.3				30		B9A	RR
12DF7	841 228 513 0000	00	641 227 413		6.3	2	250		1.2	1.6	B9A	TT
12DJ8	841 238 510 0000	00	641 237 410		12.6	1.3	100		15	12.5	B9A	TT
12DK5	141 230 871 0000	00	141 230 651		12.6		12	12	2	3.3	B9A	P
12DK6	412 387 100 0000	00	412 387 100		12.6	0.9	125	125	12	9.8	B7G	P
12DK7	141 223 871 0000	00	141 223 651		6.3		12	12	6	5	B9A	P
12DL4	414 234 484 0000	00	414 234 464		12		150		12.5	14	B9A	T
12LD6	917 238 41X 0000	00	815 236 419		12.6	2.5	12	12	3.8	6.5	B9A	DDP
12DL8	914 238 71X 0000	00	814 236 519		12.6	0.5	12	12	40	15	B9A	DDP
12DM4	001 090 320 0000	00	0*1 080 230		12.6				180		B9A	R
12DM5	142 347 800 0000	00	142 345 600		12.6	7.5	150	100	49	7.5	B7G	P
12DM6	704 234 108 0000	00			12	12.5	250	250	45	4.1	B9A	P
12DM7	841 228 513 0000	00	641 227 413		6.3	2	250		1.2	1.6	B9A	TT
12DQ4	001 090 230 0000	00			12.6			120			A08	R
12DQ6	020 740 310 0000	80	020 540 310	A1	12	22.5	250	150	75	6.6	A08	P
12DQ7	141 223 871 0000	00	141 223 651		6	2.1	100	125	26	10.5	B9A	P
12DS7	907 238 41X 0000	00	805 236 419		12.6	2	12	12	40		B9A	DDP
12DT1	412 39X 800 0000	00	412 389 600		12.6	3	250		1	1.2	B7G	DDT
12DT2	412 39X 800 0000	00	412 389 600		12.6	2	250		1.1	1.6	B7G	DDT
12DT5	704 234 108 0000	00	504 234 1*6		12.6	16.5	250	250	38	6.2	B9A	P
12DT6	412 387 100 0000	00	412 365 100		12.6	2.2	150	100	1.1	1.8	B7G	P
12DT7	841 228 513 0000	00	641 227 413		6.3	2	250		1.2	1.6	B9A	TT
12DT8	841 238 510 0000	00	741 236 410		12.6	2.5	250		10	5.5	B9A	TT
12DU7	417 238 90X 0000	00	415 236 8*9		12.6		12	12	12	6.2	B9A	DDP
12DV7	1X9 228 413 0000	00	198 226 413		12.6		12		0.4	0.7	B9A	DDT
12DV8	X14 238 719 0000	00	914 236 518		12.6	1.0	12.6	12.6	6.8		B9A	DDP
12DW5	704 234 108 0000	00	504 234 106		12.6	22.5	200	150	55	5.5	B9A	P
12DW7	851 238 410 0000	00	641 337 412		6.3	[2 8.5	250 250		1.2 10.5	1.6 2.2	B9A	TT
12DW8	851 238 419 0000	00	641 237 418		12.6	[0 0	12.6 12.6		1.9 7.5	2.7 6.5	B9A	DDT
12DY8	517 238 184 0000	00	415 237 164		12.6	[12 12	12 12	12	1.2 14	2 6	B9A	TP
12DZ6	412 387 100 0000	00	412 365 100		12.6		12	12	4.5	3.8	B7G	P
12DZ8	415 238 718 0000	00	414 236 517		12	[150 150	125 125		0.8 45	1.4 7.5	B9A	TP
12E1	020 740 310 0000	80	020 540 310	A1	6	18	150	150	75	9.8	A08	T
12E1C	030 740 310 0000	80	*30 540 210	A1	6.3	10	150	150	200	14	A08	P
12E4	751 238 584 0000	00	541 237 464		12.6	[2.6	200 200	100	5.4 3.7		B9A	TH
12E5	028 040 310 0000	00	026 040 310		12.5	13.5	250		5	1.4	A08	T
12E8	[020 048 310 0000 028 750 310 0000	50 50	] 027 546 310	G1	12	2	100 100	100	3.3 3	0.5	A08	TH
12E14	030 740 210 0000	80	*30 540 210	A1	6.3	10	150	150	200	14	A08	P
12EA6	412 387 100 0000	00	412 365 100		12.6		12	12	3.2	3.8	B7G	P
12EC8	481 238 715 0000	00	461 237 514		12.6	[12 12	12 12	12	2.4 0.6	4.7 2	B9A	TP
12ED5	142 347 800 0000	00	142 345 600		12.6	4.0	100	100	32	8.1	B7G	P
12EF6	028 740 310 0000	00	026 540 310		12.6	18	250	250	50	5.0	A08	P

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
12EG6	412 387 400 0000	00	412 365 400		12.6	0.8	12.6	12.6	0.4	1.0	B7G	H
12EH5	142 234 800 0000	00	142 345 600		12.6	3.2	100	125	42	14.6	B7G	P
12EK6	412 387 100 0000	00	412 365 100		12.6		12	12	4.4	4.2	B7G	P
12EL6	482 3X9 100 1000	00	462 398 100		12.6		12		0.7	1.2	B7G	DDT
12EM6	417 238 009 0000	00	415 236 **8		12.6		12	12	6	5	B9A	DP
12EN6	028 740 310 0000	00	026 540 310		12.6	9.5	200	100	50	8.0	A08	P
12EQ7	141 237 890 0000	00	141 235 680		12.6		100	100	9	3.9	B9A	DP
12ES5	142 380 100 0000	00	142 360 100		12.6	1	200		10	9.4	B7G	T
12EX6	412 387 100 0000	00	412 365 100		12.6	1.0	12	12	2.4	4	B7G	P
12EZ6	412 387 100 0000	00	412 365 100		12.6	0.7	12	12	1.9	2.7	B7G	P
12F	290 300 000 0000	00	280 300 000		5				60		UX4	R
12F5	020 800 310 0000	40	020 600 310	G1	12.5	2	250		0.9	1.5	A08	T
12F8	978 23X 141 0000	00	856 239 141		12.6	0	12	12	1	1	B9A	DDP
12F31	412 387 100 0000	00	412 365 100		12	1	100	100	10.8	4.3	B7G	P
12FK6	412 39X 800 0000	00	412 389 600		12.6		12		1.3	1.2	B7G	DDT
12FM6	412 3X9 800 0000	00	412 398 600		12.6		12		1	1.3	B7G	DDT
12FQ8	858 238 481 0000	00	747 236 461		12	1	200		3	1.5	B9A	TT
12FR8	415 327 898 0000	00	414 325 786		12.6	[0.6 0.8]	12	12	1 1.9	1.2 2.7]	B9A	DTP
12FT6	412 39X 800 0000	00	412 389 600		12.6		12		2	1.9	B7G	DDT
12FX5	142 347 800 0000	00	142 345 600		12.6	0	150	130	36	13.5	B7G	P
12FX8	758 324 181 0000	00	547 324 161		12.6	[	12.6 12.6		1.3 0.3	1.4 0.3]	B9A	TH
12G4	802 384 100 0000	00	602 364 100		12	8	250		10	3	B7G	T
12G7	028 X90 310 0000	40	026 980 310	G1	12.5	3	250			1.2	A08	DDT
12G8	815 228 143 0000	00	714 226 143		6.3	12.6			7.2	2.6	B9A	TT
12GA6	412 388 100 0000	00	412 366 100		12.6		12.6		3.6	2.4	B7G	O
12GB3	020 740 310 0000	80	*2* 540*310	A1	12.6	7.7	100	100	100	14	A08	P
12GB6	020 740 080 0000	80	020 540 070	A1	12.6	22.5	250	150	57	5.9	A08	P
12GB7	020 740 310 0000	80	020 540 310	A	12.6	7.7	100	100	100	14	A08	P
12GC6	217 434 000 0000	80	215 434 000	A	12.6	0	250	150	75	6.6	UX6	P
12GE5	274 100 800 1430	00			12.6	22.5	250	150	65	7.3	A12	P
12GE8	274 100 800 1430	00			12.6	22.5	250	150	65	7.3	A12	P
12GJ5	741 234 700 0000	80	541 234 5**	A1	12.6	22.5	250	150	70	7.1	B9D	P
12GK17	001 090 230 0000	00	001 080 230		12.6				120		A08	R
12GN6	412 387 900 0000	00	412 365 800		12.6	68	250	100	11	4.4	B7G	DP
12GN7	111 230 871 0000	00	141 230 651		12.6	2	250	150	28	36	B9A	P
12GT5	741 324 708 0000	00	541 324 5*6		12.6	22.5	250	150	70	7.1	B9D	P
12GV5	207 140 704 1730	80			12.6	22.5	250	150	65	7.3	A12	P
12GW6	020 740 310 0000	80	020 540 310	A1	12.6	22.5	250	150	70	7.1	A08	P
12H1C	418 158 230 0000	00	416 147 230		12.6	6.5	200		7.6	1.9	A08	TT
12H4	823 384 100 0000	00	623 364 100		6	8	250		9	2.6	B7G	T
12H6	02X 190 310 0000	00	029 180 310		12.5						A08	TT
12H10C	084 581 230 0000	00	064 471 230		12.6	2	250		2	1.3	A08	TT
12H31	412 387 400 0000	00	412 365 400		12.6		100	100	2.8	0.4	B7G	H
12HE7	290 180 014 0730	00			12.6	[22	125	125	60	8.8]	A12	RP
12HG7	141 230 871 0000	00	141 230 651		12.6	0	400	0	31	32.0	9BF	P
12HL7	141 230 856 0000	00	141 230 645		12.6	0	400	0	25	21.0	B9A	P
12J5	028 040 310 0000	00	026 040 310		12	8	250		9	2.6	A08	T
12J7	028 710 310 0000	40	026 510 310	G1	12.5	3	250	100	2	1.225	A08	P
12J8	417 238 19X 0000	00	415 236 189		12.6		12	12	12	5.5	B9A	DDP
12JB6	741 234 710 0000	80	541 234 51*	A1	12.6	22.5	250	150	70	7.1	B9D	P

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
12JB6A	741 234 710 0000	80	541 234 510	A	12.6	[-22.5 150 0 60 150 22.5 250 150]			1.0	7.1	B9A	P
12JN6	217 100 800 1430	00			12.6				65	7.3	A12	P
12JN8	481 238 715 0000	00	481 238 715		12.6	[1 125 1 125 125 -225 150 150]			12 13.5	7.5 8.5	B9A	TP
12JQ6	741 231 708 0000	00	541 231 506		12.6	[0 60 150 390 22.5 250 150 70]				7.1	B9A	P
12JT6	741 231 708 0000	00	541 231 5*6		12.6				70	7.1	B9D	P
12K5	142 377 800 0000	00	142 355 600		12.6	2 12 12			8	7	B7G	P
12K7	028 710 310 0000	40	026 510 310	G1	12.5	3 250 125			10.5	1.65	A08	P
12L6	028 740 310 0000	00	026 540 310		12	8.25 200 125			46	8	A08	P
12L8	514 872 380 0000	00	414 752 360		12.5	9 200 175			13	2.1	A08	PP
12M7	028 710 310 0000	40	026 510 310	G1	12	2.5 100 100			6	2.2	A08	P
12M71	271 084 130 0000	00	251 064 130		12.6	15 200 200			0.3	†0.5	B8B	TI
12MD8	XY9 234 156 0000	00	996 234 144		12.6	0 330			11.5	3.1		TTT
12NK7	028 710 310 0000	40	026 510 310	G1	12.5	2 250 100			5	2.3	A08	P
12P1	412 387 100 0000	00	412 365 100		12.6	68 250 100			11	4.4	B7G	P
12P2	412 387 100 0000	00	412 365 100		12.6	68 250 150			10.6	5.2	B7G	P
12R5	142 347 800 0000	00	142 345 600		12.6	8.5 100 100			40	7	B7G	P
12RK19	000 230 009 0000	10	*** 23* **8	C	12.6				180		B9A	R
12RLL3	841 228 513 0000	00	641 227 413		12.6		150		10	5.5	B9A	TT
12S8	Y19 X18 230 0000	40	118 916 230	G1	12.5	2 250			0.9	1.1	A08	DDDT
12SA7	128 841 340 0000	00	126 641 340		12.5	3.6 100			12	4.3	A08	H
12SF5	014 080 320 0000	00	014 060 320		12.5	2 250			0.9	1.5	A08	T
12SF7	041 798 230 0000	00	041 586 230		12.5	1 250 100			19.9	2	A08	DP
12SG7	021 417 380 0000	00	021 415 360		12.5	1 250 125			11.8	4.7	A08	P
12SH7	021 417 380 0000	00	021 415 360		12.5	1 250 150			10.8	4.9	A08	P
12SJ7	021 417 380 0000	00	021 415 360		12.5	3 250 100			3	1.65	A08	P
12SK7	021 417 380 0000	00	021 415 360		12.5	3 250 100			9.2	2	A08	P
12SL7	481 581 230 0000	00	461 471 230		12.5	2 250			2.5	1.6	A08	TT
12SN7	481 581 230 0000	00	461 471 230		12.5	8 250			9	2.6	A08	TT
12SQ7	041 9X8 230 0000	00	941 896 230		12.5	2 250			0.9	1.1	A08	DDT
12SR7	041 X98 230 0000	00	041 986 230		12.5	9 250			9.5	1.9	A08	DDT
12SS7	021 417 380 0000	00	021 415 360		12.5	3 250 100			9	1.85	A08	P
12SW7	041 X98 230 0000	00	041 986 230		12.5	9 250			9.5	1.9	A08	DDT
12SX7	581 481 230 0000	00	471 461 230		12.5	8 250			9	2.6	A08	TT
12SY7	128 841 340 0000	00	126 641 340		12.5	1 100			22	4.5	A08	H
12TE8	528 748 310 0000	00	427 546 310		12	[100 250 100]			3.4 3.7		A08	TH
12TE9	[508 230 450 0000 071 238 550 0000]	[00 00]	651 237 440		12	[100 250 100]			3.4 3	0.75	B9A	TH
12T10	215 017 841 7830	00			12.6	[8 250 250 1.9 150 100]			37	6.5 1	A12	PP
12U5	284 713 000 0000	00	264 513 000		12.6	22 250 250			0.2	†1.0	UX6	TI
12U7	851 228 413 0000	00	741 226 413		6	12			1.2	1	B9A	TT
12V6	028 740 310 0000	00	026 540 310		12.5	12.5 250 250			45	4.1	A08	P
12W6	028 740 310 0000	00	026 540 310		12	9.5 150 150			58	8.0	A08	P
12WC5	287 414 300 0000	00	265 414 300		12	1.5 250 100					UX7	P
12X3	210 300 000 0000	90	210 300 000	D1	12.5				60		UX4	R
12X4	902 30X 100 0000	00	802 309 100		12.5				30		B7G	RR

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
12Y4	9X2 310 000 0000	00	892 310 000		12				31		UX4	RR
12Z3	291 300 000 0000	00	281 300 000		12.6				30		UX4	R
12Z4	291 300 000 0000	00	281 300 000		12.5				60		UX4	R
12Z5	291 31X 200 0000	00	281 319 200		6				30		UX7	RR
12ZDH3A	284 913 000 0000	00	264 813 000		12	2	250		1.5	1.5	UX6	DT
12ZP1A	287 413 000 0000	00	265 413 000		12	9	200	200	30	2.3	UX6	P
13	2X9 300 000 0000	00	298 300 000		5				60		UX4	RR
13BCIU	208 091 X30 0000	40	206 081 930	G1	2.5	1.8	200		3	2	B8B	DDT
12BF2U	208 791 X30 0000	40	206 581 930	G1	12.5	2.1	200	200	5	2	B8B	DDP
13CM5	020 740 310 0000	80	020 540 310	A	12.8		100	100	100	14	A08	P
13D5	851 238 410 0000	00	751 226 413		6.3	8.5	250		1.6		B9A	TT
13D7	148 231 085 000	00	146 231 074		6.3		250		2.2	3.3	B9A	TT
13D8	851 228 413 0000	00	741 226 413		6.3	8.5	250		10.5	2.2	B9A	TT
13D9	851 228 413 0000	00	741 226 413		6.3	2	200			5.7	B9A	TT
13DE7	855 238 410 0000	00	644 237 410		13	[11	250		5.5	2	B9A	TT
13DHA	X09 231 800 0000	40	908 231 600	G1	13	17.5	150		32	6.5		
13DR7	855 238 410 0000	00	644 237 410		13	1.5	250		1	1.5	B7	DDT
13E1	204 178 300 0000	00	2*4 156 300		13	[3	250		1.4	1.6	B9A	TT
13E12	204 178 300 0000	00	2*4 156 300		26	17.5	150		35	6.5		
13EM7	581 481 230 0000	00	471 461 230		26	14	150	150	500	35	B7A	T
13F7	023 110 780 0000	40	023 110 560	G1	26	30	150	150	500	25	B7A	P
13F9U	208 701 130 0000	40	206 501 130	G1	13	20	150		50	7.2	B9A	TT
13FD7	855 238 411 0000	00	644 237 411		13	3	250		1.4	1.6	B9A	TT
13FG7	141 238 085 0000	00	141 236 074		6.3	[17.5	150		6	1.6	B9A	TT
13FM7	205 080 151 4830	00			13	20	150		45	7.5		
13FR7	855 238 411 0000	00	644 237 411		13	[3	250		50	7.2	B9A	TT
13GB5	441 237 710 0000	80	441 235 510	A	13	25	175	2	2.2			
13GF7	151 238 084 0000	00	541 237 064		13	3	250	40	6	1.4	A12	TT
					13	[20	150		50	7.2	B9A	TT
						3	250		1.4	1.6		
13H1	023 110 780 0000	40	023 110 560	G1	3	2	200	100	3	2	8SC	P
13H2	023 110 780 0000	40	023 110 560	G1	13	3	200	100	8.2	1.8	8SC	P
13J10	271 817 418 0530	00			13.2	[8	100	100	35	6.5	A12	TP
13M4V	208 747 132 0000	00	206 540 130		12.6	4.2	200	200		†1.0		
13SPA	081 231 700 0000	40	061 231 500	G1	13	12.5	200	200		†1.0	A08	TI
13V1	013 19X 780 0000	40	013 189 560	G1	13	3	200	100	2.3	1.7	B7	P
13VPA	081 231 700 0000	40	061 231 500	G1	13	8.5	200	200	45	4.4	8SC	DDP
14	287 130 000 0000	40	265 130 000	G1	13	3	200	100	7	1.8	B7	P
14A4	280 004 130 0000	00	260 0*4 130		14	3	250	90	4	1	UX5	P
14A5	287 004 130 0000	00	265 004 130		12.5	8	250		9	2.6	B8B	T
14A7	287 104 130 0000	00	265 104 130		12.5	12.5	250	250	30	3	B8B	P
14AF4	218 458 130 0000	00	216 447 130		12.5	3	250	100	9.2	2	B8B	P
14B6	284 09X 130 0000	00	264 *89 130		12	10	250		9	2.1	B8B	TT
					12.5	2	250		0.9	1.1	B8B	DDT

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
14B8	287 474 130 0000	00	265 454 130		12.5	2	250	100		1.1	B8B	H
14C5	287 004 130 0000	00	265 004 130		12.5	12.5	250	250	47	4.1	B8B	P
14C7	287 114 130 0000	00	265 114 130		12.5	3	250	100	2.2	1.5	B8B	P
14E6	284 0X9 130 0000	00	264 *98 130		12.5	8	250		9.3	1.9	B8B	DDT
14E7	28X 974 130 0000	00	269 854 130		12.5	3	250	100	7.5	1.3	B8B	DDP
14F6	028 740 310 0000	00	026 540 310		14	16.5	250	250	35	2.5	A08	P
14F7	218 548 130 0000	00	217 446 130		12.5	2	250		2.3	1.6	B8B	TT
14F8	528 118 340 0000	00	427 116 340		12.5	3	250		6	3.3	B8B	TT
14GT8	191 23X 148 0000	00	181 239 146		14	3	250		0.7	1.0		DDT
14GW8	417 238 158 0000	00	415 237 146		14.7	[1.7 7	250 250		1.2 36	1.6 10	B9A	TP
14H7	287 114 130 0000	00	265 114 130		12.5	2	250	150	10	4.2	B8B	P
14J7	[208 405 130 0000 280 575 130 0000	[00 00	276 454 130		12.5	[3 3	150 250	100	6.6 1.4	1.4	B8B	TH
14JG8	191 23X 148 0000	00	181 239 146		14	2	250		2	2.2	B9A	DDT
14K7	[208 405 130 0000 280 575 130 0000	[00 00	276 454 130		14	[2 2	100 200	90	6.4 2.7	2.2 1.5	B8A	TH
14L7	284 0X9 130 0000	00	264 098 130		14	1.6	200		15	1.65	B8A	DDT
14N7	218 548 130 0000	00	217 446 130		12.5	8	250		9	2.6	B8B	TT
14Q7	288 414 130 0000	00	266 414 130		12.5	2	100		15	6	B8B	H
14R7	28X 974 130 0000	00	269 854 130		12.5	1	250	100	6.2	3.4	B8B	DDP
14S7	[208 405 130 0000 280 575 130 0000	[00 00	276 454 130		12.5	[1 2	100 250	100	4.8 4	1.4 2	B8B	TH
14V7	287 104 130 0000	00	265 104 130		12.5	2	300	150	9.6	5.8	B8B	P
14W7	287 114 130 0000	00	265 114 130		12.5	2.2	300	150	10	5.8	B8B	P
14X7	284 19X 130 0000	00	264 189 130		12.5	1	250		1.9	1.5	B8B	DDT
14Y4	209 00X 130 0000	00	208 009 130		12.5				30		B8B	RR
14Z3	291 300 000 0000	00	281 300 000		12.5				60		UX4	R
15	284 300 000 0000	00	264 300 000		2.5	33	250		22	2.35	UX4	T
15	287 130 000 0000	40	265 130 000	G1	2	1.5	150	75	1.85	0.75	UX5	P
15A2	847 231 800 0000	00	645 231 700	G1	4	[20 3	200 250		4 3.5		B7	H
15A6	471 231 800 0000	00	451 231 600		15	2.9	200	175	36	10	B9A	P
15A8	124 571 380 0000	80	124 451 360	A2	15	[8 7.5	250 100	100	9 45	2.6 7.3	A08	TP
15AF11	285 814 181 7630	00			6.3	[2 2 3	200 200 200		7 9.2 24	5.5 4.4 11	A12	TTP
15BD7A	841 239 0X0 0000	00	641 238 090		15	1.5	200		1.5	1.6	B9A	DDT
15BD11	285 814 181 7630	00			6.3	[2 2 2.1	200 200 150	150	7.0 9.2 17	5.5 4.4 10.4	A12	TTP
15CW5	071 230 807 0000	00	*51 23* 6*5		15	12.5	200	175	70	10	B9A	P
15D1	847 231 800 0000	00	645 231 700	G1	13	[20 3	200 250	100	4 3.5		B7	H
15DQ8	481 238 157 0000	00	461 237 145		15	[1.7 2.9	200 200	150	3.0 18	4.0 11	B9A	TP
15E	280 701 300 0000	40	260 501 300	G1	2		150	75	1.8	0.7	B7G	P
15EA7	481 581 230 0000	00	461 471 230		14.8	25	200		48	6.5	A08	TT
15EW6	412 387 100 0000	00	412 365 100		15		150	120	11	14	B7G	P
15F80	741 231 800 0000	00	541 231 600		15		200	200	36	10	B9A	P
15FM7	205 080 151 4830	00			14.8	[3 25	250 175		2 40	2.2 6	A12	TT

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
15FY7	205 080 101 4830	00			14.7	[3 17.5	250 150		1.4 35	1.6 6.5	A12	TT
15HB6	141 237 871 0000	00			14.7	4.6	250	250	40	20	B9A	P
15KY8	151 238 784 0000	00	141 237 564		15	[3 10	250 150	100	1.4 39	1.6 8.4	B9D	TP
15KY8A	151 238 784 0000	00	141237 564		15	[3 10	250 150	100	1.4 39	1.6 8.4	B9D	TP
15LE8	[811 230 174 0000 011 238 174 0000	00]	011 236 154		15	2.5	100	100	8	5.8	B9A	PP
15TP7	481 238 157 0000	00	461 237 145		15	[1.7 2.9	200 200	200	3 18	4 10.4	B9A	TP
15X6	02X 190 310 0000	00	029 180 310		25				30		A08	RR
15YF7	205 080 101 4830	00			14.7	[3 17.5	250 150		1.4 35	1.6 6.5	A12	TT
16	290 300 000 0000	00	280 300 000		7.5				60		UX4	R
16A5	041 230 807 0000	00	*41 23* 6*5		16	14.2	200	200	45	7.5	B9A	P
16A8	415 238 718 0000	00	414 237 516		16	[1.5 11.5	200 200	200	1.7 41	2.4 7.5	B9A	TP
16AQ3	000 230 009 0000	10	*** 23* **8	C	16.4				180		B9A	R
16B	290 300 000 0000	00	280 300 000		7.5				60		UX4	R
16CN8	414 235 718 0000		414 237 516		16	[1 16	100 200	200	3.3 35	3.6 6.4	B9A	TP
16DS4	080 400 010 2030	00			6.3		100		6.5	9	NV	T
16GK6	141 230 871 0000	00	141 230 651		16	7.4	250	250	48	11.3	B9A	P
16GK8	415 238 718 0000	00	414 237 516		16	[	200 250	250	10 30	3.4 7.5	B9A	TP
16GY5	207 140 704 1730	80			15.8	20	125	125	50	9.1	A12	P
16KA6	207 140 000 1030	80			15.8	20	125	125	50	9.1	A12	P
16L40	041 230 807 0000	00	041 230 605		16	14.2	200	200	45	7.6	B9A	P
16N8	415 238 718 0000	00	414 237 516		15	[16 200	100 200	200	3.3 35	3.6 6.4	B9A	TP
16TP6	151 234 887 0000	00	141 234 675		16	[11.5 200	100 175	200	3.5 41	2.5 7.5	B9A	TP
17	284 130 000 0000	00	264 130 000		14	6	90		2.7	0.8	UX5	T
17AV5	421 080 370 0000	00	421 060 350		16	22.5	250	150	57	5.9	A08	P
17AX3	200 900 100 8030	00			16.3						A12	D
17AX4	001 090 230 0000	00	001 080 230		16.8				120		A08	R
17AY3	090 230 910 0000	00	*8* 23* 810		16.8				120		B9D	R
17AY3A	080 230 801 0000	00	060 230 601		16.8		32		350		B9A	R
17BE3	200 900 100 9030	00			16.8				120		A12	R
17BE11	215 017 841 7830	00			16.8	[6 1.8	150 150	100 100	38 1.3	8.6 1	A12	PP
17BH3	090 230 901 0000	00	*8* 23* 8*1		17				180		B9D	R
17BH3A	080 230 801 0000	00	060 230 601		17.0		32		350		B9A	R
17BQ6	020 740 310 0000	80	020 540 310	A1	17	22.5	250	150	75	6.6	A08	P
17BS3	090 230 901 0000	00	*8* 23* 8*1		16.8				120		B9D	R
17BS3A	080 230 801 0000	00	060 230 601		16.8		12		140		B9A	R
17C5	142 347 800 0000	00	142 345 600		16	7.5	150	100	49	7.5	B7G	P
17C8	741 238 9X1 0000	00	541 236 891		17	2	200	125	5	2.2	B9A	DDP
17C9	478 231 578 1000	00			16.8	1	125	75	10	8	A10	PP
17CA5	142 347 800 0000	00	142 345 600		16.8	4.0	100	100	32	8	B7G	P
17CK3	080 230 801 0000	00	060 230 601		16.8		16		250		B9A	R
17CT3	080 230 001 0000	00	060 230 001		16.8		16		350		B9A	R
17CU5	142 347 800 0000	00	142 345 600		16.8	7.5	100	100	49	7.3	B7G	P
17D1	98X 231 700 0000	40	869 231 500	G1	13	3	250	125	9	1.1	B7	DDP
17D4	001 090 230 0000	00	**1 *8* 230		16.8				145		A08	D

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
17D4A	001 090 230 0000	00	**1 *8* 230		16.8				180		A08	R
17DA4			001 080 230		16.8				120		A08	R
17DE4	001 090 230 0000	00	001 080 230		17				120		A08	R
17DM4	001 090 230 0000	00	001 080 230		16.8				180		A08	R
17DM4A	018 230 000 0000	00	016 230 000		16.8		35		400		B5-85	R
17DQ4	001 090 230 0000	00			16.8				120		A08	R
17DQ6	020 740 310 0000	80	020 540 310	A1	16	22.5	250	150	75	6	A08	P
17EW8	851 238 410 0000	00	741 236 410		17	1.1	100		4.5	4.6	B9A	TT
17F6	041 230 887 0000	00	041 230 665		17	23	250	200	53	5.0	B9A	P
17FL8	741 238 9X1 0000	00	541 236 891		17	1.5	200	100	11	4.5	B9A	DDP
17GJ5	741 234 700 0000	80	541 234 5**	A1	16.8	22.5	250	150	70	7.1	B9D	P
						-22.5	150	150	390			
17GJ5A	741 234 700 0000	80	541 234 500	A	16.8	-22.5	250	150	70	7.1	B9A	P
17GE5	274 100 800 1430	00			16.8	22.5	250	150	65	7.3	A12	P
17GT5	741 234 708 0000	00	541 234 506		16.8	42	250	150	70	7.1	B9A	P
17GT5A	741 234 708 0000		541 234 506		16.8	-22.5	250	150	70	7.1	B9A	P
17GV5	207 140 704 1730	80			16.8	22.5	250	150	65	7.3	A12	P
17GW6	020 740 310 0000	80	020 540 310	A1	16.8	22.5	250	150	70	7.1	B8A	P
17GW8	417 238 158 0000	00	415 237 146		16.8	1.7	250		1.2	1.6	B9A	TP
						7.0	250	250	36	10		
17H3	109 230 090 0000	00	108 230 080		17.5				60		B9A	D
17HC8	415 238 718 0000	00	414 237 516		16.8	3	250		1.4	2	B9A	TP
						18	250	250	38	5.1		
17JB6	741 234 710 0000	80	541 234 51*	A1	16.8	22.5	250	150	70	7.1	B9D	P
17JG6	741 231 708 0000	00	541 231 5*6		16.8		150	100	80	10	B9D	P
17JK8	851 238 410 0000	00	714 236 410		16.8	1.0	100		5.3	6.8	B9A	TT
						1.3	150		10	13		
17JM6	217 140 000 1030	80			16.8	22.5	250	150	65	7.3	A12	P
17JN6	217 100 800 1430	00			16.8	22.5	250	150	65	7.3	A12	P
17JQ6	807 231 441 0000	00	605 231 441		17.0	-18	425	[120 140]	35	4.2	B9A	P
17JR6	741 231 708 0000	00	541 231 506		16.8	-20	130	125	45	7.0	B9A	P
17JT6	741 231 708 0000	00	541 231 5*6		16.8	22.5	250	150	70	7.1	B9D	P
17JZ8	280 805 571 4130	00			16.8	5	150		5.5	2.3	A12	TP
						8	125	100	46	7.1		
17JZ8	280 805 571 4130	00			16.8	5	150		3.3	1.9	A12	TP
						8	125	100	44	7.1		
17KV6	741 231 708 0000	00	541 231 506		16.8	-24.5	140	140	80	9.5	B9A	P
17L6	028 740 310 0000	00	026 540 310		16.8	7.0	100	100	49	8	A08	P
17LD8	151 238 784 0000	00	101 236 564		16.8	5	150		3.3	1.9	B9A	TP
						8	125	100	44	7.1		
17N8	741 238 9X1 0000	00	541 236 891		17	2	200	75	5	2.2	B9A	DDP
17R5	142 347 800 0000	00	142 345 600		16.8	8.5	100	100	40	7	B7G	P
17R7	000 230 009 0000	10	*** 23* **8	C	17				120		B9A	R
17W6	028 740 310 0000	00	026 540 310		16.8	9	200	125	46	8	A08	P
17X10	271 817 418 0530	00			16.8	6	125	100	0.2		A12	PP
							150	100	38	8.6		

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
17Z3	000 230 009 0000	10	*** 23* **8	C	17				120		B9A	R
18	287 413 000 0000	00	265 413 000		14	16.5	250	250	34	2.5	UX6	P
18A5	421 080 370 0000	00	421 060 350		18	17	200	125	40	4.8	A08	P
18AK5	412 387 100 0000	00	412 365 100		18	2.5	150	125	7.7	5.1	B7G	P
18AQ5	412 387 100 0000	00	412 365 100		18	7.2	150	175	28	3.5	B7G	P
18C51	214 808 513 0000	00	214 607 413		18	2	150		8.2	5.5	B9A	TT
18D2	[841 238 715 0000 811 238 715 0000]	00	641 237 514		9.5	[1.8 1.6]	150 200		12.5 10	10	B9A	TP
18D3	857 238 114 0000	00	645 237 114		6.3	[1 2]	150 150		18 7	8.5 11	B9A	TP
18DG6	412 387 100 0000	00	412 365 100		18	1	100	100	5	4.3	B7G	P
18DZ8	415 238 718 0000	00	414 237 516		18	[100 150]		125	0.8 45	1.4 7.5	B9A	TP
18F24	281 174 130 0000	00	261 154 130		18	2.1	250	200	15	10.5	A08	P
18FW6	412 387 100 0000	00	412 365 100		18	1	100	100	11	4.4	B7G	P
18FX6	412 387 100 0000	00	412 365 100		18		100	100	24	7	B7G	O
18FX6A	412 387 100 000	00	412 365 100		18.0	0	150	100	2.3	7.0	B7G	P
18FY6	412 39X 800 0000	00	412 389 600		18	1	100		0.6	1.3	B7G	DDT
18FY6A	[412 300 800 0000 002 3X0 000 0000]	00	412 300 600 002 398 000		18.0	-1	100		0.6	1.3	B7G	DDT
18GD6	141 230 871 0000	00	141 230 651		18		100	100	5	4.3	B9A	P
18GD6A	412 387 100 0000	00	412 365 100		18.0	-4.7	100	100	5	4.3	B7G	P
18GE6	142 380 100 0000	00	142 360 100		18	1	100		1	1.7	B7G	T
18GV8	841 238 715 0000	00	641 237 514		18	[0.85 15]	100 175	175	5 41	5.5 7	B9A	TP
18HB8	418 237 815 0000	00	416 235 714		18	[100 100]		100	2.5 32	3.9 6.2	B9A	TP
18J6	882 345 100 0000	00	672 344 100		18	1	100		6.5	5	B7G	TT
19	384 582 000 0000	00	364 472 000		2	3	150		1.7		UX6	TT
19A3	002 293 100 0000	00	002 283 100		9.5				60		B7G	R
19AJ8	751 238 584 0000	00	541 237 164		19	[3 2]	100 250	100	5 6.5	2.3 2.4	B9A	TH
19AQ5	412 387 400 0000	00	412 365 400		19	12.5	250	200	47	4.1	B7G	P
19AU4	001 090 230 0000	00	**1 080 230		19				120		A08	R
19BD	001 230 009 0000	00	**1 23* **8		19				60		B9A	R
19BG6	021 040 370 0000	80	021 040 350	A1	19	15	250	250	75	6	A08	P
19BY7	141 213 871 0000	00	141 213 651		19	2	175	100	9.7	5.9	B9A	P
19C8	9Y1 23X 148 0000	00	8+1 239 146		19	1	100		0.5	1.2	B9A	DDDT
19CL8	481 238 715 0000	00	461 237 514		18.9	[0.85 1]	150 150		15 12	8 5.8	B9A	TP
19CL8A	[481 230 000 0000 000 238 714 0000]	00	461 230 000 000 236 514		18.9	[1 1.0]	125 125	125	14 12	8.0 6.5	B9A	TP
19D8	751 238 184 0000	00	541 237 464		19	[2.6 2]	100 200	125	13.5 7.6	3.7 2.4	B9A	Th
19DC8	741 238 9X1 0000	00	541 236 891		19	2	250	100	9	3.8	B9A	DDP
17DE7	855 238 411 0000	00	644 237 411		19.5	[11 17.5]	250 150		5.5 35		B9A	TT
19EA8	857 238 114 0000	00	645 237 114		18.9	[1 1]	150 150	125	18 12	8.5 6.4	B9A	TP
19EH7	141 230 871 0000	00	141 230 651		19	2	200	100	13	13	B9A	P

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
19EJ7	141 230 871 0000	00	141 230 651		18.9	2.5	200	200	10	15	B9A	P
19FL8	741 238 9X1 0000	00	541 236 891		19	1.5	200	100	11	4.5	B9A	DDP
19G3	020 000 300 0000	90	020 000 300	D1	4				30		A08	R
19G6	112 311 100 0000	90	112 311 100	D1	4				30		B7G	R
19GQ7	1Y0 23X 191 0000	00	1t* 239 181		18.9				5		B9A	DDD
19GV8	841 238 715 0000	00	641 237 514		18.9	[0.6	100			6.5	B9A	TP
19H1	002 300 000 0000	90	002 300 000	D1	4		200	200	41	7.5	B4	R
19H4	020 000 300 0000	90	020 000 300	D1	2.5				60		A08	R
19HR6	412 387 100 0000	00	412 365 100		18.9	1.2	200	100	30		B7G	P
19HS6	412 387 100 0000	00	412 365 100		18.9	0.8	150	75	13.2	8.5	B7G	P
19HV8	481 238 715 0000	00	461 237 514		18.9	[1.0	100		8.8	9.5	B9A	TP
						1.0	150	150	0.8	1.3		
									13	7		
19J6	882 345 100 0000	00	762 344 100		19	1	100		8.5	5.3	B7G	TT
19JN8	481 238 715 0000	00	481 238 715		18.9	[1	125		12	7.5	B9A	TP
						1	125	125	13.5	8.5		
19MR9	412 387 400 0000	00	412 365 400		19	2.5	100	100	7	3.5	B7G	P
19MV5	412 387 400 0000	00	412 365 400		19	2	150	125	10	3.5	B7G	P
19Q9	578 231 148 0000	00	578 231 148		18.9	[1	125		14	8	B9A	TP
						1	125	125	12	6.5		
19R3	001 230 009 0000	00	001 230 008		19				180		B9A	R
19RLL1	214 808 513 0000	00	214 607 413		19	1.7	150		9	5.5	B9A	TT
19RLL2	841 238 510 0000	00	641 237 410		19	8.5	250		10.5	2.2	B9A	TT
19RP11	401 238 714 0000	00	401 236 514		19	7	100	100	35	5.5	B9A	P
19SU	001 230 009 0000	00	**1 23* **8		19				120		B9A	R
19T8	YX1 239 148 0000	00	191 238 146		19	3	250		1.0	1.2	B9A	DDDT
19U3	001 230 009 0000	00	**1 23* **8		19				120		B9A	R
19V8	891 234 Y1X 0000	00	681 234 119		19	3	250		1.0	1.2	B9A	DDDT
19W3	001 230 009 0000	00	**1 23* **8		19				120		B9A	R
19X8	148 231 578 0000	00	146 231 457		19	[1	100		8.5	5.8	B9A	TP
						1.8	250	150	7.7	5.6		
19Y40	001 230 009 0000	00	001 230 008		19				180		B9A	R
20	384 200 000 0000	00	364 200 000		3	16.5	90		3	0.4	UX4	T
20A1	[847 231 800 0000	50	645 231 700	G1	4	[12.5	100		2.3		B7	TH
	057 231 800 0000	50				1.5	250	75	2.2			
20A3	412 318 100 0000	00	412 316 100		6		400		50	6	B9A	P
20CH4U	218 745 830	50	216 544 730	G2	20	[2	200	100	4.1		B8A	TP
							200		3.5	0.75		
20D1	192 310 X00 0000	00	182 310 900		9.5				5		B7G	RR
20D2	[840 231 000 0000	50	645 231 600	G1	13	[7.5	100		3.8		B7	TH
	057 231 800 0000	50				3	250	100	2.5			
20D3	[051 330 482 0000	00	541 227 463		6	[1	100			3.6	B9A	TH
	751 338 502 0000	00				3	250	100	3.6			
20D4	751 238 184 0000	00	541 237 164		6.3	[2	100		15	3.5	B9A	TH
							250	100	7	2.8		
20EQ7	141 237 890 0000	00	141 235 680		20		100	100	9	10.9	B9A	DP
20EZ7	223 148 851 0000	00	223 146 741		10	1.0	150			1.6	B9A	TT
20F2	280 174 130 0000	00	260 154 130		11	1.2	150	150	27	10.6	B8A	P
20J8			027 546 310	G1	20	[1.5	100		1.5		A08	H
						3	250	100	1.5			
20L1	285 184 130 0000	00	274 164 130		12	12	250		10	2.8	B8A	TT
20P1	020 740 310 0000	80	020 540 310	A1	38	30	200	200	80	6	A08	P

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
20P2	020 740 310 0000	80	020 540 310	A1	38	7.5	250	250		13.5	A08	P
20P3	028 740 310 0000	00	026 540 310		20	9.4	200	175	42	7.2	A08	P
20P4	020 740 310 0000	80	020 540 310	A1	38	33	200	200	100	6	A08	P
20P5	280 074 130 0000	00	260 054 130		20	6.3	200	150	29	7.5	A08	P
20RDHV1	157 238 984 0000	00	145 237 864		20	[2 1	250 250	100	1.2 9	1.2 3.5	B9A	DTP
20Y1	023 100 090 0000	00	023 100 080		20				60		F8	R
20Y40	000 230 009 0000	10	000 230 008	C	20				120		B9A	R
21	287 413 000 0000	00	265 413 000		6.3	45	400	300	65		UX6	P
21A6	041 230 071 0000	80	*41 23* *51	A1	21.5	28	200	200	40	6.0	B9A	P
21A7	[208 405 130 0000 280 575 130 0000	[00 00	276 454 130		21	[3	150 250	100	3.5 1.3	0.3 1.9	B8B	TH
21B6	041 230 071 0000	80	041 230 051	A1	21	23	200	200	45	6.5	B9A	P
21CW7	148 235 118 0000	00	146 234 117		21	1.5	90		12	6	B9A	TT
21DJ8	841 238 510 0000	00	641 237 410		21	1.3	90		15	12.5	B9A	TT
21EX6	021 040 370 0000	80	021 040 350	A1	21.5		200	150	67	7.7	A08	P
21GY5	207 140 704 1730	80			21	20	125	125	50	9.1	A12	P
21HB5	274 100 800 1430	00			21	20	125	125	46	9.0	A12	P
21HB5A	274 100 800 1430	00	254 100 600		21	20	130	130	46	9	A12	P
21HD5	207 140 804 1730	00			21.5	22	150	150	65	10	A12	P
21JV6	217 000 800 0430	00	215 000 600		21	20	130	130	50	9.1	A12	P
21JZ6	217 040 000 0030	80	215 040 000		21	20	125	125	46	9.0	A12	P
21KA6	207 140 000 1030	80			21	20	125	125	50	9.1	A12	P
21L40	041 231 071 0000	80	041 231 051	A1	21.5	28	200	200	40	6	B9A	P
21LR8	151 238 784 0000	00	041 236 564		21	[4 10	250 150	125	2.3 56	3.6 9.3	B9A	TP
21LU8	280 805 571 4130	00			21	[4 10	250 150	125	2.3 56	3.6 9.3	A12	TP
21TH8	[020 748 310 0000 028 750 310 0000	[50 50	027 546 310	G1	21	[2.5	100 200	90	4 3	2 0.7	A08	TH
22	387 200 000 0000	40	365 200 000	G1	3	1.5	150	50	1.7	0.3	UX4	P
22AC	287 300 000 0000	40	265 300 000	G1	2.5	3	90	90	4	1.05	UX4	P
22AQ3	000 230 009 0000	10	*** 23* *8	C	22				180		B9A	R
22BH3	090 230 901 0000	00	*8* 23* 8*1		22.4				180		B9D	R
22BW3	200 900 100 9030	00			22.4				120		A12	R
22DE4	001 090 230 0000	00	001 080 230		22.4				120		A08	R
22FC7	148 235 118 0000	00	146 234 117		21.6	1.2	90		15	12.3	B9A	TT
22JF6	741 234 710 0000	80	541 234 510	A	22.0	[0 20	50 130	12.5 125	525	10.0	B9A	P
22JG6	741 231 708 0000	00	541 231 5*6		22		150	150	80	10	B9D	P
22JG6A	741 231 708 6000	00			22.0	20	130	125	80	10.0	B9A	P
22JR6	741 231 708 0000	00	541 231 506		22.0	-20	125	125	45	7.0	B9A	P
22JU6	741 234 710 0000	80	541 234 51*	A1	22	20	150	100	45	7	B9D	P
22KM6	741 234 710 0000	80	541 234 510	A	22.0	-24.5	140	140	80	9.5	B9A	P
22S/101G	192 310 X00 0000	00	182 310 900		6.3				5		B7G	R
23	207 411 300 0000	80	205 411 300	A1	2.5	90	400	150	43		UX7	P
23Z9	285 080 067 4830	00	267 060 000		23	[2 5 8	150 150 120		5.4 5.5 46	3.9 2.4 7.1	A12	TTP

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
24	284 300 000 0000	00	264 300 000		2	13.5	200		8	1.6	UX4	T
24A	287 130 000 0000	40	265 130 000	G1	2.5	3	200	90	4	1	UX5	P
24GA7	277 410 810 0930	00			24	[22.5	250	150	120	6.6]	A12	RP
24NG	291 1X3 000 0000	00	281 193 000		40				75		UX6	RR
24S	287 130 000 0000	40	265 130 000	G1	2.5	3	200	90	4	1	UX5	P
25	289 X43 000 0000	00	268 943 000		2	3	150		1.0	0.5	UX6	DDT
25	205 411 300 0000	80	205 411 300	A1	6.3	90	400	150	43		UX7	P
25A6	028 740 310 0000	00	026 540 310		25	18	150	125	33	2.3	A08	P
25A7	128 749 310 0000	00	126 548 310		25	[15	100	100	60	1.8]	A08	RP
25AC1D	208 009 030 0000	40	206 008 030	G1	1.4	0	150		0.76	0.4	A08	DT
25AC5	028 040 310 0000	00	026 040 310		25	0	200		4	3.8	A08	T
25AQ8	X41 238 410 0000	00	741 236 410		25	1.1	100		4.5	4.6	B9A	TT
25AV5	421 080 370 0000	00	421 060 350		25	22.5	250	150	57	5.9	A08	P
25AX4	001 090 230 0000	00	001 080 230		25				120		A08	R
25B6	028 740 310 0000	00	026 540 310		25	22	150	150	61	5	A08	P
25B8	128 781 340 0000	50	127 561 340	G1	25	[1	100		0.6	1.5]	A08	TP
25BG6	021 040 370 0000	80	021 040 350	A1	25	3	100	100	7.6	2	A08	P
25BK5	804 231 470 0000	00	604 231 450		25	22	150	150	70	5	A08	P
25BQ6	020 740 310 0000	80	020 540 310	A1	25	5	250	250	35	8.5	B9A	P
25C5	142 347 800 0000	00	142 345 600		25	22.5	250	150	55	5.5	A08	P
25C6	028 740 310 0000	00	026 540 310		25	7.5	150	100	49	7.5	B7G	P
25CA5	142 347 800 0000	00	142 345 600		25	14	200	150	61	7.1	A08	P
25CD6	021 040 370 0000	80	021 040 350	A1	25	4.5	150	125	36	9.2	B7G	P
25CD6GB	021 043 700 0000	80	021 043 500	A	25	30	200	200	75	7.5	A08	P
25CG3					25.0	-50	175	175	75	7.7	A08	P
25CK3	080 230 801 0000	00	060 230 601		25.2		25		700		B9A	R
25CM3	080 230 801 0000	00	060 230 601		25.0		16		1200		B9A	R
25CR5	174 231 741 0000	00	154 231 541		25		10		350		B9A	R
25CU6	020 740 310 0000	80	020 540 310	A1	25	22.5	250	150	65	6	B9A	P
25D4	001 090 230 0000	00	001 080 230		25	23	250	150	60	6	A08	P
25D8	128 748 390 0000	50	127 546 380	G1	25	[1	100		120	1.1	A08	R
25DK4	002 390 100 0000	00	002 380 100		25	3	100	100	0.5	1.9]	A08	DTP
25DN6	021 040 370 0000	80	021 040 350	A1	25				8.5		B7G	R
25DQ6	020 740 310 0000	80	020 540 310	A1	25	18	125	125	60	9	A08	P
25DT5	704 234 108 0000	00	504 234 1*6		25	22.5	250	150	75	6	A08	P
25E2	[751 228 384 0000	00]	541 227 365		12.6	[2	200	250	38	6.5	B9A	P
25E5	751 228 305 0000	00					200	100	6.5		B9A	TH
25E6	020 740 310 0000	80	020 540 310	A1	25	21	200	200	100	11	A08	P
25EC6	021 040 370 0000	80	021 040 350	A1	25	23	125	125	70	7.5	A08	P
25EH5	142 347 800 0000	00	142 345 600		25	3.2	100	125	42	14.6	B7G	P
25F5	142 347 800 0000	00	142 345 600		25	7.5	100	100	37	5.8	B7G	P
25F5A	142 347 800 0000	00	142 345 600		25.0	-7.5	110	110	43	6.4	B7G	P
25F7	020 740 310 0000	80	020 540 310	A1	25	21	150	150	100	11	A08	P
25FG6	020 740 310 0000	80	*2* 540 310	A1	25	21	200	175	100	11	A08	P
25FID	208 701 040 0000	40	206 501 040	G1	1.4	2.5	150	125	1.2	0.7	A08	P
25FY8	415 238 871 8000	00	414 237 516		25	[1.5	150		2.5	2	B9A	TP
						13.5	150	125	50	7]		

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
25GB6	020 740 310 0000	80	020 540 310	A1	25	22.5	250	150	6.5	6	A08	P
25JQ6	807 231 441 0000	00	605 231 441		25.2	120	40	120	35	4.2	B9A	P
25L6	028 740 310 0000	00	026 540 310		25	8.2	200	125	47	8	A08	P
25MK15	002 390 100 0000	00	002 380 100		25				25		B7G	R
25RE	291 1X3 000 0000	00	281 193 000		25				30		UX6	RR
25S	289 X43 000 0000	00	268 943 000		2	3	150		0.8	0.6	UX6	DDT
25SN7	481 581 230 0000	00	461 471 230		25	8	250		9	2.6	A08	TT
25T3G	020 000 310 0000	9X	020 000 310	D1 D2	25				60		A08	RR
25V5	029 1X0 310 0000	00	028 190 310		25				60		A08	R
25W6	028 740 310 0000	00	026 540 310		25	8.5	250	125	46	8	A08	P
25W9	001 090 230 0000	00	001 080 230		25				120		A08	R
25X4	020 090 310 0000	00	020 080 310		25				120		A08	R
25X6	029 1X0 310 0000	00	028 190 310		25				30		A08	RR
25Y5	291 1X3 000 0000	00	281 193 000		25				60		UX6	RR
25Y5G	029 1X0 310 0000	00	028 190 310		25				60		A08	RR
25Y6	029 1X0 310 0000	00	028 190 310		25				30		A08	RR
25Z3	291 300 000 0000	00	281 300 000		25				60		UX4	R
25Z5	2X1 193 000 0000	00	291 183 000		25				60		UX6	RR
25Z6	02X 190 310 0000	00	029 180 310		25				60		A08	RR
26	284 300 000 0000	00	264 300 000		1.5	10	150		5.5	1.1	UX4	T
26A6	412 387 100 0000	00	412 365 100		26	1.8	250	250	10.5	4	B7G	P
26A7	415 872 380 0000	00	414 752 360		26	4.5	30	30	20	5.5	A08	PP
26AE6	000 230 009 0000	10	*** 23* **8	C	26						B9A	R
26AQ8	851 238 410 0000	00	641 237 410		26	1.5	200		8.7	6	B9A	TT
26B6	028 740 310 0000	00	026 540 310		35	18	250	125	33	2.3	A08	P
26BK6	412 39X 800 0000	00	412 389 600		26	2	250		1.2	1.6	B7G	DDT
26BQ6	020 740 310 0000	80	020 540 310	A1	25	22.5	250	150	55	5.8	A08	T
26C6	412 3X9 800 0000	00	412 398 600		26	9	250		9.5	1.9	B7G	DDT
26CG6	412 387 100 0000	00	412 365 100		26		250	150	9	2	B7G	P
26D6	412 387 100 0000	00	412 365 100		26	0	100	100	2.7	7.2	B7G	H
26E6	028 740 310 0000	00	026 540 310		26	14	200	125	60	7.1	A08	P
26NG	291 1X3 000 0000	00	281 193 000		40				30		UX6	RR
26Z5	901 22X 013 0000	00	801 229 013		13				30		B9A	RR
26Z6	901 23X 010 0000	00	801 239 010		26				60		B9A	RR
27	284 130 000 0000	00	264 130 000		2.5	21	250		5.2	0.9	UX5	T
27BL8	857 238 114 0000	00	645 237 114		27	2	100		14	5		
27HM	284 130 000 0000	00	264 130 000		2.5	2	200	175	10	6.2	B9A	TP
27SU	320 090 210 0000	00	320 080 210			13.5	180		5		B5B	T
27SV	230 090 310 0000	00	230 080 310		13				120		A08	R
									180		A08	R
28AK8	9Y1 23X 148 0000	00	811 239 146		28	2	200		1.3	1.5	B9A	DDDT
28AX8	9Y1 23X 148 0000	00	811 239 146		28	1	100		0.8	1.4	B9A	DDDT
28D7	247 881 530 0000	00	245 671 430		28	3.5	30	30	12.5	3.4	B8B	PP
28HD5	207 140 804 1730	00			28	22	150	150	65	10	A12	P
28Z5	209 00X 130 0000	00	208 009 130		28				60		B8B	RR
29	284 413 000 0000	00	264 413 000		2.5	3	200		4.5	1.4	UX6	T
29C1	220 293 330 0000	00	220 283 330		4				3		A08	D
29GK6	141 230 871 0000	00	141 230 651		28.6	7.4	250	250	48	11.3	B9A	P
30	384 200 000 0000	00	364 200 000		2	9	150		3	0.9	UX4	T
30A5	142 347 800 0000	00	142 345 600		30	6.7	100	100	43	9.2	B7G	P
30AE3	000 230 009 0000	10	*** 23* **8	C	30						B9A	D
30AG11	219 158 841 X130	00			30	1	125	7.5	7.8		A12	DDTT
30C1	857 238 114 0000	00	645 237 114		9	2	100		14	5		
						2	200	200	10	6.6	B9A	TP

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V † Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
30C13	178 238 415 0000	00	157 236 414		9	[2 2	100 200	175	14 10	5 6.2	B9A	TP
30C15	178 238 415 0000	00	157 236 414		9	[2 2.5	100 200	150	15 10	6 9	B9A	TP
30C17	178 238 415 0000	00	157 236 414		7.4	[3.2 1.5	100 125	125	15 10	8.5 11	B9A	TP
30C18	878 231 514 0000	00	657 231 414		7.4	[3 1.5	100 125	125	14 10	5.5 11	B9A	TP
30F5	141 230 871 0000	00	141 230 651		7.5	1.8	200	200	10	8.8	B9A	P
30F27	141 230 871 0000	00	141 230 651		3.7	1.2	200	150	13.5	15	B9A	P
30FL1	841 238 751 0000	00	641 237 541		9.4	[1.9 2.7	200 200	200	10 10	3.6 7.5	B9A	TP
30FL2	[841 230 000 0000 000 238 741 0000	00 00	641 230 000 00 236 541	]	10.4	[7.7 2.0	200 1.70	170	10 10	3.4 8.0	B9A	TP
30FL12	841 238 751 0000	00	641 237 541		10	[4.9 2.9	150 200	200	10 10	3.7 12.5	B9A	TP
30FL13	841 238 751 0000	00	641 237 541		10	[200 200	200	200	10 10	3.4 12.5	B9A	TH
30FL14	878 231 514 0000	00	657 231 414		7.4	[3 1.7	100 150	150	14 12	5.5 14.5	B9A	TP
30GP9	028 743 100 0000	00	026 543 100		30	19	200	200	45	3.5	A08	P
30L1	158 234 118 0000	00	147 234 116		7.5	1.5	90	12		6.0	B9A	TT
30L15	158 324 118 0000	00	147 324 116		7	1.2	90		15	9	B9A	TT
30L17	148 235 118 0000	00	146 234 117		7.2	0.8	75		15	16.5	B9A	TT
30P4	020 740 310 0000	80	020 540 310	A1	25	21	200	200	100	11	A08	P
30P12	041 230 807 0000	00	*41 23* 6*5		12.6	10.3	200	200	31	6.7	B9A	P
30P14	028 740 310 0000	00	026 540 310		13	9.4	200	200	42	7.2	A08	P
30P16	041 230 807 0000	00	041 230 605		16	14.2	200	200	45	8.2	B9A	P
30P18	041 230 807 0000	00	041 23* 6*5		16	6	200	200	34	10	B9A	P
30P19	020 740 310 0000	80	*2* 540 310	A1	25	8.5	100	100	100	15	A08	P
30PL1	841 238 175 0000	00	641 237 154		13	[7.9 9.6	200 200	200	10 28	3.4 6	B9A	TP
30PL12	415 238 718 0000	00	414 237 516		16	[0 16	100 200	200	3.5 35	2.5 6.4	B9A	TP
30PL13	415 238 718 0000	00	414 237 516		16	[2.2 20	200 250	250	10 45	4.4 17.5	B9A	TP
30PL14	415 238 718 0000	00	414 237 516		16	[7.7 15	200 150	150	10 50	3.4 7.6	B9A	TP
30PL15	841 238 715 0000	00	641 237 514		16	[2.2 14.5	100 170	170	10 50	4.3 7.3	B9A	TP
30X	284 300 000 0000	00	264 300 000		2	12.5	175		3.1	9.3	UX4	T
31	384 200 000 0000	00	364 200 000		2	22.5	150		8	0.9	UX4	T
31A3	290 000 130 0000	00	280 000 130		31				60		B8A	R
31AV3	001 230 009 0000	00	**1 23* **8		31				60		B9A	R
31JS6	217 140 000 1730	80			31.5	28	175	125	100	11.3	A12	P
31JS6A	217 040 000 0730	80	215 040 000	A	31.5	25	175	125	125	11.3	A12	P
31Z	[245 300 000 0000 245 300 000 0000	80 08	244 300 000	A1/A2	6	[100 15	400 400		75 75	2.8	UX4	TT
32	387 200 000 0000	40	365 200 000	G1	2	3	150	75	1.7	0.6	UX4	P
32A8	415 238 718 0000	00	414 237 516		32	[1 16	100 200	200	1 35	1.9 6.4	B9A	TP
32BX7	481 581 230 0000	00	461 471 230		31.5	17	250		42	7.2	A08	TT
32E	387 200 000 0000	40	365 200 000	G1	2	3	150	75	1.7	0.6	UX4	P
32ET5	142 347 800 0000	00	142 345 600		32	7.5	100	100	30	5.5	B7G	P

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
32ET5A	142 347 800 0000	00	142 345 600		32.0	-7.5	1.10	110	30	5.5	B7G	P
32GA7	277 410 810 0930	00			32	[22.5	250	150	120 75 60	6.6	A12	RP
32L7	128 749 310 0000	00	126 548 310		32.5	[5	90	90	38	6	A08	RP
33	384 720 000 0000	00	364 520 000		2	14	150	150	14.5	1.4	Sm7	P
33/100A	020 540 310 0000	88	020 440 310	A1/A2	6	14	300		10	3	A08	TT
33A/101K	841 228 513 0000	00	641 227 413		6.3	2	250		1.2	1.6	B9A	TT
33A/138A	204 150 300 0000	88	204 140 300	A1/A2	7	7	250		15	3	UX7	TT
33A/158M	218 458 130 0000	00	216 447 130		6	5	200		20	2.8	B8B	TT
33B/152M	521 342 135 0000	88	421 342 134	A1/A2	6	1	300		40	18.5	B9G	TT
33GT7	290 180 014 7430	00			33.6	22.5	125	125	48	6.5	A12	DP
33GY7	290 180 014 4730	00	280 160 014		33.6	22.5	130	130	48	6.5	A12	DP
33GY7	290 180 014 4730	00			33.6	22.5	125	125	48	6.5	A12	DP
33JR6	741 236 708 0000	00	541 231 506		33.0	-20	125	125	45	7.0	B9A	P
33JV6	215 100 800 1430	00			33	20	125	125	50	9.1	A12	P
34	204 150 300 0000	88	204 140 300	A1/A2	6.3	36	300		80	4.4	UX7	TT
34	387 200 000 0000	40	365 200 000	G1	2	3	150	75	2.8	0.6	UX4	P
34E			365 200 000	G1	2	3	150	75	2.8	0.6	UX4	P
34CE3	200 900 100 9030	00	34.5						180		A12	R
34CM3	080 230 801 0000	00	060 230 601		33.5		10		350		B9A	P
34GD5	142 317 800 0000	00	142 315 600		34	7.5	100	100	35	5.7	B7G	P
34GD5A	142 347 800 6000		142 345 600		34.0	-7.5	1.10	110	.35	5.7	B7G	P
35	287 130 000 0000	40	265 130 000	G1	2.5	3	250	90	6.5	1	UX5	P
35A3	002 390 100 0000	00	002 380 100		35				60		B7G	R
35A5	287 004 130 0000	00	265 004 130		35	8	200	100	41	5.9	B8B	P
35B5	412 387 400 0000	00	412 365 400		35	7.5	150	100	40	5.8	B7G	P
35C3	002 390 100 0000	00	002 380 100		35				60		B7G	R
35C5	142 347 800 0000	00	142 345 600		35	7.5	150	100	40	5.8	B7G	P
35CD6	021 040 370 0000	80	021 040 350	A1	35	30	200	175	75	7.7	A08	P
35D5	401 238 070 0000	00	401 236 050		35	10.5	200	175	52	9.5	B9A	P
35DZ8	415 238 718 0000	00	414 237 516		35	[150			0.8	1.4	B9A	TP
35EH5	142 347 800 0000	00	142 345 600		35	62	100	100	3.2	12	B7G	P
35F4	412 387 400 0000	00	412 365 400		35	7.5	100	100	41	5.8	B7G	P
35F6	041 230 887 0000	00	041 230 665		35	23	250	200	55	5	B9A	P
35FN5	721 441 370 0000	80	521 441 350	A1	35	22.5	200	150	100	10	B8A	P
35GD5A	142 347 800 0000	00	142 345 600		34	7.5	100	100	45	7.5	B7G	P
35GL6	142 273 800 0000	00	142 253 600		35	7.5	100	100	45	7.5	B7G	P
35HB8	418 237 815 0000	00	416 235 714		35	[100			2.5	3.9	B9A	TP
35L6	028 740 310 0000	00	026 540 310		35	7.5	200	100	40	5.8	A08	P
35L31	412 387 400 0000	00	412 365 400		35	13	200	200	55	8	B7G	P
35QL6	471 238 174 0000	00	451 236 154		35	11.5	200	200	52	9.5	B8A	P
35R1	002 392 100 0000	00	002 382 100		35				60		B7G	R
35R2	002 390 100 0000	00	002 380 100		35				60		B7G	R
35RE	291 1X3 000 0000	00	281 193 000		35				60		UX6	RR
35S	287 120 000 0000	40	265 120 000	G1	2.5	3	250	90	6.5	10.8	UX5	P
35W4	002 393 100 0000	00	002 383 100		27.5				60		B7G	R
35X4	002 390 100 0000	00	002 380 100		35				60		B7G	R
35Y4	290 200 130 0000	00	280 200 130		27.5				60		B8B	R
35Y31	002 390 100 0000	00	002 380 100		35				120		B7G	R

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V f Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
35Z3	290 000 130 0000	00	280 000 130		35				120		B8B	R
35Z4	020 090 310 0000	00	020 080 310		35				120		A08	R
35Z5	020 090 310 0000	00	022 080 310		27.5				60		A08	R
35Z6	029 1X0 310 0000	00	028 190 310		35				60		A08	RR
36	287 130 000 0000	40	265 130 000	G1	6	3	250	90	3.2	1	UX5	P
36AM3	002 293 100 0000	00	002 283 100		36				60		B7G	R
36AM3B	002 380 100 0000	00	002 360 100		36.0		16		150		B7G	R
37	284 130 000 0000	00	264 130 000		6	18	250		7.5	1.1	UX5	T
38	287 130 000 0000	40	265 130 000	G1	6	18	200	200	14	1	UX5	P
38A3	001 230 009 0000	00	**1 23* **8		38				60		B9A	R
38HE7	290 180 014 0730	00			37.8	22	125	125	60	8.8	A12	RP
38HK7	290 180 014 0730	00	280 160 014		37.8	22	130	130	60	8.8	A12	DP
38R3	001 230 009 0000	00	001 230 008		38				100		B9A	R
39	280 701 300 0000	40	260 501 300	G1	6.3	3	250	90	5.8	1	B7G	P
39	287 130 000 0000	40	265 130 000	G1	6	3	200	90	5.8	1	UX5	P
40	384 200 000 0000	00	364 200 000		5	1.5	200		0.2	0.2	UX4	T
40FR5	142 347 800 0000	00			40		150		30	6.0	B7G	P
40KD6	217 040 004 0730	80	215 040 004	A	40	22.5	150	110	120	14	A12	P
40PPA	047 231 800 0000	00	045 231 600		40	25	150	150	36	2	B7	P
40SUA	902 310 000 0000	00	802 310 000		40				60		B5	R
40Z5	022 090 310 0000	00	022 080 310		35				120		A08	R
41	287 413 000 0000	00	265 413 000		6	18	250	250	32	3.2	UX6	P
41FP	842 310 000 0000	00	642 310 000		6	18	250		19	2.8	B5	T
41M	028 740 310 0000	00	026 540 310		6	18	250	250	32	2.3	A08	P
41MDG	872 310 000 0000	40	652 310 000	G1	4	0	150	100		0.2	B5	P
41ME	023 104 780 0000	00	023 104 560		4	5	250	250		11.0	BSC	TI
41MH	842 310 000 0000	00	642 310 000		4	1.5	200		3.2	3	B5	T
41MHF	842 310 000 0000	00	642 310 000		4	2	150		2.5	2.8	B5	T
41MHL	842 310 000 0000	00	642 310 000		4	3	200		4	4.1	B5	T
41MLF	842 310 000 0000	00	642 310 000		4	4.5	200		7.5	1.9	B5	T
41MP	842 310 000 0000	00	642 310 000		4	7.5	200		24	6.0	B5	T
41MPG	474 231 800 0000	40	454 231 600	G1	4	1.5	250	100	3.3	0.9	B7	H
41MPT	041 231 700 0000	80	041 231 500	A1	4	1.5	250	100	12	4.8	B7	P
41MRC	842 310 000 0000	00	641 310 000		4	1	200		2.5	2.6	B5	T
41MSG	487 230 785 0000	00	465 230 574		4	1.5	150	60	0.8	2.5	B9	PP
41MSG	742 310 000 0000	80	542 310 000	A1	4	1.5	150	60	0.8	2.5	B5	P
41MTA	842 310 000 0000	00	642 310 000		4	1	100		4.9	4	B9	T
41MTB	842 310 000 0000	00	642 310 000		4	1	100		3.6	2.6	B5	T
41MTL	842 310 000 0000	00	642 310 000		4	2.5	200		5.9	3	B5	T
41MTS	047 231 800 0000	00			4	1	250	100	5	1.6	B7	PP
41MXP	057 231 000 0000	80	645 231 700		4							
41MXP	842 310 000 0000	00	642 310 000		4	12.5	200		40	6	B5	T
41MVSG	742 310 000 0000	80	542 310 000	A1	4	1.4	200	200	3	2	B5	P
41STH	840 321 000 0000	50			4	1.5	100		2			
41STH	057 321 800 0000	50	645 231 700	G1	4	1.5	200	60	1		B7	TH
42	284 300 000 0000	00	264 300 000		1.5	13.5	150		3.9	0.8	UX4	T
42	287 413 000 0000	00	265 413 000		6	16.5	250	250	34	2.5	UX6	P
42MP/PEN	045 231 800 0000	00	045 231 600		4	5.5	250	250	32	6	B7	P
42MPT	041 231 700 0000	80	041 231 500	A1	4(5)	3	200	200	34	8.5	B7	P
42/OT	047 231 800 0000	00	045 231 600		4	5.5	250	275	34	7	B7	P

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
42OTDD	X89 231 700 0000	40	968 231 500	G1	4	5.5	250	250	34	7	B7	DDP
42PTB	081 231 700 0000	40	061 231 500	G1	4	3	200	200	34	8.5	B7	P
42SPT	041 231 700 0000	80	041 231 500	A1	4	10.5	250	250	64	11	B7	P
43	284 583 000 0000	00	265 413 000		25	18	150	125	33	2.3	UX6	P
43	287 413 000 0000	00	264 473 000		1.5	[4.5 20	135 135		3 14	0.9	UX6	TT
43E	285 413 000 0000	00	265 413 000		25	18	150	125	33	2.3	UX6	P
43IU	9X2 300 000 0000	00	892 300 0000		4				60		B4	RR
43MG	028 740 300 0000	00	026 540 310		25	18	250	125	33	2.3	A08	P
44	287 130 000 0000	40	265 130 000	G1	6	3	200	90	5.8	1	UX5	P
44A/160M	241 878 153 0000	00	241 657 143		6	14	250	250	30	3.9	B9G	PP
44GW8	417 238 158 0000	00	415 237 146		44	[1.7 7	250 250		1.2 36	1.6 10	B9A	TP
44IU	9X2 300 000 0000	00	892 300 000		4				60		B4	RR
44SU	902 300 000 0000	00	802 300 000		4				30		B4	R
45	284 300 000 0000	00	264 300 000		2.5	50	250		34	2.1	UX4	T
45A	284 300 000 0000	00	264 300 000		2.5	68	325		43	2.3	UX4	T
45A5	280 074 130 0000	00	26* 54 130		45	9	200	200	54	9.5	B8A	P
45B5	041 230 807 0000	00	041 23* 6*5		45	12.5	200	200	70	10	B9A	P
45BQ5	041 230 807 0000	00	041 23* 6*5		45	12.5	300	175	70	10	B9A	P
45DQ8	181 238 157 0000	00	461 237 145		45	[1.7 12.5	200 200		3 175	4 10	B9A	TP
45DX8	481 238 157 0000	00	461 237 145		45	[1.7 2.1	200 200		3 175	4 18	B9A	TP
45IU	9X2 300 000 0000	00	892 300 000		4				120		B4	RR
45LIU	208 740 130 0000	00	206 540 130		45	13	200	200	45	7.5	A08	P
45Z3	290 109 300 0000	00	28* 108 300		45				60		B7G	R
45Z5	022 090 310 0000	00	022 080 310		37.5				60		A08	R
46	284 830 000 0000	00	264 630 000		2.5	33	250		22	2.3	UX5	T
47	284 730 000 0000	00	264 530 000		2.5	16.5	250	250	31	2.5	UX5	P
48	287 413 000 0000	00	265 413 000		30	10	100	100	52	3.8	UX6	P
48A8	415 238 718 0000	00	414 237 516		48	[11.5 20	100 150		3.5 150	2.5 7.5	B9A	TP
49	284 830 000 0000	00	264 630 000		2	50	400	250	95	1.1	UX5	T
49	287 413 000 0000	00	265 413 000		6.3						UX6	P
50	284 300 000 0000	00	264 300 000		7.5	70	400		55	2.1	UX4	T
50A5	287 004 130 0000	00	265 004 130		50	7.5	150	100	49	8	B8B	P
50AX6	029 1X0 310 0000	00	028 190 310		50				120		A08	RR
50B5	412 387 400 0000	00	412 365 400		50	7.5	150	100	49	7.5	B7G	P
50BC1D	208 09X 030 0000	40	206 089 030	G1	1.4	0.5	90		1.4	0.8	A08	DDT
50BK5	804 231 470 0000	00	604 231 450		50	5	250	250	35	8.5	B9A	P
50BM8	415 238 718 0000	00	414 237 516		50	[10 7.5	100 150		3.5 150	2.5 7.5	B9A	TP
50C5	142 347 800 0000	00	142 345 600		50				49	7.5	B7G	P
50C6	028 740 310 0000	00	026 540 310		50	13.5	150	150	58	7	A08	P
50C1D	208 90X 030 0000	40	206 089 030	G1	1.4	1.5	100		1.5	0.9	A08	DDT
50CA5	142 347 800 0000	00	142 345 600		50	4.5	150	125	37	9.2	B7G	P
50CD6	021 040 370 0000	80	021 040 350	A1	50	30	200	200	75	7.5	A08	P
50DC4	002 393 100 0000	00	002 363 100		25				60		B7G	R
50EH5	142 347 800 0000	00	142 345 600		50	3.2	100	125	42	14.6	B7G	P
50F2	412 387 400 0000	00	412 365 400		50	7.5	100	100	50	7.5	B7G	P

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
50F2D	208 701 030 0000	40	206 501 030	G1	1.4	1.5	100	125	1.4	1	A08	P
50FA5	142 347 800 0000	00	142 345 600		50	7.5	100	100	40	5.8	B7G	P
50FE5	028 740 310 0000	00	026 540 310		50	16	150	150	80	9.5	A08	P
50FK5	142 347 800 0000	00	142 345 600		50		100	100	32	12.8	B7G	P
50FY8	415 238 718 0000	00	414 237 516		50	[1.5 13.5	150 150	125	2.5 50	2 7.5	B9A	TP
50L1D	208 740 030 0000	00	206 540 030		1.4	4.5	100	125	4.8	1	A08	P
50L6	028 740 310 0000	00	026 540 310		50	8.2	200	125	46	9.5	A08	P
50L66T	028 043 100 0000	00	026 043 100		50.0	-7.5	200		50	9.5	B7G	
50R4	090 230 X01 0000	00	080 230 901		50				60		B9A	RR
50RP1	141 238 719 0000	00	141 236 518		50	[1	200	100	60 9	4.5	B9A	RP
50X6	21X 009 130 0000	00	219 008 130		50				60		B8D	RR
50Y1U	399 209 120 0000	00	388 208 120		45				120		A08	R
50Y6	02X 190 310 0000	00	029 180 310		50				60		A08	RR
50Y7	029 1X3 310 0000	00	028 193 310		46				60		A08	RR
50Z6	02X 190 310 0000	00	029 180 310		50				120		A08	RR
50Z7	02X 190 310 0000	00	029 183 310		48				60		A08	RR
51	287 130 000 0000	40	265 130 000	G1	2.5	3	250	90	6.5	10.5	UX5	P
52	284 730 000 0000	00	264 530 000		6	1	250	100	41	2	UX5	P
52KU	030 X09 020 0000	00	030 908 020		5				60		A08	RR
53	285 148 300 0000	00	274 146 300		2.5	5	250		3	1.6	UX7	TT
53KU	030 X09 020 0000	00	030 908 020		5				120		A08	RR
55	28X 913 000 0000	40	269 813 000	G1	2.5	20	250		8	1.1	UX6	DDT
55A/165M	247 881 530 0000	00	245 761 430		12	15	150	150	60	4	B8A	PP
55N3	001 230 009 0000	00	**1 23* **8		55				120		B9A	T
56	284 130 000 0000	00	264 130 000		2.5	12.5	250		5	1.4	UX5	T
56AS	284 130 000 0000	00	264 130 000		6	13.5	250		5	1.4	UX5	T
57	287 113 000 0000	40	265 113 000	G1	2.5	3	250	100	2	1.2	UX6	P
57AS	287 113 000 0000	40	265 113 000	G1	6	3	250	100	2	0.2	UX6	P
58	287 113 000 0000	40	265 113 000	G1	2.5	3	250	100	8	1.5	UX6	P
58AS	287 113 000 0000	40	265 113 000	G1	6	3	250	100	8	1.5	UX6	P
58TF1	518 238 786 0000	40	417 231 564	G1	58	[2 31	200 250	250	4 38	1.5 2.5	B9A	TPP
59	287 411 300 0000	00	265 411 300		2.5	18	250	250	35	2.5	UX7	P
59B	287 410 300 0000	00	265 410 300		2.5	26	250	250	26	6	UX7	P
60	200 300 000 0000	9X	200 300 000	D1/D2	5				120		UX4	RR
60/250	9X2 300 000 0000	00	892 300 000		4				30		B4	RR
60E3	002 390 100 0000	00	002 380 100		60				60		B7G	R
60FX5	142 347 800 0000	00	142 345 600		60	62	100	100	36	13.5	B7G	P
61BT	020 740 310 0000	80	020 540 310	A1	6	20	200	200	40	4	A08	P
61SPT	720 804 310 0000	00	520 604 310		6	10.5	250	250	64	11	A08	P
62BT	020 740 310 0000	80	020 540 310	A1	6.3	19.5	250	175	100	9.5	B8A	P
62DDT	284 0X9 130 0000	00	264 098 130		6	3	250		1	1.3	B8A	DDT
62L31	412 367 400 0000	00	412 365 400		62	15	200	200	55	8	B7G	P
6 2TH	[208 405 130 0000 280 575 130 0000]	00	276 454 130		6	[2 2	100 150		5 8	2.2 2	B8A	TH
62VP	281 174 130 0000	00	261 154 130		6	2.5	250	100	6	2.2	B8A	P
63ME	028 740 310 0000	00	026 540 310		6.3	22	250	250	0.3	†1.0	A08	TI
63SPT	278 101 403 0000	00	256 101 403		6	2	250	250	10	6.5	B9G	P
63TP	841 238 175 0000	00	641 237 154		6	[2.3 8	100 200	200	4 17.5	1.4 3.3	B9A	TP

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
64	280 101 300 0000	40	026 457 310	G1	6.3	3	200	90	3.1	1	B7G	P
64ME	028 470 310 0000	00	226 457 310		6	16	250	250	†1.0	†1.0	A08	TI
64SPT	020 478 310 0000	00			6.3	2.5	250	250				
65	141 230 870 0000	00	141 230 650	G1	6	2.6	200	200	10	7.1	B9A	P
	287 130 000 0000	40	265 130 000		6	3	200	90	4.5	1	UX5	P
65ME	410 230 807 0000	00	41* 23* 6*5		6.3		250	250			B9A	TI
66KU	290 00X 130 0000	00	280 009 130		6				30		B8A	RR
67	284 130 000 0000	00	264 130 000		6	9	150		5	1.1	UX5	T
67PT	281 074 130 0000	00	261 054 130		6	7	250	250	36	10	B8A	P
68	287 130 000 0000	40	265 130 000	G1	6	13.5	150	90	14	1.4	UX5	P
68A	287 130 000 0000	00	265 130 000	G1	6	13.5	150	125	14	1.4	UX5	P
69	284 413 000 0000	00	264 413 000		6	3	200		4.5	1.4	UX6	T
70	284 413 000 0000	00	264 413 000		6	6	200		2.3	0.3	UX6	T
70A7	128 749 310 0000	00	126 548 310		70	[7.5	150	100	60	5.8	A08	RP
70L7	128 741 390 0000	00	126 541 380		70	[7.5	125	100	60	7.5	A08	RP
71	284 300 000 0000	00	264 300 000		5	40	200		20	1.7	UX4	T
71A	284 300 000 0000	00	264 300 000		5	16.5	90		10	1.4	UX4	T
75	020 000 300 0000	84	020 000 300	A1/G1	6	60	400		82		A08	T
75	28X 913 000 0000	40	269 813 000	G1	6	2	250		0.9	1.1	UX6	DDT
76	284 130 000 0000	00	264 130 000		6	13.5	250		5	1.4	UX5	T
77	287 113 000 0000	40	265 113 000	G1	6	3	250	100	2.3	1.25	UX6	P
77E	287 113 000 0000	00	265 113 000	G1	6	3	250	100	2.3	1.25	UX6	P
78	287 113 000 0000	40	265 113 000	G1	6	3	250	125	10.5	1.65	UX6	P
78E	287 113 000 0000	00	265 113 000	G1	6	3	200	75	4	1.1	UX6	P
79	284 183 000 0000	00	264 173 000	G1	6.3		250		10.6		UX6	TT
80	2X9 300 000 0000	00	298 300 000		5				60		UX4	RR
80HK	390 200 000 0000	00	380 200 000		5				60		UX4	R
80M	29X 300 000 0000	00	289 300 000		5				60		UX4	RR
80S	29X 300 000 0000	00	289 300 000		5				60		UX4	RR
81	290 300 000 0000	00	280 300 000		7.5				60		UX4	R
82	29X 300 000 0000	00	289 300 000		2.5				60		UX4	RR
83	29X 300 000 0000	00	289 300 000		5				120		UX4	RR
83V	29X 300 000 0000	00	289 300 000		5				60		UX4	RR
84	29X 130 000 0000	00	289 130 000		6				30		UX5	RR
85	28X 913 000 0000	40	269 813 000	G1	6	20	250		8	1.1	UX6	DDT
85AS	289 300 000 0000	00	268 913 000	G1	6	20	250		8	1.1	UX6	DDT
85S	289 X13 000 0000	40	268 913 000	G1	6	10.5	250		3.7	0.7	UX6	DDT
88	29X 300 000 0000	00	289 300 000		5				60		UX4	RR
89	287 113 000 0000	40	265 113 000	G1	6	10	100	100	9.5	1.2	UX6	P
90	284 413 000 0000	00	264 413 000		2.5		150		3.5	1.4	UX6	T
90AC	842 310 000 0000	00	642 310 000		4	12.5	200		40	7.5	B5	T
92	284 413 000 0000	00	264 413 000		6		250		3.5	1.4	UX6	T
95	287 413 000 0000	00	265 413 000		2.5	20	350	300	42	2.3	UX6	P
96	291 300 000 0000	00	281 300 000		10				120		UX4	R
98	29X 130 000 0000	00	289 130 000		6				30		UX5	RR
99V	428 300 000 0000	00	426 300 000		3.3	4.4	90		2.5	0.4	UX4	T
99X	284 300 000 0000	00	264 300 000		3.3	4.5	90		2.5	0.4	UX4	T
100AC	842 310 000 0000	00	642 310 000		4	6	200		5	2	B5	T
104V	842 310 000 0000	00	642 310 000		4	1	100		15	3.5	B5	T

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
100/200 LLID	348 748 220 0000	00	346 547 220		1.4	9.4	150	125	4		A08	P
112A	384 200 000 0000	00	364 200 000		5	4.5	90		5	1.5	UX4	T
114	020 000 300 0000	84	020 000 300	A1/G1	1.4		200		15		A08	T
114B	020 000 300 0000	84	020 000 300	A1/G1	1.4	4	200		12	1.1	A08	T
116/Pen	007 231 800 0000	40	005 231 600	G1	11.5	1	100	100		7	B7	P
117DD	741 238 9X1 0000	00	541 236 891		17	2	250	150	5	2.2	B9A	DDP
117L7	128 479 310 0000	00	126 458 310		117	[5.2	100	100	60 43	5.3]	A08	RP
117Z3	002 391 000 0000	00	*02 381 000		117				60		B7G	R
117Z4	020 090 310 0000	00	020 080 310		117				60		A08	R
117Z6	02X 190 310 0000	00	029 180 310		117				60		A08	RR
120	842 310 000 0000	00	642 310 000		2	12	150		12		B5	T
120VPA	041 230 700 0000	80	041 230 500	A1	2	1	150	60	2.9	1.1	B7	P
121VP	280 074 130 0000	00	26* *54 130		12.5	3	200	115	7.2	2.3	B8A	P
124AC	742 310 000 0000	80	542 310 000	A1	4	1.4	200	60	1.6	0.9	B5	P
141DDT	284 09X 130 0000	00	264 089 130		14	1.5	200		1.5	1.6	B8A	DDT
141TH [	208 405 130 0000 280 575 130 0000	00 00]	276 454 130		14 [	2 2	100 250		5 8	2 2.2]	B8A	TH
142BT	028 740 130 0000	00	026 540 130		14	8.5	200	200	29	3.7	A08	P
144V	842 310 000 0000	00	642 310 000		4	8	200		6	1.4	B5	T
154V	842 310 000 0000	00	642 310 000		4	6	200		9	2	B5	T
163Pen	041 230 807 0000	00	041 23* 6*5		16	10.4	200	175	53	9.5	B9A	P
164V	842 310 000 0000	00	642 310 000		4	9	200		12	3.4	B5	T
171DDP	741 238 9X1 0000	00	541 236 891		17	2	200	125	5	2.2	B9A	DDP
181	284 300 000 0000	00	264 300 000		3	30	200		16	1	UX4	T
182	284 300 000 0000	00	264 300 000		5	45	200		18	1.5	UX4	T
182B			264 300 000		5	35	250		18	1.5	UX4	T
183	284 300 000 0000	00	264 300 000		5	60	250		30	1.7	UX4	T
185BT	020 740 310 0000	80	020 540 310	A1	18	18	200	200	100	9.5	A08	P
200	200 300 000 0000	90			2.5				15		UX4	R
200A	284 300 000 0000	00	264 300 000		5		60		1.5	0.7	UX4	T
202DDT	90X 231 800 0000	40	809 231 600	G1	20	3	200		3	2.4	B7	DDT
202MPG	747 231 800 0000	40	545 213 600	G1	20	1.5	200	100	3	1.3	B7	H
202SPB	081 231 700 0000	40	061 231 500	G1	20	1.5	250	100	4.8	2.8	B7	P
202STH [	840 231 000 0000 057 231 800 0000	50 50]	645 231 700	G1	20 [	1.5 1.5	100 200		2 60		B7	TH
202VP	041 231 700 0000	80	041 231 500	A1	20	1.5	250	100	4.3	2.2	B7	P
202VPB	081 231 700 0000	40	061 231 500	G1	20	1.5	250	100	4.3	2.2	B7	P
203THA	747 231 800 0000	40	545 231 600	G1	20	2	250	100	3.5	0.85	B7	H
205D	284 300 000 0000	00	264 300 000		3.5	29	400		30	0.95	UX4	T
205E	284 300 000 0000	00	264 300 000		4.5	22.5	350		29	1.9	UX4	T
205F	284 300 000 0000	00	264 300 000		4.5	18	300		31	1.7	UX4	T
210DDT	892 3X0 000 0000	40	682 390 000	G1	2	1	100		2.3	1.1	B5	DDT
210DET	842 300 000 0000	00	642 300 000		2	4.5	150		3	1.1	B4	T
210DPT	041 230 700 0000	80	041 230 500	A1	2	1	150	60	2.9	1.3	B7	P
210HF	842 300 000 0000	00	642 300 000		2	3	150		1.6	1.5	B4	T
210HPT	842 370 000 0000	00	642 350 000		2	4.5	150	175	7.5	2.5	B5	P
210LF	842 300 000 0000	00	642 300 000		2	4.5	150		4.8	1.4	B4	T
210PG			645 230 700	G1	2	[0	150 150		1.1 0.4		B7	H

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
210RC	842 300 000 0000	00	642 300 000		2	1.5	150		0.8	0.8	B4	T
210SPT	041 230 700 0000	80	041 230 500	A1	2	1	150	60	1.9	1.1	B7	P
210T	284 300 000 0000	00	264 300 000		7.5	32	350		16	1.5	UX4	T
210VPA	041 230 700 0000	80	041 230 500	A1	2	1	150	60	2.9	1.1	B7	P
210VPT	041 231 700 0000	80	041 231 500	A1	2	1	150	60	1.9	1.1	B7	P
213	29X 300 000 0000	00	289 300 000		5				30		UX4	RR
213Pen	041 230 071 0000	80	*41 23* *51	A1	21	22	200	200	45	6.2	B9A	P
215P	842 300 000 0000	00	642 300 000		2	7.5	150		10	2.2	B4	T
215SG	742 300 000 0000	80	542 300 000	A1	2	1	150	60	1.4	1.1	B4	P
217A	229 300 000 0000	00	228 300 000		10				120		UX4	R
220	200 300 000 0000	90	200 300 000	D1	2.5				15		UX4	R
220B	458 230 800 0000	00	446 230 700		2	3	150		5.0	1.5	B7	TT
220DD	9X2 310 000 0000	00	892 310 000		2						B5	DD
220HPT	842 370 000 0000	00	642 350 000		2	4.5	150	150	8	2.5	B5	P
220IPT	040 230 700 0000	80	040 230 500	A1	2	1.5	150	60	2.2	1	B7	P
2200T	842 370 000 0000	00	642 350 000		2	4.5	150	150	9.5	2.5	B5	P
220P	842 300 000 0000	00	642 300 000		2	7.5	150		11	2.2	B4	T
220PA	842 300 000 0000	00	642 300 000		2	4.5	150		10	4	B4	T
220PT	842 370 000 0000	00	642 350 000		2	9	150	150	19	2.5	B5	P
220SG	742 300 000 0000	80	542 300 000	A1	2	1	150	60	1.5	1.6	B4	P
220TH	840 320 000 0000	50	645 230 700	G1	2	3	100		1.7	1.2	B7	TH
	057 320 800 0000	50					150	60	0.6	0.6		
220VS	742 300 000 0000	80	542 300 000	A1	2	1	100	60	2	1.6	B4	P
220VSG	742 300 000 0000	80	542 300 000	A1	2	1.5	150	60	2.6	1.5	B4	P
225DU	092 323 X00 0000	00	082 323 900		2				15		B7	RR
230	842 300 000 0000	00	642 300 000		2	20	150		18	3	B4	T
230	200 300 000 0000	90	200 300 000	D1	5				30		UX4	R
230PT	842 370 000 0000	00	642 350 000		2	15	150	150	14	2	B5	P
230XP	842 300 000 0000	00	642 300 000		2	18	150		22	3	B4	T
231D	284 300 000 0000	00	264 300 000		3	3	90		2.1	8.4	UX4	T
240B	548 230 800 0000	00	446 230 700		2	1	150		8.5		B7	TT
240QP	548 237 800 0000	00	446 253 700		2	12	150	150	6	2.5	B7	PP
244	284 130 000 0000	00	264 130 000		2	6	150		5.5	1	UX5	T
244V	842 310 000 0000	00	642 310 000		4	5.5	200		5.5	2.8	B5	T
245A	287 130 000 0000	40	265 130 000	G1	2	1.5	150	50	4.8	0.6	UX5	P
246A	387 200 000 0000	40	365 200 000	G1	3.3	1.5	150	40	1.5	0.4	UX4	P
247A	208 040 030 0000	00	206 040 030		2	4.5	150		3.2	0.9	A08	T
248A	028 710 310 0000	40	026 510 310	G1	6.3		150	125	5.5	1.8	A08	P
249B	223 300 000 0000	90	223 300 000	D1	2.5				120		UX4	R
252A	284 300 000 0000	00	264 300 000		5	50	400		60	3.4	UX4	T
255	289 X43 000 0000	00	268 943 000		2	3	150		0.8	0.6	UX6	DDT
257	284 730 000 0000	00	264 530 000		5	21.5	100	100	20	1.3	UX5	P
257A	280 300 000 0000	40	260 300 000	G1	3.1	3	90		2.1	0.5	UX4	T
259A	287 130 000 0000	40	265 130 000	G1	2	1.5	200	75	5.5	1.4	UX5	P
259B	287 130 000 0000	40	265 130 000	G1	2	1.2	200	75	5.5	1.4	UX5	P
262B	281 300 000 0000	40	261 300 000	G1	10	4.5	150		2.8	0.9	UX4	T
264	284 300 000 0000	00	264 300 000		1.1	9	150		2.5	0.6	UX4	T
264C	284 300 000 0000	00	264 300 000		1.5	8	100		2.1	0.6	UX4	T
264E	284 300 000 0000	00	264 300 000		1.4	8	100		2.1	0.6	UX4	T
271A	284 130 000 0000	00	264 130 000		5	30	400		37.5	2.9	UX5	T

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
272A	284 130 000 0000	00	264 130 000		10	15	150		5.4	0.7	UX5	T
274A	29X 300 000 0000	00	289 300 000		5				60		UX4	RR
275A	284 300 000 0000	00	264 300 000		5	4.5	200		47	2.7	UX4	T
281A	284 730 000 0000	00	264 530 000		5	60	150	75	35	1.5	UX5	P
283A	287 130 000 0000	40	265 130 000	G1	2	1.5	200	75	5.9	1.3	UX5	P
285	287 130 000 0000	40	265 130 000	G1	2	12	200	150	8.8	0.9	UX5	P
286A	287 113 000 0000	40	265 113 000	G1	2	1.5	200	75	6.2	1.2	UX6	P
290A	287 113 000 0000	40	265 113 000	G1	10	1.5	200	75	5.4	1.2	UX6	P
291A	287 841 300 0000	40	275 641 300	G1	10	3 7.5	200 200		4.5 3.1		B7	H
292A	289 X13 000 0000	40	268 913 000	G1	10	6	150		2.1	0.6		
293A	287 413 000 0000	00	265 413 000		10	18	200	200	14.5	1	UX6	P
300A	284 300 000 0000	00	364 200 000		5	97	400		80	1.3	UX4	T
302	847 231 800 0000	50	645 231 700	G1	30	2	100		1.5		B7	TH
	057 231 800 0000	50				2	250	100	3.5	0.9		
303A	289 X43 000 0000	00	268 943 000		2	6	150		2	0.6	UX6	DDT
304AC	742 310 000 0000	80	542 310 000	A1	4	2	200	100	3	1.9	B5	P
309A	287 413 000 0000	00	265 413 000		10	1.5	200	75	4.3	1.1	UX6	P
310A	287 113 000 0000	40	265 113 000	G1	10	3	150	150	5.5	1.8	UX6	P
311A	287 130 000 0000	40	265 130 000	G1	10	15	150	150	30	2.8	UX5	P
311SU	290 000 130 0000	00	28* *** 130		31		225		100		B8A	R
324A	200 300 000 0000	90	200 300 000	D1	5				5		UX4	R
328A	287 113 000 0000	40	265 113 000	G1	7.5	3	150	150	5.5	1.8	UX6	P
329A	287 130 000 0000	40	265 130 000	G1	7.5	15	150	150	37.5	3.3	UX5	P
332Pen	028 740 310 0000	00	026 540 310		33	8.5	200	200	45	8	A08	P
336A	287 413 000 0000	00	265 413 000		10	14	250	250	30	4.2	UX6	P
337A	287 113 000 0000	40	265 113 000	G1	10	3	150	150	6.3	1.6	UX6	P
345A	29X 130 000 0000	00	289 130 000		6				60		UX5	RR
347A	020 800 310 0000	40	020 600 310	G1	6	4.6	150		2.8	0.9	A08	T
349A	028 740 310 0000	00	026 540 310		6	14	250	250	30	4.2	A08	P
350B	028 740 310 0000	00	026 540 310		6	20	400	250	85	6.2	A08	P
351A	029 0X0 310 0000	00	028 090 310		6.3				120		A08	RR
352A	289 X13 000 0000	40	268 913 000	G1	10	6	100		2.1	0.6	UX6	DDT
354V	842 310 000 0000	00	642 310 000		4	4.5	250		6.5	3.6	B5	T
361A	243 780 000 0000	00	243 560 000		1.4		50	40	0.4	0.6	UX5	P
362A	243 780 000 0000	00	243 560 000		1.4		50	50	1.3	0.5	UX5	P
367A	080 724 310 0000	00	060 524 310		6	20	400	250	85	6.2	A08	P
373A	021 477 380 0000	00	021 455 360		2		150	150	2	1.3	A08	P
374A	021 407 380 0000	00	021 405 360		3		150	125	18	3	A08	P
375A	028 740 310 0000	00	026 540 310		20		40	40	12	4.7	A08	P
381A	120 090 300 0000	00	120 080 300		6.3				5		A08	D
383A	120 408 030 0000	00	120 406 030		6		150		7.5	2.8	A08	T
385A	127 040 130 0000	00	125 040 130		6		150		7.5	2.5	A08	P
387A	127 040 130 0000	00	125 040 130		6		150		5.6	4	A08	P
396A	214 808 513 0000	00	214 607 413		6.3	2.2	150		8.2	5.5	B9A	TT
401A	287 300 000 0000	00	265 300 000		5	9	50		1.5	0.8	UX4	T
402	284 300 000 0000	00	264 300 000		3	40	200		40	1	UX4	T
402-OT	007 231 800 0000	40	005 231 600	G1	40	12	250	250	32	7	B7	P
402P	000 231 800 0000	40	000 231 600	G1	4	15	200		27	5.5	B7	T
402Pen	007 231 800 0000	40	005 231 600	G1	40	6.7	200	200	40	7	B7	P
402PenA	007 231 800 0000	40	005 231 600	G1	40	9	150	150	56	8	B7	P

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
403A	413 287 100 0000	00	413 265 100		6	2.3	150	150	7	4.4	B7G	P
403B	412 387 100 0000	00	412 365 100		6.3		200	125	7.7	5.1	B7G	P
404A	402 108 073 0000	00	402 106 053		6.3		150	150	13.5	12.5	B9A	P
405BU	9X2 300 000 0000	00	892 300 000		4				15		B4	RR
406	842 300 000 0000	00	642 300 000		4		150		5.5	0.5	B4	T
407A	214 838 512 0000	00	214 637 412		20	2	150		8.2	5.5	B9A	TT
408A	412 387 100 0000	00	412 365 100		20	2	150	125	7.5	5	B7G	P
408BU	9X2 300 000 0000	00	892 300 000		4				15		B4	RR
409A	410 087 100 0000	00	410 065 100		6.3		150	125	5.2	3.2	B7G	P
410HF	842 300 000 0000	00	642 300 000		4	2.5	200		0.2	0.2	B4	T
410P	842 300 000 0000	00	642 300 000		4	16	250		12	1.8	B4	T
410PT	482 370 000 0000	00	462 350 000		4	1	100	150		2.5	B5	P
410RC	842 300 000 0000	00	642 300 000		4	2.5	200		0.2	0.2	B4	T
410SG	742 300 000 0000	80	542 300 000	A1	4	1	200	100	4.5	0.9	B4	P
412BU	9X2 300 000 0000	00	892 300 000		4				30		B4	RR
412SU	902 300 000 0000	00	802 300 000		4				60		B4	R
415PT	842 370 000 0000	00	642 350 000		4	25	300	200	20	1.7	B5	P
415SP	842 300 000 0000	00	642 300 000		4	18	150		11	1.6	B4	T
417A	802 441 443 0000	00	602 441 443		6.3	1.5	150		25	25	B9A	T
420T	047 231 800 0000	00	045 231 600		4	4.4	250	250	40	10.5	B7	P
425PT	842 370 000 0000	00	642 350 000		4	17	250	150	12	1.3	B5	P
431U	9X2 300 000 0000	00	892 300 000		4				60		B4	RR
435A	402 108 073 0000	00	402 106 053		6	10	200	150	13	16.3	B9A	P
436A	211 403 708 0000	00	211 403 506		6.3	1.4	200	150	23	32	B9A	P
437A	304 002 118 0000	00	304 002 116		6	10	150		40		B9A	T
441U	9X2 300 000 0000	00	892 300 000		4				60		B4	RR
446A/B	021 000 310 0000	84	021 000 310	A1/G1	6	3	250		15	4.5	A08	T
450	842 300 000 0000	00	642 300 000		4	55	250		50	3.5	B4	T
450	284 300 000 0000	00	264 300 000		7.5		400		55	2.1	UX4	T
450AC	742 310 000 0000	80	542 310 000	A1	4		200	100	3.5	3	B5	P
451	9X2 300 000 0000	00	892 300 000		1.8			16		650	B4	RR
451PT	280 074 130 0000	00	26* *54 130		45	9	200	200	54.5	9.5	B8A	P
451U	923 X00 000 0000	00	823 900 000		4				120		B4	RR
460BU	9X2 300 000 0000	00	892 300 000		4				60		B4	RR
482A	284 300 000 0000	00	264 300 000		5	45	200		18	1.5	UX4	T
482B	284 300 000 0000	00	264 300 000		5	35	250		18	1.5	UX4	T
483	842 310 000 0000	00	264 300 000		5	60	250		30	1.7	UX4	T
484V	842 310 000 0000		642 310 000		4	2.5	200		0.2	1.2	B5	T
485	284 130 000 0000	00	264 130 000		3	9	200		5.8	1.4	UX5	T
486	028 040 300 0000	00	026 040 300		3	3	90		3	0.6	A08	T
500	9X2 300 000 0000	00	892 300 000		4				30		B4	RR
501	873 420 000 0000	00	653 420 000		1.4	0	40	40	1	0.8	B5A	P
502	873 420 000 0000	00	653 420 000		1.2	1.2	40	40	8.6	0.5	B5A	P
503	873 420 000 0000	00	653 420 000		1.2	2	40	40	0.8	0.5	B5A	P
505	873 420 000 0000	00	653 420 000		0.6	0	40	30	0.1	0.1	B5A	P
506	9X2 300 000 0000	00	892 300 000		4				30		B4	RR
506AX	873 420 000 0000	00	653 420 000		1.2	4.5	40	40	1.2	0.5	B5A	P
506BU	9X2 300 000 0000	00	892 300 000		4				30		B4	RR
506K	9X2 300 000 0000	00	892 300 000		2	2			30		B4	RR
507AX	287 438 200 0000	00	265 436 200		1.2		40	40	0.9	0.5	B7G	P

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
509	9X2 300 000 0000	00	892 300 000		2				60		B4	RR
509AX	834 200 000 0000	00	634 200 000		0.6	2	40		0.1	0.1	B5A	T
511D	9X2 300 000 0000	00	892 300 000		4				60		B4	RR
512AX	873 420 000 0000	00	653 420 000		0.6	0.6	20	20	0.1	0.1	B5A	P
515BX	834 200 000 0000	00	634 200 000		0.6		40		0.1	0.1	B5A	T
516AX	803 420 000 0000	00	603 420 000		0.6	0.6	22.5		0.1	0.2	B5A	T
518AX	873 420 000 0000	00	653 420 000		1.2	2	40	40	0.8	0.5	B5A	P
520AX	873 420 000 0000	00	653 420 000		0.6	2.5	40	40	0.2	0.1	B5A	P
521AX	873 420 000 0000	00	653 420 000		1.2	3	20	20	0.8	0.4	B5A	P
522AX	873 420 000 0000	00	653 420 000		1.2	0	20	20	0.3	0.4	B5A	P
523AX	873 420 000 0000	00	653 420 000		1.2	1.2	20	20	0.3	0.3	B5A	P
524AX	873 420 000 0000	00	653 420 000		1.2	1.7	12	12	0.4	0.3	B5A	P
525AX	873 420 000 0000	00	653 420 000		1.2	1.2	20	20	0.2	0.3	B5A	P
526AX	873 420 000 0000	00	653 420 000		1.2	1.5	20	20	0.4	0.4	B5A	P
527AX	873 420 000 0000	00	653 420 000		1.2	0	20	20	0.1	0.2	B5A	P
528AX	873 420 000 0000	00	653 420 000		1.2	0	20	20	0.3	0.4	B5A	P
529AX	873 420 000 0000	00	653 420 000		1.2	1.2	12	12	0.3	0.3	B5A	P
532DX	873 420 000 0000	00	653 420 000		1.2	0	20	20	0.4	0.4	B5A	P
533DX	873 420 000 0000	00	653 420 000		1.2	0	20	20	0.3	0.4	B5A	P
535AX	873 420 000 0000	00	653 420 000		1.2	1.2	15		0.3	0.3	B5A	P
537AX	873 420 000 0000	00	653 420 000		1.2	1.5	20	20	0.4	0.4	B5A	P
538A	851 228 413 0000	00	741 226 413		6	2	250		10	5.5	B9A	TT
539DX	873 420 000 0000	00	653 420 000		1.2	1.4	20	20	0.2	0.3	B5A	P
541DX	873 420 000 0000	00	653 420 000		1.2	0	30	30	0.2	0.4	B5A	P
542A	802 304 100 0000	00	602 304 100		6	2	250		10	5.5	B7G	T
542DX	873 420 000 0000	00	653 420 000		1.2	2	20	20	0.4	0.3	B5A	P
542DXS			653 420 000		1.2	2	20	20	0.4	0.3	B5A	P
543	402 013 080 0000	00	402 013 060		6	2.5	200		9.5	3.8	B8D	T
544A	802 384 100 0000	00	602 364 100		6	8.5	250		10.5	2.2	B7G	T
544DX	873 420 000 0000	00	653 420 000		1.2	0	30	30	0.1	0.3	B5A	P
546A	902 30X 100 0000	00	802 309 100		6				30		B7G	RR
546DX	873 420 000 0000	00	653 420 000		1.2	0	20	20	0.3	0.4	B5A	P
547A	120 417 380 0000	00			6	3	300	150	30	11	A08	P
547DX	873 420 000 0000	00	653 420 000		1.2	0	40	30	0.2	0.4	B5A	P
548A	982 344 000 0000	00	762 344 100		6	0.8	100		8.5	5.3	B7G	TT
548DX	873 420 000 0000	00	653 420 000		1.2	1.4	20	20	0.2	0.3	B5A	P
549A	1X2 310 900 0000	00	192 310 800		6						B7G	DD
550A	581 481 230 0000	00	471 461 230		6	2	250		2.3	1.6	A08	TT
553AXA	872 430 000 0000	00	652 430 000		1.2	0	20	20	0.4	0.5	B5A	P
559	021 010 030 0000	90	021 010 030	D1	6.3				27		A08	R
568AX	803 420 000 0000	00	603 420 000		1.2	5.5	135		1.9	0.6	B5A	T
569AX	872 430 000 0000	00	652 430 000		1.2		60	60	1.8	1.1	B5A	P
573AX	824 300 000 0000	00	624 300 000		1.2	4	90		11	2	B5A	T
574AX	873 420 000 0000	00	653 420 000		0.6	0.6	20	20	0.1	0.1	B5A	P
578	901 23X 148 0000	00	811 239 146		4.7	3	250		1	1.2	B9A	DDDT
605	842 300 000 0000	00	642 300 000		4	6	150		10	1.4	B4	T
608CX	823 410 000 0000	00	623 410 000		6.3	2	150		9	5	B5A	T
612BU	9X2 300 000 0000	00	892 300 000		6				30		B4	RR
615	842 300 000 0000	00	642 300 000		4	41	150		4	1.4	B4	T

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
619CX	823 410 000 0000	00	623 410 000		6.3	2	250		4	4	B5A	T
620T	842 300 000 0000	00	642 300 000		6	99	400		62	2.3	B4	T
635GTX	028 040 310 0000	00	026 040 310		6	20	350		20		A08	T
660	842 300 000 0000	00	642 300 000		6	100	400		120	2.3	B4	T
660T	842 300 000 0000	00	642 300 000		6	1	100		7.4	7.4	B4	T
680XP	842 300 000 0000	00	642 300 000		6	100	400		3.5	1.1	B4	T
713A	021 417 380 0000	00	021 415 360		6	2	125		7.5	4	A08	P
731A	412 387 100 0000	00	412 365 100		6	2.3	150	150	7	4.3	B7G	P
801	384 200 000 0000	00	364 200 000		7.5	15	400		60	2.5	UX4	T
802	207 411 300 0000	80	205 411 300	A1	6	18	400	250	30	2.2	UX7	P
805	842 300 000 0000	00	642 300 000		6	6	150		10	1.4	B4	T
807	274 130 000 0000	80	254 130 000	A1	6	12.5	400	250	83	6.5	UX5	P
816	200 300 000 0000	90	300 300 000	D1	2.5				120		UX4	R
825	842 300 000 0000	00	642 300 000		6		150		6	1.4	B4	T
825BU	9X2 300 000 0000	00	892 300 000		7.5				60		B4	RR
829B	[247 135 200 0000 247 135 200 0000 247 135 200 0000]	[08 80 80]	245 134 200	A1/A2	6.3	55	300	250	25	1.9	B7A	PP
832	[247 135 200 0000 247 135 200 0000]	[08 08]	245 134 200	A1/A2	6.3	60	150	125	30	3.5	B7A	PP
836	200 000 300 0000	90	2** 00* 300	D1	2.5				120		B7G	R
837	207 411 300 0000	00	205 411 300		12.6	40	400	150	45		UX7	P
840	274 130 000 0000	80	254 130 000	A1	2	3	200	75	1	0.4	UX5	P
841	284 300 000 0000	00	264 300 000		7.5	1	100			0.7	UX4	T
842	284 130 000 0000	00	264 130 000		7.5	100	400		25	1.2	UX5	T
843	284 130 000 0000	00	264 130 000		2.5	25	350		25	1.7	UX5	T
864	384 200 000 0000	00	364 200 000		1.1	4.5	90		2.9	0.6	UX4	T
871	200 300 000 0000	90	200 300 000	D1	2.5				120		UX4	R
879	200 300 000 0000	90	200 300 000	D1	2.5				5		UX4	R
884	028 040 310 0000	00	026 040 310		6		300		55	4k	A08	THY
885	284 130 000 0000	00	264 130 000		2.5		300		55	4k	UX5	THY
904V	842 310 000 0000	00	642 310 000		4	2	200		2	2	B5	T
950	041 230 700 0000	80	041 230 500	A1	2	16.5	200	150	7	0.9	B7	P
951	287 300 000 0000	40	265 300 000	G1	2	3	200	60	1.7	0.6	UX4	P
952F	299 310 000 0000	00	288 310 000		6.3				2		5AA	D
954	213 174 000 0000	80	213 154 000	A1	6.3	3	250	100	2	1.4	7AA	P
955	284 310 000 0000	00	264 310 000		6.3	7	250		6.3	2.2	5AA	T
956	213 174 000 0000	80	213 154 000	A1	6	3	250	100	6.7	1.8	7AA	P
957	322 480 000 0000	00	322 460 000		1.2	5	150		2	0.6	5AA	T
958	384 220 000 0000		364 220 000		1.2	7.5	135		3	1.2	5AA	T
958A	322 480 000 0000	00	364 220 000		1.2	20	150				5AA	T
959	322 174 000 0000	80	322 154 000	A1	1.2	3	150	60	1.7	0.6	7AA	P
985	29X 130 000 0000	00	289 130 000		5				30		UX5	RR
986	29X 300 000 0000	00	289 300 000		5				60		UX4	RR
994V	842 310 000 0000	00	642 310 000		4	0.5	100			3.6	B5	T
1002	903 300 000 0000	00	802 300 000		1.8				60		B4	R
1005	009 0X2 030 0000	00	008 092 030		6.3				30		A08	RR
1006	29X 300 000 0000	00	289 300 000		1.7				120		UX4	RR
1007	009 0X0 230 0000	00	008 090 230		1.0				60		A08	RR
1012	29X 300 000 0000	00	289 300 000		1.7				120		UX4	RR
1028	202 322 200 0000	90	202 322 200	D1	6				60		B7G	R
1103	90X 231 800 0000	40	809 231 600	G1	13	2	250		1.5	1.5	B7	DDT

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V † Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
1130	9X2 300 000 0000	00	892 300 000		1.8				1.3		B4	DD
1201	428 141 830 0000	00	426 141 630		6	3	200		5.5	3	B8B	T
1201	9X2 300 000 0000	00	892 300 000		2.5				30		B4	DD
1203	200 900 130 0000	00	200 800 130		6				5		B8B	D
1204	728 141 310 0000	00	526 141 310		6	2	250	100	1.7	1.2	B8B	P
1206	287 451 830 0000	00	265 441 730		6	2.5	250	100	4.5	2.1	B8B	PP
1216	882 345 100 0000	00	672 344 100		6	2.3	100		4.8	3.4	B7G	TT
1217	412 387 100 0000	00	412 365 100		6	2	75	75	6.3	2	B7G	H
1221	187 113 000 0000	40	165 113 000	G1	6	3	250	100	2	1.2	UX6	P
1222	287 403 100 0000	00	265 403 100		6.3	18	350	250	54	5.2	A08	P
1223	028 710 310 0000	40	026 510 310	G1	6	3	250	100	2	1.2	A08	P
1229	287 300 000 0000	40	265 300 000	G1	2	3	150	75	1.7	0.6	UX4	P
1230	284 300 000 0000	00	264 300 000		2	9	150		3		UX4	T
1231	287 104 130 0000	00	265 104 130		6	30	300	200	13	6.3	B8B	P
1232	287 114 130 0000	00	265 114 130		6	2	250	100	6	4.5	B8B	P
1236A	333 992 220 0000	00	333 882 220		2						A08	D
1238	257 881 430 0000	00	245 671 430		28	3.5	40	30	12.5	3.4	B8B	PP
1247	000 230 000 0000	90	000 230 000	D1	0.6				0.4		B8A	D
1273	287 104 130 0000	00	265 104 130		6	3	250	100	2.2	1.5	B8B	P
1274	029 0X0 310 0000	00	028 090 310		6				30		A08	RR
1275	29X 300 000 0000	00	289 300 000		5				120		UX4	RR
1276	284 300 000 0000	00	264 300 000		4.3	45	250		60	5.2	UX4	T
1280	287 104 130 0000	00	265 104 130		12.5	3	250	100	2.2	1.5	B8B	P
1282	287 114 130 0000	00	265 114 130		6	2	300	150	10	5.8	B8B	P
1284	287 104 103 0000	00	265 104 130		12.5	3	250	100	9	2	B8B	P
1288	384 250 830 0000	00	364 240 730		1.4		90		5.2	1.8	A08	TT
1291	284 305 820 0000	00	274 304 620		1.4		90		5.2	1.8	A08	TT
1292	384 205 830 0000	00	364 204 730		1.4		90		5.2	1.8	A08	TT
1293	280 084 030 0000	00	260 064 030		1.4	0	90		5.2	1.3	B8B	T
1294	200 900 130 0000	00	200 800 130		1.4				1		A08	D
1299	387 004 230 0000	00	365 004 230		1.4	4.5	150	90	10.2	2.4	B8B	P
1560	29X 300 000 0000	00	289 300 000		5				60		UX4	RR
1560	9X2 300 000 0000	00	892 300 0000		5				60		B4	RR
1561	9X2 300 000 0000	00	892 300 000		4				60		B4	RR
1562	290 300 000 0000	00	280 300 000		7.5				120		UX4	R
1602	284 300 000 0000	00	264 300 000		7.5	23.5	250		10	1.3	UX4	T
1603	287 113 000 0000	40	265 113 000	G1	6	3	250	100	2	1.2	UX6	P
1608	284 300 000 0000	00	264 300 000		2.5	90	400		95		UX4	T
1609	384 720 000 0000	00	364 520 000		1.1	1.5	150	75	2.5	0.7	UX5	P
1610	284 730 000 0000	00	264 530 000		2.5	16.5	250	250	31	2.5	UX5	P
1611	028 740 310 0000	00	026 540 310		6	16.5	250	250	34	2.5	A08	P
1612	028 740 310 0000	40	026 540 310	G1	6	3	250	100	5.3	1.1	A08	H
1613	028 740 310 0000	00	026 540 310		6	16.5	250	250	34	2.5	A08	P
1614	028 740 310 0000	00	026 540 310		6	18	350	250	54	5.2	A08	P
1616	200 300 000 0000	90	200 300 000	D1	2.5				120		UX4	R
1619	028 740 310 0000	00	026 540 310		2.5	10	300	250	45	4.5	A08	P
1620	028 710 310 0000	40	026 510 310	G1	6	3	250	100	2	1.2	A08	P
1621	028 740 310 0000	00	026 540 310		6	16.5	250	250	34	3.5	A08	P
1624	207 401 300 0000	80	205 401 300	A1	2.5	10	300	250	45	4.5	UX7	P
1625	207 401 300 0000	80	205 401 300	A1	12	12.5	400	250	83	6.5	UX7	P

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
1626	028 040 310 0000	00	026 040 310		12.5	32	250		20	2.1	A08	T
1629	028 740 310 0000	00	026 540 310		12.5	8	250	250	0.2	†1.0	A08	TI
1631	028 740 310 0000	00	026 540 310		12.5	18	350	250	54	5.2	A08	P
1632	028 740 310 0000	00	026 540 310		12.5	8	200	100	50	9.5	A08	P
1633	581 481 230 0000	00	471 461 230		25	8	250		11.5	2.6	A08	TT
1634	085 481 230 0000	00	074 461 230		12.5	2	250		2	1.3	A08	TT
1635	028 548 310 0000	00	027 446 310		6	0	300		3.5	0.9	A08	TT
1637	028 700 310 0000	40	026 500 310	G1	6	18	250	250	32	3.8	A08	P
1638	02X 190 310 0000	00	029 180 310		6						A08	DD
1639	028 9X0 310 0000	40	026 890 310	G1	6	5.5	250		5	2	A08	DDT
1641	200 300 000 0000	9X	200 300 000	D1/D2	5				120		UX4	RR
1641/RK60	200 300 000 0000	9X	200 300 000	D1/D2	5				50		UX4	RR
1642	218 481 300 0000	50	216 471 300	G1	6	16.5	250		8.3	1.4	UX7	TT
1644	514 872 380 0000	00	414 752 360		12.5	9	200	200	13	2.1	A08	PP
1649	021 417 380 0000	00	021 415 360		6	2	300	150	10	9	A08	P
1654	200 000 300 0000	90	2** 00* 300	D1	1.4						B7G	D
1655	085 481 230 0000	00	074 461 230		6	2	250		2	1.3	A08	TT
1659	289 X13 000 0000	40	268 913 000	G1	2.5	2	250		0.9	1.1	UX6	DDT
1662	384 728 300 0000	00	364 526 300		1.4	8.4	150	90	13.3	1.9	B7G	P
1664	028 X97 310 0000	40	026 985 310	G1	2.5	3	250	125	10	1.3	A08	DDP
1701	9X2 300 000 0000	00	892 300 000		1.8				120		B4	RR
1801	9X2 300 000 0000	00	892 300 000		4				15		B4	RR
1805	9X2 300 000 0000	00	892 300 000		4				30		B4	RR
1810	003 200 000 0000	90	003 200 000	D1	4				30		B4	R
1815	9X2 300 000 0000	00	892 300 000		4				60		B4	RR
1817	9X2 300 000 0000	00	892 300 000		4				120		B4	RR
1831	9X2 300 000 0000	00	892 300 000		4				30		B4	RR
1832	092 300 000 0000	00	082 300 000		4				120		B4	R
1851	028 710 310 0000	40	026 510 310	G1	6	2	300	150	10	9	A08	P
1852	021 417 380 0000	00	021 415 360		6	2	300	150	10	9	A08	P
1853	021 417 380 0000	00	021 415 360		6	3	300	200	12.5	5	A08	P
1853GT	028 710 310 0000	40	026 510 310	G1	6.3	3	300	200	12.5	5	A08	P
1861	9X2 300 000 0000	00	892 300 000		4				60		B4	RR
1867	39X 200 000 0000	00	389 200 000		4				60		UX4	RR
1868	023 190 0X0 0000	00	023 180 090		4				60		F8	RR
1875	023 000 000 0000	90	023 000 000	D1	4				5		8SC	R
1876	123 000 090 0000	00	123 000 080		4				5		8SC	R
1877	002 300 000 0000	90	002 300 000	D1	4				3		B4	R
1881	9X2 300 000 0000	00	892 300 000		4				30		B4	RR
1882	023 090 0X0 0000	00	023 080 090		5				60		8SC	RR
1884	120 X09 030 0000	00	120 908 030		2.5				15		A08	RR
2033	982 344 100 0000	00	762 344 100		6	1	100		9.5	6	B7G	TT
2051	028 041 310 0000	00	026 041 310		6		250		75	3k	A08	THY
2101	284 730 000 0000	00	264 530 000		2	4.5	150	150	8	1.7	UX5	P
2102	289 X73 000 0000	00	268 953 000		2	1	100		2.5	1.3	UX6	DDT
2103	285 748 300 0000	00	274 546 300		2	7.5	150	150	4	1.5	UX7	PP
2151	287 413 000 0000	00	265 413 000		14	31	250	250	47	2.7	UX6	P
2318	9X2 300 000 0000	00	892 300 000		4				30		B4	RR
2506	9X2 300 000 0000	00	892 300 000		4				15		B4	RR
3006	902 300 000 0000	00	802 300 000		4				3		B4	D
3041	872 430 000 0000	00	652 430 000		1.2	1	20	20	0.2	0.3	B5A	P
3074A	205 140 300 0000	08	204 140 300	A1/A2	6		300		50	3	UX7	TT
	205 140 300 0000	80										
3075A	002 300 000 0000	90	002 300 000	D1	2				3		B4	D
3310A	287 113 000 0000	40	265 113 000	G1	10		250	150	5.6	2	UX6	P
3311A	287 113 000 0000	40	265 113 000	G1	10		200	150	33	3	UX6	P
3328A	287 113 000 0000	40	265 113 000	G1	7.5		250	150	5.6	1.9	UX6	P

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
3329A	287 113 000 0000	40	265 113 000	G1	7.5		200	125	31	2.9	UX6	P
3481	028 710 310 0000	40	026 510 310	G1	6	13.5	150	150	5.5	1.8	A08	P
3720	384 200 000 0000	00	364 200 000		5	1.5	200		0.2	0.2	UX4	T
3872	384 200 000 0000	00	364 200 000		2	9	150		3		UX4	T
3873	387 200 000 0000	40	365 200 000	G1	2	3	150	75	1.5	0.6	UX4	P
3921	284 300 000 0000	00	264 300 000		2.5	50	250		34	2.1	UX4	T
3924	287 130 000 0000	40	265 130 000	G1	2.5	3	200	90	4	1	UX5	P
4019A	284 300 000 0000	00	264 300 000		4		200		9.7	1.3	UX4	T
4019B	842 300 000 0000	00	642 300 000		4	4	100		7.5	1.2	B4	T
4020A	284 300 000 0000	00	264 300 000		2	2	150		1.2	0.6	UX4	T
4020B	842 300 000 0000	00	642 300 000		2	2	150		1.2	0.6	B4	T
4021A	284 300 000 0000	00	264 300 000		4	10	150		32.5	3	UX4	T
4021B	842 300 000 0000	00	642 300 000		4	8	150		23	3	B4	T
4022AR	284 300 000 0000	00	264 300 000		4	6	200		16.2	2.2	UX4	T
4022B	842 300 000 0000	00	642 300 000		4	6	200		16.2	2.2	B4	T
4033	284 130 000 0000	00	264 130 000		6	20	400		50	9	UX5	T
4033A	842 310 000 0000	00	642 310 000		6	20	400		50	9	B5	T
4033L	842 310 000 0000	00	642 310 000		6	20	400		60	10	B5	T
4037A	902 300 000 0000	00	802 300 000		4				120		B4	R
4045A	842 370 000 0000	00	642 350 000		5	70	250	60	43	1.3	B5	P
4061A	205 411 300 0000	80	205 411 300	A1	6	10	400	200	50	2.5	B7	P
4074A	205 140 300 0000	88	204 140 300	A1/A2	6	13	300		15	3	UX7	TT
4077A	003 200 000 0000	90	003 200 000	D1	5				120		B4	R
4264A	384 200 000 0000	00	364 200 000		1.5		100			0.5	UX4	T
4274A	29X 300 000 0000	00	289 300 000		5				120		UX4	RR
4300A	384 200 000 0000	00	364 200 000		5	90	400		50		UX4	T
4310A	287 113 000 0000	40	265 113 000	G1	10	5.5	250	150	5.2	2	UX6	P
4328A	287 113 000 0000	40	265 113 000	G1	7.5	5.5	250	175		2	UX6	T
4328D	028 710 310 0000	40	026 510 310	G1	7.5	5.5	250	150	6.2	2	A08	T
4605	284 130 000 0000	00	264 130 000		1.8	6	220		4		UX5	T
4606	423 800 000 0000	00	423 600 000		4.5	9	130		8.5	1	VX4	T
4607	423 800 000 0000	00	423 600 000		2.1	1.6	130		0.7	0.5	VX4	T
4608	842 310 000 0000	00	642 310 000		4	6	150		11	2.5	B5	T
4609	423 800 000 0000	00	423 600 000		4.2	5	130		8	2.3	UX4	T
4610	742 310 000 0000	80	542 310 000	A1	4	1.3	200	100	1.5	0.9	B5	P
4611	384 200 000 0000	00	364 200 000		6	40	200		20	1.7	UX4	T
4611	842 300 000 0000	00	642 300 000		6	40	200		20	1.7	B4	T
4612	842 300 000 0000	00	642 300 000		4	40	250		40	2.7	B4	T
4613	842 300 000 0000	00	642 300 000		4	22	250		48	3.5	B4	T
4614	842 310 000 0000	00	642 310 000		4	16	200		12	1.3	B5	T
4617	423 800 000 0000	00	423 600 000		4	0.8	130		25	3	VX4	T
4618	742 310 000 0000	80	542 310 000	A1	4	2	200	100	3	2.2	B5	P
4619	9X2 300 000 0000	00	892 300 000		4				30		B4	RR
4623	123 000 000 0000	90	123 000 000	D1	6.3				5		B3G	D
4630	423 800 000 0000	00	423 600 000		4.2	8.4	180		8.5	1.3	UX4	T
4631	284 300 000 0000	00	264 300 000		2	1.5	150		0.7		UX4	T
4635	842 310 000 0000	00	642 310 000		4	16	200		12	9	B5	T
4636	742 310 000 0000	80	542 310 000		4	2	200	100	3	2.3	B6	P
4650	842 370 000 0000	00	642 350 000		4	63	300	300	30		B5	P
4651	023 190 0X0 0000	00	023 180 090		6.3				60		8SC	RR
4652	9X2 300 000 0000	00	892 300 000		4				60		B4	RR
4654	411 230 070 0000	80	411 230 050	A1	6	14	250	275	72	8.5	8SC	P
4654K	023 114 700 0000	80	023 114 500	A1	6	12.5	250	275	72	8.5	8SC	P
4654P	411 230 070 0000	80	411 230 050	A1	6	14	250	275	72	8.5	8SC	P
4655	182 300 000 0000	00	462 300 000		4.5				60		B4	RR
4657	842 310 000 0000	00	642 310 000		4	1.5	200		1	2.2	B5	T

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
4670	532 784 780 0000	00	432 564 570		2	8.5	90	90	1		8SC	PP
4671	284 310 000 0000	00	264 310 000		6.3	5	200		4.5	2	5AA	T
4672	713 100 000 0000	84	513 100 000	A1/G1	6.3	3	90	90	1.2	1.1	5AA	P
4673	023 110 780 0000	40	642 310 000	G1	4	2.5	250	200	8	5	B5	P
4673	842 310 000 0000	40	023 110 560	G1	4	4	250	200	8	5	8SC	P
4675	284 310 000 0000	00	264 310 000		4	5	200		4.5	2	5AA	T
4676	271 310 000 0000	84	251 310 000	A1/G1	4	3	250	100	2	1.4	5AA	P
4677	023 104 780 0000	00	023 104 560		4	4	250	250	0.12	†2.0	8SC	TI
4678	023 104 780 0000	00	023 104 560		6.3	5	250	250	0.1	†2.0	8SC	TI
4679	023 110 560 0000	00	023 110 560		6	2.5	250	200	8	5	8SC	P
4682	023 100 780 0000	40	023 100 560	G1	4		375	250	24		8SC	P
4683	023 004 080 0000	00	023 004 060		4		350		43		8SC	T
4684	023 104 780 0000	00	023 104 560		4		400	250	24		8SC	P
4688	023 104 780 0000	00	023 104 560		4		400	275	48		8SC	P
4689	023 740 310 0000	00	026 540 310		6.3		400	275	48		A08	P
4689	023 104 780 0000	00	023 104 560		6		400	275	48		8SC	P
4694	023 104 780 0000	00	023 104 560		6	7.5	400	250	24	8	8SC	P
4695	271 310 000 0000	84	251 310 000	A1/G1	6.3	3	250	100	6.7	1.7	5AA	P
4696	023 190 780 0000	40	023 180 560	G1	6.3	2.5	250	150	8	14	F8	DP
4699	023 104 780 0000	00	023 104 560		6	12.5	300	300	55	13	8SC	P
5222	402 813 080 0000	00	402 613 060		6.3	1	100		0.7	1.7	B8D	T
5516	237 242 300 0000	80	235 242 300	A1	3	14	400	250	75	4	A08	P
5556	284 300 000 0000	00	264 300 000		4.5	30	350		9	0.9	UX4	T
5590	412 387 100 0000	00	412 365 100		6	4.5	90	90	3.9	2	B7G	P
5591	412 387 100 0000	00	412 365 100		6	1.9	200	125	7.7	5	B7G	P
5603	021 417 380 0000	00	021 415 360		6	12.5	150	150	50	5.4	A08	P
5608	412 387 100 0000	00	412 365 100		6	12	150	125	7.5	5	B7G	P
5610	812 384 000 0000	00	612 364 000		6	1.5	90		17	4	B7G	T
5618	287 134 200 0000	00	265 134 200		3	8	300	75	19	3.5	B7G	P
5635	452 083 810 0000	00	442 *63 710		6	0.5	100		4.8		B8B	TT
5636	412 183 710 0000	00	412 163 510		6	1.4	100	100	5.3	3.3	B8D	P
5637	402 013 080 0000	00	402 013 060		6		100		1.4	2.7	B8B	T
5639	412 183 710 0000	00	412 163 510		6	2.6	150	100	21	9	B8D	P
5640	412 183 710 0000	00	412 163 510		6	6	100	100	31	5	B8B	P
5641	092 913 090 0000	00	082 813 080		6				30		B8D	R
5642	023 000 000 0000	90	023 000 000	D1	1.2				0.25		B3G	D
5643	812 113 410 0000	00	612 113 410		6.3		400		75	5kΩ	B8D	THY
5645	812 430 000 0000	00	612 430 000		6.3	2.8	100		5	2.7	B5B	T
5646	812 430 000 0000	00	612 430 000		6.3	1.1	100		1.4	2.4	B5B	T
5647	391 290 000 0000	00	381 280 000		6				5.0		B5A	D
5654	412 387 100 0000	00	412 365 100		6	2	150	125	7.5	5	B7G	P
5656	754 231 881 0000	00	544 231 761		6.3	2	150	125	15	5.8	B9A	PP
5659	028 740 310 0000	00	026 540 310		12.5	12.5	250	250	32	3	A08	P
5660	028 9X7 310 0000	40	026 895 310	G1	12.5	3	250	125	10	1.3	A08	DDP
5661	021 417 380 0000	00	021 415 360		12.5	0.4	250	100	9.2	2	A08	P
5670	214 808 513 0000	00	214 607 413		6	2	150		8.2	5.5	B9A	TT
5672	873 420 000 0000	00	653 420 000		1.2	6.5	60	60	3.1	0.6	B5A	P
5676	824 300 000 0000	00	624 300 000		1.2	5	150		4	1.6	B5A	T
5677	834 200 000 0000	00	634 200 000		1.2	6	150		1.9	0.6	B5A	T
5678	872 430 000 0000	00	652 430 000		1.2	0	60	60	1.8	1	B5A	P
5679	219 30X 120 0000	00	218 309 120		6				5		B8B	RR
5686	141 237 817 0000	00	141 235 615		6	12.5	250	250	27	3.1	B9A	P
5687	841 221 538 0000	00	741 221 436		6.3	12.5	250		12.5	5.0	B9A	TT
5690	239 1X2 310 0000	00	238 192 310		6				20		A08	RR
5691	581 481 230 0000	00	471 461 230		6	2	250		2.3	1.6	A08	TT
5692	581 481 230 0000	00	471 461 230		6	9	250		6.5	2.2	A08	TT
5693	021 417 380 0000	00	021 415 360		6	3	250	100	3	1.6	A08	P
5694	128 458 310 0000	00	126 447 310		6	6	300		7	3.2	A08	TT

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
5702	872 311 400 0000	00	652 311 400		6.3	2	150	115	7.5	5	B7G	P
5703	823 410 000 0000	00	623 410 000		6.3	2	150		9	5	B5A	T
5704	923 100 000 0000	00	623 100 000		6.3				5		B5A	R
5718	402 013 080 0000	00	402 013 060		6	2	100		13	5.5	B8D	T
5719	402 013 080 0000	00	402 013 060		6	1.3	150		1.8	2.3	B8B	T
5722	902 209 300 0000	00	802 208 300		3						B7G	D
5725	412 387 100 0000	00	412 365 100		6	2	150	125	5.2	3.2	B7G	P
5726	1X2 310 900 0000	00	192 310 800		6.3				5		B7G	RR
5732	028 710 310 0000	40	026 510 310	G1	6	3	150	100	8	2.2	A08	P
5744	823 410 000 0000	00	623 410 000		6.3	2	250		4	4	B5A	T
5749	412 387 100 0000	00	412 365 100		6	1	250	100	11	4.4	B7G	P
5750	412 388 400 0000	00	412 365 000		6	1.5	510	100	3	7	B7G	H
5751	851 228 413 0000	00	741 226 413		6	3	250		1	1.2	B9A	TT
5755	814 225 183 0000	00	714 224 163		6	2	250		2.3	1.6	A08	TT
5763	801 237 144 0000	00	601 235 144		6	7.5	250	250	45	7	B9A	P
5784	872 311 400 0000	00	652 311 400		6.3	2	150	125	5.2	3.2	B7G	P
5785	923 000 000 0000	00	823 000 000		1.2						B3G	D
5797	411 237 800 0000	00	411 235 600		26.5	1	30	30	0.5	1	B8D	P
5798	851 231 480 0000	00	741 231 460		26	0	20		2.3	3.1	B8D	TT
5812	413 387 200 0000	00	413 365 200		3	23	250	250	40	4.1	B7G	P
5814	851 228 413 0000	00	741 226 413		6	8.5	250		10.5	2.2	B9A	TT
5824	028 740 310 0000	00	026 540 310		25	22	150	125	61	5	A08	P
5825	200 300 000 0000	90	200 300 000	D1	1.5				2		UX4	D
5838	029 0X9 310 0000	00	028 090 310		12				30		B8A	RR
5839	029 0X0 310 0000	00	028 090 310		26.5				180		A08	RR
5840	412 183 710 0000	00	412 163 510		6	1.4	100	100	7	5	B8D	P
5842	802 441 443 0000	00	602 441 443		6	1.5	150		26	24	B9A	T
5844	882 345 100 0000	00	672 344 100		6	2.3	100		4.8	3.4	B7G	TT
5845	902 2X0 300 0000	00	802 290 300		6				5		B7G	DD
5847	402 108 073 0000	00	402 106 053		6	2	150	150	13	12.5	B9A	P
5851	208 007 340 0000	00	206 005 340		2.5	7.5	150	125	5.5	1.6	B8B	P
5852	029 0X0 310 0000	00	028 090 310		6				30		A08	RR
5854	873 420 000 0000	00	653 420 000		1.2	2	40	40	0.8	0.5	B5A	P
5871	028 740 310 0000	00	026 540 310		6.3	12.5	250	250	45	4.5	A08	P
5873	284 115 830 0000	00	264 114 730		6	3	150		9	2.9	B8B	TT
5875	872 430 000 0000	00	652 430 000		1.2	0	90	90	3.5	2.5	B5A	P
5879	401 230 781 0000	00	401 230 561		6	3	250	100	1.8	1	B9A	P
5881	028 740 310 0000	00	026 540 310		6	12.5	300	200	48	5.3	A08	P
5882	029 0X0 310 0000	00	028 090 310		12.6				30		A08	RR
5894	[257 134 200 0000 257 134 200 0000]	[08 80]	245 134 200	A1/A2	6		400	250	30	3.4	B7A	PP
5896	912 0X3 100 0000	00	812 093 100		6				15		B8B	RR
5897	402 013 080 0000	00	402 013 060		6	2.3	150		14	6.5	B8A	T
5898	402 013 080 0000	00	402 013 060		6	2	150		1.8	2.3	B8A	T
5899	412 183 710 0000	00	412 163 510		6	1.4	100	100	7.2	4.5	B8D	P
5901	412 183 710 0000	00	412 163 510		6	1.5	100	100	7.5	5	B8A	P
5902	412 183 710 0000	00	412 163 510		6	6.5	100	100	30	4.2	B8A	P
5903	912 0X3 100 0000	00	812 093 100		26				5		B8B	RR
5904	402 013 080 0000	00	402 013 060		26	0	20		3	5	B8D	T
5905	412 183 710 0000	00	412 163 510		26		20	20	2.3	2.8	B8A	P
5906	412 183 710 0000	00	412 163 510		26	1.5	100	100	7.5	5	A08	P
5907	412 183 710 0000	00	412 163 510		26		20	20	2.7	3	B8A	P
5908	412 183 710 0000	00	412 163 510		26		20	20	2.3	1.7	B8A	P
5910	287 024 300 0000	00	265 *24 300		1.4		90	90	1.6	0.9	B7G	P
5915	412 387 100 0000	00	412 365 100		6	0	75	75	6.3	2	B7G	H

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
5916	412 183 710 0000	00	412 163 510		26		160	100	4.4	1.3	B8A	P
5920	882 345 100 0000	00	762 344 100		6	2.1	100		8.5	6	B7G	TT
5930	284 300 000 0000	00	264 300 000		2.5	45	250		60	5.2	UX4	T
5931	020 90X 030 0000	00	020 809 030		5				120		A08	RR
5932	028 740 310 0000	00	026 540 310		6	14	250	250	72	6	A08	P
5933	374 120 000 0000	80	354 120 000	A1	6	14	300	250	83	6.5	UX5	P
5947	222 933 390 0000	00	222 833 380		4.4						A08	D
5961	128 741 340 0000	00	126 541 340		6		250	100			A08	H
5963	851 228 413 0000	00	741 226 413		6	2	75		3.5	2	B9A	TT
5964	882 345 100 0000	00	762 344 100		6	1	100		9.5	6	B7G	TT
5965	851 228 413 0000	00	741 226 413		6	1.8	150		8.2	6.5	B9A	TT
5967	824 335 280 0000	00	624 334 270		1.2		40		3	2	B8B	TT
5968	240 880 530 0000	00	240 670 430		1.2	0	40		0.7	1.3	B8B	TT
5969	247 887 530 0000	00	245 675 430		1.2	3	125	40	6	1.7	B8B	PP
5970	247 887 530 0000	00	245 675 430		1.2		40	40	3	1.8	B8D	PP
5971	842 430 000 0000	00	642 430 000		1.2	2.5	150		5.6	2.5	B5A	T
5972	872 430 000 0000	00	652 430 000		1.2		60	60	2.5	1.3	B5A	P
5975	814 230 000 0000	00	614 230 000		6.3		200		12	4	B5A	T
5977	402 013 080 0000	00	402 013 060		6	2.7	100		10	4.5	B8B	T
5987	482 813 080 0000	00	462 613 060		6	18	100		9	1.8	B8B	T
5992	028 740 310 0000	00	026 540 310		6	12.5	250	250	45	4.1	A08	P
5993	902 010 30X 0000	00	802 010 309		6				30		B9A	RR
5995	902 310 000 0000	00	802 310 000		6.3				30		B5A	R
5998	481 581 230 0000	00	461 471 230		6	14	120		90	14	A08	TT
6004	020 000 030 0000	9X	020 000 030	D1/D2	2.5				60		A08	RR
6005	412 387 400 0000	00	412 365 400		6	12.5	250	250	45	4	B7G	P
6006	021 417 380 0000	00	021 415 360		6	14	250	125	11	4.7	A08	P
6007	873 420 000 0000	00	653 420 000		1.2	0.2	20	20	0.4	0.4	B5A	P
6008	873 420 000 0000	00	653 420 000		0.6	1.1	20	20	0.5	0.1	B5A	P
6021	842 113 580 0000	00	642 113 470		6	1.0	100		6.5	5.4	B8D	TT
6026	001 230 480 0000	00	001 230 460		6	2.6	150		12	5.9	B8B	T
6028	412 387 100 0000	00	412 365 100		20	1.8	150	125	7.5	5	B7G	P
6029	824 300 000 0000	00	624 300 000		1.2	4	90		11	2	B5A	T
Ø 6030	882 345 100 0000	00	672 344 100		6	3	150		5	4.5	B7G	TT
						0.8	100		8.5	5.8		
6042	481 581 230 0000	00	461 471 230		25	8	250		9	2.6	A08	TT
6045	882 345 100 0000	00	672 344 100		6	0.5	100		9	6.4	B7G	TT
6046	028 740 310 0000	00	026 540 310		25	8.2	200	125	46	8	A08	P
6049	412 183 710 0000	00	412 163 510		6.3	1.5	100	100	7.4	3.5	B8A	P
6050	824 300 000 0000	00	624 300 000		1.2	5	150		4	1.6	B5A	T
6051	872 430 000 0000	00	652 430 000		1.2	4	40	40	3	1.2	B5A	P
6052	912 0X3 100 0000	00	812 093 100		6				30		B8B	RR
6053	912 0X3 100 0000	00	812 093 100		26				5		B8B	DD
6055	402 013 080 0000	00	402 013 060		26		40			4.7	B8D	T
6056	412 183 710 0000	00	412 163 510		26		40	40		3	B8D	P
6057	851 228 413 0000	00	741 226 413		6	2	250		1.2	1.6	B9A	TT
6058	1X2 310 900 0000	00	192 310 800		6				9		B7G	DD
6059	041 230 871 0000	00	041 230 651		6	3	250	100	2	1.2	B9A	P
6060	851 228 413 0000	00	741 226 413		6	2	250		10	5.5	B9A	TT
6061	041 230 871 0000	00	*41 230 651		6	13	300	225	34	3.7	B9A	P
6062	801 237 144 0000	00	601 235 144		6	7.5	250	250	45	7	B9A	P

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V † Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
6063	902 30X 100 0000	00	802 309 100		6				30		B7G	RR
£ 6064	412 381 700 0000	00	412 361 500		6	[2	250	250	10	7.5	B7G	P
6065	412 381 700 0000	00	412 361 500		6	1.5	200	150	4	6.4		
6066	412 39X 800 0000	00	412 389 600		6	2.5	250	250	8	2.5	B7G	P
6067	851 228 413 0000	00	741 226 413		6	3	250		1	1.2	B7G	DDT
					6	8.5	250		10.5	2.2	B9A	TT
Δ 6080	021 040 370 0000	80	021 040 350		6.3	8	400	150	36	5.3	A08	P
6072	851 228 413 0000	00	741 226 413		6	4	250		3	1.7	B9A	TT
6080	[501 481 230 0000	00]	471 461 230		6	30	100		100	7	A08	TT
	581 401 230 0000	00										
6082	[501 481 230 0000	00]	471 461 230		26.5	30	100		100	7	A08	TT
	581 401 230 0000	00										
6084	701 238 014 0000	00	501 236 014		6	2	250	125	10	9	B9A	P
6085	841 228 513 0000	00	641 227 413		6	5.5	250		6	2.7	B9A	TT
6086	741 238 001 0000	00	541 236 **1		18	1.8	200	100	8.3	8.2	B9A	P
6087	020 90X 030 0000	00	020 809 030		6				60		A08	RR
6088	873 420 000 0000	00	653 420 000		1.2	1.2	40	40	0.7	0.6	B5A	P
6092	873 420 000 0000	00	653 420 000		1.2	6.5	60	60	2.9	0.7	B5A	P
6094	472 834 718 0000	00	452 634 516		6	12.5	250	250	45	6	B9A	P
6095	412 387 400 0000	00	412 365 400		6	12.5	250	250	45	4.1	B7G	P
6096	412 387 100 0000	00	412 365 100		6	2	150	125	7.5	5	B7G	P
6097	1X2 310 900 0000	00	192 310 800		6				9		B7G	DD
6098	108 072 430 0000	00	106 052 430		6	22.5	250	250	77	5.4	A08	P
6099	882 345 100 0000	00	672 344 100		6	[3	150		5	4.5	B7G	TT
						0.8	100		8.5	5.3		
6100	802 384 100 0000	00	6*2 364 100		6	8.5	250		10.5	2.2	B7G	T
6101	882 345 100 0000	00	762 344 100		6	2	150		9	5.5	B7G	TT
6106	020 90X 030 0000	00	020 809 030		5				60		A08	RR
6110	912 0X3 100 0000	00	812 093 100		6				5		B8B	RR
6111	842 113 580 0000	00	642 113 470		6	1.9	100		8.5	5	B8B	TT
6112	842 113 580 0000	00	642 113 470		6	1.4	150		1.7	2.5	A08	TT
6113	841 581 230 0000	00	641 471 230		6	3	250		3	1.7	A08	TT
6118	028 9X0 310 0000	00	026 890 310		6	3	250		1.0	1.2	A08	DDT
6125	902 394 100 0000	00	6*2 364 100		6	8.5	250		10.5	2.2	B7G	T
6132	041 230 871 0000	00	*41 230 651		6	4.5	250	250	40	11	B9A	P
6134	021 417 380 0000	00	021 415 360		6	2	300	150	10	9	A08	P
6135	802 384 100 0000	00	6*2 364 100		6	8.5	250		10.5	2.2	B7G	T
6136	412 387 100 0000	00	412 365 100		6	1	250	150	10.6	5.2	B7G	P
6137	021 417 380 0000	00	021 415 360		6	3	250	100	9.2	2	A08	P
6145	287 104 130 0000	00	265 104 130		6.3		150	100	34	10	B7G	P
6146	127 141 310 0000	80	125 141 310	A1	6	28	200	200	100	7	A08	P
6147	208 037 240 0000	00	206 035 240		1.2	7.5	150	125	5.5	1.6	B8B	P
6149	823 410 000 0000	00	623 410 000		6.3		150		9	5	B5A	T
6151	823 410 000 0000	00	623 410 000		6.3	0	250		4	4	B5A	T
6152	814 230 000 0000	00	614 230 000		6.3		200		12	4	B5A	T
6153T	023 184 780 0000	50	023 164 570	G1	6	[2	100		16	5	8SC	TH
						2	250	100	12	3.5		
6156	412 380 700 0000	00	412 360 500		6	13.5	250	250	16	2.6	B7G	P
6157	001 230 000 0000	90	**1 23* ***	D1	6				120		B9A	R
6158	851 228 413 0000	00	741 226 413		6	4.6	250		6	2.3	B9A	TT
6159	127 141 310 0000	80	125 141 310	A1	26	30	200	200	100	7	A08	P

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
6169	842 113 840 0000	00	642 113 640		6	1	200		11	6.5	A08	T
6180	481 581 230 0000	00	461 471 230		6	8	250		9	2.6	A08	TT
6186	412 387 100 0000	00	412 365 100		6	1.4	250	150	7	5	B7G	P
6187	412 387 100 0000	00	412 365 100		6	2	150	125	5.2	3.2	B7G	P
6188	481 581 230 0000	00	461 471 230		6	2	250		2.3	1.6	A08	TT
6189	841 228 513 0000	00	641 227 413		6	8.5	250		10.5	2.2	B9A	TT
6197	147 238 174 0000	00	145 236 154		6	3	250	150	30	11	B9A	P
6201	851 228 413 0000	00	741 226 413		6	2	250		10	5.5	B9A	TT
6202	902 30X 100 0000	00	802 309 100		6				60		B7G	RR
6203	900 230 10X 0000	00	800 230 109		6				70		B9A	RR
6205	412 183 710 0000	00	412 163 510		6	4	100	100	7.5	5	B8D	P
6206	412 183 710 0000	00	412 163 510		6.3	1.3	100	100	7.5	5	B8A	P
6211	851 228 413 0000	00	741 226 413		6	1.2	100		4.6	3.6	B9A	TT
6216	841 238 710 0000	00	641 236 510		6	6	200	100	47	8.8	B9A	P
6222	402 813 090 0000	00	402 613 080		6.3	1	100		0.7	1.7	B8D	T
6227	041 230 871 0000	00	041 230 651		6	5.2	200	200	30	9	B9A	P
6245	872 311 400 0000	00	652 311 400		6.3	0	150	150	7.5	5.0	B7G	P
6247	442 813 000 0000	80	442 613 000	A1	6	3	200		4	3	B7G	T
6252	257 134 200 0000	88	245 134 200	A1/A2	6.3	17	400	200	20	6.5	B7A	PP
6265	412 387 100 0000	00	412 365 100		6	1	250	150	9	4	B7G	P
6267	701 238 014 0000	00	501 236 014		6	1.0	250	100	3.0	1.8	B9A	P
6281	873 420 000 0000	00	653 420 000		6	0.6	20	20			B5A	P
6286	824 300 000 0000	00	624 300 000		1.2	2	60		6	2.1	B5A	T
6287	178 238 748 0000	00	156 236 546		6	12.5	250	250	48	4.1	B9A	P
6293	127 141 300 0000	80	125 141 300	A1	6		200	200	100	7.3	A08	P
6302	287 113 000 0000	40	265 113 000	G1	6	2.2	300	150	11	9	UX6	P
6305	112 311 100 0000	90	112 311 100	D1	4				5		B7G	R
6325	109 0X0 230 0000	00	108 090 230		6				60		A08	RR
6327	121 040 370 0000	00	121 040 350		6	22.5	250	250	120	8	A08	P
6336A	581 481 230 0000	00			6.3	60	200		75	5	A08	TT
6350	814 228 153 0000	00	614 227 143		6	5	150		11	4.6	B9A	TT
6351	141 321 877 0000	00	141 321 655		6	2	350	250	12.5	11.5	B9A	P
6352	200 392 X30 0000	00	2** 382 930		1.5						B8A	D
6355	028 014 370 0000	00			6.3	15	250	250	70	7.6	A08	P
6360	514 228 783 0000	00	414 226 573		6.3	15	200	200	30	3.3	B9A	PP
6374	001 230 009 0000	90	**1 23* **8	D1	6				120		B9A	R
6375	400 230 080 0000	00	400 230 060		1.2	4.5	150		12.0	3.4	B8D	T
6384	108 072 430 0000	00	106 052 430		6.3	22	250	250	77	5.5	A08	P
6385	214 808 513 0000	00	214 607 413		6	2.1	150		82	5.5	B9A	TT
6386	214 808 513 0000	00	214 607 413		6	2	100		9.6	4	B9A	TT
6394	481 581 230 0000	00	461 471 230		26.5	45	150		100	11	A08	TT
6397Spec	208 037 240 0000	00	206 035 240		1.2		150	150	9	2.3	B8D	P
6414	841 228 513 0000	00	641 227 413		6.3	2	200		8	5.5	B9A	TT
6417	801 237 144 0000	00	601 235 144		12.5	7.5	250	250	45	7	B9A	P
6418	872 430 000 0000	00	652 430 000		1.2	1.2	20	20	0.2	0.3	B5A	P
6419			652 430 000		0.6	0.6	15	15	0.06	0.1	B5A	P
6443	001 230 000 0000	90	**1 23* **8	D1	6				120		B9A	R
6463	814 228 153 0000	00	614 227 143		6	10	250		14.5	5.2	B9A	TT
6485	412 387 100 0000	00	412 365 100		6	1.6	300	150	10	9	B7G	P
6486/A	410 283 711 0000	00	410 263 511		6.3	2	150	125	3.5	3.2	B9A	P

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
6488	412 873 180 0000	00	412 653 160		6	2.0	100	100	7.5	5.0	B8D	P
6489	281 380 000 0000	00	261 360 000		6		100		8		Sm5	T
6516	412 380 700 0000	00	412 360 500		6	13.5	250	250	16.0	2.6	B7G	P
6519	873 420 000 0000	00	653 420 000		1.2		22.5	22.5	0.4	0.4	B5A	P
6520	481 581 230 0000	00	461 471 230		6	60	150		50	7	A08	TT
6526	872 430 000 0000	00	652 430 000		1.2	6	100	100	6.5	1.9	B5A	P
Δ 6528	[501 481 230 0000 581 401 230 0000]	00	471 461 230		6	20	200				A08	TT
6533	844 812 380 0000	00	644 612 360		6		150		0.9	1.7	B8D	T
6535	882 345 100 0000	00	672 344 100		6	0.8	100		8.5	5.3	B7G	TT
6540	412 387 000 0000	00	412 365 000		6.3	2	125	125	7.5	5	B7G	P
6542	742 135 700 0000	88	542 134 500	A1/A2	6	2	200	200	50	4.5	B7A	PP
6550	028 740 310 0000	00	026 540 310		6	16.5	400	225	87	9	A08	P
6582A	410 283 711 0000	00	410 263 511		6		150	125	7.5	4.5	B9A	P
6611	872 430 000 0000	00	652 430 000		1.2		40	40	1	1	B5A	P
6612	872 430 000 0000	00	652 430 000		1.2		40	40	3	3	B5A	P
6660	412 387 100 0000	00	412 365 100		6	1.1	250	100	11	4.4	B7G	P
6661	412 387 100 0000	00	412 365 100		6	1.0	250	150	7.4	4.6	B7G	P
6662	412 387 100 0000	00	412 365 100		6	1.0	250	100	9.2	3.6	B7G	P
6663	192 310 X00 0000	00	182 310 900		6				9		B7G	DD
6664	412 39X 800 0000	00	412 389 600		6	12	250		10	5.5	B7G	DDT
6669	412 387 400 0000	00	412 365 400		6	12.5	250	250	47	4.1	A08	P
6676	412 387 100 0000	00	412 365 100		6	56	150	150	13	8	B7G	P
6677	147 238 174 0000	00	145 236 154		6	3	250	150	30	11	B9A	P
6678	857 238 114 0000	00	645 237 114		6	[1.6 0.9]	150 250	100	18 10	8.5 5.2	B9A	TP
6679	841 228 513 0000	00	641 227 413		6	2	250		10	5.5	B9A	TT
6680	841 228 513 0000	00	641 227 413		6	8.5	250		10.5	2.2	B9A	TT
6681	841 228 513 0000	00	641 227 413		6	2	250		1.2	1.6	B9A	TT
6686	041 230 871 0000	00	041 230 651		6	2.5	200	200	20	11	B9A	P
6687	412 387 100 0000	00	412 365 100		6	5	150	75	0.5	0.6	B7G	H
6688	141 230 817 0000	00	141 23* 615		6	1	200	150	13.5	16.5	B9A	P
6689	741 238 001 0000	00	541 236 **1		6	1.7	200	125	10	9	B9A	P
6690	852 183 410 0000	00	742 163 410		6	0.8	100		8	4.8	B8A	TT
6697	841 228 513 0000	00	641 227 413		6	8.5	250		10	2.0	B9A	TT
6754	901 023 10X 0000	00	801 023 109		6				30		B9A	RR
6760	841 238 710 0000	00	641 236 510		18	7.5	150	125	70	12	B9A	P
6761	841 238 710 0000	00	641 236 510		6	7.5	150	125	70	13	B9A	P
6788	412 183 710 0000	00	412 163 510		6	1.4	100	100	0.8	1.1	B8A	P
6814	401 013 080 0000	00	402 013 060		6		100		10	6	B8A	T
6829	841 228 513 0000	00	641 227 413		6	2.2	150		10.7	8.1	B9A	TT
6832	842 113 580 0000	00	642 113 470		6		100		0.7	1	B8D	TT
6840	814 228 130 0000	00	614 227 130		6.3		250		14	6.7	B8D	P
6845	402 387 100 0000	00	402 365 100		6.3	2	300	150	10	9	B7G	P
6850	752 134 700 0000	88	542 134 500	A1/A2	12		200	200	50	4.5	B7A	PP
6851	841 228 513 0000	00	641 227 413		6.3	3.1	250		1	1.2	B9A	TT
6853	030 90X 020 0000	00	030 809 090		5				60		A08	RR
6854	214 808 513 0000	00	214 607 413		6.3	19.6	150		8.2	5.2	B9A	TT
6870	141 223 871 0000	00	141 223 651		6	3.5	250	250	25	8.5	B9A	P
6872	721 413 100 0000	80	521 413 100	A1	6.3	1	400	100	3.5	2.2	B7G	P
6877	402 834 018 0000	00	402 634 016		6.3	12	100		75	6.3	B9A	T
6883	127 141 130 0000	80	125 141 130	A1	12	30	200	200	100	7	B9A	P

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
6887	192 310 X00 0000	00	182 310 900		6				10		B7G	DD
6888	021 417 800 0000	00	021 415 600		6.3		150	90	38		A08	P
6889	200 073 420 0000	80	200 053 420		6.3	22.5	250	250	77	5.4	A08	P
6900	851 221 438 0000	00	741 221 436		6.3	2	150		36	11.5	B9A	TT
6907	[247 135 200 0000	08]	245 134 200	A1/A2	6.3	50	400	250	100		B7A	PP
6913	247 135 200 0000	80	741 226 413		6.3	5	150		11	4.6	B9A	TT
6919	851 228 413 0000	00										
6919	192 310 X00 0000	00	182 310 900		6				5		B7G	RR
6922	841 328 511 0000	00	641 327 411		6.3	1.2	90		15	12.5	B9A	TT
Ø 6927	882 345 100 0000	00	672 344 100		6	[3	150		5	4.5	B7G	TT
6928	412 387 400 0000	00	412 365 400		6	0.8	100		8.5	5.8		
6939	[415 220 783 0000	00]	414 226 573		6.3	12.5	250	250	45	4.1	B7G	P
	415 228 703 0000	00	412 163 510		6.3	[100	150	150	25	10.5	B9A	PP
							100	100	8	3.6	B8D	P
6943	412 183 710 0000	00			6.3		100	100	8	3.6	B8D	P
6944	412 183 710 0000	00	412 163 510		6.3		100	100	7	3.2	B8D	P
6945	412 183 710 0000	00	412 163 510		6.3		100	100	25	3.5	B8D	P
6946	402 013 080 0000	00	402 013 060		6.3		100		9	3.8	B8D	T
6947	842 113 580 0000	00	642 113 470		6.3		150		6.5	4	B8D	TT
6948	842 113 580 0000	00	642 113 470		6.3		100		0.8	1.6	B8D	TT
6954	412 387 100 0000	00	412 365 100		6.3	1	150	150	5.9	2	B7G	P
6955	841 228 513 0000	00	641 227 413		6	8.5	250		11.5	2.3	B9A	TT
6968	402 387 100 0000	00	402 365 100		6.3	2	150	125	7.5	5	B7G	P
6973	704 234 178 0000	00	504 234 156		6.3	15	250	250	46	4.8	B9A	P
7000	028 710 310 0000	40	026 510 310	G1	6	3	250	100	2	1.2	A08	P
7025	851 238 413 0000	00	741 236 413		6	2	250		1.2	1.6	B9A	TT
7027	728 744 310 0000	00	526 544 310		6.3		200	200			B8A	P
7032	412 387 100 0000	00	412 365 100		6.3	2	250	100	4.5	1.8	B7G	H
7036	412 387 100 0000	00	412 365 100		6	0	75	75	6.3	2	B7G	H
7044	841 221 538 0000	00	641 221 437		6.3	2	150		36	10	B9A	TT
7051	857 238 114 0000	00	645 237 114		6.3	[1.0	150		18	8.5	B9A	TP
7054	141 230 871 0000	00	141 23* 651		13.5	1.0	200	100	10	5		
7055	192 310 X00 0000	00	182 310 900		13.5	2.7	250	150	19	11.5	B9A	P
7056	412 387 100 0000	00	412 365 100		13.5				5		B7G	RR
						2.2	200	150	9.5	6.2	B7G	P
7057	841 238 510 0000	00	641 237 410		13.5	2.2	150		10	6.8	B9A	TT
7058	841 238 510 0000	00	641 237 410		13.5		250		1.2	1.6	B9A	TT
7059	857 238 114 0000	00	645 237 114		13.5	[1	150		18	8.5	B9A	TP
						0.9	250	100	10	5.2		
7060	841 238 751 0000	00	641 237 541		13.5	[1.5	150		9	4.9	B9A	TP
						1.6	200	125	15	7		
7061	704 234 178 0000	00	504 234 156		13.5	10	200	200	36	4.2	B9A	P
7062	841 228 513 0000	00	641 227 413		6.3	0.8	100		8.5	7.8	B9A	TT
7066	209 784 300 0000	00	208 564 300		1.4		100	100	1.1	0.4	B7G	DP
7071	000 230 000 0000	90	*** 23* **	D1	6.3						B9A	D
7072	000 230 009 0000	10	*** 23* **8	C	6.3				180		B9A	R
7073	000 230 009 0000	10	*** 23* **8	C	26				180		B9A	R
7074	841 234 148 0000	00	641 234 146		6.3		200		12	14	B9A	T
7075	841 234 148 0000	00	641 234 146		3.8		200		12	14	B9A	T
7078	041 230 871 0000	00	041 230 651		6.3	2.0	250	100	9	4.4	B9A	P
7079	041 230 871 0000	00	041 230 651		12.6		200	100	12	4.4	B9A	P

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
Δ 7105	[501 481 230 0000 581 401 230 0000]	00	471 461 230		12.6	30	100				A08	TT
7108	701 238 014 0000	00	501 236 014		6.3		250	150	3	2	B9A	P
7110	141 230 871 0000	00	141 230 651		6.3	3.5	250	250	10	6.8	B9A	P
7118	841 228 513 0000	00	641 227 413		6.3	1.4	100		8.5	5.6	B9A	TT
7119	841 221 538 0000	00	641 221 437		6.3	7	200		23	6.4	B9A	TT
7125	741 238 9X1 0000	00	541 236 891		6.3	2	250	100	9	3.8	B9A	DDP
7137	412 344 800 0000	00	412 344 600		6.3	1.3	150		13.5	8.5	B7G	T
7143	412 314 800 0000	00	412 314 600		3.1	1.0	200		11.5	6.7	B7G	T
7144	841 238 510 0000	00	641 237 410		6.3	1.2	90		15	12.5	B9A	TT
7145	701 238 014 0000	00	501 236 014		6.3	2.0	50	50	1.8		B9A	P
7150	831 421 107 0000	00	632 421 1*5		6.3		150	125	24	34	B9A	P
7167	412 387 100 0000	00	412 365 100		13.5	1	150	80	10	8	B7G	P
7184	028 740 310 0000	00	026 540 310		6.3	12.5	250	250	47	4.1	A08	P
7189	041 230 807 0000	00	*41 23* 6*5		6.3	7.3	250	250	48	11.3	B9A	P
7193	020 000 310 0000	84	020 000 310	A1/G1	6	10.5	300		11	3	A08	T
7199	887 231 514 0000	00	675 231 414		6.3	[8 1.5	200 250		9 12.5	2 7	B9A	TP
7212	127 142 380 0000	00	125 142 360		6.3	28	200	200	100	7	A08	P
7227	041 230 871 0000	00	*41 23* 651		27.5	2.5	40	40	8	5	B9A	P
7233	848 238 418 0000	00	646 236 416		6.3	40	150		50	9	B9A	T
6236	581 181 230 0000	00	471 461 230		6.3	14	150		100	12.5	A08	TT
7239	410 237 101 0000	80	48* 235 1*1	A1	6.3	5	300	100	10.5	4.2	B9A	P
7244	882 345 100 0000	00	672 344 100		6	0.4	100		9	6	B7G	TT
7245	412 344 800 0000	00	412 344 600		6.3		150		13.5	11	B7G	T
7247	851 228 413 0000	00	641 227 413		6.3	[2 8.5	250 250		1.2 10.5	1.6 2.2	B9A	TT
7258	841 238 751 0000	00	641 237 541		12.5	[3 150	150 125		15 12	4.5 7.8	B9A	TP
7308	851 238 410 0000	00	741 236 410		6.3	1.4	90		12	11.5	B9A	TT
7316	841 228 513 0000	00	641 227 413		6.3		100		11.8	3.1	B9A	TT
7318	841 228 513 0000	00	641 227 413		6.3	8.5	250		11.5	2.3	B9A	TT
7320	041 230 807 0000	00	041 230 605		6.3	7.3	250	250	48	11.3	B9A	P
7355	028 014 370 0000	00	026 014 350		6.3	15	250	250	70	7.6	A08	P
7358	127 141 300 0000	00	125 141 300		6.3		200	200	100	7	A08	P
7370	841 221 538 0000	00	641 221 437		20	2	120		36	11.5	B9A	TT
7382	412 300 800 0000	00	412 300 600		6.3	2	250		1.2	1.6	B7G	T
7408	028 740 310 0000	00	026 540 310		6.3	12.5	250	250	4.7	4.6	A08	P
7489	841 228 513 0000	00	641 226 513		6.3	8.5	250		10.5	2.2	B9A	TT
7489			741 226 413		6.3	8.5	250		10.5	2.2	B9A	TT
7492	851 228 413 0000	00	741 226 413		6.3		250			5.5	B9A	TT
7498	412 381 700 0000	00	412 361 500		6.3		250			7.5	B7G	P
7534	020 740 310 0000	80	*2* 54* 310	A	6.3	15.5	250	150	100	25.0	A08	P
7543	412 387 100 0000	00	412 365 100		6.3	1.0	250	150	10.8	5.2	B7G	P
7551	147 238 171 0000	00	145 236 151		13	18	250	250	40	5.3	B9A	P
7558	147 238 171 0000	00	145 236 151		6.3	18	250	250	40	5.3	B9A	P
7561	928 740 310 0000	00	026 540 310		25		100	100	555	10.5	A08	P
7581	028 740 310 000	00	026 540 310		6.3	14	250	250	72	6	B8A	P
7586	080 400 010 2030	00			6.3	1.3	75		10.5	11.5	NV5	P
7587	070 400 010 2030	80			6.3	0.9	125	50	10	10.6	NV5	P

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
7591	028 714 370 0000	00	026 514 350		6.3	10	300	300	75	10.2	A08	P
7607	127 141 300 0000	80	125 141 300	A1	6.3	17	300	250	80	8	A08	P
7643	857 238 114 0000	00	645 237 114		6.3	[2	100		14	5	B9A	TP
7683	418 238 178 0000	00	416 236 156		6.3	2	200	175	10	6.2	B9A	P
7687	857 238 114 0000	00	645 237 114		6.3	[8.5	200		7.5	2.5	B9A	TP
							200	125	10	5.8		
7688	141 512 386 8080	00			6.3	2	250		1.2	1.6	A12	TTT
7689	141 512 386 8080	00			6.3	8.5	250		10.5	2.2	A12	TTT
7690	141 512 386 8080	00			6.3	2	250		10	5.5	A12	TTT
7693	412 387 100 0000	00	412 365 100		6.3	100	250	150	7.4	4.6	B7G	P
7694	412 387 100 0000	00	412 365 100		6.3	80	250	100	9.2	3.6	B7G	P
7695	700 234 108 0000	00	5** 234 1*6		50	11	130	130	100	11.0	B9A	P
7699	[514 228 703 0000]	00	414 226 573		6.3		250		45	10	B9A	PP
	514 220 783 0000											
7700	287 113 000 0000	40	265 113 000	G1	6	3	250	100	2	1.2	UX6	P
7701	141 238 717 0000	00	141 236 515		13.6	12.5	250	250	28	3.6	B9A	P
7716	148 231 578 0000	00	146 231 457		13.6	[1.0	150		1.6	3	B9A	TP
						60	200	100	24	9.5		
7717	412 387 100 0000	00	412 365 100		6.3	1	125	80	10	8	B7G	P
7719	841 228 413 0000	00	641 226 413		6.3	10.5	300		4.0	3.5	B9A	T
7721	141 230 817 0000	00	141 230 615		6.3	10	200	150	22	35	B9A	P
7722	141 230 817 0000	00	141 230 615		6.3	1	200	150	34	27	B9A	P
7724	191 23X 148 0000	00	181 239 146		14	3.0	250		0.7	1.0	B9A	DDT
7728	841 228 513 0000	00	641 227 413		6.3	2	250		10	5.5	B9A	TT
7729	841 228 513 0000	00	641 227 413		6.3	2	250		1.2	1.6	B9A	TT
7731	857 238 114 0000	00	641 237 114		6.3	[1	150		18	8.5	B9A	TP
						0.95	250	100	10	5.2		
7732	412 387 100 0000	00	412 365 100		6.3	1	200	125	13	8	B7G	P
7733	141 223 871 0000	00	141 223 651		6.3	3	250	175	24	12	B9A	P
7734	714 238 158 0000	00	514 236 147		6.3	[21	150		35	5.4	B9A	TP
						2.0	150	150	5.5	3.2		
7738	842 314 800 0000	00	642 314 600		6.3		400		12	9.9	B7G	T
7751	028 740 310 0000	00	026 540 310		6.3	8	100	100	100	14	A08	P
7752	412 387 100 0000	00	412 365 100		6	2	150	125	5.5	3.5	B7G	P
7754	700 234 108 0000	00	5** 234 1*6		6.3		150	150	100	11	B9A	P
7755	412 387 100 0000	00	412 365 100		6		40	30	3	2.7	B7G	P
7756	108 072 430 0000	00	106 052 430		6	36	300	300	58	4.3	A08	P
7757	471 034 710 0000	00	451 034 510		6.3	12.5	250	250	45	4.1	B9A	P
7759	842 113 580 0000	00	642 113 470		26.5	1	100		6.5	5.4	A08	TT
7760	842 113 580 0000	00	642 113 470		26.5		26.5		3	5	A08	TT
7761	214 808 513 0000	00	214 607 413		12.6		150		8.2	5.5	B9A	TT
7762	412 183 710 0000	00	412 163 510		26.5	1.2	110	100	30	4.2	A08	P
7763	811 234 178 0000	00			6.3		250	90	4.2		B9A	P
7788	141 237 817 0000	00	141 235 615		6.3		150	150	35	50	B9A	P
7803	841 238 510 0000	00	641 237 410		6.3	1.3	90		15	12.5	B9A	TT
7861	214 808 413 0000	00			12.6		150		8.2	5.5	B9A	TT
7868	741 234 708 0000	00	541 234 506		6.3	10	300	300	60	10.2	B9D	P
7887	842 113 580 0000	00	642 113 470		26.5	1.9	100		8.5	5	A08	TT
7888	402 013 080 0000	00	402 031 060		26.5	2.3	150		13	6.5	A08	T
7889	842 113 580 0000	00	642 113 570		26.5	1.4	150		1.75	2.5	A08	TT

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
7895	080 400 010 2030	00			6.3	1	100		7	9.4	NV5	T
7898	841 238 510 0000	00	741 236 41*		13.5	2	250		10	5.5	B9A	TT
7905	247 008 173 0000	00	245 006 153		6.3	-6	200	185	36	6.7	B9A	P
7984	218 881 711 4730	00			13.5	9	200	125	100	13.5	A12	DP
8013A	200 300 000 0000	90	200 300 000	D1	2.5				15		B4	R
8016	020 000 030 0000	90	020 000 030	D1	1.2						A08	D
8032	127 141 310 0000	80	125 141 310	A1	13.5	32	200	200	100	7	A08	P
8056	080 400 010 2030	00			6.3	0.8	24		8.5	7	NV5	T
8058	010 100 010 2034	80			6.3	0.5	100		10	12.4	NV5	T
8077	141 230 871 0000	00	141 23* 651		13.5	2.7	250	150	19	11.5	B9A	P
8156	218 881 711 4730	00			13.5	9	200	125	75	7.6	A12	P
8223	851 238 410 0000	00	741 236 410		6.3	1.5	100		30	20	B9A	TT
8233	817 231 141 0000	00	615 231 141		6.3	3	150	150	50	45	B9D	P
8255	414 234 444 0000	00	414 234 444		6.3	1.2	150		12	13	B9A	T
8334	842 314 800 0000	00	642 314 600		6.3	0	200		18	10.75		T
8348	425 238 782 0000	00	424 236 572		1.6		200	200	30	3.3	B9A	PP
8380	070 400 010 2300	80		A	6.0	0	80	80	7.5	1.1		T
8382	080 400 010 230	00			6.0	55	135			1.28		T
8417	287 431 000 0000	00	265 431 000		6.3	-12	300	300	100	23.0	A08	P
8441	080 400 010 2300	00			6.0	55	300		5.5	6.7		T
8456	080 400 010 2300	00			6.0	0.7	12.0		5.5	8.0		T
8532	412 344 800 0000	00	412 344 600		6.3	55	150		9.0	8.8		T
8628	080 400 010 2030	00										
8808	110 101 000 0230	80		A	6.3	0	206		50	18.0		T
9001	412 387 100 0000	00	412 365 100		6	3	250	100	2	1.4	B7G	P
9002	812 384 100 0000	00	612 364 100		6	7	250		6.3	2.2	B7G	T
9003	412 387 100 0000	00	412 365 100		6	3	250	100	6.7	1.8	B7G	P
9004	203 190 000 0000	00	203 180 000		6.3				5		5AA	R
9005	219 330 000 0000	00	218 330 000		3.6				1		5AA	D
9006	912 390 100 0000	00	812 380 100		6				5		B7G	R
9072	020 000 310 0000	84	020 000 310	A1/G1	6		300		15	2.5	A08	T
18004	423 800 000 0000	00	423 600 000		4.4	25	130		22	1	UX4	T
18013	081 231 700 0000	40	061 231 500	G1	4		200	200	8	5	B7	P
18014	007 231 800 0000	40	005 231 600	G1	4		200	200	35	8	B7	P
18015	081 231 700 0000	00	061 231 500		21		150	125	8	8.3	B7	P
18016	007 231 800 0000	00	005 231 600		21		150	125	48	9	B7	P
18040	287 104 130 0000	00	265 104 130		18	3.4	200	200	15	10	B8B	P
18042	741 238 001 0000	00	541 236 **1		18	1.8	200	100	8.3	8.2	B9A	P
18043	741 238 001 0000	00	541 236 **1		6	1.8	200	200	8.2	8.2	B9A	P
18045	041 230 871 0000	00	041 230 651		18	3	200	200	20	11	B9A	P
18046	041 230 871 0000	00	041 230 651		18	3	200	100	20	11	B9A	P
18048	281 704 130 0000	00	261 504 130		20	4.8	250	150	16	6.5	B8D	P
95108	873 420 000 0000	00	653 320 000		1.2	1	40	40	2.2	1	B5A	P
824476	481 581 230 0000	00	461 471 230		6	8	250		9	2.6	A08	TT
A11A	9X2 300 000 0000	00	892 300 000		4				60		B4	RR
A11D	9X2 300 000 0000	00	892 200 000		4				60		B4	RR
A20B	9X2 310 000 0000	00	892 310 000		4				60		B5	DD
A23A	90X 231 800 0000	40	809 231 600	G1	4	7	250		4	2	B7	DDT
A26	284 300 000 0000	00	264 300 000		15	1.5	90		4.5	1.1	UX4	T
A27D	91X 238 700 0000	40	819 236 500	G1	4	6	250	250	36	9.5	B7	DDP

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
A28	284 300 000 0000	00	264 300 000		15	1.5	90		7.5	1.1	UX4	T
A30	284 300 000 0000	00	264 300 000		15	27	200		22	1.0	UX4	T
A30B	842 310 000 0000	00	642 310 000		4	2	250		10	5.5	B5	T
A30D	842 310 000 0000	00	642 310 000		4	3.5	200		6	2.4	B5	T
A32	284 300 000 0000	00	264 300 000		15	3	150		1.5	0.9	UX4	T
A36A	[847 231 800 0000 057 231 800 0000]	50 50	645 231 700	G1	4	[2 2]	150 200	100	6 3.5	1.2	B7	TH
A36B	[847 231 800 0000 057 231 800 0000]	50 50	645 231 700	G1	4	[2 2]	100 250	250	22 3.5	6 0.75	B7	TH
A36C	[847 231 800 0000 057 231 800 0000]	50 50	645 231 700	G1	4	[3 2.5]	100 250	100	9 3.25	3.8 2.5	B7	TH
A40	284 300 000 0000	00	264 300 000		15	40.5	200		21	1.5	UX4	T
A40	284 310 000 0000	00	264 310 000		4		100			2	5AA	T
A40M	274 130 000 0000	80	254 130 000	A1	4	1.5	200	100	3	2	UX5	P
A40M	742 310 000 0000	80	542 310 000	A1	4	1.5	200	100	3	2	B5	P
A41	371 220 000 0000	84	351 220 000	A1/G1	4		250	100		2	5AA	P
A48	284 300 000 0000	00	264 300 000		15	4.5	90		4.5	1.1	UX4	T
A50A	742 310 000 0000	80	542 310 000	A1	4	2	200	100	3	2.3	B5	P
A50A	040 231 700 0000	80	040 231 500	A1	4	2	200	100	3	2.3	B7	P
A50B	081 231 700 0000	40	061 231 500	G1	4	1.5	250	250	6	3.5	B7	P
A50M	041 231 700 0000	80	041 231 500	A1	4	2	200	125	4.5	2.3	B7	P
A50M	742 310 000 0000	80	542 310 000	A1	4	2	250	125	4.5	2.3	B5	P
A50N	742 310 000 0000	80	542 310 000	A1	4	2	250	100	4.2	2.5	B5	P
A50N	041 231 700 0000	80	041 231 500	A1	4	2	250	100	4.2	2.5	B7	P
A50P	080 231 700 0000	40	060 231 500	G1	4	3	250	250	11.5	2	B7	P
A70B	842 310 000 0000	70	642 310 000	G2	4	25	250	250	36	2.6	B5	P
A70B	047 231 800 0000	00	045 231 600		4	25	250	250	36	2.6	B7	P
A70C	047 231 800 0000	00	045 231 600		4	3	250	250	36	9	B7	P
A70D	842 370 000 0000	00	642 350 000		4	5.8	250	250	36	9.5	B5	P
A70E	047 231 800 0000	00	045 231 600		4	14	250	275	72	8.5	B7	P
A70P	047 231 800 0000	00	045 231 600		4	14.5	250	250	70		B7	P
A80A	123 184 780 0000	40	123 164 560	G1	4	[1.8 8.5]	90 250		2 1.6	0.6	8SC	O
A80A	847 231 800 0000	40	645 231 700	G1	4	[1.8 8.5]	90 250	75 75	2 1.5	0.6	B7	O
A104	842 300 000 0000	00	642 300 000		1.1	10	100		5	0.3	B4	T
A106	842 300 000 0000	00	642 300 000		1.4	9	100		2	0.4	UX4	T
A106	842 300 000 0000	40	642 300 000		1.4	9	100		2	0.4	B4	T
A109	842 300 000 0000	00	642 300 000		1.3	9	150		2	0.4	B4	T
A109	284 300 000 0000	00	264 300 000		1.4	9	150		2	0.4	UX4	T
A110	284 300 000 0000	00	264 300 000		1.4	4.5	150		4	0.4	UX4	T
A110	842 300 000 0000	00	642 300 000		1.4	4.5	150		3	0.4	B4	T
A125	842 300 000 0000	00	642 300 000		1.2	3	150		0.4	0.4	B4	T
A203	842 300 000 0000	00	642 300 000		2	30	150		12	1.5	B4	T
A205	842 300 000 0000	00	642 300 000		2	18	150		7	1.2	B4	T
A206	842 300 000 0000	00	642 300 000		2	8.5	150		3.8		B4	T
A209	842 300 000 0000	00	642 300 000		2	9	150		4	1.0	B4	T
A209	284 300 000 0000	00	264 300 000		2	9	150		4	1.0	UX4	T
A210	384 200 000 0000	00	364 200 000		2	9	150		3	1.0	UX4	T
A210	842 300 000 0000	00	642 300 000		2	9	150		3	0.9	B4	T
A211	842 300 000 0000	00	642 300 000		2	2	150		2	1.2	B4	T

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
A214	842 300 000 0000	00	642 300 000		2	3	150		4.5	1.3	B4	T
A225	842 300 000 0000	00	642 300 000		2	3	150		1	1	B4	T
A225	384 200 000 0000	00	364 200 000		2	3	150		1	1	UX4	T
A235	200 300 000 0000	90	200 300 000	D1	6				30		UX4	R
A235	042 300 000 0000	80	042 300 000	A1	2		150		1.5	0.4	B4	T
A239	230 200 000 0000	90	230 300 000	D1	2.5				60		UX4	R
A241	842 300 000 0000	70	642 300 000	G2	2	2	20	20	1.2	1	B4	P
A242	287 300 000 0000	40	265 300 000	G1	2	3	150	75	1.7	0.6	UX4	P
A303	284 300 000 0000	00	264 300 000		3	27	150		3	0.6	UX4	T
A306	284 300 000 0000	00	264 300 000		3	15	150		1.5	0.4	UX4	T
A404	842 300 000 0000	00	642 300 000		4	10	100		4	0.4	B4	T
A406	384 200 000 0000	00	364 200 000		4	9	100		2	0.4	UX4	T
A406	842 300 000 0000	00	642 300 000		4	9	100		2	0.4	B4	T
A408	842 300 000 0000	00	642 300 000		4	4	150		4	1.5	B4	T
A409	842 300 000 0000	00	642 300 000		4	9	150		3.5	0.9	B4	T
A409	284 300 000 0000	00	264 300 000		4	9	150		3.5	0.9	UX4	T
A410	842 300 000 0000	00	642 300 000		4	3	150		3.5	0.5	B4	T
A410	284 300 000 0000	00	264 300 000		4	3	150		3.5	0.5	UX4	T
A410N	842 300 000 0000	00	642 300 000		4	3	150		3.5	0.5	B4	T
A411	842 300 000 0000	00	642 300 000		4	3	200		6	2.5	B4	T
A414	384 200 000 0000	00	364 200 000		4	4.5	150		3	2	UX4	T
A414	842 300 000 0000	00	642 300 000		4	4.5	150		3	2	B4	T
A415	842 300 000 0000	00	642 300 000		4	4	150		4	1.5	B4	T
A416	842 300 000 0000	00	642 300 000		4	4.5	150		4	2	B4	T
A420	842 300 000 0000	00	642 300 000		4	4	150		4	1.5	B4	T
A425	842 300 000 0000	00	642 300 000		4	2.5	200		0.2	1.2	B4	T
A430	842 300 000 0000	00	642 300 000		4	3	200		6	2.5	B4	T
A430	042 300 000 0000	80	042 300 000	A1	4		150		1.5	0.5	B4	T
A430N	842 310 000 0000	00	642 310 000		4	4.5	250		6.5	3.5	B5	T
A435	842 300 000 0000	00	642 300 000		4	1	150		2.1	0.5	B4	T
A440N	842 310 000 0000	00	642 310 000		4	1.6	200		0.2	2.2	B5	T
A442	742 300 000 0000	80	542 300 000	A1	4	1	200	100	4	0.7	B4	P
A442	274 300 000 0000	80	254 300 000	A1	4	1	200	100	1	0.4	UX4	P
A557	802 310 000 0000	40	602 310 000	G1	4	8	150		28	2	B5	T
A577	802 310 000 0000	40	602 310 000	G1	4	20	250		40	2	B5	T
A600	842 300 000 0000	00	642 300 000		6	9	150		4	1.5	UX4	T
A609	842 300 000 0000	00	642 300 000		6	9	150		4	1.5	B4	T
A609	802 310 000 0000	40	602 310 000	G1	6	9	150		4	1.5	B5	T
A615	842 300 000 0000	00	642 300 000		6	4.5	150		4	2.4	B4	T
A630	842 300 000 0000	00	642 300 000		6	1.5	150		0.7	1.5	B4	T
A635	842 300 000 0000	00	642 300 000		6		150		1.2	1.5	B4	T
A642	742 300 000 0000	80	542 300 000	A1	6	1	200	100	4	0.7	B4	P
A802	842 310 000 0000	00	642 310 000		4	3	100		2.5	2.5	B5	T
A819	080 231 700 0000	40	060 231 500	G1	4		250	250	8	7.5	B7	P
A863	028 700 310 0000	40	026 500 310	G1	6	3	250	100	2	1.2	A08	P
A901	047 231 800 0000	00	045 231 600		5		100	100	50	9	B7	P
A1685	028 710 310 0000	40	026 510 310	G1	6.3	3	150	100	8	3.2	A08	P
A1714	412 300 800 0000	00	412 3** 600		6	2.2	150		10	8.5	B7G	T
A1820	287 004 130 0000	00	265 004 130		6		250	250	40	10.5	B8B	P
△A1834	581 481 230 0000	00	471 461 230		6	40	100				A08	TT

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V † Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
A1860	702 332 408 0000	00	502 332 406		2.5	7	200	150	35	6	B9A	T
A2030N	842 310 000 0000	00	642 310 000		20	3	200		6	2.3	B5	T
A2040N	842 310 000 0000	00	642 310 000		20	1.6	200		0.2	3	B5	T
A2087	902 390 100 0000	00	8*2 380 100		4.4				5		B7G	R
A2118	842 370 000 0000	00	642 300 000		20	3	200		6	2.3	B4	T
A2134	412 380 700 0000	00	412 36* 500		6	7.8	150	150	55	9.5	B7G	P
A2226	041 230 071 0000	80	*41 23* *51	A1	6.3	12.5	150	150	50	8.5	B9A	P
A2272	210 010 013 0000	90	21* *1* *13	D1	6				10		B9G	R
△A2293	010 234 008 0000	00	*1* 234 *6		6.3	23	150		100	12	B9A	T
A2327	010 234 008 0000	00	010 234 006		6.3	3.5	250		20	6	B9A	T
A2359	010 234 008 0000	00	010 234 006		6.5		150		100	12	B9A	T
A2426	020 740 310 0000	80	*2* 54* 310	A1	6.3	13.5	150	150	50	8	A08	P
A2521	414 484 234 0000	00	414 464 234		6.3	1	150		15	15	B9A	T
A2599	412 231 148 0000	6.3	411 231 146		6.3	1	150		16	15	B9A	T
A2637	120 040 300 0000	80	120 040 300	A1	6.3	7.0	20		1.0	0.6	A08	T
A2674	211 403 708 0000	00	211 403 506		6.3	1.4	200	150	23	30	B9D	P
A2688	412 314 800 0000	00	412 314 600		6.3	1	100		12	11.5	B7G	T
A2738	028 741 310 0000	00	*26 541 310		6.3	19	250	200	50	10	A08	P
A2792	040 230 100 0000	80	*4* 23* 1**	A1	6.3	1.7	400		1	2.5	A08	T
A2900	851 228 413 0000	00	741 226 413		6.3	2	250		10.5	6.2	B9A	TT
A2913	413 214 800 0000	00	413 214 600		6.3		200		15.5	14	B9A	T
A2975	412 300 800 0000	00	412 3** 600		6.3	1.0	175		15.5	14	B7G	T
A3042	041 230 071 0000	80	*41 23* *51	A1	6.3	12.5	150	150	50	8.5	B9A	P
A3064	412 381 700 0000	00	412 361 500		6.3	1.6	250	250	10	7.6	B7G	P
A4090	842 310 000 0000	00	642 310 000		4	3.5	250		6	2.4	B5	T
A15526	110 101 000 0230	80			6.3	0	200		15	18	NV	T
AA61	285 184 130 0000	00	274 164 130		6	5.2	250		6	2.7	B8A	TT
AA91E	192 310 X00 0000	00	182 310 900		6.3				5		B7G	DD
AAB1	023 1Y0 X90 0000	00	023 1t0 980		4						8SC	DDD
AB1	X02 310 000 0000	90	902 310 000	D1	4				0.8		B5	DD
ABC1	023 1X9 080 0000	40	023 198 060	G1	4	7	250		4	2	8SC	DDT
ABC91	412 39X 800 0000	00	412 389 600		6	2	250		1.2	1.6	B7G	DDT
ABL1	023 1X9 780 0000	40	023 198 560	G1	4	6	250	250	36	9	8SC	DDP
AC/042	842 300 000 0000	00	642 300 000		2	38	300		50	5	B5	T
AC/044	842 300 000 0000	00	642 300 000		4	38	300		50	5	B4	T
AC/045	842 300 000 0000	00	642 300 000		4	22	250		48	3.5	B4	T
AC/064	842 300 000 0000	00	642 300 000		4	21	200		20	3	B4	T
AC084	842 300 000 0000	00	642 300 000		4	22	300		17	1.1	B4	T
AC084N	842 300 000 0000	00	642 300 000		4		100		21	2.5	B4	T
AC2	023 100 080 0000	40	023 100 060	G1	4	5.5	250		6	2.5	8SC	T
AC2DD	98X 231 700 0000	40	869 231 500	G1	4	5	250	250	32		B7	DDP
AC2/HL	842 310 000 0000	00	642 310 000		4	1.2	250		2.5	6.5	B5	T
AC2/Pen	047 231 800 0000	00	045 231 600		4	5.3	250	250	32	8.5	B7	P
AC2/PenDD	98X 231 700 0000	40	869 231 500	G1	4	5.3	250	250	32	8.5	B7	DDP
AC3/Pen	047 231 800 0000	00	045 231 600		4	3	250	250	36	9	B7	P
AC4/Pen	047 231 800 0000	00	045 231 600		4(5)	7	250	250	56	11	B7	P
AC5/Pen	047 213 800 0000	00	045 213 600		4	8.5	250	250	40	9.4	B7	P
AC5/PenDD	98X 231 700 0000	40	869 231 500	G1	4(5)	8.5	250	250	40	9.4	B7	DDP
AC6/Pen	047 231 000 0000	80	045 231 000	A1	4(5)	6.9	300	225	63	9.5	B7	P
AC101	802 310 000 0000	40	602 310 000	G1	4	5.5	250		7	2.7	B5	T
AC104	842 310 000 0000	00	642 310 000		4	10	150		8.5	3.5	B5	T

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
AC701	103 080 020 0000	40	103 060 020	G1	4	1.6	40		0.5	0.7	B8D	T
ACD	902 310 000 0000	00	802 310 000		4						B5	D
ACDD	9X2 310 000 0000	00	892 310 000		4						B5	DD
AC/DDT	90X 231 800 0000	40	809 231 600	G1	4	4	200		5	2.3	B7	DDT
AC/DX	842 310 000 0000	00	642 310 000		4	3	200		5	3.5	B5	T
AC/G	842 310 000 0000	00	642 310 000		4	7.5	200		8	2.7	B5	T
ACH1	847 231 800 0000	50	174 652 300	G1	4	2	150		5	2		
	057 231 800 0000	50				2	150	75	2.5		C7	TH
ACHL4	842 310 000 0000	00	642 310 000		4	5	250		5	3.3	B5	T
ACHF	842 310 000 0000	00	642 310 000		4	3	200		3	2.5	B5	T
ACHL	842 310 000 0000	00	642 310 000		4	2.5	200		7	2	B5	T
AC/HLDD	90X 231 800 0000	40	809 231 600	G1	4	3	200		4.9	2.6	B7	DDT
ACHLDDD	XY0 231 890 0000	40	910 231 680	G1	4	3	200		4.9	2.6	B9	DDDT
ACHL4DD	90X 231 800 0000	40	809 231 600	G1	4	3	250		7	2.5	B7	DDT
ACHM4	742 310 000 0000	80	542 310 000	A1	4		250	100	10	2.5	B5	P
AC/HP	041 231 700 0000	80	041 231 500	A1	4	1.5	200	100	4.2	3.2	B7	P
AC/HP	743 210 000 0000	80	543 210 000	A1	4	1.5	200	100	4.2	3.2	B5	P
ACHVP	742 310 000 0000	80	542 310 000	A1	4	2	200	100	3	2.3	B5	P
ACH4	842 310 000 0000	00	642 310 000		4	4	200		3	3.3	B5	T
AC/L	842 310 000 0000	00	642 310 000		4	13.5	200		17	4.25	B5	T
ACL4	842 310 000 0000	00	642 310 000		4	15	250		9	4	B5	T
AC/LP	842 310 000 0000	00	642 310 000		4	14	200	18	4.25		B5	T
AC/ME	047 231 800 0000	00	045 231 600		4	22	250	250	0.2	†1.0	B7	TI
ACME4	842 310 000 0000	70	642 310 000	G2	4	16	250	250	26		B5	P
ACP	842 300 000 0000	00	642 300 000		4	21	200		19	3	B4	T
AC/P	842 310 000 0000	00	642 310 000		4	13.5	200		17	2.7	B5	T
ACP1	842 310 000 0000	00	642 310 000		4	28	200		24	2.3	B5	T
ACP/4	042 310 000 0000	80	042 310 000	A1	4	1	100		20	7	B5	T
ACP/4	842 310 000 0000	00	642 310 000		4	20	250		20	4	B5	T
ACPN	842 370 000 0000	00	642 350 000		4	12	250	200	22		B5	P
ACPNDH	842 370 000 0000	00	642 350 000		4	10	250	200	18		B5	P
AC/PP	842 300 000 0000	00	642 300 000		4	25	400		50	5	B4	T
ACPP	047 231 800 0000	00	045 231 600		4	5.5	250	250	32		B7	P
AC/Pen	047 231 800 0000	00	045 231 600		4	15.5	250	250	32	2.7	B7	P
AC/Pen	842 310 000 0000	70	642 310 000	G2	4	12	200	200	24	2.5	B5	P
ACPT	842 310 000 0000	70	642 310 000	G2	4	8	250	200	31		B5	P
ACPX4	842 310 000 0000	00	642 310 000		4	18	250		30	4	B5	T
ACPX4A	842 300 000 0000	00	642 300 000		4	25	250		50	5	B4	T
ACQ	047 231 800 0000	00	045 231 600		4	22	400	250	57	6	B7	P
ACQA			045 231 600		6	23	400	250		6	B7	P
AC/S1VM	742 310 000 0000	80	542 310 000	A1	6	1.4	200	75	5.6	1.1	B5	P
AC/S2	742 310 000 0000	80	542 310 000	A1	4	1	200	60	6	3.4	B5	P
AC/S2Pen	041 231 700 0000	80	041 231 500	A1	4	1.5	250	100	8	4.6	B7	P
AC/SG	742 310 000 0000	80	542 310 000	A1	4	1.5	200	60	4.5	1.9	B5	P
AC/SGVM	742 310 000 0000	80	542 310 000	A1	4	2	200	60	5.8	2.0	B5	P
AC/SH	742 310 000 0000	80	542 310 000	A1	4	1.5	200	75	7.4	2.5	B5	P
AC/SL	041 230 700 0000	80	041 230 500	A1	4	2	200	100	3.8	2	B5	P
ACSP1	041 231 700 0000	80	041 231 500	A1	4	3	200	200	4.9	2.7	B7	P
ACSP3	081 231 700 0000	40	061 231 500	G1	4	1.5	250	100	9	7.5	B7	P
AC+SP3/RH	081 231 700 0000	40	061 231 500	G1	4	1.5	250	100	7	7.5	B7	P
ACTH1	847 231 800 0000	50				2.7	75		6	3		
	057 231 800 0000	50	654 231 700	G1	4	3	250	100	3	3.5	B7	TH

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
ACTH1A [	218 840 730 0000 218 050 730 0000	50 50	216 740 530	G1	4	[3 3	75 250	6 100	3 3	3 3.5	M08	TH
ACTP	781 231 840 0000	50	571 231 640	G1	4	[3 5	150 250	1.5 200	5.5 5	1.4 1.6	B9	TP
ACVG	742 310 000 0000	80	542 310 000	A1	4		200	75	5	3	B5	P
ACVH	742 310 000 0000	80	542 310 000	A1	4	1.5	200	75	9.3	2.7	B5	P
AC/VP	041 231 700 0000	80	041 231 500	A1	4	1.5	200	100	5.7	2.5	B7	P
AC/VP	742 310 000 0000	80	542 310 000	A1	4	1.5	200	100	5.7	2.5	B5	P
ACVPB	081 231 700 0000	40	061 231 500	G1	4	1.5	250	150	12	4	B7	P
AC/VP1	041 231 700 0000	80	041 231 500	A1	4	2.8	250	200	7.4	2	B7	P
AC/VP2	081 231 700 0000	40	061 231 500	G1	4	2.8	250	100	7.4	2	B7	P
ACVP4	041 231 700 0000	80	041 231 500	A1	4		250	100	6	3	B7	P
ACVS	742 310 000 0000	80	542 310 000	A1	4	1.5	200	75	4.4	2	B5	P
ACVS4	742 310 000 0000	80	542 310 000	A1	4	2	250	50	6	2	B5	P
AC/Y	047 231 800 0000	00	045 231 600		4	10	250	250	32	3.5	B7	P
AC/Y	842 310 000 0000	70	642 310 000	G2	4	10	250	250	32	3.5	B6	P
AC/YC	047 231 800 0000	00	045 231 600		4	10	250	250	68	7.5	B7	P
AC/YY	047 231 800 0000	00	045 231 600		4	10	250	250	68	7.5	B7	P
AC/Z	842 310 000 0000	70	642 310 000	G2	4	5.5	250	250	32	7.5	B5	P
AC/Z			045 231 600		4	5.5	250	250	32	7.5	B7	P
AC/ZDD	98X 231 700 0000	40	869 231 500	G1	4	5.5	250	250	32	8	B7	DDP
AD	291 300 000 0000	00	281 300 000		6.3				30		UX4	R
AD1	023 004 080 0000	00	023 004 060		4	45	250		60	6	8SC	T
AD1/350	023 004 080 0000	00	023 004 060		4	66	400		42		8SC	T
AD1N	023 004 080 0000	00	023 004 060		4		300		60		F8	T
AD101	842 310 000 0000	00	642 310 000		4	26.5	250		40	4.6	B5	T
ADG	842 310 000 0000	00	642 310 000		20	10	200		10	3.5	B5	T
ADHF	842 310 000 0000	00	642 310 000		20	3	200		5	3.5	B5	T
ADHP	041 231 700 0000	80	041 231 500	A1	20		200	100	5	2.8	B7	P
ADL	872 310 000 0000	00	652 310 000		20	13	200		20	3	B5	T
ADPN	842 370 000 0000	00	642 350 000		20	15	250	200	22		B5	P
ADVHP	041 231 700 0000	80	041 231 500	A1	20		200	100	5.5	2.5	B7	P
AE	287 413 000 0000	00	265 413 000		13	13.5	100	100	8.5	1.6	UX6	P
AF	291 300 000 0000	00	281 300 000		2.5				120		UX4	R
AF2	742 310 000 0000	80	542 310 000	A1	4	2	200	100	4.2	2.5	B5	P
AF3	023 110 780 0000	40	023 110 560	G1	4	3	250	100	8	1.8	8SC	P
AF7	023 110 780 0000	40	023 110 560	G1	4	2	250	100	3	2.1	8SC	P
AF8	028 748 310 0000	00	026 546 310		6	2	200	50	3.5		A08	O
AG	29X 300 000 0000	00	289 300 000		5				1250		UX4	RP
AG495	842 310 000 0000	00	642 310 000		4	4	200		4	2.5	B5	T
AG4100	842 300 000 0000	00	642 300 000		4	3	150		5	2	B4	T
AH1	023 147 780 0000	40	023 145 560	G1	4	2	250	75	3	1.8	8SC	P
AH100	023 147 780 0000	40	023 145 560	G1	4	2.5	200	100	5.5	1.5	8SC	P
AH4105	742 310 000 0000	80	542 310 000	A1	4	2	200	125	4.5	2.3	B5	P
AK2	023 185 780 0000	40	123 164 570	G1	4	[2 2	100 250	75 75	4.2 4.5	0.9 2.2	8SC	O
AL1	023 004 780 0000	00	023 004 560		4	15	250	250	36	2.8	8SC	P
AL2	023 100 780 0000	40	023 100 560	G1	4	25	250	250	36	2.6	8SC	P
AL3	247 231 800 0000	00	245 231 600		4	3	250	250	36	9	B7	P
AL3	023 104 780 0000	00	023 104 560		4	6.5	250	250	36	9.5	8SC	P
AL4	147 231 800 0000	00	145 231 600		4	3	250	250	36		B7	P

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
AL4	023 104 780 0000	00	023 104 560		4	6.5	250	250	36	9.5	8SC	P
AL4/375	147 231 800 0000	00	145 231 600		4	6	250	250	34	9.5	B7	P
AL4/375	023 104 780 0000	00	023 104 560		4	6	250	250	34	9.5	8SC	P
AL5	147 231 800 0000	00	145 231 600		4	14	250	250	72	8.5	B7	P
AL5/375	023 104 780 0000	00	023 104 560		4	14	250	275	72	8.5	8SC	P
AL60	041 231 700 0000	80	041 231 500	A1	4(5)	7	250	250	72	14.5	B7	P
AL60	702 331 480 0000	00	502 331 460		2.4	7	200	150	35	6	B8D	P
AL495	842 310 000 0000	00	642 310 000		4	12	250		30	4	B5	T
AL860	702 331 408 0000	00	502 331 406		4.8	7	200	150	35	6	B9A	P
AM1	023 104 780 0000	00	023 104 560		4	5	250	250	0.1	12.0	8SC	TI
AMOE	047 231 800 0000	00	045 231 600		4	14	250	250	72	9	B7	P
AN4092	842 310 000 0000	90	642 310 000	D1	4	3.5	200		6	2	B5	DT
APP4A	047 231 800 0000	00	045 231 600		4	16.5	250	250	36	3.5	B7	P
APP4AS	023 100 780 0000	40	023 100 560	G1	4	16.5	250	250	36	3.5	8SC	P
APP4B	047 231 800 0000	00	045 231 600		4	5	250	250	32	10	B7	P
APP4BS	023 104 780 0000	00	023 104 560		4	5	250	250	32	10	8SC	P
AP495	842 310 000 0000	00	642 310 000		4	1.5	200		2.5	5	B5	T
APP4C	147 231 800 0000	00	145 231 600		4(5)	5	250	250	36	10	B7	P
APP4D	147 231 800 0000	00	145 231 600		4	16	250	250	72	7	B7	P
APP4E	147 231 800 0000	00	145 231 600		4(5)	13.5	350	275	72	8.5	B7	P
APP4E	023 104 780 0000	00	023 104 560		4(5)	13.5	350	275	72	8.5	8SC	P
APP4G	081 231 700 0000	40	061 231 500	G1	4(5)	6	250	250	36	10	B7	P
APP4G	041 231 700 0000	80	005 231 600	G1	4(5)	6	250	250	36	10	B7	P
APP4G	007 231 800 0000	40			4	6	250	250	36	10	B7	P
APP495	842 370 000 0000	00	642 350 000		4	23	300	200	25	2	B5	P
APP4100	842 310 000 0000	70	642 310 000	G2	4	15	250	250	24	2.5	B5	P
APP4120	842 310 000 0000	70	642 310 000	G2	4	15	350	200	22	3.5	B5	P
APV4	9X2 300 000 0000	00	892 300 000		4				60		B4	RR
APV 4200	9X2 300 000 0000	00	892 300 000		4				60		B4	RR
AR495	842 310 000 0000	00	642 310 000		4	1	100			5	B5	T
AR4100	842 310 000 0000	00	642 310 000		4	3	200		3	2	B5	T
AR4101	842 310 000 0000	00	642 310 000		4	1	100			3	B5	T
AS494	742 310 000 0000	80	542 310 000	A1	4		200	100	15	1.5	B5	P
AS495	742 310 000 0000	80	542 310 000	A1	4	2	200	100	1	3.4	B5	P
AS4100	742 310 000 0000	80	542 310 000	A1	4	6	200	100	4	1.4	B5	P
AS4120	742 310 000 0000	80	542 310 000	A1	4	2	200	100	3	3	B5	P
AS4125	742 310 000 0000	80	542 310 000	A1	4	2	250	100	3	3	B4	P
AV11	200 300 000 0000	90	200 300 000	D1	2.5						UX4	R
AX	284 300 000 0000	00	264 300 000		5	9	150		3	0.8	UX4	T
AX1	9X2 300 000 0000	00	892 300 000		4				60		B4	RR
AX50	9X2 300 000 0000	00	892 300 000		4				120		B4	RR
AZ1	023 090 0X0 0000	00	023 080 090		4				30		8SC	RR
AZ2	023 090 0X0 0000	00	023 080 090		4				60		8SC	RR
AZ3	023 190 0X0 0000	00	023 180 090		4				60		8SC	RR
AZ4	023 090 0X0 0000	00	023 080 090		4(5)				60		8SC	RR
AZ11	X02 300 090 0000	00	902 300 080		4				60		F8	RR
AZ21	299 03X X20 0000	00	288 039 920		2				30		A08	RR
AZ31	020 90X 030 0000	00	020 809 030		4				30		A08	RR
AZ32	020 90X 030 0000	00	020 809 030		4				60		A08	RR
AZ33	029 0X0 300 0000	00	028 090 300		4				60		A08	RR
AZ41	090 00X 230 0000	00	*8* **9 230		4				30		B8A	RR

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
AZ50	023 090 0X0 0000	00	023 080 090		4(5)				120		8SC	RR
AZ50	9X2 300 000 0000	00	892 300 000		4(5)				120		B4	RR
B2	842 300 000 0000	00	642 300 000		2	2	150		2	1.2	B4	T
B7	842 300 000 0000	00	642 300 000		6		150		8	0.67	B4	T
B11	842 300 000 0000	00	642 300 000		6		200		20	1.4	B4	T
B21	458 230 800 0000	00	447 230 600		2	3	150		5.0	1.5	B7	TT
B22	458 230 800 0000	00	446 230 700		2		150		5		B7	TT
B23	842 300 000 0000	00	642 300 000		2		150		4	0.75	B4	T
B24	458 230 800 0000	00	446 230 700		2	0	150		7		B7	TT
B30	481 238 500 0000	00	461 237 400		13	0	200		30		B7	TT
B36	581 481 230 0000	00	471 461 230		13	8	250		9	2.6	A08	TT
B63	284 158 300 0000	00	264 147 300		6	5	250		6	3.1	UX7	TT
B65	581 481 230 0000	00	471 461 230		6	8	250		9	2.6	A08	TT
B105	284 300 000 0000	00	264 300 000		1.4	18	150		8	1.0	UX4	T
B105	842 300 000 0000	00	642 300 000		1.4	18	150		8	1.0	B4	T
B109	851 238 410 0000	00	741 236 410		26	1.5	200		10	6.2	B9A	TT
B152	852 228 413 0000	00	741 226 413		6	2	250		10.0	5.5	B9A	TT
B203	842 300 000 0000	00	642 300 000		2	26	150		11	1.5	B4	T
B204	284 300 000 0000	00	264 300 000		2	22.5	125		8	0.9	UX4	T
B205	842 300 000 0000	00	642 300 0000		2	18	150		7	1.2	B4	T
B205	284 300 000 0000	00	264 300 000		2	18	150		7	1.2	UX4	T
B217	842 300 000 0000	00	642 300 000		4.5	4.5	150		3	1.3	B4	T
B217	284 300 000 0000	00	264 300 000		2	4.5	150		3	1.3	UX4	T
B228	284 300 000 0000	00	264 300 000		2	2	150		2	1.2	B4	T
B230	548 230 800 0000	00	446 230 700		2	1	150		5.5		B7	TT
B240	284 583 000 0000	00	264 473 000		2	0	150		15		UX6	TT
B242	742 300 000 0000	80	542 300 000	A1	2	0	200	75	4.5	1.1	B4	P
B242	274 300 000 0000	80	254 300 000	A1	2	0	200	75	4.5	1.1	UX4	P
B255	742 300 000 0000	80	542 300 000	A1	2	1	150	100	1.8	1.2	B4	P
B255	274 300 000 0000	80	254 300 000	A1	2	1	150	100	1.8	1.2	UX4	P
B262	742 300 000 0000	80	265 300 000	G1	2	1	150	100	1.8	1.3	UX4	P
B309	851 228 413 0000	00	741 226 413		6	2	250		10	5.5	B9A	TT
B319	158 234 118 0000	00	147 234 116		7.5	1.5	90		12	6	B9A	TT
B329	851 228 413 0000	00	741 226 413		6	8.5	250		10.5	2.2	B9A	TT
B339	851 228 413 0000	00	741 226 413		6	2	250		1.2	1.6	B9A	T
B342	287 300 000 0000	40	265 300 000	G1	2	2.5	150	75	4	1.3	UX4	P
B349	158 234 118 0000	00	147 234 116		7	1.2	90		15	9	B9A	TT
B403	842 300 000 0000	00	642 300 000		4	30	150		15	1.5	B4	T
B403	284 300 000 0000	00	264 300 000		4	30	150		15	1.5	UX4	T
B405	842 300 000 0000	00	642 300 000		4	18	150		11	1.6	B4	T
B405	284 300 000 0000	00	264 300 000		4	18	150		11	1.6	UX4	T
B406	842 300 000 0000	00	642 300 000		4	15	150		8	1.4	B4	T
B406	284 300 000 0000	00	264 300 000		4	15	150		8	1.3	UX4	T
B409	842 300 000 0000	00	642 300 000		4	16	250		12	2	B4	T
B409	284 300 000 0000	00	264 300 000		4	16	250		12	2	UX4	T
B415	284 300 000 0000	00	264 300 000		4	4.5	150		3	2	UX4	T
B424	842 300 000 0000	00	642 300 000		4	2.3	200		6	2.5	B4	T
B424	284 300 000 0000	00	264 300 000		4	2.3	200		6	2.5	UX4	T
B424S			642 300 000		4	3	200		3	2.5	B4	T
B425	842 300 000 0000	00	642 300 000		4	4.5	150		3	2	B4	T

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
B425	284 300 000 0000	00	264 300 000		4	4.5	150		3	2	UX4	T
B435N	842 310 000 0000	90	642 310 000	D1	4	3.5	200		6	2	B5	DT
B438	842 300 000 0000	00	642 300 000		4	2.5	200		0.2	2	B4	T
B438	284 300 000 0000	00	264 300 000		4	2.5	200		0.2	2	UX4	T
B438S			642 300 000		4	1.5	200		2	2	B4	T
B442	742 300 000 0000	80	542 300 000	A1	4	1	200	100	4.5	0.9	B4	P
B442M			254 300 000	A1	4	1	200	100	4.5	0.9	UX4	P
B443	842 370 000 0000	00	642 350 000		4	17	200	150	12	1.2	B5	P
B443	284 300 000 0000	70	264 300 000	G2	4	17	200	150	12	1.2	UX4	P
B443S	842 300 000 0000	70	642 350 000		4	12	250	75	12	1.6	B5	P
B443S			642 300 000	G2	4	12	250	75	12	1.6	B4	P
B443S			264 300 000	G2	4	12	250	75	12	1.6	UX4	P
B494	842 310 000 0000	00	642 310 000		4	1.5	200		4	4	B4	T
B543	842 370 000 0000	00	642 350 000		5	15	200	150	13	1.3	B5A	P
B543	284 300 000 0000	70	264 300 000	G2	5	15	200	150	12	1.3	UX4	P
B543	842 300 000 0000	70	642 300 000	G2	5	15	200	150	12	1.3	B4	P
B605	842 300 000 0000	00	642 300 000		6	18	150		9	1.8	B4	T
B605	284 300 000 0000	00	264 300 000		6	18	150		9	1.8	UX4	T
B609	842 300 000 0000	00	642 300 000		6	18	250		12	1.8	B4	T
B719	851 238 410 0000	00	741 236 410		6	2	250		10	6	B9A	TT
B729	851 238 410 0000	00	741 236 410		6.3	7.7	200		10	3.4	B9A	TT
B2006	842 310 000 0000	00	642 310 000		20	18	200		15	1.6	B5	T
B2038	842 310 000 0000	00	642 310 000		20	3	200		6	2.3	B5	T
B2041	802 300 000 0000	40	602 300 000	G1	20	1	100		2.5	0.1	B4	T
B2042	742 310 000 0000	80	542 310 000	A1	20	2	200	60	4	1	B5	P
B2043	842 310 000 0000	70	642 310 000	G2	20	18	200	200	20	1.7	B5	P
B2044	219 004 730 0000	00	218 004 530		20	4	200	60	0.7	2.8	A08	P
B2044S	842 310 000 0000	90	642 310 000	D1	20	3	200		6	1.8	B5	DT
B2045	742 310 000 0000	80	542 310 000	A1	20	2	200	60	4	1	B5	P
B2046	742 310 000 0000	80	542 310 000	A1	20	2	200	100	3	2.2	B5	P
B2047	742 310 000 0000	80	542 310 000	A1	20	2	200	100	4	2	B5	P
B2055	742 310 000 0000	80	542 310 000	A1	20	1.5	200	100	3	2	B5	P
B2099	842 310 000 0000	00	642 310 000		20	1.6	200		0.2	3	B5	T
BA2	548 230 800 0000	00	446 230 700		2		150		1.5		B7	TT
BB1	X02 310 000 0000	90	902 310 000	D1	16						B5	DD
BB220A	548 230 800 0000	00	446 230 700		2	3	150		4		B7	TT
BB240	548 230 800 0000	00	446 230 700		2	6	150		2.2		B7	TT
BBC12	892 3X0 000 0000	40	682 390 000	G1	2	4.5	150		2.5	1.5	B5	DDT
BCH1	487 231 800 0000	50	465 231 700	G1	24		100		5	1.2	B7	TP
BCH1	507 231 800 0000	50					200	50	1.3	0.7		
BF1	842 300 000 0000	00	642 300 000		4	15	150		8	1.3	B4	T
BF61	281 074 130 0000	00	261 054 130		6	7	250	250	36	10	B8A	P
BF62	281 074 130 0000	00	261 054 130		6	10	250	250	26	3.2	B8A	P
BF451	281 074 130 0000	00	261 054 130		45	9	200	175	54.5	9.5	B8A	P
BHP61	023 010 780 0000	40	023 010 560	G1	2	0.5	150	125	2.5	0.7	8SC	P
BL2	872 310 000 0000	40	652 310 000	G1	30	20	200	100	40	3	B5	P
BL63	028 148 310 0000	60	027 146 310	G1	6		250		14	4.2	A03	TT
BLP61	023 004 780 0000	00	023 004 560		2		150	150	7	2.7	8SC	P
BM968	200 300 000 0000	90	200 300 000	D1	2.5				60		UX4	R
BPM04	412 387 400 0000	00	412 365 400		6.3	12.5	250	250	45	4.1	B7G	P
BW3	842 370 000 0000	00	642 350 000		2	4.5	150	125	6	2.2	B5	P

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
BW602	842 300 000 0000	00	642 300 000		2	12	150		12	3.4	B4	T
BW1304	842 300 000 0000	00	642 300 000		2	6	150		6	3.2	B4	T
BX2	548 230 800 0000	00	446 230 700		2		200		2.5		B7	TT
BX604	842 300 000 0000	00	642 300 000		2	12	150		8	1.5	B4	T
C3A	281 704 130 0000	00	261 504 130		6.3		250	150	16	6.5	B8G	P
C3G	281 704 130 0000	00	261 504 130		6.3	1.8	200	150	13	14	A08	P
C3G	218 714 130 0000	00	216 514 130		6.3	1.8	250	150	13	13.5	B8B	P
C3G	902 382 470 0000	00	802 362 450		6.3	1.8	200	150	13	14	F8	DP
C3M	281 704 130 0000	00	261 504 130		20	4.5	250	150	15.0	6.0	B8B	P
C9	842 300 000 0000	00	642 300 000		4	9	150		3.5	0.9	B4	T
C10B	023 100 090 0000	00	023 100 080		20				75		8SC	R
C10B	902 310 000 0000	00	802 310 000		20				60		B5	R
C20C	9X2 310 000 0000	00	892 310 000		13						B5	DD
C23B	90X 231 800 0000	40	809 231 600	G1	13	5	200		4	2	B7	DDT
C25	842 300 000 0000	00	642 300 000		4	2.5	200		2.3	1.2	B4	T
C30	281 704 130 0000	00	261 504 130		6.3	4.5	250	150	15	6	B8B	P
C30B	000 231 800 0000	40	000 231 600	G1	13	4	200		4	3.2	B7	T
C36A	[847 231 800 0000 057 231 800 0000]	[50 50]	645 231 740		21	[1.5	100 250	75	4 3	2	[B9	TH
C36B	[847 231 800 0000 057 231 800 0000]	[50 50]	645 231 700	G1	29	[	100 250	150	4 3.4	2	[B7	TH
C36C	[847 231 800 0000 057 231 800 0000]	[50 50]	645 231 740		29	[2.5	100 250	75	4 3	2 3.5	[B9	TH
C50B	081 231 700 0000	40	061 231 500	G1	12	2.2	200	200	2.5	2.8	B7	P
C50N	081 231 700 0000	40	061 231 500	G1	13	2	200	200	9.5	2	B7	P
C70D	023 110 780 0000	40	023 110 560	G1	33	8.5	200	200	45	8	8SC	P
C70D	047 231 800 0000	00	045 231 600		35	8.5	200	200	45	8	B7	P
C80B	123 174 780 0000	40	123 154 560	G1	13	1.5	200	90	1.9		8SC	O
C109	842 300 000 0000	00	642 300 000		1	9	150		3.5	0.5	B4	T
C125	842 300 000 0000	00	642 300 000		1	3	150		0.7	0.8	B4	T
C135	042 300 000 0000	80	042 300 000	A1	1.4		150		1.5	1	B4	T
C142	742 300 000 0000	80	542 300 000	A1	1	1.5	150	75	1.7	0.8	B4	P
C144	247 135 200 0000	88	245 134 200	A1/A2	6.3	15	300	200	40	9	B7A	PP
C180	247 135 200 0000	88	245 134 200	A1/A2	6.3	20	300	250	55	3.5	B7A	PP
C243	842 370 000 0000	00	642 350 000		2	15	150	150	17	1.5	B5	P
C243N	284 730 000 0000	00	642 350 000		2	4.5	150	125	6	3.2	B5	P
C243N			264 530 000		2	4.5	150	125	6	2.2	UX5	P
C405	842 300 000 0000	00	642 300 000		4	32	250		20	1.9	B4	T
C405	284 300 000 0000	00	264 300 000		4	32	250		20	1.9	UX4	T
C408	842 300 000 0000	00	642 300 000		4	7	150		14	2.9	B4	T
C443	842 370 000 0000	00	642 350 000		4	25	300	200	20	1.7	B5	P
C443N	842 370 000 0000	00	642 350 000		4	42	300	200	20	1.5	B5	P
C443N/S	842 370 000 0000	00	642 350 000		4	20	300	150	20	1.5	B5	P
C453	842 370 000 0000	00	642 350 000		4	25	300	200	20	1.7	B5	P
C508	284 300 000 0000	00	264 300 000		5	9	150		6.2	1.7	UX4	T
C509A	842 300 000 0000	00	642 300 000		5	10	150		10	1	B4	T
C543	843 370 000 0000	00	642 350 000		4	1	100	150		2	B5	P
C603	842 300 000 0000	00	642 300 000		6	40	200		20	1.7	B4	T
C606	842 300 000 0000	00	642 300 000		6	27	250		20	3.3	B4	T
C643	842 370 000 0000	00	642 350 000		6	21	300	200	20	1.5	B5	P
C1134			245 135 200	A1/A2	6	17	400	200	20	2.5	B7A	PP

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
CB215	548 230 800 0000	00	446 230 700		2	1	150		15	1.7	B7	TT
CB215S	023 084 580 0000	00	023 064 470		2	1	150		12	1.7	8SC	TT
CB220	548 230 800 0000	00	446 230 700		2	3	150		15		B7	TT
CBC1	023 1X9 080 0000	40	023 198 060	G1	13	7	250		4	2	8SC	DDT
CBL1	023 19X 780 0000	40	023 189 560	G1	44	8.5	200	200	45	8	8SC	DDP
CBL6	023 1X9 780 0000	40	023 198 560	G1	44	8	100	100	45	6	8SC	DDP
CBL31	028 X97 310 0000	40	026 985 310	G1	44	8.5	200	200	45	8	A08	DDP
CC1	023 100 080 0000	40	023 100 060	G1	13	3.7	200		2.6	2	8SC	T
CC2	023 100 080 0000	40	023 100 060	G1	13	5.5	250		6	2.5	8SC	T
CC81E	841 228 513 0000	00	641 227 413		6.3	0.6	250		10	5.5	B9A	TT
CC82E	841 228 513 0000	00	641 227 413		6.3	8.5	250		10.5	2.2	B9A	TT
CC86E	841 228 513 0000	00	641 227 413		6.3	9.3	250		14.5	5.2	B9A	TT
CCa	851 228 413 0000	00	741 226 413		6.3		100		15	12	B9A	TT
CCH1	[023 178 480 0000 023 170 580 0000]	[50 50]	[023 156 470]	G1	20	[10 2]	[200 200]	[50 50]	[2.5 2]	[2.3]	[8SC]	[TH]
CCH2	[023 184 780 0000 023 105 780 0000]	[50 50]	[023 164 570]	G1	29	[10 2]	[200 200]	[75 75]	[2.5 2]	[2.3]	[8SC]	[TH]
CCH35	[020 048 310 0000 028 750 310 0000]	[50 50]	[027 546 310]	G1	7.5	[2 2]	[100 250]	[100 100]	[5.4 5]	[2.2 2.4]	[A08]	[TH]
CF1	023 110 780 0000	40	023 110 560	G1	13	2	200	100	3	2.3	8SC	P
CF2	023 110 780 0000	40	023 110 560	G1	13	2	200	100	4.5	2.2	8SC	P
CF3	023 110 780 0000	40	023 110 560	G1	13	2	100	75	7.5	2.1	8SC	P
CF7	023 110 780 0000	40	023 110 560	G1	13	2	100	100	3	2.1	8SC	P
CF50	123 100 780 0000	40	123 100 560	G1	30	2	200	100	1.5	3.3	8SC	P
CF51	123 100 780 0000	40	123 100 560	G1	30	2	250	100	1.7	3.3	8SC	P
CF61	[288 475 130 0000 280 575 130 0000]	[00 00]	[276 454 130]		6	[2 2]	[100 250]	[100]	[5 3]	[2.2 2]	[B8A]	[TH]
CF141	[288 475 130 0000 280 575 130 0000]	[00 00]	[276 454 130]		14	[2 2]	[100 200]	[90]	[6.4 2.7]	[2.2 1.5]	[B8A]	[TH]
CH1	023 147 780 0000	40	023 145 560	G1	13	2	250	75	3	1.8	8SC	P
CK1	023 174 780 0000	40	023 154 560	G1	13	1.5	200	90	8	3	8SC	P
CK3	023 174 780 0000	40	023 154 560	G1	19	15	200	100	2.5		8SC	O
CK108	287 113 000 0000	40	265 113 000	G1	6.3	3	250	100	2.3	1.2	UX6	P
CK507AX	873 420 000 0000	00	653 420 000		1.2	2	40	40	0.9	0.6	B5A	P
CK509AX	834 200 000 0000	00	634 200 000		0.62		40		0.1	0.1	B5A	T
CK518AX	873 420 000 0000	00	653 420 000		1.2	2	40		0.8	0.5	B5A	T
CK520AX	873 420 000 0000	00	653 420 000		0.62	2.5	40	40	0.2	0.1	B5A	P
CK521AX	873 420 000 0000	00	653 420 000		1.2	3	20	20	0.6	0.4	B5A	P
CK523AX	973 420 000 0000	00	653 420 000		1.2	1.2	20	20	0.3	0.3	B5A	P
CK524AX	873 420 000 0000	00	653 420 000		1.2	1.2	20	20	0.4	0.3	B5A	P
CK526AX	873 420 000 0000	00	653 420 000		1.2	1.5	20	20	0.5	0.4	B5A	P
CK527AX	873 420 000 0000	00	653 420 000		1.2		20	20	0.1	0.2	B5A	P
CK528AX	873 420 000 0000	00	653 420 000		1.2	1.2	40	40	0.7	0.6	B5A	P
CK529AX	873 420 000 0000	00	653 420 000		1.2	1.2	20	20	0.3	0.3	B5A	P
CK531DX	873 420 000 0000	00	653 420 000		1.2	1.5	20	20	0.3	0.2	B5A	P
CK532DX	873 420 000 0000	00	653 420 000		1.2		20	20	0.4	0.4	B5A	P
CK535AX	873 420 000 0000	00	653 420 000		1.2	1.2	20	20	0.3	0.3	B5A	P
CK539AX	873 420 000 0000	00	653 420 000		1.2	1.4	20	20	0.2	0.3	B5A	P
CK541DX	873 420 000 0000	00	653 420 000		1.2		30	30	0.2	0.4	B5A	P
CK542DX	873 420 000 0000	00	653 420 000		1.2	2	20	20	0.4	0.3	B5A	P
CK544DX	873 420 000 0000	00	653 420 000		1.2		30	30	0.1	0.3	B5A	P

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
CK545DX	873 420 000 0000	00	653 420 000		0.6	0.6	20	20			B5A	P
CK546	873 420 000 0000	00	653 420 000		1.2		20	20	0.4	0.4	B5A	P
CK1002	009 0X0 010 0000	00	008 090 010		6				30	3k	A08	CCR
CK1005	009 0X2 030 0000	00	008 092 030		6.3				30		A08	RR
CK1006	29X 300 000 0000	00	289 300 000		2				60		UX4	RR
CK1007	009 0X2 030 0000	00	008 092 030		1				60		A08	RR
CK1012	29X 300 000 0000	00	289 300 000		2				120		UX4	RR
CK1024	009 0X0 010 0000	00	008 090 010		6				60	3k	A08	CCR
CK1028	202 322 300 0000	90	202 322 300	D1	6				60		B7G	R
CK1091	200 900 300 0000	00	200 800 300		1.4						B7G	D
CK1216	882 345 100 0000	00	672 344 100		6.3		100		5	3.4	B7G	TT
CK5608	284 158 300 0000	00	264 147 300		2.5	6	200		6	2.4	UX7	TT
CK5639	412 183 710 0000	00	412 163 510		6.3		150	100	21	9	B8D	P
CK5654	412 387 100 0000	00	412 365 100		6.3	2	150	125	7.5	5	B7G	P
CK5656	745 231 881 0000	00	544 231 671		6.3	2	150	125	15	5.8	B9A	PP
CK5670	214 808 513 0000	00	214 607 413		6.3		150		8.5	5.5	B9A	TT
CK5672	873 420 000 0000	00	653 420 000		1.2	6.5	60	60	3.2	0.6	B5A	P
CK5676	824 300 000 0000	00	624 300 000		1.2	5	150		4	1.6	B5A	T
CK5677	824 300 000 0000	00	624 300 000		1.2	5.5	150		1.9	0.8	B5A	T
CK5678	872 430 000 0000	00	652 430 000		1.2		60	60	1.8	1.1	B5A	P
CK5687	841 221 538 0000	00	641 221 437		6.3	2	150		36	11	B9A	TT
CK5692	481 581 230 0000	00	461 471 230		6.3	9	250		6.5	2.2	A08	TT
CK5693	128 458 310 0000	00	126 447 310		6.3	6	200	7		3.2	B8B	TT
CK5694	128 458 310 0000	00	126 447 310		6.3	6	300		7	3.2	A08	TT
CK5697	832 400 000 0000	00	632 400 000		0.6	3	12		0.2	0.1	B5A	T
CK5702	873 420 000 0000	00	653 420 000		6.3		150	125	7.5	5	B7G	P
CK5703	823 410 000 0000	00	623 410 000		6.3		150		9	5	B5A	T
CK5704	823 100 000 0000	00	623 100 000		6.3				5		B5A	D
CK5725	412 387 100 0000	00	412 365 100		6.3	2	150	125	5.2	3.2	B7G	P
CK5726	192 310 X00 0000	00	182 310 900		6.3				5		B7G	DD
CK5744	823 410 000 0000	00	623 410 000		6.3		250		4	4	B5A	T
CK5749	412 387 100 0000	00	412 365 100		6.3		250	100	11	4.4	B7G	P
CK5751	841 228 513 0000	00	641 227 413		6.3	3	250		1.0	1.2	B9A	TT
CK5755	814 225 183 0000	00	614 224 173		6.3	0.9	100		0.1	0.5	B9A	TT
CK5784	872 311 400 0000	00	652 311 400		6.3	2	150	125	5.2	3.2	B7F	P
CK5785	923 000 000 0000	00	823 000 000		1.2							D
CK5814	851 228 413 0000	00	741 226 413		6	8.5	250		10.5	2.2	B9A	TT
CK5829	912 13X 100 0000	00	812 139 100		6.3				5		B7F	DD
CK5851	208 037 240 0000	00	206 035 240		1.2	7.5	150	125	5.5	1.6	B8D	P
CK5854	872 430 000 0000	00	652 430 000		1.2	2	40	40	0.8	0.5	B5A	P
CK5873	284 115 830 0000	00	264 114 730		6.3	3	150		9	2.9	B8D	TT
CK5875	872 430 000 0000	00	652 430 000		1.2		90	90	3.5	2.5	B5A	P
CK5881	028 740 310 0000	00	026 540 310		6.3	14	150	250	75	6.1	A08	P
CK5910	287 024 300 0000	00	265 024 300		1.4		90	90	1.6	0.9	B7G	P
CK9565	841 228 513 0000	00	641 227 413		6.3		150		8.2	6.5	B9A	TT
CK5967	824 335 280 0000	00	624 334 270		1.2		40		3	0.1	B8D	TT
CK5968	824 335 280 0000	00	624 334 270		1.2		40		0.7	1.3	B8D	TT
CK5969	247 887 530 0000	00	245 675 430		1.2	3	150	40	6	1.7	B8D	PP
CK5970	247 887 530 0000	00	245 675 430		1.2		40	40	3	1.8	B8D	PP
CK5971	842 430 000 0000	00	642 430 000		1.2		60		3.5	2.1	B5A	T

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
CK5972	872 430 000 0000	00	652 430 000		1.2		60	60	2.5	1.3	B5A	P
CK5975			614 230 000		6.3		100		10	5.1	B5A	T
CK5995	902 310 000 0000	00	8*2 310 000		6.3				30		B5A	R
CK6005	412 387 400 0000	00	412 365 400		6.3	12.5	250	250	45	4.1	B7G	P
CK6021	842 113 580 0000	00	642 113 470		6.3		100		6.5	5.4	B8D	TT
CK6029	824 300 000 0000	00	624 300 000		1.2	4	90		11	2	B5A	T
CK6050	824 300 000 0000	00	624 300 000		1.2	5	150		4	1.6	B5A	T
CK6051	872 430 000 0000	00	652 430 000		1.2	4	40	40	3	1.2	B5A	P
CK6088	873 420 000 0000	00	653 420 000		1.2	1.2	40	40	0.7	0.6	B5A	P
CK6092	873 420 000 0000	00	653 420 000		1.2	4.5	40	40	1.4	0.6	B5A	P
CK6100	802 384 100 0000	00	602 364 100		6.3	8.5	250		10.5	2.2	B7G	T
CK6101	882 345 100 0000	00	672 344 100		6.3		100		9	6	B7G	TT
CK6110	912 0X3 100 0000	00	812 093 100		6.3						B8D	DD
CK6111	842 113 580 0000	00	642 113 470		6.3		100		8.5	5	B8D	TT
CK6112	842 113 580 0000	00	642 113 470		6.3		100		0.8	1.8	B8D	TT
CK6147	208 037 240 0000	00	206 035 240		1.2	7.5	150	125	5.5	1.6	B8D	P
CK6152	814 230 000 0000	00	614 230 000		6.3		100		10	5.1	B5A	T
CK6186	412 387 100 0000	00	412 365 100		6.3		250	150	7	5	B7G	P
CK6201	841 228 513 0000	00	641 227 413		6.3		250		10	5.5	B9A	TT
CK6245	872 311 400 0000	00	652 311 400		6.3		20	30	2.5	3.3	B7G	P
CK6247	442 813 080 0000	00	442 613 060		6.3		250			2.6	B8D	T
CK6286	824 300 000 0000	00	624 300 000		1.2	2	60		6	2.1	B5A	T
CK6397	208 037 240 0000	00	206 035 240		1.2	7.5	150	125	7.2	2	B8D	P
CK6414	851 228 413 0000	00	741 226 413		6.3		200		8	5.5	B9A	TT
CK6418	872 430 000 0000	00	652 430 000		1.2	1.2	20	20	0.2	0.3	B5A	P
CK6419	872 430 000 0000	00	652 430 000		0.6	0.6	12	12			B5A	P
CK6485			412 365 100		6.3		300	150	10	9	B7G	P
CK6519			653 420 000		1.2		20	20	0.4	0.4	B5A	P
CK6526	872 430 000 0000	00	652 430 000		1.2	6	100	100	6.5	1.9	B5A	P
CK6533	844 812 380 0000	00	644 612 360		6.3		150		0.9	1.7	B8D	T
CK6540	872 311 400 0000	00	652 311 400		6.3		150		7.5	5	B7G	P
CK6611	842 113 580 0000	00	642 113 470		6.3		100		8.5	5	B8D	TT
CK6612	842 113 580 0000	00	642 113 470		6.3		100		0.8	1.8	B8D	TT
CK6872	872 311 400 0000	00	652 311 400		6.3		150	125	7.7	4.1	B7G	P
CK6883	127 141 310 0000	80	125 141 310	A1	12.6	33	300	200	70	7	A08	P
CK7994	348 441 430 0000	00	346 441 430		6.3	1	100		13	18	B8D	T
CK7995	214 311 870 0000	00	214 311 650		6.3	1.6	150	150	8	13	B8D	P
CL1	023 100 780 0000	40	023 100 560	G1	13	14	200	200	25	2.5	8SC	P
CL2	023 100 780 0000	40	023 100 560	G1	24	15	100	100	50	3.8	8SC	P
CL4	023 100 780 0000	40	023 100 560	G1	33	8.5	200	200	45	8	8SC	P
CL6	023 100 780 0000	40	023 100 560	G1	35	9.5	200	100	45	8	8SC	P
CL33	028 740 310 0000	00	026 540 310		33	8.5	200	200	45	8	A08	P
CO241	028 700 300 0000	40	026 500 300	G1	2	1	150	75	3.5	1.4	A08	P
CO243	028 458 300 0000	00	026 447 300		2		150		4	1.8	A08	TT
CO244	028 740 300 0000	00	026 540 300		2	2.5	150	125	4.1	1.8	A08	P
CO257	021 470 300 0000	80	021 450 300	A	2	3	100	100	6	2.5	A08	P
CO258	028 740 300 0000	00	026 540 300		1.8	6	150	125	10	2	A08	P
CY1	023 100 090 0000	00	023 100 080		20				60		8SC	R
CY1C	903 210 000 0000	00	803 210 000		20				60		B5	R
CY2	123 1X0 090 0000	00	123 190 080		30				60		8SC	RR

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
CY21	209 001 003 0000	00	208 001 003		25				120		B9A	R
CY31	020 090 310 0000	00	020 080 310		20				120		A08	R
CY32	02X 190 310 0000	00	029 180 310		30				60		A08	RR
CZ30	029 1X3 210 0000	00	028 193 210		80				60		A08	RR
CZ501D	287 113 000 0000	40	265 113 000	G1	3.5	2.5	150	125	6.5	3.5	UX6	P
CZ504D	287 413 000 0000	00	265 413 000		5.5	13.5	250	200	40	3.5	UX6	P
D1	123 000 000 0000	90	123 000 000	D1	4				5		B3G	R
D1	29X 300 000 0000	00	289 300 000		5				60		UX4	RR
D1	842 300 000 0000	00	642 300 000		4	1	40		1	0.8	B4	T
D1C	284 230 000 0000	00	264 230 000		1.2	5	135		2	0.6	5AA	T
D2	842 300 000 0000	00	642 300 000		4	6	100		2.2	0.2	B4	T
D2C	284 230 000 0000	00	264 230 000		1.2	7.5	135		3	1.2	5AA	T
D2M9	192 310 X00 0000	00	182 310 900		6.3				5		B7G	DD
D3A	141 230 817 0000	00	141 230 615		6.3	1.2	200	150	22	36	B9A	P
D3F	141 230 817 0000	00	141 23* 615		1.2	3	150	60	1.7	0.6	B9A	P
D4	842 310 000 0000	00	642 310 000		4	3	200		4	3.3	B5	T
D13U	023 100 080 0000	40	023 100 060	G1	13	5	250		6	2.5	8SC	T
D41	9X2 310 000 0000	00	892 310 000		4						B5	DD
D42	912 300 000 0000	00	812 300 000		4				15		B4	D
D43	012 300 000 0000	90	012 300 000	D1	4				15		B5	D
D61	289 174 130 0000	00	268 154 130		6.3	2	250	125	5	1.8	B8A	DP
D63	029 1X0 310 0000	00	028 190 310		6				2		A08	DD
D77	1X2 310 900 0000	00	192 310 800		6				5		B7G	DD
D105	284 300 000 0000	00	264 300 000		1	18	150		8	2	UX4	T
D105	842 300 000 0000	00	642 300 000		1	18	150		8	2	B4	T
D110	284 300 000 0000	00	264 300 000		4	40	250		40	2.7	UX4	T
D110	842 300 000 0000	00	642 300 000		4	40	250		40	2.7	B4	T
D121	289 174 130 0000	00	268 154 130		12.5	2	200	90	5	2	B8A	DP
D143	842 370 000 0000	00	642 350 000		1	1	100	150	12	1.2	B5	P
D152	1X2 310 900 0000	00	192 310 800		6						B7G	RR
D210	842 300 000 0000	00	642 300 000		2	3	150		3.5	1.2	B4	T
D210SW	803 200 000 0000	40	603 200 000	G1	2	4.5	150		2.4	1.3	B4	T
D243	842 370 000 0000	00	642 350 000		2.5	27	300	200	20	2	B5	P
D400	9X2 310 000 0000	00	892 310 000		4						B5	DD
D401	X02 310 000 0000	90	902 310 000	D1	4				5		B4	DD
D404	384 200 000 0000	00	364 200 000		4	40	250		40	2.7	UX4	T
D404	842 300 000 0000	00	642 300 000		4	40	250		40	2.7	B4	T
D410	842 300 000 0000	00	642 300 000		4	3	150		3.5	0.5	B4	T
D418	102 300 000 0000	90	102 300 000	D1	4						B4	D
D604	023 191 X10 0000	00	023 181 910		6						8SC	DD
DA	000 231 800 0000	40	000 231 600	G1	13	2.6	200		3.7	2.2	B7	T
DA1	842 300 000 0000	00	642 300 000		2	1	40		0.3	0.4	Sm4	T
DA2	842 300 000 0000	00	642 300 000		2	2.1	40		1.2	0.5	Sm4	T
DA3	842 300 000 0000	00	642 300 000		2	2.8	40		1.8	0.6	Sm4	T
DA30	842 300 000 0000	00	642 300 000		4(5)	70	300		60	3.5	B5	T
DA42	214 300 000 0000	80	214 300 000	A1	7.5		400			3	B4	T
DA101	200 900 300 0000	00	200 800 300		1.2						B7G	D
DA406	742 300 000 0000	80	542 300 000	A1	4	2.5	150	75	3	0.8	B4	P
DAC1	023 009 080 0000	40	023 008 060	G1	1.4		90		0.1	0.3	8SC	DT

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
DAC21	208 009 030 0000	40	206 008 030	G1	1.4		100		0.7	0.4	A08	DT
DAC22	284 009 030 0000	00	264 008 030		1.2		90		0.3	0.3	B8G	DT
DAC25	284 229 230 0000	00	264 228 230		1.2		150		0.6	0.3	A08	DT
DAC31	038 090 200 0000	40	036 080 200	G1	1.4		90		0.4	0.3	A08	DT
DAC32	038 090 200 0000	40	036 080 200	G1	1.4		90		0.1	0.3	A08	DT
DAF1	902 382 470 0000	00	802 362 450		1.2		150	60	1.4		F8	DP
DAF11	902 382 470 0000	00	802 362 450		1.2		90	50	0.8	0.5	F8	DP
DAF40	289 374 230 0000	00	268 354 230		1.4		75	75	0.8	0.7	B8A	DP
DAF70	804 239 070 0000	00	604 238 050		1.2		60	60	0.8	0.4	B8D	DP
DAF91	209 784 300 0000	00	208 564 300		1.4	1	90	90	2	0.7	B7G	DP
DAF92	287 904 300 0000	00	265 804 300		1.4	1	90	90	2	0.7	B7G	DP
DAF96	209 784 300 0000	00	2*8 564 300		1.4	1.5	60	60	0.2	0.2	B7G	DP
DAF191	209 784 300 0000	00	2*8 564 300		1.4		60	60	2.2	0.7	B7G	DP
DAF961	209 784 300 0000	00	208 564 300		1.2	0	60	60	2.2	0.7	B7G	DP
DAS1	742 300 000 0000	80	542 300 000	A	2	2.7	150	125	1.5	0.6	Sm4	P
DB	548 230 800 0000	00	446 230 700		25		250		40		B7	TT
DB3	843 200 000 0000	00	643 200 000		1.5	2.8	40		1.8	0.6	Sm4	T
DB32			182 311 900		6.3				5		B7G	DD
DBC21	208 0X9 030 0000	40	206 098 030	G1	1.4	1.5	150		1.6	0.9	A08	DDT
DBC25	209 X04 830 0000	00	208 904 630		1.2	1.5	150		1.6	0.9	B8B	DDT
DBC31	028 X90 300 0000	40	026 980 300	G1	1.4	1.5	150		1.6	0.9	A08	DDT
DBS1	743 200 000 0000	80	543 200 000	A1	1.5	2.7	120	60	1.5	0.6	Sm4	P
DC2/HLDD	90X 231 800 0000	40	809 231 600	G1	25	1	200			2	B7	DDT
DC2P	842 310 000 0000	00	642 310 000		35	13.5	200		17	3.7	B5	T
DC2/Pen	047 231 800 0000	00	045 231 600		35	10	250	200	30	2.5	B7	P
DC2/Pen	842 310 000 0000	70	642 310 000	G2	35	10	250	200	30	2.5	B5	P
DC2SG	742 310 000 0000	80	542 310 000	A	20	1	200	75	5.5	1.8	B5	P
DC2SGVM	742 310 000 0000	80	542 310 000	A1	20	2	200	60	5.8	1.5	B5	P
DC3HL	842 310 000 0000	00	642 310 000		25	1	90		0.3	0.4	B5	T
DC11	802 302 400 0000	00	602 302 400		1.2	2.5	90		2	1	F8	T
DC25	280 024 030 0000	00	260 024 030		1.2	3.5	100		1.8	0.8	B8B	T
DC70	400 230 080 0000	00	400 230 060		1.2	4.5	150		14.5	3.7	B8D	T
DC80	402 230 080 0000	00	402 230 060		1.2	3.5	150		20	3.5	B9A	T
DC90	288 044 300 0000	00	266 044 300		1.4	3	90		3	1.1	B7G	T
DC93	204 038 200 0000	00	204 036 200		1.4	5	100		10	2.4	B7G	T
DC96	288 044 300 0000	00	266 044 300		1.4	2.5	90		2.1	1	B7G	T
DC193	204 038 200 0000	00	2*4 *36 200		1.4	5	100		10	2.4	B7G	T
DCC90	285 348 200 0000	00	274 346 200		1.4	2.5	90		3.7	1.8	B7G	TT
DCH1	208 740 310 0000 208 750 030 0000	50 50	207 540 630	G1	1.4		60 150	125	2.1 1	1.4 1	A08	TH
DCH11	842 382 570 0000 052 382 570 0000	00 00	642 273 450		1.2	4	90 150	60	0.8 1		F8	TH
DCH21	208 740 830 0000 208 750 030 0000	50 50	207 540 630	G1	1.4		60 90	60	2.1 1	1.4	A08	TH
DCH22	288 475 030 0000 280 575 030 0000	00 00	276 454 030		1.2		60 90	50	1.4 0.7		A08	TH
DCH25	288 475 230 0000 280 575 230 0000	00 00	276 454 030		1.4		60 90	60	2 1	1.3	A08	TH
DCH31	028 748 300 0000 028 750 300 0000	50 50	027 546 300	G1	1.4		60 90	60	2.1 1	1.4 1.4	A08	TH
DC/HL	842 310 000 0000	00	642 310 000		6	1	100			3	B5	T

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
DC/P	842 310 000 0000	00	642 310 000		8	1	200			4.5	B5	T
DC/SG	742 310 000 0000	80	542 310 000	A1	6		150	75		2.7	B5	P
DD4	9X2 310 000 0000	00	892 310 000		4				0.8		B5	DD
DD4D	0X1 231 900 0000		092 231 800		4				4		B7	DD
DD6	9X2 310 000 0000	00	892 310 000		6						B5	DD
DD6	1X2 310 900 0000	00	192 310 800		6				9		B7G	DD
DD6DS	023 190 X10 0000	00	023 180 910		6				9		8SC	DD
DD6G	1X2 310 900 0000	00	192 310 800		6						B7G	DD
DD13	9X2 310 000 0000	00	892 310 000		13				5		B5	DD
DD41	21X 090 130 0000	00	219 080 130		4				5		M08	RR
DD101	21X 090 130 0000	00	219 080 130		10						M08	DD
DD207	9X2 300 000 0000	00	892 300 000		2						B4	DD
DD465	X02 310 000 0000	90	902 310 000	D1	4						B5	DD
DD620	9X2 310 000 0000	00	892 310 000		6				1		B5	DD
DD818	9X2 310 000 0000	00	892 310 000		8						B5	DD
DD960	204 038 200 0000	00	204 036 200		1.4	3	60		9	2.4	B7G	T
DDA1	9X2 310 000 0000	00	892 310 000		4						B5	DD
DDD11	852 302 480 0000	00	742 302 460		1.2	4.5	150		1.5	1.0	F8	TT
DDD25	208 548 030 0000	00	206 447 030		1.4	1.5	100		3.5	1.2	A08	TT
DDL4	9X2 310 000 0000	00	892 310 000		4				5		B5	RR
DDP4B	X89 231 700 0000	40	968 231 500	G1	4	5	250	250	36	8	B7	DDP
DDP4M	X19 238 700 0000	40	918 236 500	G1	4	5	250	250	36	8	B7	DDP
DD/Pen	94X 231 700 0000	80	849 231 500	A	4	2.5	200	100	5	2.7	B7	DDP
DDPP4B	98X 231 700 0000	40	869 231 500	G1	4	5	250	250	36	10	B7	DDP
DDPP4BS	023 19X 780 0000	40	023 189 560	G1	4	5	250	250	36	10	8SC	DDP
DDPP4M	98X 231 700 0000	40	869 231 500	G1	4(5)	5	250	250	36	10	B7	DDP
DDPP6B	X89 231 700 0000	40	968 231 500	G1	6	6	250	250	36	9.5	B7	DDP
DDPP6BS	023 19X 780 0000	40	023 189 560	G1	6	5	250	250	36	10	8SC	DDP
DDPP39	X89 231 700 0000	40	968 231 500	G1	39	8	200	200	45	8.5	B7	DDP
DDPP39M	X19 238 700 0000	40	918 236 500	G1	39	8	200	200	45	8.5	B7	DDP
DDPP39S	023 1X9 780 0000	40	023 198 560	G1	44	8	200	200	45	8.5	8SC	DDP
DDR2	278 101 403 0000	00	256 101 403		6	5	250	250	40	12	B9G	P
DDR3	912 390 000 0000	00	812 380 000		6				60		B7G	R
DDR7	412 380 700 0000	00	412 360 500		6	12.5	250	250	16	2.6	B7G	P
DDT	X09 231 800 0000	40	908 231 600	G1	4	3	200		3.4	2.4	B7	DDT
DDT2	892 3X0 000 0000	40	682 390 000	G1	2	3	150		1	1.4	B5	DDT
DDT2B	892 3X0 000 0000	40	682 390 000	G1	2	4.5	150		2.5	1	B5	DDT
DDT2BS	023 09X 080 0000	40	023 089 060	G1	2	4.5	150		2.5	1	8SC	DDT
DDT4	90X 231 800 0000	40	809 231 600	G1	4	3	150			2.5	B7	DDT
DDT4(S)	X09 231 800 0000	40	908 231 600	G1	4	5	200		3	3.6	B7	DDT
DDT4(S)	023 1X9 080 0000	40	023 198 060	G1	4	5	250		4	3.6	8SC	DDT
DDT6	90X 231 800 0000	40	809 231 600	G1	6	5.5	250		4	2	B7	DDT
DDT6S	023 19X 080 0000	40	023 189 060	G1	6	5.5	250		5	2	8SC	DDT
DDT13	X09 321 800 0000	40	908 321 600	G1	13	4	200		5	2	B7	DDT
DDT13S	023 19X 080 0000	40	023 189 060	G1	13	5	200		4	3.6	8SC	DDT
DDT16	90X 231 800 0000	40	809 231 600	G1	16	3	200		5	2.5	B7	DDT
DDT213	90X 231 800 0000	40	809 231 600	G1	13	4	200		5	2.2	B7	DDT
DDT215	892 3X0 000 0000	40	682 390 000	G1	2	3	150		3	1.6	B5	DDT
DDT220	892 3X0 000 0000	40	682 390 000	G1	2.5	4.5	150		2.5	1	B5	DDT
DE1	284 130 000 0000	00	264 130 000		2.5	21	250		5.2	1	UX5	T

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
DE5	290 300 000 0000	00	280 300 000		2.5				120		UX4	R
DET19	205 140 300 0000	88	204 140 300	A1/A2	6		300		25	2.1	UX7	TT
DET20	020 000 310 0000	84	020 000 310	A1/G1	6	5.5	250		12	3	A08	T
DF1	032 000 780 0000	40	032 000 560	G1	1.4		90	90	1.2	0.7	8SC	P
DF11	802 302 470 0000	00	602 302 450		1.2		90	50	0.9	0.6	F8	P
DF16	874 230 000 0000	00	654 230 000		0.6		20	20	0.3	0.3	B5A	P
DF22	208 701 030 0000	40	206 501 030	G1	1.4	1.5	90	90	1.4	1.1	A08	P
DF23	287 114 130 0000	00	265 114 130		1.2	1.5	90	60	0.6	0.6	A08	P
DF25	287 114 130 0000	00	265 114 130		1.2	0.5	150	60	1	0.6	A08	P
DF26	287 114 130 0000	00	265 114 130		1.2	1.1	150	90	1.2	0.3	A08	P
DF32	028 710 300 0000	40	026 510 300	G1	1.4	1.5	90	90	1.4	1.1	A08	P
DF33	038 700 200 0000	40	036 500 200	G1	1.4	0.5	90	90	0.8	0.7	A08	P
DF51	742 300 000 0000	80	542 300 000	A1	1.5		40	12	1.1	0.1	SM4	P
DF61	872 430 000 0000	00	652 430 000		1.2	1	60	60	0.9	0.8	B5A	P
DF62	872 430 000 0000	00	652 430 000		1.2	1	90	90	7.4	2	B5A	P
DF63	872 430 000 0000	00	652 430 000		1.2	2.5	90	90	1.2	0.4	B5A	P
DF70	040 230 870 0000	00	*4* 23* 650		0.6		40	40	0.4	0.2	B8D	P
DF72	040 230 870 0000	00	*40 230 650		1.2	0	60	60	1.7	1	B8D	P
DF73	040 230 870 0000	00	*40 230 650		1.2		90	75	1.7	0.8	B8D	P
DF91	287 024 300 0000	00	265 024 300		1.4	0	90	75	3.5	0.9	B7G	P
DF92	287 024 300 0000	00	265 024 300		1.4	2	90	60	1.9	0.7	B7G	P
DF95	287 024 300 0000	00	265 024 300		1.4	1	90	75	3.7	1	B7G	P
DF96	287 024 300 0000	00	265 *24 300		1.4	0.8	75	75	1.4	0.6	B7G	P
DF97	287 224 300 0000	00	265 224 300		1.4		60	60	1.7	0.8	B7G	P
DF161	028 710 300 0000	40	026 510 300	G1	0.7		20	20	0.3	0.8	A08	P
DF167	873 420 000 0000	00	653 420 000		0.6		20	20	0.1		B5A	P
DF191	287 024 300 0000	00	265 *24 300		1.4		60	60	4.2	1	B7G	P
DF668	872 430 000 0000	00	652 430 000		1.2	1.6	90	90	5.7	2.3	B5A	P
DF669	872 430 000 0000	00	652 430 000		1.2	0	60	60	1.8	1.1	B5A	P
DF904	287 024 300 0000	00	265 *24 300		1.4	0	90	90	1.6	0.9	B7G	P
DF906	287 304 300 0000	00	265 3*4 300		1.4	0	40	40	3	1.7	B7G	P
DF961	287 024 300 0000	00	265 024 300		1.2	0	60	60	3.4	0.8	B7G	P
DFF50	248 778 530 0000	00	246 557 430		1.4	1.1	20	20	2.2	1.2	A08	PP
DFF51	248 778 530 0000	00	246 557 430		1.4	0	20	20	2.1	0.7	A08	PP
DFF101	834 782 500 0000	00	634 572 400		1.4		40	40	1	0.2	B7G	PP
DG210	842 370 000 0000	00	642 350 000		2	1.5	100	20	1	1	B5	P
DH	842 310 000 0000	00	642 310 000		16	3	200		6	3.7	B5	T
DH30	X09 231 800 0000	40	908 231 600	G1	13	2	200		2.8	4.5	B7	DDT
DH42	X09 231 800 0000	40	908 231 600	G1	4	3	250		1.1	1.2	B7	DDT
DH63	028 9X0 310 0000	40	026 890 310	G1	6	3	250		1.1	1.2	A08	DDT
DH73	028 9X0 310 0000	40	026 890 310	G1	6	3	250		4.5	2	A08	DDT
DH74	028 9X0 310 0000	40	026 890 310	G1	13	3	250		1.1	1.2	A08	DDT
DH77	412 39X 800 0000	00	412 389 600		6	3	250		1	1.2	B7G	DDT
DH81	284 0X9 130 0000	00	264 *98 130		6	3	250		1	1.2	B8B	DDT
DH101	284 0X9 130 0000	00	264 *98 130		19	3	250		1	1.2	B8B	DDT
DH107	412 39X 800 0000	00	412 389 600		19	3	250		1	1.2	B7G	DDT
DH109	YX1 239 148 0000	00	191 238 146		28	2.3	200		1	1.4	B9A	DDDT
DH118	284 09X 130 0000	00	264 089 130		13	1	100		0.8	1.4	B8A	DDT
DH119	841 239 0X0 0000	00	641 238 09*		13	0.7	100		0.8	1.4	B9A	DDT
DH142	284 0X9 130 0000	00	264 098 130		14	1.6	200		1.5	1.6	B8A	DDT

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
DH147	028 9X0 310 0000	40	026 890 310	G1	6	5.5	250		5	2	A08	DDT
DH149	284 1X9 130 0000	00	264 198 130		6	1	250		1.3	1	B8A	DDT
DH150	284 0X9 130 0000	00	264 098 130		6	3	250		10	1.3	B8A	DDT
DH718	284 09X 130 0000	00	264 089 130		6.3	3	250		1	1.3	B8A	DDT
DH719	X91 23Y 148 0000	00	981 23† 146	G1	6	3	250		1	1.3	B9A	DDDT
DHD	X09 231 800 0000	40	908 231 600		16	3.2	200		3.2	2.2	B7	DDT
DHL	842 310 000 0000	00	642 310 000		16	1.5	150		3.8	4.5	B5	T
DK1	023 084 780 0000	40	023 064 560		1.4		90	50	1.8	0.5	8SC	H
DK21	208 740 830 0000	40	206 540 630	G1	1.4	2	60	60	4.5	1.4	A08	H
DK31			027 546 300	G1	1.4	[1	75	60			A08	TH
DK32	038 748 200 0000	40	036 546 200	G1	1.4	1	150	90				
DK40	287 474 030 0000	00	265 454 030		1.4		90	50	1.8	0.5		
DK91	288 424 300 0000	00	266 424 300		1.4	2	75	75	0.9	0.7		
DK92	288 484 300 0000	00	266 464 300		1.4	4	75		4.5	1.2	B7G	H
					1.4	4	60		4	1.2	B7G	H
DK96	287 481 300 0000	00	265 401 300		1.4	1.5	75	50	1	0.4	B7G	H
DK192	287 474 300 0000	00	265 454 300		1.4		60	60			B7G	H
DL	842 310 000 0000	00	642 310 000		16	8	200		25	4.5	B5	T
DL1	023 004 780 0000	00	023 004 560		1.4	3	90	90	4	1.2	8SC	P
DL2	032 004 780 0000	00	032 004 560		1.4	7.5	90	90	7.5	1.5	8SC	P
DL11	802 302 470 0000	00	602 302 450		1.2	4.4	90	90	3.7	1	F8	P
DL21	208 740 030 0000	00	206 540 030		1.4	3	90	90	4	1.3	A08	P
DL22	287 004 330 0000	00	265 004 330		1.2	4	150	125	5	1.6	A08	P
DL25	287 204 330 0000	00	265 204 330		1.2	4.7	150	125	4.5	2.1	A08	P
DL29	287 004 320 0000	00	265 004 320		1.4	4.5	90	90	9.5	2.4	B8G	P
DL31	038 740 200 0000	00	036 540 200		1.4	3	90	90	4	1.2	A08	P
DL33	038 740 320 0000	00	036 540 320		1.4	4.5	90	90	9.5	2.2	A08	P
DL35	038 740 200 0000	00	036 540 200		1.4	7.5	90	90	7.5	1.5	A08	P
DL36	038 740 200 0000	00	036 540 200		1.4	4.5	90	90	9.5	2.2	A08	P
DL41	380 074 220 0000	00	36* 054 220		1.4	5.8	150	125	5	1.3	B8A	P
DL63	028 9X0 310 0000	40	026 890 310	G1	6	3	250		4.2	1.6	A08	DDT
DL64	872 430 000 0000	00	652 430 000		1.2	1.5	20	20	0.2	0.2	B5A	P
DL65	387 420 000 0000	00	365 420 000		1.2	0.2	20	20	0.5	0.4	B5A	P
DL66	873 420 000 0000	00	653 420 000		1.2	1.4	20	20	0.3	0.3	B5A	P
DL67	873 420 000 0000	00	653 420 000		1.2	0.2	20	20	0.5	0.4	B5A	P
DL68	873 420 000 0000	00	653 420 000		1.2	2.2	20	20	0.6	0.4	B5A	P
DL69	872 430 000 0000	00	652 430 000		1.2	2.5	90	90	1.7	0.8	B5A	P
DL70	040 230 870 0000	00	*4* 23* 650		1.2	7.5	150	90	7.5	1.9	B8D	P
DL71	040 230 870 0000	00	*4* 23* 650		1.2	1.2	40	40	0.6	0.5	B8D	P
DL72	040 230 870 0000	00	*4* 23* 650		1.2	4.5	40	40	1.2	0.5	B8D	P
DL73	040 230 870 0000	00	*40 230 650	G1	1.2	9	100	100	15	2.5	B8D	P
DL74	028 9X0 310 0000	40	026 890 310		13	3	250		5.1	1.6	A08	DDT
DL75	040 230 870 0000	00	*40 230 650		1.2	2.5	90	90	1.7	0.8	B8D	P
DL82	284 0X9 130 0000	00	264 *98 130		6	3	250		5	1.4	B8B	DDT
DL91	284 728 300 0000	00	264 526 300		1.4	7	90	75	7.4	1.6	B7G	P
DL92	284 738 200 0000	00	264 536 200		1.4	7	90	75	7.4	1.6	B7G	P
DL93	387 428 300 0000	00	365 426 300		1.4	8.4	150	90	13.3	1.9	B7G	P
DL94	387 024 300 0000	00	365 024 300		1.4	4.5	90	90	9.5	2.1	B7G	P
DL95	284 738 200 0000	00	264 536 200		1.4	4.5	90	90	9.5	2.1	B7G	P
DL96	287 034 200 0000	00	265 034 200		1.4	5.2	90	90	5	1.4	B7G	P

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
DL98	724 332 800 0000	00	524 332 600		1.25	10	150	125	30	2.2	B7G	P
DL101	038 740 210 0000	00	036 540 210		1.4		100	100	10	2.5	B8A	P
DL145	284 0X9 130 0000	00	264 098 130		15	5.9	250		5	2.3	B8A	DDT
DL161	874 230 000 0000	00	654 230 000		1.4		20	20	0.5	0.5	B5A	P
DL167	873 420 000 0000	00	653 420 000		1.2		20	20	0.5	1.5	B5A	P
DL192	284 738 200 0000	00	264 536 200		1.4	7	60	60	7	1.5	B7G	P
DL193	287 438 200 0000	00	265 436 200		1.4	7.5	100	60	9.5	2.9	B7G	P
DL620	873 420 000 0000	00	653 420 000		1.2	6.5	60	60	3.1	0.6	B5A	P
DL650	873 420 000 0000	00	653 420 000		1.2	0	20	20	0.4	0.4	B5A	P
DL907	387 004 200 0000	00	365 004 200		1.4	5.5	150	125	15	3.1	B7G	P
DL962	284 738 200 0000	00	264 536 200		1.4	7	60	60	7	1.5	B7G	P
DL963	287 438 200 0000	00	265 436 200		1.2	7.5	150	60	10	2.2	B7G	P
DLL21	248 758 330 0000	00	246 547 330		1.4	8.7	150	125	1		A08	PP
DLL25	048 758 230 0000	00	046 547 230		1.4	9.4	150	125	17		B8G	PP
DLL31	328 458 270 0000	00	326 447 250		1.4	5	90	90	3		A08	PP
DLL101	284 785 300 0000	00	264 574 300		1.4	7	90	60	8.2	1.1	B7G	PP
DLL102	284 785 300 0000	00	264 574 300		1.4		40	40	1.3	0.5	B7G	PP
DLP51	023 004 780 0000	10	023 004 560	C	4	17	250	250	36	2.5	8SC	P
DM21	028 740 030 0000	00	026 540 030		1.4		90	90	0.03	†2.0	A08	TI
DM70	400 230 080 0000	00	4*0 230 060		1.4	23	200	0	0.1	†1.0	B8D	TI
DM71	400 230 080 0000	00	4*0 23* 060		1.4	23	200	0	0.1	†1.0	B8D	TI
DN41	X89 231 700 0000	40	968 231 500	G1	4	3.3	250	200	32	10	B7	DDP
DN143	284 7X9 130 0000	00	264 598 130		6	6.2	250	275	44	9.5	B8B	DDP
D024	842 300 000 0000	00	642 300 000		4	40	400		63	7.5	B4	T
D025	842 300 000 0000	00	642 300 000		6	75	300		60	3.7	B4	T
D026	842 300 000 0000	00	642 300 000		4	92	400		63	3.8	B4	T
D030	842 300 000 0000	00	642 300 000		4	100	400		60	6.9	B4	T
D042	X19 238 700 0000	40	918 236 500	G1	4	6	250	250	36	9.5	B7	DDP
DP	284 009 030 0000	00	264 008 030		16	7.5	200		25	6	A08	DT
DP5	842 370 000 0000	00	642 350 000		4	5	250	250	10	4	B5	P
DP7	023 004 780 0000	00	023 004 560		4	20	250	250	20	2.5	8SC	P
DP61	412 387 100 0000	00	412 365 100		6	8.5	200	125	7.7	5.1	B7G	P
DP495/6	98X 231 700 0000	40	869 231 500	G1	4	6.5	250	250	35	9.5	B7	DDP
DP4480	91X 238 700 0000	40	819 236 500	G1	44	8.4	200	200	46	8	B7	DDP
DP/Pen	047 231 800 0000	00	045 231 600		16	10	200	200	31	3.5	B7	P
DPT	047 213 800 0000	00	045 213 600		16	10	200	200	40	3.1	B7	P
DPT	642 310 000 0000	70	642 310 000	G2	16	10	200	200	40	3	B5	P
DS	742 310 000 0000	80	542 310 000	A1	16	1.5	200	75	2.1	1.1	B5	P
DS	000 231 800 0000	40	000 231 600	G1	13	3	200		4	2.5	B7	T
DSB	742 310 000 0000	80	542 310 000	A1	16	1	150	90	3.4	3.2	B5	P
DSPen	081 231 700 0000	40	061 231 500	G1	16	1.5	200	100	4	2.3	B7	P
DT7	842 300 000 0000	00	642 300 000		4	16	200		14	2	B4	T
DT41	90X 321 800 0000	40	809 321 600	G1	4	1	100			3	B7	DDT
DT215	023 09X 080 0000	40	023 089 060	G1	2	4.5	150		2.5	1	8SC	DDT
DT215	023 089 060 0000	40	682 390 000	G1	2	4.5	150		2.5	1.5	B5	DDT
DT436	90X 231 800 0000	40	809 231 600	G1	4	7	250		4	3.6	B7	DDT
DT436	023 1X9 080 0000	40	023 198 060	G1	4	7	250		4	2	8SC	DDT
DT1336	023 1X9 080 0000	40	023 198 060	G1	13	5	200		4	2	8SC	DDT
DTV1	90X 231 800 0000	40	809 231 600	G1	13	1	100			3	B7	DDT
DU1	902 300 000 0000	00	802 300 000		4				30		B4	R

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
DU2	9X2 300 000 0000	00	892 300 000		4				30		B4	RR
DU3	9X2 300 000 0000	00	892 300 000		4				15		B4	RR
DU10	902 300 000 0000	00	802 300 000		4				60		B4	R
DVSG	742 310 000 0000	80	542 310 000	A1	16	1	200	75	7.5	2.5	B5	P
DVS/Pen	742 310 000 0000	80	542 310 000	A1	16	1.5	200	100	6.5	1	B5	P
DW3			892 300 000		4				60		B4	RR
DW4	9X2 300 000 0000	00			4				60		B4	RR
DW5			802 300 000		4				120		B4	R
DW8	9X2 300 000 0000	00	892 300 000		5				30		B4	RR
DW15	9X2 300 000 0000	00	892 300 000		7.5				30		B4	RR
DW30	9X2 300 000 0000	00	892 300 000		7.5				60		B4	RR
DW802	842 300 000 0000	00	642 300 000		4	25	250		26	4	B5	T
DW1508	842 310 000 0000	00	642 310 000		4	7.5	150		4	1.5	B5	T
DW4011	842 310 000 0000	00	642 310 000		4	5	200		5	3.6	B5	T
DW4023	842 310 000 0000	00	642 310 000		4	3	150		2.5	1.7	B5	T
DX2	842 300 000 0000	00	642 300 000		2	3	150		3.5	1.4	B4	T
DY30	020 000 300 0000	90	*2* 0*0 3*0	D1	1.2				2		A08	D
DY51	230 000 000 0000	90	230 000 000	D1	1.4				13		B3G	D
DY70	230 000 000 0000	90	230 000 000	D1	1.2				1.8		B3G	D
DY80	230 232 032 0000	90	23* 232 *32	D1	1.2				7		B9A	D
DY86/87	230 232 032 0000	90	23* 232 *32	D1	1.4				0.5		B9A	D
DY604	842 300 000 0000	00	642 300 000		4	15	150		8	1.3	B4	T
DY802	230 232 032 0000	90	120 131 021	A	1.4				50		B9A	R
DZ2	742 300 000 0000	80	542 300 000	A1	4	1	200	100	4	0.7	B4	P
E	842 300 000 0000	00	642 300 000		4	9	200		1.7	0.4	B4	T
E	284 300 000 0000	00	264 300 000		3	22.5	125		6.5		UX4	T
E1C	218 49X 130 0000	00	216 489 130		6.3	5	200		4.5	2	A08	DDT
E1F	218 074 300 0000	00	216 054 300		6.3	3	250	100	2	1.4	B7	P
E2e	087 014 023 0000	00	065 014 023		18	3.5	220	220	42	10.5	B9	P
E4	842 300 000 0000	00	642 300 000		4	16	200		12	1.8	B4	T
E4D	9X2 300 000 0000	00	892 300 000		4				30		B4	RR
E4F	9X2 300 000 0000	00	892 300 000		4				60		B4	RR
E4H	902 300 000 0000	00	802 300 000		4				125		B4	R
E4K	003 200 000 0000	90	003 200 000	D1	4				60		B5	R
E4L	003 200 000 0000	90	003 200 000	D1	4				120		B5	R
E20V	023 100 090 0000	00	023 100 080		20				60		8SC	R
E55L	817 231 141 0000	00	615 231 141		6.3		150	150	50	45	B9D	P
E80CC	841 338 512 0000	00	641 337 412		6.3	5.5	250		6	2.8	B9A	TT
E80CF	857 238 114 0000	00	645 237 114		6.3	2	100		14	5	B9A	TP
E80F	701 238 014 0000	00	501 236 014		6.3	1.6	250	100	3	1.8	B9A	P
E80L	041 230 871 0000	00	041 230 651		6.3	4.5	200	200	30	9	B9A	P
E81CC	841 228 513 0000	00	641 227 413		6.3		250		10	5.5	B9A	TT
E81L	041 230 871 0000	00	041 230 651		6.3	3	200	200	20	11	B9A	P
E82CC	841 228 513 0000	00	641 227 413		6.3	8.5	250		10.5	2.2	B9A	TT
E83CC	841 228 513 0000	00	641 227 413		6.3	2	250		1.2	1.6	B9A	TT
E83F	742 238 001 0000	00	541 236 **1		6.3	2	200	125	10	9	B9A	P
E84L	041 230 807 0000	00	*41 23* 6*5		6.3		250	250	48	11	B9A	P
E86C	841 234 148 0000	00	641 234 146		6.3	2	200		12	14	B9A	T
E87L	041 230 871 0000	00	041 230 651		6	6	250	150	36	10	B9A	P
E88C	414 234 484 0000	00	414 234 464		6.3	1.2	150		12.5	13.5	B9A	T

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
□E88CC	842 238 510 0000	00	641 237 410		6.3	1.2	90		15	12.5	B9A	TT
E88CC/01	851 238 410 0000	00	741 236 410		6.3	1.2	100		15	12.5	B9A	TT
E90CC	882 345 100 0000	00	672 344 100		6.3	2.1	100		8.5	6	B7G	TT
E90F	412 387 100 0000	00	412 365 100		6.3	1.2	250	150	7.4	4.6	B7G	P
E91AA	192 310 X00 0000	00	182 310 900		6.3				9		B7G	D
E91H	412 387 100 0000	00	412 365 100		6.3	5	150	75	0.5	0.6	B7G	H
E92CC	882 345 100 0000	00	672 344 100		6.3	1.7	150		8.5	6	B7G	TT
E95F	412 387 100 0000	00	412 365 100		6.3	2	150	125	7.5	5.5	B7G	P
E99F	412 387 100 0000	00	412 365 100		6.3	20	250	100	9.2	3.8	B9A	P
E130	028 740 310 0000	00	026 540 310		6.3	15	250	250		†11.0	A08	TI
E130L	020 740 310 0000	80	*2* 54* 310	A1	6.3	15.5	250	150	100	27	A08	P
E135	387 304 220 0000	00	365 304 220		12.6	25	400		80		A08	P
E180CC	841 228 513 0000	00	641 227 413		6.3	1.9	150		8.5	6.3	B9A	TT
E180F	141 230 817 0000	00	141 23* 615		6.3	1.25	180	150	13	16.5	B9A	P
E181CC	841 228 513 0000	00	641 227 413		6.3	3	150		8.5	4.7	B9A	TT
E182CC	841 221 538 0000	00	741 221 436		6.3	2	150		36	15	B9A	TT
E184	141 230 871 0000	00	141 230 651		6.3	2.5	200	200	10	15	B9A	P
E186F	141 230 817 0000	00	141 23* 615		6.3	1.4	200	150	11.5	16	B9A	P
E188CC	841 328 510 0000	00	641 327 410		6.3	1.4	90		12	11.5	B9A	TT
E220B	548 230 800 0000	00	446 230 700		2	1	150		3	2.5	B7	TT
E235	842 300 000 0000	00	642 300 000		2	7.5	150		13	3	B4	T
E235L	028 740 310 0000	00	*26 54* 310		6.3	8.2	100	100	100	14	A08	P
E236L	020 740 310 0000	80	*2* 54* 310	A1	6.3	8.2	100	100	100	14	A08	P
E280F	141 230 817 0000	00	141 23* 615		6.3	1.8	200	150	20	26	B9A	P
E282F	141 230 817 0000	00	141 23* 615		6.3		150	150	35	26	B9A	P
E283CC	148 231 085 0000	00	146 231 074		6.3	2	250		1.2	1.6	B9A	TT
E288CC	851 238 410 0000	00	741 236 410		6.3	1.5	100		30	18	B9A	TT
E405	842 300 000 0000	00	642 300 000		4	32	250		20	2	B4	T
E406	842 300 000 0000	00	642 300 000		4	34	250		8	2.3	B4	T
E408	842 300 000 0000	00	642 300 000		4	30	400		26	2	B4	T
E408N	842 300 000 0000	00	642 300 000		4	36	400		30	2.7	B4	T
E409	842 310 000 0000	00	642 310 000		4	16	200		12	1.3	B5	T
E410	842 300 000 0000	00	642 300 000		4	28	400		30	6	B4	T
E414	842 310 000 0000	00	642 310 000		4	6	150		6.5	2	B5	T
E414	842 300 000 0000	00	642 300 000		4	15	150		8	1.3	B4	T
E415	842 310 000 0000	00	642 310 000		4	8	200		6	1.4	B5	T
E415	284 130 000 0000	00	264 130 000		4	8	200		6	1.4	UX5	T
E420	842 300 000 0000	00	642 300 000		4	18	150		11	1.6	B4	T
E422	842 300 000 0000	00	642 300 000		4	16	250		12	5	B4	T
E424	842 310 000 0000	00	642 310 000		4	2.5	200		6	2.4	B5	T
E424N	842 310 000 0000	00	642 310 000		4	3.5	200		6	2.4	B5	T
E424R	812 300 000 0000	40	612 300 000	G1	4	5	200		6	1.6	B4	T
E425	842 310 000 0000	00	642 310 000		4	4.5	150		3	3	B5	T
E428	842 310 000 0000	00	642 310 000		4	3	200		6	2.4	B5	T
E430	842 310 000 0000	00	642 310 000		4	3	150		4	2	B5	T
E430N	842 310 000 0000	00	642 310 000		4	15	200		15	3	B5	T
E435	842 310 000 0000	00	642 310 000		4	1.5	200		3	1	B5	T
E438	842 310 000 0000	00	642 310 000		4	3	200		2.5	1.5	B5	T
E441	842 310 000 0000	70	642 310 000	G2	4		100	100	1.7	1.0	B5	P
E442	742 310 000 0000	80	542 310 000	A1	4	1.3	200	60	1.5	0.9	B5	P

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
E442S	742 310 000 0000	80	542 310 000	A1	4	2	200	60	4	1	B5	P
E443H	842 370 000 0000	00	642 350 000		4	40	400	200	30	1.9	B5	P
E444	279 413 000 0000	80	258 413 000	A1	4	3	200	90	4	3	UX6	DP
E444N	279 413 000 0000	80	258 413 000	A1	4	3	100	90	4	3	UX6	DP
E444S	842 310 000 0000	90	642 310 000	D1	4	3.5	200		6	2	B5	DT
E445	742 310 000 0000	80	542 310 000	A1	4	2	200	100	6	1	B5	P
E446	742 310 000 0000	80	542 310 000	A1	4	2	200	100	3	2.3	B5	P
E447	742 310 000 0000	80	542 310 000	A1	4	2	200	125	4.5	2.3	B5	P
E448	184 772 300 0000	40	164 552 300	G1	4	1.5	200	125	3	0.6	C7	P
E449	187 472 300 0000	40	165 452 300	G1	4	2	200	75	3	1.8	C7	P
E451	842 370 000 0000	00	642 350 000		4		400	250	17		B4	P
E452T	742 310 000 0000	80	542 310 000	A1	4	2	200	100	3	2	B5	P
E452T	274 130 000 0000	80	254 130 000	A1	4	2	200	100	3	2	UX5	P
E453	047 231 800 0000	00	045 231 600		4	15	250	250	24	2.5	B7	P
E454	218 90X 300 0000	40	216 809 300	G1	4	3.5	200		3.5	1.6	UX7	DDT
E455	742 310 000 0000	80	542 310 000	A1	4	1.5	200	100	3	2	B5	P
E455	274 130 000 0000	80	254 130 000	A1	4	1.5	200	100	3	2	UX5	P
E463	047 231 800 0000	00	045 231 600		4	22	250	250	36	2.7	B7	P
E499	842 310 000 0000	00	642 310 000		4	1.6	200		0.2	4	D5	T
E501D	287 113 000 0000	40	265 113 000	G1	3.5	2.5	250	125	6.5	3.5	UX6	P
E501R	287 113 000 0000	40	265 113 000	G1	6.3	2.5	250	125	6.5	3.5	UX6	P
E504D	287 413 000 0000	00	265 413 000		5	13.5	250	200	40	3.5	UX6	P
E504P	287 423 000 0000	00	265 423 000		6.3	13.3	250	200	40	3.5	UX6	P
E646	020 090 310 0000	00	020 080 310		26				120		A08	R
E703	842 300 000 0000	00	642 300 000		7.5	100	400		30	1	B5	T
E810F	141 237 817 0000	00	141 235 615		6.3	1.9	150	150	35	50	B9A	P
E851	030 X09 020 0000	00	030 908 020		5				120		A08	RR
E1137	388 448 822 0000	00	366 446 622		6	2.3	250		32	16	B9G	T
E1148	020 000 310 0000	84	020 000 310	A1/G1	6	5.5	250		14	3	A08	T
E1192	021 470 310 0000	80	021 450 310	A1	6	11	250	150	30	3.5	A08	P
E1242	287 711 403 0000	00	265 511 403		6	30	300	250	25	1.9	B9G	P
E1320	028 740 310 0000	00	026 540 310		6.3	11	250	250	1		A08	TI
E1323	020 000 310 0000	84	020 000 310	A1/G1	6	3	100		25	6.7	A08	T
E1413	287 024 300 0000	00	265 024 300		1.4	1	90	75	3.5	0.9	B7G	P
E1478	842 300 000 0000	00	642 300 000		4	1	100			6.9	B5	T
E1484	209 784 300 0000	00	208 564 300		1.4	1	90	90	2.7	0.6	B7G	DP
E1489	241 878 153 0000	00	241 657 143		6		350	250	21	3.9	B9G	PP
E1517	412 381 700 0000	00	412 361 500		6	2.5	200	200	8	2.5	B7G	P
E1518	412 381 700 0000	00	412 361 500		6	2	250	250	10	7.5	B7G	P
E1606	481 581 230 0000	00	461 471 230		6	8	250		9	2.6	A08	TT
E1624	802 384 100 0000	00	6*2 364 100		6	8.5	250		10.5	2.2	B7G	T
E1654	028 710 310 0000	40	026 510 310	G1	6	1.5	200	200	10.9	8.5	A08	P
E1662	412 380 700 0000	00	412 360 500		6	12	250	250	20	2.6	B7G	P
E1677	002 300 000 0000	90	002 300 000	D1	2				15		B4	R
E1678	028 710 310 0000	40	026 510 310	G1	13	3	250	100	7.6	1.5	B7G	P
E1681	028 740 310 0000	00	026 540 310		15	13	200	175	35	2.5	A08	P
E1682	020 900 310 0000	00	020 800 310		30				120		A08	R
E1706	278 071 483 0000	00	256 051 463		6	8	250	175	80	13	B9G	P
E1709	084 581 230 0000	00	064 471 230		6	2	250		2	1.3	A08	TT

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
E1733	00X 009 230 0000	00	009 **8 230		6				60		B8B	RR
E1736	287 004 130 0000	00	265 004 130		6	4.4	250	250	40	10.5	B8B	P
E1740	20X 009 130 0000	00	209 008 130		6				30		B8B	RR
E1751	1X2 310 900 0000	00	192 310 800		6				5		B7G	RR
E1780	00X 009 230 0000	00	009 **8 230		4				30		B8B	RR
E1787C	318 741 120 0000	00	316 541 120		6	9	250	175	50	8	B9G	P
E1794	287 104 130 0000	00	265 104 130		19	3	250	75	2.5	2.8	B8B	P
E1795	290 009 130 0000	00	280 008 130		50				120		B8B	R
E1796	287 004 130 0000	00	265 004 130		80	9.5	200	175	70	10	B8B	P
E1809	287 104 130 0000	00	265 104 130		6	2	250	100	8	2.8	B8B	P
E1813	284 1X9 130 0000	00	264 198 130		19	3	250		1	1.2	B8B	DDT
E1816	384 728 300 0000	00	364 526 300		1.4	7	90	75	7.4	1.5	B7G	P
E1835	007 231 800 0000	40	005 231 600	G1	13	4.4	250	250	40	10.5	B7	P
E1838	284 1X9 130 0000	00	264 198 130		6	3	250		1	1.2	B8B	DDT
E1848	284 0X9 130 0000	00	264 *98 130		6	2	200		10	1.4	B8B	DDT
E1861	041 230 871 0000	00	041 230 651		6.3		200	200	19	10	B9A	P
E1884	002 300 000 0000	90	002 300 000	D1	2				5		B4	R
E1912	412 39X 800 0000	00	412 389 600		6	3	250		1	1.2	B7G	DDT
E1935	241 878 153 0000	00	241 657 143		6	26	250	200	30	3.9	B9G	PP
E1938	902 30X 100 0000	00	802 309 100		6				30		B7G	RR
E1969			542 376 400			[2	100		5	2.2		
E1976	412 381 700 0000	00	412 361 500		19	1	250	75	5.3	2.2	B7G	TH
E1984	412 380 700 0000	00	412 36* 500		6	2.5	200	200	8	2.5	B7G	P
E1985	291 009 300 0000	00	281 008 300		40	5.5	250	250	30	10	B7G	P
E1987	412 380 700 0000	00	412 36* 500		40	8	200	150	50	10	B7G	P
E1994	581 481 230 0000	00	471 461 230		13	8	250			2.6	A08	TT
E2004	020 000 300 0000	90	*2* 0*0 3*0	D1	1.2				5		A08	R
E2020N	842 310 000 0000	00	642 310 000		20	18	200		15	1.5	B5	T
E2047	412 381 700 0000	00	412 361 500		12.5	2.5	200	200	8	2.5	B7G	P
E2122	X02 309 100 0000	00	902 308 100		6				30		B7G	RR
E2128	241 878 153 0000	00	241 657 143		19	16.5	250	150	30	3.9	B9G	PP
E2134	412 380 700 0000	00	412 36* 500		6		200	200	55	9.5	B7G	P
E2153	412 380 700 0000	00	412 36* 500		13	8	200	150	50	10	B7G	P
E2178	001 230 009 0000	00	**1 23* 88*		20				120		B9A	R
E2179	041 230 071 0000	80	*41 23* *51	A1	20	12	150	150	50	8.5	B9A	P
E2185	028 040 310 0000	00	026 040 310		6	8	250		9	2.6	A08	T
E2223	000 230 009 0000	00	*** 23* **8		25				120		B9A	R
E2256	001 230 009 0000	00	**1 23* **8		20				120		B9A	R
E2382	021 040 370 0000	80	021 *4* 350	A1	52		150	150	100	16	A08	P
E2754	802 441 443 0000	00	602 441 443		6.3	1.5	150		25	25	B9A	T
E2965	241 878 153 0000	00	142 756 143		6.3	18	300	200	40	3.7	B9G	PP
E7002	000 230 000 0000	90	*** 23* ***	D	1.4				60		B9A	R
E7003	000 230 000 0000	90	*** 23* ***	D1	6.3						B9A	D
E7004	192 310 X00 0000	00	182 310 900		6.3				5		B7G	DD
E7005	901 230 X00 0000	00	801 23* 9**		6.3						B9A	DD
E7006	901 230 X00 0000	00	801 23* 9**		6.3				30		B9A	RR
E7007	000 230 009 0000	10	*** 23* **8	C	17				120		B9A	R
E7010	001 230 009 0000	00	**1 23* **8		55				120		B9A	R
E7011	001 230 009 0000	00	**1 23* **8		38				180		B9A	R
E7013	802 304 100 0000	00	602 304 100		6.3	2	250		20	5.5	B7G	T

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
E7014	802 304 100 0000	00	602 304 100		9.4	2	250		10	5.5	B7G	T
E7015	841 228 513 0000	00	641 227 413		6.3		100		11	3	B9A	TT
E7017	841 228 513 0000	00	641 227 413		6.3	1	100		0.5	1.2	B9A	TT
E7019	148 235 118 0000	00	146 234 117		6.3	1.5	90		12	6	B9A	TT
E7020	841 238 510 0000	00	641 237 410		6.3	2.3	250		10	5.9	B9A	TT
E7022	841 238 510 0000	00	641 237 410		7	1.2	90		15	12.5	B9A	TT
E7023	148 235 118 0000	00	146 234 117		7	1.5	100		12	6	B9A	TT
E7024	841 238 510 0000	00	641 237 410		9	2.1	200		10	5.8	B9A	TT
E7025	841 238 510 0000	00	641 237 410		26	2.1	200		10	5.8	B9A	TT
E7026	141 230 871 0000	00	141 230 651		6.3	2	150	150	10	7.4	B9A	P
E7027	701 238 014 0000	00	501 236 014		6.3	2	250	150	3	2.5	B9A	P
E7032	128 740 310 0000	00	126 540 310		6.3	100	250	250	100	11	A08	P
E7033	041 230 071 0000	80	*41 23* *51	A1	6.3	38.5	250	250	32	4.6	A08	P
E7034	741 231 800 0000	00	541 231 600		6.3		200	200	36	10	B9A	P
E7040	020 740 310 0000	80	020 540 310	A1	25	21	150	150	100	11	A08	P
E7041	041 230 071 0000	80	*41 23* *51	A1	21.5	24	150	150	45	6.5	B9A	P
E7043	741 231 800 0000	00	541 231 600		15	2.3	150	150	36	10	B9A	P
E7044	041 230 807 0000	00	*41 23* 6*5		16	6	200	200	34	10	B9A	P
E7050	741 238 9X1 0000	00			6.3	2	250	100	9	3.8	B9A	DDP
E7051	857 238 114 0000	00	645 237 114		6.3	[1	150	18	8.5	]	B9A	TP
						[1	150	100	10	5.2		
E7053	415 238 718 0000	00	414 237 516		6.3	[22.5	250	250	3.5	2.2	B9A	TP
									5			
E7054	9X1 23Y 148 0000	00			28	1.8	175	1	1.4		B9A	DDDT
E7055	415 238 718 0000	00	414 237 516		16	[11.5	100	3.5	2.2	]	B9A	TP
							150	150	41	7.5		
E7056	857 238 114 0000	00	645 237 114		9.5	[1	150	18	8.5	]	B9A	TP
E7057	742 238 9X1 0000	00			19	[1	150	100	10	5.2	B9A	DDP
E7059	415 238 718 0000	00	414 237 516		50	[2	250	100	9	3.8	B9A	DDP
							100	3.5	2.2	]	B9A	TP
						16	200	200	35	6.8		
E7060	288 044 300 0000	00	266 044 300		1.4	2.5	90		2.1	1	B7G	T
E7062	287 024 300 0000	00	265 024 300		1.4		90	90	1.6	0.8	B7G	P
E7066	200 784 300 0000	00	200 564 300		1.4		90	90	1.1	0.4	B7G	P
E7071	000 230 000 0000	90			6.3						B9A	D
E7072	000 230 009 0000	10			6.3				180		B9A	R
E7073	000 230 009 0000	10			26				180		B9A	R
E7074	841 234 148 0000	00	641 234 146		6.3	1.5	150		12	14	B9A	T
E7075	841 234 148 0000	00	641 234 146		3.8	1.5	150		12	14	B9A	T
E7076	841 238 510 0000	00			6.3	0.4	12.6		1	2.6	B9A	TT
E7078	041 230 871 0000	00	041 230 651		6.3	2	250	100	9	4.4	B9A	P
E7079	041 230 871 0000	00	041 230 651		12.6	1	150	100	12	4.4	B9A	P
E7081	020 740 310 0000	80	020 540 310	A1	6.3	21	150	150	100	11	A08	P
E7087	481 238 157 0000	00	461 237 145		15	[1.7	200	3	4	]	B9A	TP
						[2.1	150	150	18	11		
E7088	481 238 157 0000	00	461 237 145		6.3	[1.7	200	3	4	]	B9A	TP
						[2.1	150	150	18	11		
E7108	701 238 014 0000	00	501 236 014		6.3	2	250	150	3	2	B9A	P
E7109	141 230 817 0000	00	141 230 615		6.3	1.1	200	150	13	16.5	B9A	P
E7110	141 230 871 0000	00	141 230 651		6.3	3.5	250	250	10	6.8	B9A	P
E7143	412 314 800 0000	00	412 314 600		3.1	1	200		11.5	6.7	B7G	T

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V † Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
E7144	814 238 510 0000	00	614 237 410		6.3	1.2	90		15	12.5	B9A	TT
E7145	701 238 014 0000	00	501 236 014		6.3	2	50	50	1.8		B9A	P
EA40	200 900 130 0000	00	200 800 130		6				5		B8A	R
EA50	123 000 000 0000	90	123 000 000	D1	6						B3G	D
EA63	741 231 800 0000	00	541 231 600		6.3	5.5	250	250	36	10.5	B9A	P
EA76	291 390 000 0000	00	281 380 000		6				5		B5B	R
EA111	023 010 000 0000	90	023 010 000	D1	6.3				60		F8	R
EA962	200 100 300 0000	90	200 100 300	D1	6.3						B7G	D
EAA11	912 300 1X0 0000	00	812 300 190		6.3				5		F8	RR
EAA91	192 311 X00 0000	00	182 311 900		6.3				5		B7G	DD
EAA171	122 913 3X0 0000	00	122 813 390		6.3		200		10		B8B	DD
EAA901	192 310 X00 0000	00	182 310 900		6.3				10		B7G	DD
EAB1	023 1Y0 9X0 0000	00	023 110 890		6				0.8		8SC	DDD
EABC80			981 230 146	(TRIODE)	6	3	250		1	1.4	B9A	DDDT
			981 230 146	(D3/D2 FM)			100		5			
			001 238 146	(D1 AM)			100		1			
EAC91	912 314 800 0000	00	812 314 600		6	3.2	200		7.4	2.8	B7G	DT
EAF21	287 914 130 0000	00	265 814 130		6.3	2	250	100	6	2.8	B8G	DP
EAF41	289 174 130 0000	00	268 154 130		6	4	250	100	5	1.8	B8A	DP
EAF42	289 174 130 0000	00	268 154 130		6	2	250	100	5	1.8	B8A	DP
EAF81	041 238 907 0000	00	041 236 805		6.3	2	250	100	9	3.6	B9A	DP
EAF801	741 238 091 0000	00	541 236 081		6.3	2	250	200	9	3.8	B9A	DP
EB4	023 190 X10 0000	00	023 180 910		6				0.8		8SC	DD
EB11	902 301 1X0 0000	00	802 301 190		6				9		F8	DD
EB34	02X 190 310 0000	00	029 180 310		6				5		A08	DD
EB40	209 0X0 130 0000	00	208 090 130		6				40		B8A	DD
EB41	201 X09 130 0000	00	201 908 130		6				5		B8A	RR
EB91	1X2 310 900 0000	00	192 310 800		6				5		B7G	DD
EB111	023 004 080 0000	00	023 004 060		4	50	250		60	5.2	F8	T
EBC1	023 1X9 080 0000	40	023 198 060	G1	6	7	250		4	2	8SC	DDT
EBC3	023 19X 080 0000	40	023 189 060	G1	6	5.5	250		5	2	8SC	DDT
EBC11	9X2 310 480 0000	00	892 301 460		6	8	250		5	2.2	F8	DDT
EBC21	284 09X 130 0000	00	264 *89 130		6	5.5	250		5	2	B8B	DDT
EBC30	023 19X 080 0000	40	023 189 060	G1	6	4.3	200		4	2	8SC	DDT
EBC33	028 9X0 310 0000	40	026 890 310	G1	6	5.5	250		5	2	A08	DDT
EBC41	284 09X 130 0000	00	264 089 130		6	3	250		1	1.3	B8A	DDT
EBC51	39X 080 420 0000	00	389 060 420		6.3	7.3	250		70	4	B9G	DDT
EBC80	841 239 0X0 0000	00	641 238 090		6.3	3	250		1	1.2	B9A	DDT
EBC90	412 39X 800 0000	00	412 389 600		6	3	250		1	1.2	B7G	DDT
EBC91	412 39X 800 0000	00	412 389 600		6	2	250		1.2	1.6	B7G	DDT
EBF1	023 19X 780 0000	40	023 189 560	G1	6	3	250	125	9	1.1	8SC	DDP
EBF2	023 19X 780 0000	40	023 189 560	G1	6	2	250	100	5	1.8	8SC	DDP
EBF2G	208 79X 130 0000	40	206 589 130	G1	6.3	2	250	100	5	1.8	A08	DDP
EBF11	9X2 381 470 0000	00	892 361 450		6	2	250	100	5	1.8	F8	DDP
EBF15	X92 381 470 0000	00	982 361 450		6	2	260	100	12	5	F8	DDP
EBF21	289 X74 130 0000	00	268 954 130		6	3.2	250	100	7.5	2.2	B8G	DDP
EBF32	028 9X7 310 0000	40	026 895 310	G1	6	2	250	100	5	1.8	A08	DDP
EBF35	218 79X 130 0000	40	216 589 130	G1	6	2	250	100	5	1.8	A08	DDP
EBF80	741 238 9X1 0000	00	541 236 891		6	2	250	90	5	2.2	B9A	DDP
EBF81	741 238 9X1 0000	00	541 236 891		6	2	250	75	6.7	1.1	B9A	DDP
EBF83	741 238 9X1 0000	00	541 236 891		6.3		12	12	0.4	1	B9A	DDP
EBF89	741 238 9X1 0000	00	541 236 891		6.3	2	250	100	9	3.8	B9A	DDP

mod.1

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
EBF171	9X2 741 380 0000	00	892 541 360		6.3	3.2	250	80	6	1.8	B8B	DDP
EBF175	231 9X1 817 4000	00			6.3	2	250	80	6	5	B10B	DDP
EBL1	023 19X 780 0000	40	023 189 560	G1	6	6	250	250	36	9.5	8SC	DDP
EBL21	284 7X9 130 0000	00	264 598 130		6	6	250	250	36	9	B8B	DDP
EBL31	028 9X7 310 0000	40	026 895 310	G1	6	6	250	250	36	9.5	A08	DDP
EBL71	284 79X 130 0000	00	264 589 130		6	5	250	250	44	9.5	A08	DDP
EC2	023 100 080 0000	40	023 100 060	G1	6	5.5	250		6	2.5	8SC	T
EC21	208 401 003 0000	00	206 401 003		6	4	250		5	2.7	B9G	T
EC31	028 040 310 0000	00	026 040 310		6	16	250		20	3.2	A08	T
EC40	244 844 130 0000	00	244 644 130		6	1.5	300		15	12	B8A	T
EC41	208 040 130 0000	00	206 040 130		6	5.5	300		20	4.5	B8A	T
EC52	241 800 003 0000	00	241 600 003		6	2.6	250		10	6.5	B9G	T
EC53	123 000 000 0000	84	123 000 000	A1/G1	6	3.3	200		7.5	2.9	B3G	T
EC54	244 844 413 0000	00	244 644 413		6	1.5	250		10	9	B9G	T
EC56	021 000 310 0000	84	*21 0*0 310	A1/G1	6.3	1.8	200		30	15	A08	T
EC70	482 803 180 0000	00	462 603 160		6	2	100		13	5.5	B8D	T
EC71	402 013 080 0000	00	402 013 060		6.3	1.25	100		8.5	5.8	B8D	T
EC80	441 230 448 0000	00	441 230 446		6	1.5	250		15	12	B9A	T
EC81	401 230 080 0000	00	401 230 060		6	2	150		30	5.5	B9A	T
EC84	414 484 234 0000	00	414 464 234		6.3	1.1	150		16	10	B9A	T
EC86	841 234 148 0000	00	641 234 146		6.3	1.5	75		12	14	B9A	T
EC86C	841 234 148 0000	00	641 234 146		6.3	1.5	200		12	14	B9A	T
EC88	414 234 484 0000	00	414 234 464		6	1.2	150		12.5	14	B9A	T
EC90	802 384 100 0000	00	6*2 364 100		6	8.5	250		10.5	2.2	B7G	T
EC91	412 314 800 0000	00	412 314 600		6	2	250		6	8.5	B7G	T
EC92	802 304 100 0000	00	602 304 100		6	2	250		10	5	B7G	T
EC93	842 314 800 0000	00	642 314 600		6	4	100		16	8	B7G	T
EC94	842 314 800 0000	00	642 314 600		6.3	2.5	100		16	6.6	B7G	T
EC95	142 381 100 0000	00	142 361 100		6.3	1.2	200		10	10.5	B7G	T
EC96	412 314 800 0000	00	412 314 600		6.3	1	200		11.5	6.7	B7G	T
EC97	142 238 100 0000	00	142 356 100		6.3	1	150		11	13	B7G	T
EC98	412 344 800 0000	00	412 344 600		6.3	1.3	150		13.5	13.5	B7G	T
EC157	021 000 310 0000	84	*21 0*0 310	A1/G1	6.3	2	200		44	22	A08	T
EC158	021 000 310 0000	84	*21 0*0 310	A1/G1	6.3	4	200		68	15	A08	T
EC760	482 803 180 0000	00	462 603 160		6.3	2.4	150		13	6.5	B8D	T
EC806S	841 234 148 0000	00	641 234 146		6.3		200		12	14	B9A	T
EC900	412 380 100 0000	00	412 360 100		6.3	1	150		11.5	14.5	B7G	T
EC903	842 314 800 0000	00	642 314 600		6.3	4	100		16	8	B7G	T
EC1000	102 013 080 0000	40	102 *13 060	G1	6.3	2	80		14	14.5	B8D	T
EC1030	444 123 480 0000	00	444 123 460		6.3		100		7	16	B8D	T
EC8010	414 234 484 0000	00	414 234 464		6.3		200		25	28	B9A	T
EC8020	414 234 484 0000	00	414 234 464		6.3	2.4	200		40	60	B9A	T
ECC31	028 548 310 0000	00	027 446 310		6	4.5	250		6	2.3	A08	TT
ECC32	481 581 230 0000	00	461 471 230		6	4.6	250		6	2.3	A08	TT
ECC33	481 581 230 0000	00	461 471 230		6	4	250		9	3.8	A08	TT
ECC34	481 581 230 0000	00	461 471 230		6	16	250		10	2.2	A08	TT
ECC35	481 581 230 0000	00	461 471 230		6	2.5	250		2.3	2	A08	TT
ECC40	285 184 130 0000	00	274 164 130		6	5.2	250		6	2.7	B8A	TT
ECC70	852 113 480 0000	00	742 113 460		6.3	1	100		6.5	5.4	B8D	TT
ECC81	851 228 413 0000	00	741 226 413		6	2	250		10	5.5	B9A	TT

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V † Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
ECC82	851 228 413 0000	00	741 226 413		6	8.5	250		10.5	2.2	B9A	TT
ECC83	851 228 413 0000	00	741 226 413		6	2	250		1.2	1.6	B9A	TT
ECC84	158 234 118 0000	00	147 234 116		6	1.5	90		12	6	B9A	TT
ECC85	851 238 410 0000	00	741 236 410		6	2.3	250		10	5.9	B9A	TT
ECC86	841 238 510 0000	00	641 237 410		6.3	0.3	12		2.5	4.6	B9A	TT
ECC88	851 238 410 0000	00	741 236 410		6.3	1.2	90		15	12.6	B9A	TT
ECC89	148 235 118 0000	00	146 234 117		6.3	1.2	90		15	12	B9A	TT
Ø ECC91	882 345 100 0000	00	672 344 100		6	[0.8 3	100 150		8.5 5	5.3 4.5	B7G	TT
ECC171	231 488 512 0000	00			6.3	1.5	200		2.5	2.5	B10B	TT
ECC180	841 238 510 0000	00	641 237 410		6.3	2	150		9	6.4	B9A	TT
ECC186	841 228 513 0000	00	641 227 413		6.3	8.5	250		10.5	10.5	B9A	TT
ECC189	841 328 510 0000	00	641 327 410		6.3	1.4	90		15	12.5	B9A	TT
ECC230	481 581 230 0000	00	461 471 230		6	30	100		100	6.5	A08	TT
ECC282	841 228 513 0000	00	641 227 413		6.3	2	100		11.8	3.1	B9A	TT
ECC801	841 228 513 0000	00	641 227 413		6.3	2	250		10	5.5	B9A	TT
ECC802	841 228 513 0000	00	641 227 413		6.3	8.5	250		10.5	2.2	B9A	TT
ECC803	841 228 513 0000	00	641 227 413		6	2	250		1.2	1.6	B9A	TT
ECC804	841 238 510 0000	00	641 237 410		6.3	7.7	200		10	3.4	B9A	TT
ECC807	158 231 084 0000	00	147 231 064		6.3	1.5	250		1.3	2.4	B9A	TT
ECC808	418 230 815 0000	00	416 230 714		6.3	1.9	250		1.2	1.6	B9A	TT
ECC813	814 228 153 0000	00	614 227 143		6.3		250		14.5	5.2	B9A	TT
ECC865	841 238 510 0000	00	641 237 410		6.3	14	200		8.7	6	B9A	TT
ECC960	882 345 100 0000	00	672 344 100		6.3	2.1	100		8.5	6	B7G	TT
ECC962	882 345 100 0000	00	672 344 100		6.3	1.7	150		8.5	6	B7G	TT
ECC2000	015 123 841 8000	00			6.3	[1.2 1.2	90 90		27 27	22 16.5	B10B	TT
ECC8100	151 238 418 0000	00	141 237 416		6.3	[100 100	100 100		25 25	16 20	B9A	TT
ECF1	023 184 780 0000	50	023 164 570	G1	6.3	[3 2	150 250	100	8 5	2.2 2.5	8SC	TP
ECF12	842 381 570 0000	00	642 371 450		6	[2 2	100 250	100	11 5	3 2	F8	TP
ECF80	857 238 114 0000	00	645 237 114		6	[2 3	100 250	200	14 7	5 5.5	B9A	TP
ECF82	857 238 114 0000	00	645 237 114		6	[1 1	150 250	100	18 10	8.5 5.2	B9A	TP
ECF83	148 238 715 0000	00	146 237 514		6.3	[3.7 60	60 50	50	6.5 3	3.6 1.3	B9A	TP
ECF86	151 234 887 0000	00	141 234 675		6	[3 1.2	100 200	150	14 10	5.5 12	B9A	TP
ECF174	314 818 175 0000	00			6.3	[0 2	100 250	150	11 8	5 3	B10B	TP
ECF801	151 238 784 0000	00	141 236 574		6.3	[3 1.2	100 150	100	15 10	8.5 10	B9A	TP
ECF802	857 238 114 0000	00	645 237 114		6.3	[2 1	200 100	100	3.5 6	3.5 5.5	B9A	TP
ECF804	857 238 114 0000	00	645 237 115		6.3	[1.5 2	150 150	150	13.5 7	7.2 11	B9A	TP
ECF805	878 231 514 0000	00	657 231 414		6.3	[3 1.5	100 100	100	14 10	5.5 11	B9A	TP
ECF8070	151 238 784 0000	00	141 237 564		6.3	[3 1.2	100 200	150	14 10	5.5 12	B9A	TP

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
ECH2	[023 184 780 0000 023 105 780 0000]	50 50	023 164 570	G1	6	[1 2.5	100 250	100	9.5 3.2	5.5	8SC	TH
ECH3	[023 184 080 0000 023 105 780 0000]	50 50	023 164 570	G1	6	[2 2	100 250	100	5 4.8	2.4 2.5	8SC	TH
ECH3G	[028 748 310 0000 028 750 310 0000]	50 50	027 546 310	G	6	[2 2	100 250	100	5 4.8	1.4 2.5	A08	TH
ECH4	023 854 780 0000	50	123 614 570	G1	6	[2 2	100 250	100	6.3 6.5	2.7 2.6	8SC	TH
ECH4G	128 748 310 0000	50	127 546 310	G	6.3	[2 2	100 250	200	6.3 6.5	2.7 2.6	A08	TH
ECH11	[842 381 570 0000 052 381 570 0000]	00 00	642 371 450		6	[2 2	100 250	100	5 4.7	2.4 2.5	F8	TH
ECH21	288 475 131 0000	00	276 454 130		6	[2 2	100 250	90	6.2 5.3	2.4 2.2	B8B	TH
ECH33	[028 748 310 0000 028 750 310 0000]	50 50	027 546 310	G1	6	[2 2	100 200	100	5 3	2.4 2.8	A08	TH
ECH35	[028 748 310 0000 028 750 310 0000]	50 50	027 546 310	G1	6	[2 2	100 250	100	5.4 5	2.2 2.4	A08	TH
ECH41	[288 475 130 0000 280 575 130 0000]	00 00	276 454 130		6	[2 2	100 250	100	5 3	2.2 2	B8A	TH
ECH42	[288 475 130 0000 280 575 130 0000]	00 00	276 454 130		6	[2 2	100 250	100	5 8	2.2 2	B8A	TH
ECH71	288 475 131 0000	00	276 454 431		6	[2 2	250 250	100	2 3		B8B	TH
ECH80	[051 230 084 0000 751 230 805 0000]	00 00	541 23* 674		6.3	[2 2	75 250	75	5 3	0.75	B9A	TH
ECH81	751 238 584 0000	00	541 237 164		6	[3 2	100 250	100	5 6.5	2.3 2.4	B9A	TH
ECH83	751 238 084 0000	00	541 237 564		6	[0.25 0.5	12 12	12	0.7 0.4	1.4 0.7	B9A	TH
ECH84	551 238 784 0000	00	441 237 564		6	[0 0	50 150	14	3.0 1.7	3.7 2.2	B9A	TP
ECH113	[288 475 130 0000 280 575 130 0000]	00 00	276 454 130		6	[2 2	100 250	90	4.8 3		B8A	TH
ECH171	842 751 381 0000	00	642 544 371		6	[2 2	250 250	75	3 2		B8B	TH
ECH200	114 723 851 8000	00	114 523 651		6.3	[1 1	100 12.6	12.6	9.5 0.8	8.5	B10B	TP
ECH8000	751 238 184 0000	00	541 237 464		6.3	[1.5 1.5	100 250	100	11 9	4.2 5	B9A	TH
ECL11	572 381 480 0000	00	452 371 460		6	[2.5 6	250 250	250	2 36	2 9	F8	TP
ECL80	841 238 175 0000	00	641 237 154		6	[2.3 8	100 200	200	4 17.5	1.4 3.3	B9A	TP
ECL81	471 238 815 0000	00	451 237 614		6	[1.9 5.5	150 250	250	1.3 36	1.6 8.7	B9A	TH
ECL82	415 238 718 0000	00	414 237 516		6.3	[1 16	200 200	200	3.7 35	2.4 6.4	B9A	TP
ECL83	841 238 175 0000	00	641 237 154		6.3	[1.5 9.5	200 200	175	1.6 30	2.5 5.5	B9A	TP
ECL84	481 238 157 0000	00	461 237 145		6	[1.7 2.0	200 175	175	3 18	4 10.4	B9A	TP
ECL85	841 238 715 0000	00	641 237 514		6	[0.8 15	100 200	175	5 41	6.5 7.5	B9A	TP

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
ECL86	417 238 158 0000	00	415 237 146		6	[1.9 7	250 250	250	1.2 36	1.6 10	B9A	TP
ECL113	288 574 130 0000	00	267 454 130		6	[1 3.5	150 250	250	2 25	1.6 8.5	B8A	TP
ECLL800 [	840 235 180 0000 048 235 187 0000	00 00	647 234 115		6.3	[9.0 9.0	100 250	250	4 26	0.05 6.0	B9A	TPP
ED111	288 104 430 0000	00	266 104 430		6.3	5	200		40	8	B8A	T
EDD11	852 301 480 0000	00	742 310 460		6	8	200		3.5		F8	TT
EDD111	852 311 480 0000	00	742 311 460		6	8	250		9	2.3	F8	TT
EDD171	231 488 512 0000	00			6.3	3.5	150		14	4.8	B10B	TT
EE1	023 190 780 0000	00	023 180 560		6.3	2.5	250	150	8	14	F8	DP
EE50	278 701 403 0000	00	256 501 403		6.3	3	250	250	10	14	B9G	P
EE80	041 231 870 0000	00	*41 231 650		6.3		200	200	10	12.5	B9A	P
EEL71	285 774 831 0000	00	274 554 631		6.3	6.5	250	250	24	6.5	B9G	PP
EEL171	752 874 381 0000	00	542 654 371		6.3	[12 2	250 100	250 50	40 3	9	B8B	PP
EEL171	218 000 300 0000	40	216 000 300	G1	6.3	12	250	250	40	9	B7	T
EEL171	038 090 200 0000	00	036 080 200		6.3	2	100	50	2		A08	DT
EEP1	023 190 780 0000	40	023 180 560	G1	6.3	2.5	250	150	8	17	8SC	DP
EEP71	023 110 780 0000	40	023 110 560	G1	6	3	250	100	8	2.2	8SC	P
EF2	023 110 780 0000	40	023 110 560	G1	6	2	250	100	4.5	2.2	8SC	P
EF2S	023 110 780 0000	40	023 110 560	G1	6.3	2	250	100	5	1.8	8SC	P
EF3	023 110 780 0000	40	023 110 560	G1	6	2.5	250	100	8	1.8	8SC	P
EF5	023 110 780 0000	40	023 110 560	G1	6	3	250	100	8	1.7	8SC	P
EF6	023 110 780 0000	40	023 110 560	G1	6	2	250	100	3	2	8SC	P
EF7	023 110 780 0000	40	023 110 560	G1	6	1.5	250	100	3	2.1	8SC	P
EF8	023 111 780 0000	40	023 111 560	G1	6	2.5	250	250	8	1.8	8SC	P
EF9	023 110 780 0000	40	023 110 560	G1	6	2.5	250	100	6	2.2	8SC	P
EF11	802 301 470 0000	00	602 301 450		6	2	250	100	6	2.2	F8	P
EF12	802 301 470 0000	00	602 301 450		6	2	250	100	3	2.1	F8	P
EF12spec.	802 301 470 0000	00	602 301 450		6.3	2	250	100	3	1.7	F8	P
EF13	812 301 470 0000	00	612 301 450		6	2	250	100	4.5	2.3	F8	P
EF14	812 370 140 0000	00	612 350 140		6	4.5	200	200	12	7	F8	P
EF15	812 301 470 0000	00	612 301 450		6	2	250	100	12	5.5	F8	P
EF22	287 104 130 0000	00	265 104 130		6	2.5	250	100	6	2.2	B8B	P
EF25	023 110 780 0000	40	023 110 560	G1	6	2	250	100	5	1.8	8SC	P
EF36	028 710 310 0000	40	026 510 310	G1	6	2	250	100	3	1.8	A08	P
EF38	128 710 310 0000	40	126 510 310	G1	6	2.5	250	250	8	1.8	A08	P
EF39	028 710 310 0000	40	026 510 310	G1	6	2.5	250	100	6	2.2	A08	P
EF40	280 147 130 0000	00	26* 145 130		6	2	250	150	3	1.8	B8B	P
EF41	281 174 130 0000	00	261 154 130		6	2.5	250	100	6	2.2	B8A	P
EF42	280 174 130 0000	00	260 154 130		6	2	250	250	10	9.5	B8A	P
EF43	280 174 130 0000	00	260 154 130		6	2	250	150	15	6.4	B8A	P
EF44	280 147 130 0000	00	260 145 130		6.3	2	250	150	3	1.8	B8A	P
EF50	278 101 403 0000	00	256 101 403		6	1.5	250	250	10	6.5	B9G	P
EF51	281 174 130 0000	00	261 154 130		6	2	250	250	14	9.5	B8B	P
EF52	281 174 130 0000	00	261 154 130		6	2	250	250	10	10	B8G	P
EF53	278 101 403 0000	00	256 101 403		6	2	250	250	10	6.5	B9G	P
EF54	287 114 113 0000	00	265 114 113		6	1.7	250	250	10	7.7	B9G	P
EF55	278 101 403 0000	00	256 101 403		6	4	250	150	10	7	B9G	P
EF70	412 183 710 0000	00	412 163 510		6	2	100	100	13	5.5	B8D	P

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
EF71	412 183 710 0000	00	412 163 510		6	2	100	100	13	5.5	B8D	P
EF72	412 183 710 0000	00	412 163 510		6	1.4	100	100	7	5	B8D	P
EF73	412 873 180 0000	00	412 653 160		6	2	100	100	7.5	5.5	B8D	P
EF74	412 873 180 0000	00	412 653 160		6.3	1.4	100	100	7	3.1	B8D	P
EF80	141 230 871 0000	00	141 230 651		6	2	200	175	10	7.2	B9A	P
EF81	741 238 000 0000	00	541 236 000		6.3	2.5	250	125	6	2.2	B9A	P
EF82	041 230 871 0000	00	*41 230 651		6	4.5	250	250	40	11	B9A	P
EF83	701 238 014 0000	00	501 236 014		6.3	1.6	250	50	4	1.6	B9A	P
EF85	141 230 871 0000	00	141 230 651		6	2	250	100	10	6	B9A	P
EF86	701 238 014 0000	00	501 236 014		6	2	250	150	3	2.3	B9A	P
EF87	701 238 014 0000	00	501 236 014		6.3	2	250	100	3.3	1.9	B9A	P
EF88	701 238 014 0000	00	501 236 014		6.3	2	250	100	7	2.1	B9A	P
EF89	041 230 871 0000	00	041 230 651		6	2	250	100	9	3.6	B9A	P
EF89F	041 230 871 0000	00	041 230 651		6.3	20	250	100	11	4.4	B9A	P
EF91	412 381 700 0000	00	412 361 500		6	2	250	250	10	7.6	B7G	P
EF92	412 381 700 0000	00	412 361 500		6	2.5	250	200	8	2.5	B7G	P
EF93	412 387 100 0000	00	412 365 100		6	1	250	100	11.6	4.5	B7G	P
EF94	412 387 100 0000	00	412 365 100		6	1	250	150	10.6	5.2	B7G	P
EF95	412 387 100 0000	00	412 365 100		6	2.3	150	150	7	4.3	B7G	P
EF96	412 387 100 0000	00	412 365 100		6	1.5	250	150	6.5	5	B7G	P
EF97	412 387 100 0000	00	412 365 100		6.3	0.7	12	12			B7G	P
EF98	412 387 100 0000	00	412 365 100		6.3	1	12	12	4.8	3	B7G	P
EF111	812 370 140 0000	00	612 350 140		6.3	2	250	75	6	2.2	F8	P
EF112	812 370 140 0000	00	612 350 140		6.3	2	250	100	3	2.1	F8	P
EF172	112 740 380 0000	00	112 540 360		6.3	2	250	100	5	3	B8A	P
EF174	112 740 380 0000	00	112 540 360		6.3	3.5	200	200	12	9	B8A	P
EF175	112 740 380 0000	00	112 540 360		6.3	2.1	250	100	12	4.5	B8A	P
EF183	141 230 871 0000	00	141 230 651		6	2	200	90	12	12.5	B9A	P
EF184	141 230 871 0000	00	141 230 651		6.3	2.5	200	200	10	15	B9A	P
EF186	841 230 871 0000	00	641 230 651		6.3	0.5	200	50			B9A	P
EF190	412 387 100 0000	00	412 365 100		6.3	2	200	150	8.5	6.2	B7G	P
EF410	280 074 130 0000	00	26* *54 130		6.3	2	250	100	6	2.7	B8A	P
EF730	782 803 180 0000	00	562 603 160		6.3	1	100	100	5.3	3.2	B8D	P
EF731	412 183 710 0000	00	412 163 510		6.3	1.1	100	100	7.2	4.5	B8D	P
EF732	412 183 710 0000	00	412 163 510		6.3	1.5	100	100	7.5	5	B8D	P
EF734	412 183 710 0000	00	412 163 510		6.3	1.5	100	100	7.5	5	B8D	P
EF800	141 230 871 0000	00	141 230 651		6.3	2	200	175	10	7.2	B9A	P
EF802	141 230 870 0000	00	141 23* 65*		6.3	1.8	200	175	12	8	B9A	P
EF804	101 230 874 0000	00	101 230 654		6.3	2	250	150	3	2	B9A	P
EF805S	141 230 871 0000	00	141 230 651		6.3	1.8	250	75	8	5.7	B9A	P
EF806S	701 238 014 0000	00	501 236 014		6.3		250	150	3.2	2	B9A	P
EF811	141 237 890 0000	00	141 230 650		6.3	1.5	200	90	11.5	12.5	B9A	DP
EF812	141 230 871 0000	00	141 230 651		6.3	1.6	150	150	10	9.2	B9A	P
EF814	141 230 871 0000	00	141 230 651		6.3	1.9	150	150	10	15	B9A	P
EF860	141 230 871 0000	00	141 230 651		6.3		250	250	10	6.8	B9A	P
EF861	141 230 817 0000	00	141 230 615		6.3	1.1	200	150	13	16.5	B9A	P
EF866	701 238 014 0000	00	501 236 014		6.3	2	250	150	3	2	B9A	P
EF905	412 387 100 0000	00	412 365 100		6.3	2	150	125	7.5	5	B7G	P
EF8010	141 230 871 0000	00	141 230 651		6.3	2	200	100	12	12.5	B9A	P
EF8200	141 237 817 0000	00	141 235 615		6.3		200	150	22	35	B9A	P

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
EFF50	287 415 783 0000	00	265 414 573		6	2	250	200	6	8	B9G	PP
EFL200	517 823 147 8000	00			6.3	2.6 2.3	175 150	175 150	30 10	21 8.5	B10B	PP
EFM1	023 114 780 0000	00	023 114 560		6	2	250	100	1.3		8SC	TP
EFP20	278 147 130 0000	00	256 145 130		6.3	2	250	200	5	12	B8G	P
EFP60	214 178 183 0000	00	214 156 163		6.3	2	250	150	20	25	B9G	P
EG420	902 300 000 0000	00	802 300 000		4				120		B4	R
EH1	023 147 780 0000	40	023 145 560	G1	6	2	250	80	3	1.8	8SC	P
EH2	023 117 780 0000	40	023 115 560	G1	6	3	250	100	4.2	1.4	8SC	P
EH90	412 387 100 0000	00	412 365 100		6.3	1	100	30	1	1.1	B7G	H
EH900	412 387 100 0000	00	412 365 100		6.3	0	150	80	1	1.1	B7G	H
EH900S	412 387 100 0000	00	412 365 100		6.3	10	150	75	0.2		B7G	H
EK1			123 164 570	G1	6	1.5 8.5	90 250		2 1.6		8SC	O
EK2	023 174 780 0000	40	023 154 560	G1	6	2	250	75	2.8	1.8	8SC	O
EK2G	028 747 310 0000	00	026 545 310		6.3	2	250	75	2.7	1.8	A08	O
EK3	023 174 780 0000	40	023 154 560	G1	6	2	100	60	11	3.8	8SC	O
EK32	028 747 310 0000	40	026 545 310	G1	6	2	250	75	1.5	1.5	A08	O
EK90	412 388 100 0000	00	412 365 100		6	2	100		11	7	B7G	H
EL1	023 100 780 0000	40	023 100 560	G1	6	18.5	250	250	32	2.6	8SC	P
EL3	023 104 780 0000	00	023 104 560		6	6	250	250	36	9	8SC	P
EL3/425	023 104 780 0000	00	023 104 560		6.3	15.6	400	300	25	3	8SC	P
EL3NG	028 740 310 0000	00	026 540 310		6.3	6	250	250	36	9	A08	P
EL5			023 104 560		6	14	250	275	72	8.5	8SC	P
EL5/375	023 140 780 0000	00	023 140 560		6.3	14	250	275	72	8.5	8SC	P
EL5/600	023 114 700 0000	80	023 114 500	A1	6.3		250	275	72	8.5	8SC	P
EL5G	028 740 310 0000	00	026 540 310		6.3	14	250	275	72	8.5	A08	P
EL6	023 104 780 0000	00	023 104 560		6	4	250	250	72	14.5	8SC	P
EL6/435	023 104 780 0000	00	023 104 560		6.3	7.5	250	250	20	5.5	8SC	P
EL6spec.	023 104 780 0000	00	023 104 560		6.3	7	250	250	72	14.5	8SC	P
EL11	802 301 470 0000	00	602 301 450		6	6	250	250	36	9	F8	P
EL12	802 301 450 0000	00	602 301 450		6	7	250	250	72	15	F8	P
EL12/325	802 301 470 0000	00	602 301 450		6.3	7	250	250	72	18	F8	P
EL12/375	802 301 470 0000	00	602 301 450		6.3	7	400	250	72	15	F8	P
EL12spec	702 301 400 0000	80	502 301 400	A1	6.3	19	400	350	42	10	F8	P
EL13	802 310 470 0000	00	602 310 450		6.3	7.5	250	250	20	5.5	F8	P
EL20	287 104 130 0000	00	265 104 130		6	34	300	300	12.5	3.7	B8B	P
EL22	287 004 130 0000	00	265 004 130		6	7	250	250	44	9.5	B8B	P
EL30	028 741 310 0000	00	026 541 310		6.3	4.5	250	250	18	6.5	A08	P
EL31	120 740 310 0000	80	120 540 310	A1	6	9	300	275	91	14	A08	P
EL32	028 700 310 0000	40	026 500 310	G1	6	18	250	250	32	2.8	A08	P
EL33	028 740 310 0000	00	026 540 310		6	6	250	250	36	9	A08	P
EL34	128 740 310 0000	00	126 540 310		6	13.5	250	250	75	11	A08	P
EL35	028 740 310 0000	00	026 540 310		6	15.5	250	250	72	5	A08	P
EL36	020 740 310 0000	80	*2* 54* 310	A1	6	8.2	100	100	77	11	A08	P
EL36	028 740 310 0000	00	026 540 310		6.3	4	250	250	72	14.5	A08	P
EL37	028 740 310 0000	00	026 540 310		6	13.5	250	250	100	11	A08	P
EL38	120 740 310 0000	80	120 540 310	A1	6	7	250	250	89	14.3	A08	P
EL39	020 741 310 0000	80	020 541 310	A1	6	3.2	200	125	45	6.5	A08	P
EL41	280 074 130 0000	00	26* 54 130		6	7	250	250	36	10	B8A	P
EL42	281 074 130 0000	00	261 054 130		6	10.8	225	225	26	3.2	B8A	P

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V rRa MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
EL43	280 174 130 0000	00	250 154 130		6	3	250	250	36	10	B8A	P
EL44	200 174 130 0000	80	200 154 130	A1	6	22.5	250	250	20	5	B8A	P
EL50	023 114 700 0000	80	023 114 500	A1	6	14	250	275	72	8.5	8SC	P
EL51	023 104 700 0000	80	023 104 500	A1	6		400	300	44	7	8SC	P
EL53	023 104 780 0000	00	023 104 560		6	7.7	400	250	24	8	8SC	P
EL54	023 140 780 0000	00	023 140 560		6	12.2	300	300	55	13	8SC	P
EL60	218 007 413 0000	00	216 005 413		6	14.5	250	250	67	9	B9G	P
EL70	412 183 710 0000	00	412 163 510		6	9	100	100	31	2.2	B8D	P
EL71	412 183 710 0000	00	412 163 510		6.3	8.5	100	100	30	4	B8D	P
EL80	741 230 800 0000	00	541 230 600		6.3	6.5	250	250	36	10	B9A	P
EL81	041 230 071 0000	80	*41 23* 51	A1	6	38.5	250	250	32	4.6	B9A	P
EL81F	041 230 070 0000	80	041 230 050	A1	6.3	28	200	200	40	6	B9A	P
EL82	041 230 807 0000	00	*41 23* 6*5		6.3	10.4	200	200	54	9	B9A	P
EL83	741 230 800 0000	00	541 23* 600		6	5.5	250	250	36	10	B9A	P
EL84	041 230 807 0000	00	*41 23* 6*5		6	7.3	250	250	48	11.3	B9A	P
EL85	441 231 817 0000	00	441 231 615		6	10.8	250	225	26	3.2	B9A	P
EL86	041 230 807 0000	00	*41 23* 6*5		6.3	12.5	200	175	70	10	B9A	P
EL86F	041 230 807 0000	00	*41 23* 6*5		6.3		200	200	70	10	B9A	P
EL88	041 230 871 0000	00	041 230 651		6.3	4.5	200	200	33	9.7	B9A	P
EL89	041 230 871 0000	00	041 230 651		6.3	6	250	250	38	10.5	B9A	P
EL90	412 387 400 0000	00	412 365 400		6	12.5	250	250	45	4.1	B7G	P
EL91	412 380 700 0000	00	412 360 500		6	13.8	250	250	16	2.6	B7G	P
EL95	412 387 400 0000	00	412 365 400		6.3	9	250	250	24	5	B7G	P
EL131	128 740 310 0000	00	126 54* 310		6.3	12	250	250	100	11	A08	P
EL150	802 301 470 0000	00	602 301 450		6.3	7	350	250	95	6.5	F8	P
EL152	812 741 300 0000	00	612 541 300		6.3	33	400	250	50	4	B7G	P
EL171	102 741 380 0000	00	102 541 360		6.3	12	250	250	40	9	B8A	P
EL172	102 741 380 0000	00	102 541 360		6.3	7	250	250	72	15	B8A	P
EL180	141 223 871 0000	00	141 223 651		6.3	2	250	150	25	12	B9A	P
EL183	141 228 713 0000	00	141 226 513		6.3	2.1	200	200	40	25	B9A	P
EL300	721 441 370 0000	80	541 441 350	A1	6.3	22.5	200	150	100	10	B8A	P
EL360	020 740 310 0000	80	*2* 540 310	A1	6.3	7.7	100	100	100	14	A08	P
EL500	441 237 710 0000	80	441 235 51*	A1	6.3	20	150	150	70	10	B9A	P
EL502	441 237 710 0000	80			6.3	35	200	200	100	2	B9D	P
EL503	714 231 408 0000	00	514 231 406		6.3	13.2	250	250	100	23	B9D	P
EL505	417 237 141 0000	80			6.3	40	150	150	60	8	B9D	P
EL506	741 234 708 0000	00	541 234 5*6		6.3	10	300	300	60	10.2	B9D	P
EL803	741 231 800 0000	00	541 231 600		6.3	3.5	200	200	36	10	B9A	P
EL803S	741 321 800 0000	00	541 321 600		6.3		200	200	32	10	B9A	P
EL804	041 230 007 0000	80	041 230 005	A1	6.3	12	200	175	70	10	B9A	P
EL820	041 230 071 0000	80	*41 23* 51	A1	6	38.5	250	250	32	4.6	B9A	P
EL821	041 230 871 0000	00	*41 23* 651		6	4.5	250	250	40	11	B9A	P
EL822	041 230 871 0000	00	*41 23* 651		6	2.5	250	150	40	13	B9A	P
EL861	041 230 871 0000	00	041 230 651		6.3		200	200	20	11	B9A	P
EL863	741 231 800 0000	00	541 231 600		6.3	5.5	250	250	36	11	B9A	P
EL3010	231 147 210 0000	80	231 145 210	A1	6.3		350	100	100	60	A08	P
EL5070	017 231 141 0000	80	*15 231 141	A1	6.3	3	125	125	50	45	B9D	P
EL8000	141 237 817 0000	00	141 235 615		6.3		250	250	48	50	B9A	P
ELL1	523 184 780 0000	00	423 174 560		6	20	250	250	15	1.7	8SC	PP
ELL80	748 235 187 0000	00	546 234 175		6.3	9.0	250	250	24	6.0	B9A	PP

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
ELP71	023 104 780 0000	00	023 104 560		6	7	250	250	36	9	8SC	P
ELP72	023 100 780 0000	40	023 100 560	G1	6	17	250	250	36	2.5	8SC	P
EM1	023 104 780 0000	00	023 104 560		6.3	5	250	250	0.1	†2.0	8SC	TI
EM2	023 104 780 0000	00	023 104 560		6.3	4	250	250	0.1	†2.0	8SC	
EM3	023 104 780 0000	00	023 104 560		6.3	18	200	200	0.2	†1.0	8SC	TI
EM4	023 184 780 0000	00	023 164 560		6.3	[4.2 12.5	200 200	200		†1.0 †1.0	8SC	TI
EM11	028 748 310 0000	00	026 546 310		6.3	[5 16	250 250	250		†1.0 †1.0	A08	TI
EM31	028 740 310 0000	00	026 540 310		6.3	5	250	250	0.1	†2.0	A08	TI
EM34	028 478 310 0000	00	026 456 310		6.3	[4.2 12.5	250 250	250	1	†1.0 †1.0	A08	TI
EM35	028 740 310 0000	00	026 540 310		6.3	22	250	250		†1.0	A08	TI
EM71	271 084 130 0000	00	251 064 130		6.3	20	250	250	0.5		B8B	TI
EM72	271 084 130 0000	00	251 064 130		6	20	250	250	0.5		B8B	
EM80	410 230 807 0000	00	41* 23* 6*5		6.3	14	250	250	0.4	†0.5	B9A	TI
EM81	410 230 807 0000	00	41* 23* 6*5		6.3	10.5	250	250	0.4	†0.5	B9A	TI
EM84	401 237 808 0000	00	4*1 235 6*6		6.3	22	250	250	0.5	†0.5	B9A	TI
EM87	401 237 808 0000	00	4*1 235 6*6		6.3	14	250	250	1.1	†1.0	B9A	TI
EM840	401 237 808 0000	00	4*1 235 6*6		6.3	22	250	250	0.5	†0.5	B9A	TI
EMG1	472 381 100 0000	00	452 361 100		6.3	4.5	20	20	7	4	B7G	P
EQ80	741 238 114 0000	00	541 236 114		6	1	250	20	0.9	0.7	B9A	N
ER4	002 300 000 0000	90	002 300 000	D1	4				3		B4	D
EW60	290 000 103 0000	00	280 000 103		6				120		B9G	R
EY51	023 000 000 0000	90	023 000 000	D1	6				3		D	
EY70	092 013 090 0000	00	082 813 080		6				30		B8D	R
EY80	001 230 009 0000	00	**1 23* **8		6				120		B9A	R
EY81	000 230 009 0000	10	**1 23* **8	C	6.3				120		B9A	R
EY82	001 230 009 0000	00	**1 23* **8		6.3				180		B9A	R
EY83	000 230 009 0000	10	**1 23* **8	C	6.3						B9A	D
EY84	001 230 000 0000	90	**1 23* **8	D1	6				120		B9A	R
EY86	230 232 032 0000	90	23* 232 *32	D1	6				0.8		B9A	D
EY87	230 232 032 0000	90	23* 232 *32	D1	6.3				0.8		B9A	D
EY88	000 230 009 0000	10	**1 23* **8	C1	6.3				120		B9A	R
EY89	001 230 009 0000	00	**1 23* **8		6.3				120		B9A	R
EY91	912 390 000 0000	00	812 380 000		6				60		B7G	R
EY92	002 390 100 0000	00	002 380 100		6.3				60		B7G	R
EY500	090 230 990 0000	10			6.3				180		B9D	R
EY3000	023 100 000 0000	90	023 100 000	D1	6.3				120		8SC	R
EY3000N	023 100 000 0000	90	023 100 000	D	6.3				120		8SC	R
EYY13	230 239 0X0 0000	00	230 238 090		6.3				120		F8	RR
EZ1	023 190 0X0 0000	00	023 180 090		6				30		8SC	RR
EZ3	023 190 0X0 0000	00	023 180 090		6				60		8SC	RR
EZ11	X02 300 190 0000	00	902 300 180		6				30		F8	RR
EZ12	X02 300 190 0000	00	902 300 180		6				60		F8	RR
EZ22	209 00X 130 0000	00	208 009 130		6				60		B8B	RR
EZ33	029 0X0 310 0000	00	028 090 310		6				60		A08	RR
EZ35	029 0X0 310 0000	00	028 090 310		6				30		A08	RR
EZ40	290 00X 130 0000	00	280 *09 130		6				30		B8A	RR
EZ80	X01 230 900 0000	00	8*1 23* 9**		6				30		B9A	RR

mod.2

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
EZ81	901 230 X00 0000	00	8*1 23* 9**		6				60		B9A	RR
EZ82	901 230 X00 0000	00	8*1 23* 9**		6.3				30		B9A	RR
EZ90	902 30X 100 0000	00	802 309 100		6.3				30		B7G	RR
EZ900	902 30X 100 0000	00	802 309 100		6.3				30		B7G	RR
F2A11	802 301 470 0000	00	602 301 450		6.3	6.5	250	250	100	18	F8	P
F5	842 300 000 0000	00	642 300 000		4	40	300		40	6	B4	T
F10	842 300 000 0000	00	642 300 000		4	15	300		30	5.5	B4	T
F100	842 370 000 0000	00	642 350 000		4	16	250	250	42	2.5	B5	P
F109	284 300 000 0000	00	264 300 000		1.5	14.5	200		6.2	11.5	UX4	T
F109A	284 300 000 0000	00	642 300 000		1.5	14.5	200		6.2	1.2	B5	T
F109A	842 300 000 0000	00	264 300 000		1.5	14.5	200		6.3	1.2	UX4	T
F203	842 300 000 0000	00	264 300 000		2.5	50	300		36	2	UX4	T
F203	284 300 000 0000	00	642 300 000		2.5	56	300		36	2	B4	P
F209	842 300 000 0000	00	642 300 000		2.5	21	250		5.2	0.9	B4	T
F209	284 300 000 0000	00	264 300 000		2.5	21	250		5.2	0.9	UX4	T
F209A	842 310 000 0000	00	642 310 000		2.5	21	250		5	1	B5	T
F215	284 130 000 0000	00	264 130 000		2.5	6	150		6.5	2	UX5	T
F215	842 310 000 0000	00	642 310 000		2.5	6	150		6.5	2	B5	T
F242	287 130 000 0000	40	265 130 000	G1	2.5	1.3	200	100	1.5	0.9	UX5	P
F410	842 300 000 0000	00	642 300 000		4	15	300		13.5	2.8	B4	T
F443	842 370 000 0000	00	642 350 000		4	30	400	200	45	3.2	B5	P
F460	842 310 000 0000	00	642 310 000		4	2	250		10	5.5	B5	T
F704	842 300 000 0000	00	642 300 000		7.5	84	400		55	2.1	B5	T
F707	842 300 000 0000	00	642 300 000		7.5	84	400		55	2.1	B4	T
F707	284 300 000 0000	00	264 300 000		7.5	84	400		55	2.1	UX4	T
F708	284 300 000 0000	00	264 300 000		7.5	44	400		16	1.6	UX4	T
F/7001	412 387 100 0000	00	412 365 100		6.3		150	125	35	4.8	B7G	P
FC2			645 230 700	G1	2	[	150	50	2			
							150	75	0.9	0.2	B7	O
FC2A			645 230 700	G1	2	[	150	50	1.2			
							150	50	0.7	0.3	B7	O
FC4			645 231 700	G1	4	[	4	90	90	2	1	
							4	250	90	1.6	1	B7
FC13			023 164 570	G1	13	[	3	90	75	2	1.3	
							2	200	75	2.6	0.6	8SC
FC13C			645 231 700	G1	13	[	3	90	75	2	1.3	
							2	200	75	2.6		B7
FC141			207 640 530	G1	1.4		90	90	0.5		M08	H
FH2118	187 472 300 0000	40	165 452 300	G1	20	2	200	80	3		C7	P
FT4	028 740 310 0000	00	026 540 310		4	6	250	250	0.5	†1.0	A08	TI
FW1	9X3 200 000 0000	00	893 200 000		4				30		B4	RR
FW3	9X2 300 000 0000	00	892 300 000		4				60		B4	RR
FW4/500	9X2 300 000 0000	00	982 300 000		4(5)				120		B5	RR
FW4/800	X92 300 000 0000	00	982 300 000		4(5)				60		B5	RR
FY	842 370 000 0000	00	642 350 000		4	10	250	250	32	5	B5	P
FZ1	023 190 0X0 0000	00	023 180 090		13				30		8SC	RR
G	284 300 000 0000	00	264 300 000		5	3	200		0.2		UX4	T
G/6C4	802 384 100 0000	00	602 364 100		6.3	8.5	250		10.5	2.2	B7G	T
G/25L6	028 740 310 0000	00	026 540 310		25	8.2	200	125	46	8	A08	P
G/50C5	142 347 800 0000	00	142 345 600		50	7.5	150	100	49	7.5	B7G	P
G84	290 300 000 0000	00	280 300 000		2.5				60		UX4	R

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
G407	842 300 000 0000	00	642 300 000		4	4	150		4	1.3	B4	T
G431	9X2 300 000 0000	00	892 300 000		4				30		B5	RR
G459	023 090 0X0 0000	00	023 080 090		4				60		8SC	RR
G460	9X2 300 000 0000	00	892 300 000		4				60		B4	RR
G470	9X2 300 000 0000	00	892 300 000		4				30		B4	RR
G504	9X2 300 000 0000	00	892 300 000		4				15		B4	RR
G660	023 1X0 090 0000	00	023 190 080		6.3				30		8SC	RR
G715	902 300 000 0000	00	802 300 000		7.5				120		B4	T
G837	207 411 300 0000	80	204 411 300	A1	12.6	85	400		60	3.5	B7G	P
G1380	023 190 0X0 0000	00	023 180 090		12				30		8SC	RR
G1404	902 300 000 0000	00	802 300 000		4				120		B4	R
G1503	9X2 300 000 0000	00	892 300 000		2.5				30		B4	RR
G2004	9X2 300 000 0000	00	892 300 000		4				60		B4	RR
G2005	9X2 300 000 0000	00	892 300 000		5				60		B4	RR
G2080	902 310 000 0000	00	023 100 080		20				60		8SC	R
G2080	023 100 090 0000	00	802 310 000		20				60		B5	R
G2504	9X2 300 000 0000	00	892 300 000		4				60		B4	RR
G3060	123 1X0 090 0000	00	123 190 080		30				60		8SC	RR
G4004	9X2 300 000 0000	00	892 300 000		4				120		B4	R
G4100	902 300 000 0000	00	802 300 000		4				120		B4	R
G4120	9X2 300 000 0000	00	892 300 000		4				60		B5	RR
G4120N	9X2 300 000 0000	00	892 300 000		4				60		B4	R
G4180	9X2 300 000 0000	00	892 300 000		4				120		B4	RR
G/5749	412 387 100 0000	00	412 365 100		6	1	250	100	11	4.4	B7G	P
G/5750	412 388 400 0000	00	412 366 400		6	2	100		11	7	B7G	H
G/6042	481 581 230 0000	00	461 471 230		25	8	250		9	2.6	A08	TT
G6059	041 230 871 0000	00	041 230 651		6	3	250	100	2	1.2	B7G	P
G/6060	851 228 413 0000	00	741 226 413		6	2	250		10	5.5	B9G	TT
G/6061	041 230 871 0000	00	*41 230 651		6	13	300	225	35	3.7	B9A	P
G/6062	801 237 144 0000	00	601 235 144		6	7.5	250	250	45	7	B9A	P
G6066	412 39X 800 0000	00	412 389 600		6	3	250	250	1	1.2	B7G	DDT
G/6100	802 384 100 0000	00	602 364 100		6	8.5	250		10.5	2.2	B7G	T
G/6132	041 230 871 0000	00	*41 230 651		6	4.5	250	250	40	11	B9A	P
G/6157	001 230 000 0000	90	**1 23* ***	D1	6				120		B9A	R
G/6158	854 228 413 0000	00	644 226 413		6	4.5	250		6	2.3	B9A	TT
G/6180	481 581 230 0000	00	461 471 230		6	8	250		9	2.6	A08	TT
G/6516	412 380 700 0000	00	412 360 500		6	12.5	250	250	16	2.6	B7G	P
GG1	299 00X X30 0000	00	288 009 930		4				30		B8B	RR
GN24	9X2 300 000 0000	00	892 300 000		4				30		B4	RR
□GT1C	842 310 000 0000	00	642 310 000		4		200		48	3K	B5	THY
GY11	333 022 200 0000	90	333 022 200	D1	2.5				30		F8	R
GY501	200 320 032 0000	90			3.15						B9D	D
GZ30	020 X09 030 0000	00	020 908 030		5				60		A08	RR
GZ31	020 X09 030 0000	00	020 908 030		5				120		A08	RR
GZ32	030 90X 020 0000	00	030 809 020		5(5.7)				60		A08	RR
GZ33	030 90X 020 0000	00	030 809 020		5				120		A08	RR
GZ37	030 X09 020 0000	00	030 908 020		5(5.7)				120		A08	RR
GZ40	290 00X 130 0000	00	28* **9 130		5				30		B8A	RR
H2	842 300 000 0000	00	642 300 000		2	1	150		2.5	0.8	B4	T
H2D	892 3X0 000 0000	40	682 390 000	G1	2	1.5	150		3.5	1.3	B5	DDT

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
H4	842 300 000 0000	00	642 300 000		4	4	150		4	1.3	B4	T
H4D	90X 231 800 0000	40	216 809 300	G1	4	3	200		4.5	2.7	B7	DDT
H4D	218 90X 300 0000	40	809 231 600	G1	4	2.5	200		5.5	2.7	B7	DDT
H12	842 300 000 0000	00	642 300 000		2	1.3	100		0.6	1	SM4	T
H13	023 100 080 0000	40	023 100 060	G1	13	4	200		6	2.5	A08	T
H20	842 310 000 0000	00	642 310 000		20	1.6	200		0.2	1	B5	T
H30	000 231 800 0000	40	000 231 600	G1	13	1.5	250		7.5	6	B7	T
H42	000 231 800 0000	40	000 231 600	G1	4	2	250		1	1.5	B7	T
H42	218 000 300 0000	40	216 000 300	G1	4	2	250		1	1.5	B7	T
H63	020 800 310 0000	40	020 600 310	G1	6.3	2	250		1	1.6	A08	T
H141D	208 090 030 0000	40	206 080 030	G1	1.4	1	90		0.1	0.2	M08	DT
H145	287 024 300 0000	00	265 024 300		1.4	2	90	90	0.3	0.42	B7G	P
H210	842 300 000 0000	00	642 300 000		2	3	150		1.1	1.1	B4	T
H406D	742 300 000 0000	80	542 300 000	A1	4	1.5	200	75	4	0.8	B4	P
H407spec.	842 300 000 0000	00	642 300 000		4	9	150		3.5	0.9	B4	T
H410	842 300 000 0000	00			4	3	150		0.5	0.6	B4	T
H410D			642 300 000		4	3	150		0.5	0.6	B4	T
H412	842 300 000 0000	00	642 300 000		4	9	150		5	1.2	B4	T
H607	842 300 000 0000	00	642 300 000		6	1	100			0.4	B4	T
H1818D	742 310 000 0000	80	542 310 000	A1	20	2	200	100	3	2	B5	P
H1918D	742 310 000 0000	80	542 310 000	A1	20	2	200	60	4	1	B5	P
H2518D	742 310 000 0000	80	542 310 000	A1	20	2.5	250	100	3.5	2	B5	P
H2618D	742 310 000 0000	80	542 310 000	A1	20	2.5	250	100	5	2	B5	P
H4080D	742 310 000 0000	80	542 310 000	A1	4	1.5	200	75	4	2.5	B5	P
H4111D	742 310 000 0000	80	542 310 000	A1	4	2.5	250	100	3.5	2	B5	P
H4125D	742 310 000 0000	80	542 310 000	A1	4	2	200	100	6	1	B5	P
H4129D	742 310 000 0000	80	542 310 000	A1	4	2.5	250	100	5	2	B5	P
HAA91	192 310 X00 0000	00	182 310 900		12						B7G	DD
HABC80	9Y1 23X 148 0000	00	811 239 146		19	3	250		1	1.2	B9A	DDDT
HAD	X09 231 800 0000	40	908 231 600	G1	13	2.5	200		3.3	2	B7	DDT
HBC90	412 39X 800 0000	00	412 389 600		12.5	3	250		1	1.2	B7G	DDT
HBC91	412 39X 800 0000	00	412 389 600		12.5	2	250		1.2	1.6	B7G	DDT
HCH81	751 238 584 0000	00	541 237 464		12.6	[2.5	250	90	4	2	B9A	TH
HD2	842 300 000 0000	00	642 300 000		2	5	200		5	1	B4	T
HD2	892 3X0 000 0000	40	682 390 000	G1	2	2.5	150		3.5	1.3	B5	DDT
HD14	038 090 200 0000	40	036 080 200	G1	1.4	0	90		0.1	0.2	A08	DT
HD21	892 3X0 000 0000	40	682 390 000	G1	2	1.5	150		1.8	1.5	B5	DDT
HD22	892 3X0 000 0000	40	682 390 000	G1	2	2	150		1.8	1.5	B5	DDT
HD23	982 3X0 000 0000	40	682 390 000	G1	2	1	150		1	1	B5	DDT
HD23	892 3X0 000 0000	40	862 390 000	G1	2	2	150		1	1.4	B5	DDT
HD24	892 3X0 000 0000	40	682 390 000	G1	2	1.5	150		0.8	1	B5	DDT
HD30	724 332 800 0000	00	524 332 600		1.2	75	150	125		1.7	B7G	P
HD93	230 232 032 0000	90	23* 232 *32	D1	1.2				1		B9A	D
HD96	021 040 310 0000	80	021 040 310	A1	25	22.5	250	150	55	5.5	A08	P
HF61	280 074 130 0000	00	26* *54 130		6.3	2.6	250	100	6	2.2	B8A	P
HF62	280 174 130 0000	00	260 154 130		6.3	2	250	250	10	9	B8A	P
HF85	141 230 871 0000	00	141 230 651		12.5	2.3	200	125	11.4	6.1	B9A	P
HF93	412 387 100 0000	00	412 365 100		12.5	1	250	100	11	4.4	B7G	P
HF121	280 074 130 0000	00	26* 054 130		12.5	3	200	125	1.2	2.3	B8A	P

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
HK90	412 388 100 0000	00	412 365 100		6.3	0	100	100	11	7	B7G	H
HL2	842 300 000 0000	00	642 300 000		2	1.5	150		2.2	1.5	B4	T
HL2	023 004 080 0000	00	023 004 060		2	1.5	150		2.2	1.5	8SC	T
HL2K	842 300 000 0000	00	642 300 000		2	1.5	150		2.2	1.5	B4	T
HL2S	023 004 080 0000	00	023 004 060		2	1.5	150		2.2	1.5	8SC	T
HL3	208 040 030 0000	00	206 040 030		2	1.5	125		0.5	1.5	M08	T
HL4	842 310 000 0000	00	642 310 000		4	4.5	250		5	3.5	B5	T
HL4+	842 310 000 0000	00	642 310 000		4	4.5	250		5	4.9	B5	T
HL4G	000 231 800 0000	40	000 231 600	G1	4	4.5	250		5	3.5	B7	T
HL4GS	023 100 080 0000	40	023 100 060	G1	4	4.5	250		5	3.5	8SC	T
HL13	023 100 080 0000	40	023 100 060	G1	13	13.7	200		5	3.3	8SC	T
HL13	000 231 800 0000	40	000 231 600	G1	13	2.7	200		6	3.5	B7	T
HL13C	000 231 800 0000	40	000 231 600	G1	13	3.7	200		5	3.3	B7	T
HL13G	023 004 080 0000	40	023 004 060	G1	13	5.5	250		6	2.5	8SC	T
HL13S	023 100 080 0000	40	023 100 060	G1	13	3	200		6	3.5	8SC	T
HL21	842 300 000 0000	00	642 300 000		2	3	150		1.7	1.5	B4	T
HL21DD	892 3X0 000 0000	40	682 390 000	G1	2	2	150		2	1.3	B5	DDT
HL22	208 040 030 0000	00	206 040 030		2	2	150		2	1.3	M08	T
HL22DD	208 090 X30 0000	40	206 080 930	G1	2	2	150		2	1.3	M08	DDT
HL23	208 040 030 0000	00	206 040 030		2	1.5	150		1.5	1.2	M08	T
HL23DD	208 090 X30 0000	40	206 080 930	G1	2	1.5	150		0.6	1.2	M08	DDT
HL41	218 040 030 0000	00	216 040 030		4	3.1	250		2.2	3.4	M08	T
HL41DD	218 0X0 930 0000	40	216 090 830	G1	4	3.1	250		2.2	2.6	M08	DDT
HL42DD	218 0X0 930 0000	40	216 090 830	G1	4	0.2	200		2.8	2.9	M08	DDT
HL84	041 230 807 0000	00	*41 23* 6*5		30	12.5	200	175	70	10	B9A	P
HL90	412 387 400 0000	00	412 365 400		19	12.5	250	250	45	4.1	B7G	P
HL92	142 347 800 0000	00	142 345 600		50	7.5	150	125	49	7.5	B7G	P
HL94	142 347 800 0000	00	142 345 600		30	6.7	100	100	43	9.2	B7G	P
HL133	218 000 030 0000	40	216 000 030	G1	13	3.3	200		6	2.9	M08	T
HL133DD	218 0X0 930 0000	40	216 090 830	G1	13	2.5	200		1.5	2.5	M08	DDT
HL134DD	218 090 X30 0000	40	216 080 930	G1	13	5	250		7	2.5	M08	DDT
HL210	842 300 000 0000	00	642 300 000		2	1	100		1.1	0.7	B4	T
HL410	842 300 000 0000	00	642 300 000		4	6	150		1.2	0.8	B4	T
HL607	842 300 000 0000	00	642 300 000		6	1	100			1	B4	T
HL1320	000 231 800 0000	40	000 231 600	G1	13	3.3	200		6	3	B7	T
HLA1	842 310 000 0000	00	642 310 000		4	1	200		5	8	B5	T
HLA2	842 310 000 0000	00	642 310 000		4	2.5	200		6	5.5	B5	T
HLB1	842 300 000 0000	00	642 300 000		2	3	150		2	1.5	B5	T
HL/DD1320	90X 231 800 0000	40	809 231 600	G1	13	3	200		4.3	1.9	B7	DDT
HM20	842 310 000 0000	00	642 310 000		20	3.3	250		6	2.5	B5	T
HM71	271 084 130 0000	00	251 064 130		12.6	15	200	200	0.4	†5.0	B8B	TI
HM85	401 237 80X 0000	00	401 235 607		12.6	18	250	200	0.5	†0.47	B9A	TI
HN309	841 238 175 0000	00	641 237 154		12	[2	250		2.8			
						9	150	150	24	5.6	B9A	TP
HP2	548 230 800 0000	00	446 230 700		2	1	150		8.5		B7	TT
HP6	412 381 700	00	412 361 500		6	[2	250	250	10	7.5		
						1.5	200	150	4	6.4	B7G	PP
HP13	081 231 700 0000	40	061 231 500	G1	13	1	250	100	8	3.5	B7	P
HP13S	023 110 780 0000	40	023 110 560	G1	13	1	250	100	8	3.5	8SC	P
HP210	742 300 000 0000	80	542 300 000	A1	2	1.5	150	150	1.9	1.9	B4	P
HP210	041 230 700 0000	80	041 230 500	A1	2	1.5	150	150	1.9	1.9	B7	P

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
HP210NC	742 300 000 0000	80	542 300 000	A1	2	1	150	150	1.9	1.9	B4	P
HP210NC	041 230 700 0000	80	041 230 500	A1	2	1	150	150	1.9	1.9	B7	P
HP211	041 230 700 0000	80	041 230 500	A1	2	1	150	150	2.6	1.7	B7	P
HP211C	742 300 000 0000	80	542 300 000	A1	2	1	150	150	2.6	1.7	B4	P
HP215	742 300 000 0000	80	542 300 000	A1	2	1.5	150	80	1.5	1.2	B4	P
HP215	041 230 700 0000	80	041 230 500	A1	2	1.5	150	80	1.5	1.2	B7	P
HP415	742 310 000 0000	80	041 231 500	A1	4	2	250	100	8	2.7	B7	P
HP417	041 231 700 0000	80			4	2	250	100	8	2.7	B7	P
HP1018	180 172 300 0000	40	160 152 300	G1	10	3	250	100	2.3	1.3	B7	P
HP1118	180 172 300 0000	40	160 152 300	G1	10	3	250	100	8.2	1.6	B7	P
HP2018	742 310 000 0000	80	542 310 000	A1	20	2	200	100	4	3.5	B5	P
HP2018	041 231 700 0000	80	041 231 500	A1	20	2	200	100	4	3.5	B7	P
HP2118	742 310 000 0000	80	041 230 500	A1	20	2	200	100	5	3.5	B7	P
HP2118	041 230 700 0000	80	542 310 000	A1	20	2	200	100	5	3.5	B5	P
HP4100	742 310 000 0000	80	542 310 000	A1	4	2	200	100	3	3.5	B5	P
HP4101	041 231 700 0000	80	041 231 500	A1	4	2	200	100	3.5	3.5	B7	P
HP4101	742 310 000 0000	80	542 310 000	A1	4	2	200	100	3.5	3.5	B5	P
HP4101C	041 231 700 0000	80	542 310 000	A1	4	2	200	100	3.5	2.8	B5	P
HP4101C	742 310 000 0000	80	041 231 500	A1	4	2	200	100	3.5	2.8	B7	P
HP4105	041 231 700 0000	80	542 310 000	A1	4	2	250	100	4.5	3	B5	P
HP4105			041 231 500	A1	4	2	250	100	4.5	3	B7	P
HP4106	041 231 700 0000	80	041 231 500	A1	4	2	200	100	5	3.5	B7	P
HP4106	742 310 000 0000	80	542 310 000	A1	4	2	200	100	5	3.5	B5	P
HP4106C	742 310 000 0000	80	041 231 500	A1	4	2	200	100	5	3.5	B7	P
HP4106C	041 231 700 0000	80	542 310 000	A1	4	2	200	100	5	3.5	B5	P
HP4115	041 231 700 0000	80	041 231 500	A1	4	2	200	100	4.3	2.2	B7	P
HP4115	742 310 000 0000	80	542 310 000	A1	4	2	200	100	4.3	3.2	B5	P
HPT	412 381 700 0000	00	412 361 500		6	1.5	250	250	10	7.5	B7G	P
HR1	200 300 000 0000	90	2** 3** *00	D1	0.6				0.05		B7G	D
HR2	842 300 000 0000	00	642 300 000		2	2	150		12	0.6	B4	T
HR2	112 311 100 0000	90	112 311 100	D1	4				5		B7G	R
HR2S	023 004 080 0000	00	023 004 060		2	2	150		1.2	0.6	8SC	T
HR3	112 311 100 0000	90	112 311 100	D1	4				15		B7G	R
HR4	112 311 100 0000	90	112 311 100	D1	4				30		B7G	R
HR6	030 000 020 0000	90	030 000 020	D1	4				60		A08	R
HR7	020 000 030 0000	90	020 000 030	D1	4				30		A08	R
HR8	030 000 020 0000	90	030 000 020	D1	4				30		A08	R
HR11	020 000 030 0000	90	020 000 030	D1	4						A08	D
HR210	842 300 000 0000	00	642 300 000		2	1.5	200		1	1.3	B4	T
HR406	842 300 000 0000	00	642 300 000		4	3	200		1	1.5	B4	T
HR410	841 300 000 0000	00	641 300 000		4	3	200		1	1.5	B4	T
HSD	90X 231 800 0000	40	809 231 600	G1	13	3	200		6	2.7	B7	DDT
HVR1	002 300 000 0000	90	002 300 000	D1	2				5		B4	R
HVR2	003 200 000 0000	90	003 200 000	D1	4				3		B4	R
HVR2A	003 200 000 0000	90	003 200 000	D1	2(2.5)				3		B4	R
HVU1	002 300 000 0000	90	002 300 000	D1	4				3		B4	R
HY24	284 300 000 0000	00	264 300 000		2	45	200		20		UX4	T
HY61	274 130 000 0000	80	254 130 000	A1	6	14	300	250	83	6.5	UX5	P
HY65	030 740 210 0000	80	030 540 210	A1	6	45	350	200	63		A08	P

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
HY90	002 393 100 0000	00	002 383 100		27.5				60		B7G	R
HY113	284 030 000 0000	00	264 030 000		1.4	4.5	60		0.4	0.2	UX5	T
HY125	384 720 000 0000	00	364 520 000		1.4	3	60	50	0.9	0.3	UX5	P
HY615	020 000 310 0000	84	020 000 310	A1/G1	6	35	300		20		A08	T
HY866	290 300 000 0000	00	280 300 000		2.5				120		UX4	R
HZ50	290 300 000 0000	00	280 300 000		13				60		UX4	R
IF860	141 230 871 0000	00	141 230 651		20		200	200	8.5	6.6	B9A	P
IL861	041 230 871 0000	00	041 230 651		20		200	200	20	11	B9A	P
IRV120/ 350S	023 190 0X0 0000	00	023 180 090		4				60		8SC	RR
IW2	9X3 200 000 0000	00	893 200 000		4				30		B4	RR
IW2A	9X2 300 000 0000	00	892 300 000		4				30		B4	RR
IW3	9X2 300 000 0000	00	892 300 000		4				60		B4	RR
IW4/500	9X3 200 000 0000	00	893 200 000		4(5)				60		B4	RR
K2/DD	892 3X0 000 0000	40			2	3.8	150		4	1.6	B5	DDT
K4	9X2 300 000 0000	00	892 300 000		4				120		B4	RR
K23A	892 3X0 000 0000	40	682 390 000	G1	2	5.5	150		2.5	1.4	B5	DDT
K23B	892 3X0 000 0000	40	682 390 000	G1	2	1.5	150		1.4	1.2	B5	DDT
K24	287 130 000 0000	40	265 130 000	G1	2.5	1.5	200	75	2	0.8	UX5	P
K27	284 130 000 0000	00	264 130 000		2.5	4.5	90		3	1	UX5	T
K30A	842 300 000 0000	00	642 300 000		2	3	150		1.5	0.8	B4	T
K30B	842 300 000 0000	00	642 300 000		2	7.5	150		4	0.9	B4	T
K30C	842 300 000 0000	00	642 300 000		2	1.5	150		2	1.4	B4	T
K30D	842 300 000 0000	00	642 300 000		2	3	150		4	1.5	B4	T
K30E	842 300 000 0000	00	642 300 000		2	4.5	150		2	1.5	B4	T
K30G	842 300 000 0000	00	642 300 000		2	7	150		6	3.5	B4	T
K33A	084 235 800 0000	00	064 234 700		2	0	150		3		B7	TT
K33B	548 230 800 0000	00	446 230 700		2	1.5	125		3	2.1	B7	TT
K40B	742 300 000 0000	80	542 300 000	A1	2		150	75	2	1.5	B4	P
K40N	041 230 700 0000	80	542 300 000	A1	2		150	90	2.5	1.4	B4	P
K40N	742 300 000 0000	80	041 230 500	A1	2		150	90	2.5	1.4	B7	P
K50M	041 231 700 0000	80	041 231 500	A1	2	5	150	125	3	1.5	B7	P
K50N	084 237 700 0000	40	064 235 500	G1	2	1.5	150	60	2	1.4	B7	P
K70B	842 370 000 0000	00	642 350 000		2	4.5	150	150	9.5	2.5	B5	P
K70D	842 370 000 0000	00	642 350 000		2	2.4	150	150	5	4	B5	P
K77A	487 230 785 0000	00	465 230 574		2	10.5	150	150	2.5	4	B9	PP
K77B	548 237 800 0000	00	446 235 700		2	11.7	150	150	3.8		B7	PP
K80A			645 230 700	G1	2	[	150	50	2		B7	O
K80B			645 230 700	G1	2	[	150	150	2.1		B7	O
K435/10	842 300 000 0000	00	642 300 000		4	3	300		50	5	B4	T
K450/50	842 300 000 0000	00	642 300 000		4	50	400		120	5	B4	T
K1658	742 310 000 0000	80	542 310 000	A1	7	25	400	225	50	3.2	B5	P
K1694	842 300 000 0000	00	642 300 000		4	3.5	200		6	2.6	B4	T
KBC1			023 098 060	G1	2	4.5	150		2.5	1	8SC	DDT
KBC32	038 X90 200 0000	40	036 980 200	G1	2		100		2.4	1.2	A08	DDT
KC1	023 004 080 0000	00	023 004 060		2	1.5	150		1.2	0.6	8SC	T
KC3	023 004 080 0000	00	023 004 060		2	2.8	150		3	2.5	8SC	T
KC4	023 004 080 0000	00	023 004 060		2	1.5	150		2.2	1.4	8SC	T
KC50	842 300 000 0000	00	642 300 000		2	1	40		0.2	0.4	SM4	T

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
KC51	842 300 000 0000	00	642 300 000		2	2	40		1.2	0.5	SM4	T
KCF30	[038 748 200 0000 038 750 200 0000	50 50]	037 546 200	G1	2	[1.0 2.5	100 150	80	3.7 1.5	1.6 0.9	A08	TP
KCH1	[023 084 780 0000 023 005 780 0000	50 50]	023 064 570	G1	2	[0.5 5	90 90	60	3 1	1.5 0.9	8SC	TH
KD50	842 300 000 0000	00	642 300 000		2	2.8	40		1.8	0.6	SM4	T
KDD1	023 084 580 0000	00	023 074 460		2		90		0.8	0.8	8SC	TT
KE50	742 300 000 0000	80	542 300 000	A1	2	2	150	50	0.8	0.6	Sm4	P
KF1	070 412 300 0000	80	050 412 300	A1	2	1	150	150	3	1.8	C7	P
KF2	070 412 300 0000	80	050 412 300	A1	2	1	150	150	3	1.3	C7	P
KF3	023 010 780 0000	40	023 010 560	G1	2	1	90	90	1	0.5	8SC	P
KF4	023 010 780 0000	40	023 010 560	G1	2	1	90	90	1.2	0.7	8SC	P
KF7	023 004 700 0000	80	023 004 500	A1	2	1.5	90	90	1.8	0.7	8SC	P
KF8	023 004 700 0000	80	023 004 500	A1	2	1	90	90	1.5	0.6	8SC	P
KF35	028 710 300 0000	40	026 510 300	G1	2	1.5	150	60	1.4	1.1	A08	P
KH1	023 071 780 0000	40	023 051 560	G1	2	1.5	90	60	2.1	1.4	8SC	P
KK2	023 084 780 0000	40	023 064 560	G1	2	1	90	50	2		8SC	O
KK2G	028 748 300 0000	40	026 546 300	G1	2	1	90	50	2		A08	O
KK32			037 546 200	G1	2	[	150 150	50 50	2.1 0.7		A08	O
KL1	842 370 000 0000	00	642 350 000		2	4.5	90	90	8	1.7	B5	P
KL1	032 004 780 0000	00	032 004 560		2	4.5	90	90	8	1.7	8SC	P
KL2	023 004 780 0000	00	023 004 560		2	7.5	90	90	11	1.8	8SC	P
KL4	023 004 780 0000	00	023 004 560		2	2.5	100	100	5	2	8SC	P
KL4G	038 740 200 0000	00	036 540 200		2	2.5	90	90	4.7	1.8	A08	P
KL5	032 004 780 0000	00	032 004 560		2	4	90	90	4.8	1.4	8SC	P
KL35	038 740 200 0000	00	036 540 200		2	4.5	150	150	5.6	2.2	A08	P
KLL3	523 784 780 0000	00	423 564 570		2	12	150	150	8		8SC	PP
KLL32	028 548 370 0000	00	026 447 350		2	11.3	150	150	3.8	2.6	A08	PP
KM84	401 237 808 0000	00	4*1 235 6*6		4.2	22	250	250	0.5	†0.5	B9A	TI
KR5	284 730 000 0000	00	264 530 000		6	9	150	150	14	1.9	UX5	P
KR20	284 413 000 0000	00	264 413 000		2.5		250		3.5	1.4	UX6	T
KR22	284 413 000 0000	00	264 413 000		6		250		3.5	1.4	UX6	T
KR25	284 413 000 0000	00	264 413 000		2.5	16.5	250	250	34	2.2	UX6	P
KR28	29X 130 000 0000	00	289 130 000		6				30		UX5	RR
KR31	291 300 000 0000	00	281 300 000		10				120		UX4	R
KT2	842 370 000 0000	00	642 350 000		2	4.5	150	150	7.5	2.5	B5	P
KT8	742 310 000 0000	80	542 310 000	A1	6	16	250	250	72	6	B5	P
KT16	028 740 230 0000	00	026 540 230		1.4	4.5	90	90	8.8	1.9	A08	P
KTKT21	842 370 000 0000	00	642 350 000		2	2.5	150	125	5.3	5.3	B5	P
KT24	842 370 000 0000	00	642 350 000		2	3.5	150	125	5	3.2	B5	P
KT30	047 231 800 0000	00	045 231 600		13	12	250	250	40	3.9	B7	P
KT31	307 221 800 0000	40	305 221 600	G1	13	4	200	175	40	10	B7	P
KT32	028 740 310 0000	00	026 540 310		26	7.6	150	150	75	9	A08	P
KT33	328 740 210 0000	00	326 540 210		13	13.2	200	200	60	10	A08	P
KT33C	328 740 210 0000	00	326 540 210		13	7	200	175	92	10	A08	P
KT35	328 740 210 0000	00	326 540 210		13	11.5	200	200	50	10	A08	P
KT36	020 740 310 0000	80	020 540 310	A1	26	10	150	150	60	11	A08	P
KT41	047 231 800 0000	00	045 231 600		4(5)	4.4	250	250	40	10.5	B7	P
KT42	047 231 800 0000	00	045 231 600		4	16.5	250	250	34	2.5	B7	P
KT44	041 231 700 0000	80	041 231 500	A1	4(5)	25	250	250	85	6.3	B7	P

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
KT55	028 740 310 0000	00	*26 540 310		52	15	150	150	88	16	A08	P
KT61	028 740 310 0000	00	026 540 310		6	4.4	250	250	40	10.5	A08	P
KT63	028 740 310 0000	00	026 540 310		6	16.5	250	250	34	2.5	A08	P
KT66	028 740 310 0000	00	026 540 310		6	15	250	250	65	6.3	A08	P
KT67	278 001 403 0000	00	256 001 403		6	9	250	175	80	13	B9G	P
KT71	028 740 310 0000	00	026 540 310		48	9.8	200	175	70	10	A08	P
KT72	028 740 310 0000	00	026 540 310		16	12.5	200	175	30	2.5	A08	P
KT73	028 740 310 0000	00	026 540 310		6	4.5	200	175	35	2.5	A08	P
KT74	028 740 310 0000	00	026 540 310		16	12.5	200	175	30	2.5	A08	P
KT76	028 740 310 0000	00	026 540 310		15	13	200	175	35	2.5	A08	P
KT77	028 740 310 0000	00	026 540 310		6.3		250	250	100	11.5	A08	P
KT81	287 004 130 0000	00	265 004 130		6	4.4	250	250	40	10.5	B8B	P
KT88	028 740 310 0000	00	026 540 310		6	20	250	250	57	8	A08	P
KT101	287 004 130 0000	00	265 004 130		80	9.5	200	175	70	10	B8B	P
KTW61	028 710 310 0000	40	026 510 310	G1	6	4	250	100	10	2.9	A08	P
KTW62	028 700 310 0000	40	026 500 310	G1	6	3	250	100	8	2.8	A08	P
KTW63	028 710 310 0000	40	026 510 310	G1	6	3	250	100	7.6	1.5	A08	P
KTW73	028 710 310 0000	40	026 510 310	G1	6	3	250	100	6.5	1.7	A08	P
KTW73M	028 700 310 0000	40	026 500 310	G1	6	3	250	100	6.5	1.7	A08	P
KTW74	028 710 310 0000	40	026 510 310	G1	13	3	250	100	7.6	1.5	A08	P
KTW74M	028 700 310 0000	40	026 500 310	G1	13	3	250	100	7.6	1.5	A08	P
KTZ41	081 231 700 0000	40	061 231 500	G1	4	1.5	250	250	18	12	B7	P
KTZ63	028 710 310 0000	40	026 510 310	G1	6	3	250	100	2	1.2	A08	P
KTZ73	028 700 310 0000	40	026 500 310	G1	6	3	250	100	2	1.5	A08	P
KTZ73M	028 700 310 0000	40	026 500 310	G1	6	3	250	100	2	1.5	A08	P
KZ	902 310 000 0000	00	802 310 000		20				60		B5	R
L2	842 300 000 0000	00	642 300 000		2	4.5	150		9	1.6	B4	T
L2/B	842 300 000 0000	00	642 300 000		2	3.8	150		4	1.5	B4	T
L2D	842 310 000 0000	00	642 310 000		2	4.5	150		2	1.5	B5	T
L2/DD			682 390 000	G1	2	3.8	150		4	1.6	B5	DDT
L4	842 300 000 0000	00	642 300 000		4	16	250		20	3.2	B4	T
L5A/201K	412 381 700 0000	00	412 361 500		6.3	3.3	200	200	7.1	4	B7G	P
L5A/202F	412 381 700 0000	00	412 361 500		6.3	3.3	200	200	7.1	4	B7G/F	P
L5A/210K	412 381 700 0000	00	412 361 500		6	5	100	100	12.5	4	B7G	P
L5A/210F	412 381 700 0000	00			6	5	100	100	12.5	4	B7G/F	P
L5A/220K	801 227 413 0000	00	601 225 413		5	10	150	150	28	4.4	B9A	P
L5B/280D	028 741 310 0000	00	*26 541 310		6.3	8.5	150	150	200	13.5	A08	P
L11	842 300 000 0000	00	642 300 000		1	12	100		2.8	0.6	B4	T
L12	842 300 000 0000	00	642 300 000		2	3	40		2.2	0.8	Sm4	T
L21	842 300 000 0000	00	642 300 000		2	6	150		3.2	1.8	B4	T
L21DD	892 3X0 000 0000	40	682 390 000	G1	2	3	150		5.2	1.8	B5	DDT
L22DD	208 090 X30 0000	40	206 080 930	G1	2	4.2	150		4	1.6	A08	DDT
L30	042 231 800 0000	00	042 231 600		13	8	200		25	4.2	B7	T
L42MD	842 370 000 0000	00	642 350 000		4	20	250	250	22	2.5	B5	P
L63	028 040 310 0000	00	026 040 310		6	8	250		9	2.6	A08	T
L77	802 384 100 0000	00	6*2 364 100		6	8.5	250		10.5	2.2	B7G	T
L210	842 300 000 0000	00	642 300 000		2		150			0.9	B4	T
L408	842 300 000 0000	00	642 300 000		4	3	150		5	1.5	B4	T
L410	842 300 000 0000	00	642 300 000		4	4	150		4.3	1.5	B4	T
L412	842 300 000 0000	00	642 300 000		4	1.5	200		3	1.2	B4	T
L413	842 300 000 0000	00	642 300 000		4	16	200		12	1.8	B4	T
L414	842 300 000 0000	00	642 300 000		4	8	150		12	2.8	B4	T
L415	842 300 000 0000	00	642 300 000		4	10	200		8	2	B4	T
L416D	843 200 000 0000	70	643 200 000	G2	4	13	250	80	12	1.4	B4	P
L427D	842 370 000 0000	00	642 350 000		4	42	300	200	20	1.5	B5	P
L486D	842 370 000 0000	00	642 350 000		4	15	250	250	35	2.7	B5	P

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
L491			642 350 000		4	40	400	200	30	1.8	B5	P
L491D	842 370 000 0000	00	642 350 000		4	40	400	200	30	1.8	B5	P!
L495	942 370 000 0000	00	842 350 000		4	30				5	B5	D
L497D	842 370 000 0000	00	642 350 000		4	30	400	200	45	3.2	B5	P
L510D	842 370 000 0000	00	642 350 000		5	17	200	150	12	1.3	B5	P
L2318	842 370 000 0000	00	642 350 000		20	18	200	200	20	1.7	B5	P
L4150D	842 310 000 0000	40	642 310 000	G1	4	15	250	250	24	2.5	B5	P
LA	384 720 000 0000	00	364 520 000		6	12	200	175	22	2.2	UX5	P
LD210	842 300 000 0000	00	642 300 000		2	4.5	150		3	1.3	B4	T
LD410	842 300 000 0000	00	642 300 000		4	6	200		4	1.8	B4	T
LG5	219 0X0 130 0000	00	218 090 130		6				120		A08	RR
LG6	219 0X0 130 0000	00	218 090 130		12				30		B8B	RR
LG14	123 000 000 0000	90	123 000 000	D1	6				5		B3G	R
LK430	842 300 000 0000	00	642 300 000		4	32	250		20	1.9	B4	T
LK460	842 300 000 0000	00	642 300 000		4	40	250		30	2.2	B4	T
LK4110	842 300 000 0000	00	642 300 000		4	36	400		30	2.7	B4	T
LK4112	842 300 000 0000	00	642 300 000		4	21.6	250		48	3.5	B4	T
LK4200	842 300 000 0000	00	642 300 000		4	36	400		45	4	B4	T
LL2	842 300 000 0000	00	642 300 000		2	2.5	150		3	2.5	B4	T
LL2S	023 004 080 0000	00	023 004 060		2	2.5	150		3	2.6	BSC	T
LL4	842 310 000 0000	00	642 310 000		4	10	350		18	3.5	B5	T
LL610	842 370 000 0000	00	642 350 000		5	17	200	150	12	1.3	B5	P
LN119	415 238 175 0000	00	414 237 516		50	[0 16	100 200		3.5 35	2.5 6.4	B9A	TP
LN152	841 238 175 0000	00	641 237 154		6	[2.3 6.7	100 200		4.0 15.0	1.4 3.2	B9A	TP
LN309	841 238 175 0000	00	641 237 154		12.5	[8.5 8.0	250 200		10.5 30	2.2 4.5	B9A	TP
LN319	841 238 175 0000	00	641 237 154		13	[9 2	200 100		10 14	3.4 5	B9A	TP
LN329	857 238 114 0000	00	645 237 114		9	[2 2	100 200		175 10	6.2	B9A	TP
LP2	842 300 000 0000	00	642 300 000		2	4.5	150		10	3.6	B4	T
LP4	842 300 000 0000	00	642 300 000		4	36	250		48	5.5	B4	T
LP25	842 300 000 0000	00	642 300 000		4	31	400		50	7.5	B4	T
LP220	842 300 000 0000	00	642 300 000		2	4.5	150		5	3.5	B4	P
LS5	842 300 000 0000	00	642 300 000		4.7	47	400		25		B4	T
LS5A	842 300 000 0000	00	642 300 000		5.2		400		33	0.9	B4	T
LS6A	842 300 000 0000	00	642 300 000		6	91	400		64	2.3	B5	T
LS7	842 300 000 0000	00	642 300 000		4	4	150		21	2.4	B5	T
LS8	842 300 000 0000	00	642 300 000		4	8	150			1.3	B4	T
LS8A	842 300 000 0000	00	742 300 000		4	8	150		26	3	B4	T
LS9B	842 300 000 0000	00	642 300 000		2	1.5	150		8	0.6	B4	T
LS826	284 310 000 0000	00	246 310 000		6.3	1.1	100		7.5	5	B8B	T
LU4A	842 300 000 0000	00	642 300 000		4	16	200		12	1.8	B4	T
LZ319	857 238 114 0000	00	645 237 114		9	[2 2	100 200		14 10	5 6.2	B9A	TP
L496D			642 350 000								B5	D
LZ329	857 238 114 0000	00	645 237 114		9	[2.0 2.0	100 200		14 10	5 6	B9A	TP
M0465			645 231 700	G1	4	[1.5	75 250		2 75		B7	O

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
M0495			123 174 560	G1	4	[1.5	90				8SC	O
M3057	041 230 871 0000	00	041 230 651		6.3	8.5	250	75	1.6		B9A	P
M8079	1X2 310 900 0000	00	192 310 800		6	4.5	200	200	30	9	B7G	RR
M8080	802 384 100 0000	00	602 365 100		6	8.5	250		10.5	2.2	B7G	T
M8081	882 345 100 0000	00	672 344 100		6	0.8	100		8.5	5.3	B7G	TT
M8082	412 380 700 0000	00	412 360 500		6	12.4	250	250	16	2.6	B7G	P
M8083	412 381 700 0000	00	412 361 500		6	[2	250	250	10	7.65	B7G	P
M8091	001 230 000 0000	90	**1 23* ***	D1	6.3	1.5	200	150	4	6.4	B9A	R
M8096	801 237 144 0000	00	601 235 144		6	7.5	250	250	45	7	B7A	P
M8097	912 314 800 0000	00	812 314 600		6	2.8	200		7.5	2.8	B7G	DT
M8099	412 314 800 0000	00	412 314 600		6	2	250		6	8.5	B7G	T
M8100	412 387 100 0000	00	412 365 100		6	2.3	150	150	7	4.3	B7G	P
M8101	412 387 100 0000	00	412 365 100		6	1	250	100	11	4.4	B7G	P
M8121	412 183 710 0000	00	412 163 510		6	1.4	100	100	7	5	B8D	P
M8122	412 873 180 0000	00	412 653 160		6	2	100	100	7.5	5	B8D	P
M8123	291 390 000 0000	00	281 380 000		6				5		B8D	R
M8125	412 183 710 0000	00	412 163 510		6	2	100	100	3	2.5	B8D	P
M8135	412 300 871 0000	00	412 3** 651		6	4.5	250	250	40	11	B9A	P
M8136	851 228 413 0000	00	741 226 413		6.3	8.5	250		8.5	2.2	B9A	TT
M8137	851 228 413 0000	00	741 226 413		6	2	250		1.2	1.6	B9A	TT
M8138	902 30X 100 0000	00	802 309 100		6				30		B7G	RR
M8156	482 803 180 0000	00	462 603 160		6	2	100		13	5.5	B8D	T
M8157	287 711 413 0000	00	265 511 413		6	30	300	250	25	1.9	B9G	P
M8161	412 381 700 0000	00	412 361 500		6	2.5	250	200	8	2.5	B7G	P
M8162	851 228 413 0000	00	741 226 413		6	1.5	200		8.5	6.5	B9A	TT
M8178	402 013 080 0000	00	402 013 060		6.3		100		8.5	5.8	B8D	T
M8180	412 380 700 0000	00	412 360 500		6.3	2	250	250	10	7.5	B7G	P
M8195	701 238 014 0000	00	501 236 014		6.3	1	250	100	3	1.8	B9A	P
M8196	412 287 100 0000	00	412 265 100		6.3	2	150	125	5.5	3.5	B7G	P
M8212	192 310 X00 0000	00	182 310 900		6.3				5		B7G	RR
M8245	412 387 400 0000	00	412 365 400		6.3	12.5	250	250	45	4.1	B7G	P
M8248	412 344 800 0000	00	412 344 600		6.3	1.35	150		13.5	13.5	B7G	T
MAZ41	090 00X 230 0000	00	*8* **9 23*		4				30		A08	RR
MC1	423 080 000 0000	00	423 060 000		1.9	1.5	100		4	0.8	8SC	T
ME2	842 370 000 0000	00	642 350 000		2	12	200	200	13		B5	P
ME25	842 370 000 0000	00	642 350 000		4	30	400	300	60		B5	P
ME4S	023 104 780 0000	00	023 104 560		4	5	250	250		†2.0	8SC	TI
ME6S	023 104 780 0000	00	023 104 560		6.3	5	250	250		†2.0	8SC	TI
ME25	842 370 000 0000	00	642 350 000		4	30	400	300	60		B5	P
ME41	218 040 730 0000	00	216 040 530		4	22.5	250	250	0.2	†1.0	M08	TI
ME91	218 040 730 0000	00	216 040 530		9	17	150	150	0.2	†1.0	M08	TI
ME920	047 231 800 0000	00	045 231 600		9	19	200	175	0.2	†1.0	B7	TI
ME1400	028 710 310 0000	40	026 510 310	G1	6.3	2	250	100	1	1.8	A08	P
MH4	842 310 000 0000	00	642 310 000		4	2	200		8	3	B5	T
MH40	842 310 000 0000	00	642 310 000		4	3	200		2.7	2.4	B5	T
MH41	842 310 000 0000	00	642 310 000		4	1.5	200		5.2	6	B5	T
MH206	847 230 800 0000	40	645 230 600	G1	2	3	150	75	3.2		B7	H
MH1118	847 231 800 0000	40	645 231 600	G1	10	3	200	100	3.5		B7	H
MH4105	847 231 800 0000	40	645 231 600	G1	4	3	200	100	7.5		B7	H
MHD4	X09 231 800 0000	40	908 231 600	G1	4	4	200		2	1.9	B7	DDT

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
MHL4	842 310 000 0000	00	642 320 000		4	8	250		8	2.5	B5	T
MHLD6	028 9X0 310 0000	40	026 890 310	G1	6	5	200		11.5	3	A08	DDT
MKT4	047 231 800 0000	00	045 231 600		4	11	250	200	32	3	B7	P
MKT4	842 310 000 0000	70	642 310 000	G2	4	11	250	200	32	3	B5	P
ML4	842 310 000 0000	00	642 310 000		4	16	250		14	3.2	B5	T
ML6	842 310 000 0000	00	642 310 000		6	8	200		24	3.8	B5	T
ML40	842 310 000 0000	00	642 310 000		4	3	200			3	B5	T
MM4V	742 310 000 0000	80	542 310 000	A1	4	1.5	200	125	6	2.5	B5	P
MM20	742 310 000 0000	80	542 310 000	A1	20		200	100	6	3.5	B5	P
MP2	842 300 000 0000	00	642 300 000		2	12	150		12.5	3	B4	T
MP4	080 231 700 0000	40	067 231 500	G1	4		250	150	8	2.5	B7	PP
MP/Pen	008 231 700 0000	50										
MP/Pen	047 231 800 0000	00	045 231 600		4	16	250	250	3	3.5	B7	P
MP/Pen	842 310 000 0000	70	642 310 000	G2	4	16	250	250	30	3.5	B5	P
MPT4	047 231 800 0000	00	045 231 600		4	9	250	200	32	3	B7	P
MPT4	842 310 000 0000	40	642 310 000	G1	4	9	250	200	32	3	B5	P
MR1	902 300 000 0000	00	802 300 000		4				120		B4	R
MR4	842 300 000 0000	00	642 300 000		4	3	200		6	2.5	B4	T
MS4	742 310 000 0000	80	542 310 000	A1	4	1.5	250	75	2.4	1.1	B5	P
MS4B	742 310 000 0000	80	542 310 000	A1	4	1	200	75	3.4	3	B5	P
MS4C	742 310 000 0000	80	542 310 000	A1	4	1	200	75	3.4	3.2	B5	P
MSG/HA	742 310 000 0000	80	542 310 000	A1	4	1.5	200	80	2.1	2	B5	P
MSG/LA	742 310 000 0000	80	542 310 000	A1	4	1.5	200	75	5.2	3.7	B5	P
MSP4	742 310 000 0000	80	041 231 500	A1	4	1.8	200	100	3.4	2.4	B7	P
MSP4	041 231 700 0000	80	542 310 000	A1	4	1.8	200	100	3.4	2.4	B5	P
MSP41	742 310 000 0000	80	542 310 000	A1	4	4	250	250	8.5	3.2	B5	P
MSP41	041 231 700 0000	80	041 231 500	A1	4	4	250	250	8.5	3.2	B7	P
MS/Pen	041 231 700 0000	80	041 231 500	A1	4	1.5	200	100	4.8	2.8	B7	P
MS/Pen	742 310 000 0000	80	542 310 000	A1	4	1.5	200	100	4.8	2.8	B5	P
MS/PenA	742 310 000 0000	80	542 310 000	A1	4	2.5	200	150	9	4	B5	P
MS/PenA	041 231 700 0000	80	041 231 500	A1	4	2.5	200	150	9	4	B7	P
MS/PenB	081 231 700 0000	40	061 231 500	G1	4	1.5	200	100	4.8	2.8	B7	P
MSVPen	041 231 700 0000	80	041 231 500	A1	4	1.5	200	100	4.3	2.2	B7	P
MSVPenB	081 231 700 0000	40	061 231 500	G1	4	1.5	200	100	4.3	2.2	B7	P
MU1	002 300 000 0000	90	002 300 000	D1	4				60		B4	R
MU2	002 300 000 0000	90	002 300 000	D1	2				2		B4	R
MU12	9X2 300 000 0000	00	892 300 000		4				60		B4	RR
MU4250	232 300 000 0000	90	232 300 000	D1	4				120		B4	R
MVSG	742 310 000 0000	80	542 310 000	A1	4	1.5	200	75	7.5	2.5	B5	P
MVSPen	742 310 000 0000	80	542 310 000	A1	4	2	250	125	5.1	2.3	B5	P
MX40			645 231 700	G1	4	1	150	75		0.15	B7	TH
MZ05-20	842 300 000 0000	00	642 300 000		6	3	250	75	4.5	2.0		
N14	038 740 200 0000	00	036 540 200		1.4	12	350		45	4.2	B4	T
N15	028 740 230 0000	00	026 540 230		1.4	7.5	90	90	7	1.5	A08	P
N16	028 740 230 0000	00	026 540 230		1.4	7	90	90	7	1.5	A08	P
N17	284 738 200 0000	00	264 536 200		1.4	4.5	90	90	9.5	2.1	A08	P
N18	384 728 300 0000	00	364 526 300		1.4	7	90	75	7.4	1.5	B7G	P
N19	387 024 300 0000	00	365 024 300		1.4	4.5	90	90	9.5	2.1	B7G	P
N25	387 024 300 0000	00	365 *24 300		1.4	4.5	90	90	7.7	2	B7G	P
N30	047 231 800 0000	00	045 231 600		1.4	5.2	90	90	5	1.4	B7G	P
					13	12	250	250	40	0.9	B7	P

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V † Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
N31	207 331 800 0000	40	205 331 600	G1	13	4.4	200	175	40	10	B7	P
N34	107 231 800 0000	40	105 231 600	G1	13		250	250	40	10.5	B7	P
N37	412 380 700 0000	00	412 360 500		13	8	200	150	50	10	B7G	P
N40	047 231 800 0000	00	045 231 600		4	3.5	250	250	32	2.9	B7	P
N41	047 231 800 0000	00	045 231 600		4	3.5	250	250	32	10	B7	P
N42	047 231 800 0000	00	045 231 600		4	16.5	250	250	34	2.5	B7	P
N43	007 231 800 0000	40	005 231 600	G1	4(5)	4.5	250	250	40	10	B7	P
N63	028 740 310 0000	00	026 540 310		6	16.5	250	250	34	2.5	A08	P
N66	028 740 310 0000	00	026 540 310		6	15	250	250	85	6.3	A08	P
N77	412 380 700 0000	00	412 360 500		6	12	250	250	20	2.6	B7G	P
N78	412 380 700 0000	00	412 360 500		6	5.5	250	250	35	10	B7G	P
N108	412 380 700 0000	00	412 36* 500		40	8	200	150	50	10	B7G	P
N118	230 074 130 0000	00	23* *54 130		40	6	150	150	30	7.5	B9A	P
N119	041 230 807 0000	00	*41 23* 6*5		45	12.5	200	175	70	10	B9A	P
N142	281 074 130 0000	00	261 054 130		45	9.5	200	175	54.5	9.5	B8A	P
N144	412 380 700 0000	00	412 360 500		6	12	250	250	20	2.6	B7G	P
N145	281 074 130 0000	00	261 054 130		40	6.3	200	150	29	7.5	B8A	P
N147	028 740 310 0000	00	026 540 310		6	6	250	250	36		^ 08	P
N148	287 004 130 0000	00	265 004 130		6	12.5	250	250	45	9.4	B8A	P
N150	281 074 130 0000	00	261 054 130		6	7	250	250	36	10	B8A	P
N151	281 047 130 0000	00	261 045 130		6	13.5	250	250	22.5	2.9	B8A	P
N152	041 230 071 0000	80	*41 23* *51	A1	20	28	200	200	40	6	B9A	P
N153	741 231 800 0000	00	541 231 600		5	2.3	200	175	36	10	B9A	P
N154	041 230 807 0000	00	*41 23* 6*5		16	14.2	200	200	45	8.2	B9A	P
N155	441 231 817 0000	00	441 231 615		6	10.8	225	225	26	3.2	B9A	P
N308	020 740 310 0000	80	02* 54* 310	A1	25	9.5	100	100	100	13	A08	P
N309	741 231 800 0000	00	541 231 600		15	2.3	200	175	36	10	B9A	P
N339	041 230 071 0000	80	*41 23* *51	A1	21.5	13	150	150	50	8.5	B9A	P
N349	041 230 071 0000	80	*41 23* *51	A1	20	12	150	150	5	8.5	B9A	P
N369	041 230 807 0000	00	041 23* 6*5		12.6	10.3	200	175	31	8.3	B9A	P
N379	041 230 807 0000	00	*41 23* 6*5		15		200	175	70	10	B9A	P
N709	041 230 807 0000	00	*41 23* 6*5		6	7.3	250	250	48	11.3	B9A	P
N727	412 387 400 0000	00	412 365 400		6	4.5	250	250	45	4.1	B7G	P
NDD40	902 310 000 0000	00	802 310 000		4						B4	D
NEP51	023 110 780 0000	40	023 110 560	G1	4	3	250	100	8	2.2	8SC	P
NF2	023 110 780 0000	40	023 110 560	G1	12.5	2	200	100	3	2.1	8SC	P
NF3	023 110 780 0000	40	023 110 560	G1	12.5	2	200	100	4.5	2.3	8SC	P
NG320	002 300 000 0000	90	002 400 000	D1	2						B5	D
NG3020	002 300 000 0000	90	002 300 000	D1	2				5		B4	R
NHP51	023 100 780 0000	40	023 100 560	G1	4	2.5	250	100	3.5	2	8SC	P
NLP61	023 104 780 0000	00	023 104 560		4	7	250	250	4	9	8SC	P
NLP62	020 314 780 0000	00	020 314 560		4	14	250	250	72	9	8SC	P
NSS42	742 310 000 0000	80	542 310 000	A1	4	2.5	250	100	3.5	2	B5	P
NSS183	742 310 000 0000	80	542 310 000	A1	20	2.5	200	100	3.5	2	B5	P
NT51	023 100 080 0000	40	023 100 060	G1	4	5	250		6	2.5	8SC	T
NVS4	742 310 000 0000	80	542 310 000	A1	4	2	200	100	6	1	B5	P
NW4	842 310 000 0000	00	642 310 000		4	2.5	200		2.5	1	B5	T
OO	384 200 000 0000	00	364 200 000		5		40		1	0.6	UX4	T
O1	384 200 000 0000	00	364 200 000		5	4.5	90		2.5		UX4	T
O1AA	384 200 000 0000	00	364 200 000		5	4.5	90		3.2	0.9	UX4	T

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE	
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP									
O15/400	842 300 000 0000	00	642 300 000		4	35	400		40	4.5	B4	T	
O54V	842 310 000 0000	00	642 310 000		4		100			4	B5	T	
O84	842 300 000 0000	00	642 300 000		4	4	150		4	1.3	B4	T	
O202			645 230 000	G1	2	[	150	50	2				
							150	75	0.95	0.2	B7	O	
O406			645 231 700	G1	4	[	4	90	2	1			
							4	250	90	1.6	1	B7	O
O1307	023 174 780 0000	40	023 154 560	G1	4	1.5	200	90	8	3	8SC	P	
OBC3	041 9X8 231 0000	00	041 896 231		12.5	2	250		1	1.1	A08	DDT	
OBF2	208 791 X30 0000	40	206 571 930	G1	9	2	200	100	6	1.8	A08	DDP	
OCH4	218 741 830 0000	50	217 544 630	G1	15	[	100		3.5		A08	TH	
							2	200	100	3	0.75		
OF1	028 710 310 0000	40	026 510 310	G1	6.3	3	250	100	8.5	1.8	A08	P	
OF9	209 701 130 0000	40	206 510 130	G1	8.5	2.5	200	100	6	2.2	A08	P	
OM1	020 090 310 0000	00	020 080 310		30				120		A08	R	
OM3	029 1X0 310 0000	00	028 190 310		6						A08	DD	
OM4	028 X90 310 0000	40	026 980 310	G1	6	5	250		5.5	2.2	A08	DDT	
OM5	028 710 310 0000	40	026 510 310	G1	6	2	250	100	3	1.8	A08	P	
OM5C	028 710 310 0000	40	026 510 310	G1	6	2	250	100	3	1.8	A08	P	
OM6	028 710 310 0000	40	026 510 310	G1	6	2.5	250	100	6	2	A08	P	
OM9	028 700 310 0000	40	026 500 310	G1	6	18	260	250	32	2.8	A08	P	
OM10	[028 748 310 0000	50]	027 546 310	G1	6	[	2.0	100		5.4			
	028 750 310 0000	50					2.0	250	100	5.0	2.4	A08	TH
OP41	047 231 800 0000	00	045 231 600		4	12.5	250	250		9.1	B7	P	
OP42	047 231 800 0000	00	045 231 600		4	6.2	250	250		10.5	B7	P	
OS6/300	842 370 000 0000	00	642 350 000		4	20	300	150	22	2	B5	P	
OS18/600	023 114 700 0000	80	023 114 500	A1	6	14	250	275	72	8.5	8SC	P	
OSW2190	021 417 380 0000	00	021 415 360		6.3	2	300	150	10	9	A08	P	
OSW2192	120 417 380 0000	00	120 415 360		6.3	3	300	150	30	11	A08	P	
OSW3105	041 9X8 230 0000	00	041 896 230		6.3	2	250		0.9	1.1	A08	DDT	
OSW3106	028 740 310 0000	00	026 540 310		6.3	12.5	250	250	45	4.1	A08	P	
OSW3107	020 90X 030 0000	00	020 809 030		5				60		A08	RR	
OSW3108	028 740 310 0000	00	026 540 310		6.3	14	250	250	72	6	A08	P	
OSW3109	029 1X0 300 0000	00	028 190 300		6.3						A08	DD	
OSW3111	021 417 380 0000	00	021 415 360		6.3	3	250	100	9.2	2	A08	P	
OSW3112	028 040 310 0000	00	026 040 310		6.3	8	250		9	2.6	A08	T	
P2	842 300 000 0000	00	642 300 000		2	6	100		12	3.5	B4	T	
P4	842 300 000 0000	00	642 300 000		4	21	250		30	2.8	B4	T	
P6M0	023 104 780 0000	00	023 104 560		6.3	14	250	250	72	9	8SC	P	
P12/250	842 300 000 0000	00	642 300 000		4	44	250		60	6	B4	T	
P15/250	842 300 000 0000	00	642 300 000		4	44	250		60	6	B4	P	
P15/250S	023 004 080 0000	00	023 004 060		4	44	250		60	6	8SC	T	
P24/450	842 300 000 0000	00	642 300 000		7.5	70	400		55	2.1	B4	T	
P25/400	842 300 000 0000	00	642 300 000		6	100	350		70	3.7	B4	T	
P25/500	842 300 000 0000	00	642 300 000		6	90	400		65	3	B4	T	
P26/500	842 300 000 0000	00	642 300 000		4	100	400		62.5	4.2	B4	T	
P27/500	842 300 000 0000	00	642 300 000		4	27	400		62.5	8.5	B4	T	
P30/500	842 300 000 0000	00	642 300 000		4	100	400		60	4	B4	T	
P41	218 040 030 0000	00	216 040 030		4	11.8	250		16	4.5	M08	T	
P43M	842 370 000 0000	00	642 350 000		4	17	250	250	26	2.5	B5	P	
P61	218 040 030 0000	00	216 040 030		6	11.8	250		16	4.5	M08	T	

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
P215	842 300 000 0000	00	642 300 000		2		150			1.4	B4	T
P220	842 300 000 0000	00	642 300 000		2	7.5	150		6	3	B4	T
P220A	842 300 000 0000	00	642 300 000		2	14	150		15	2.7	B4	T
P222	842 300 000 0000	00	642 300 000		2	10.5	150		6	3	B4	T
P225	842 370 000 0000	00	642 350 000		2	4.5	150	150	5.6	2.2	B5	P
P240	842 300 000 0000	00	642 300 000		2	24	150		18	1.1	B4	T
P240A	842 300 000 0000	00	642 300 000		2	21	150		25	5	B4	T
P310	287 013 000 0000	40	265 013 000	G1	10	3	150	150	5.5	1.8	UX6	P
P410	842 300 000 0000	00	642 300 000		4	12	150		7	1.3	B4	T
P414	842 300 000 0000	00	642 300 000		4	16	100		14	2.8	B4	T
P415	842 300 000 0000	00	642 300 000		4	25	150		14	1.5	B4	T
P420	842 300 000 0000	00	642 300 000		4	85	400		50	6	B4	T
P421	842 370 000 0000	00	642 350 000		4	11	200	75	12	1.5	B5	P
P422	842 370 000 0000	00	642 350 000		4	20	250	250	22	2.5	B5	P
P425	842 370 000 0000	00	642 350 000		4	25	300	200	20	1.7	B5	P
P425			642 300 000		4	16.5	150		17	1.9	B4	T
P430	284 300 000 0000	00	264 300 000		4	30	200		25	2.2	UX4	T
P434	032 004 780 0000	00	032 004 560		4	17	250	250	36	2.5	8SC	P
P435	842 370 000 0000	00	642 350 000		4	17	250	250	30	3	B5	P
P440	842 370 000 0000	00	642 350 000		4	30	400	200	45	5	B5	P
P440N	842 310 000 0000	00	045 231 600		4	22	250	250	26	2.8	B7	P
P440N	047 231 800 0000	00	642 310 000		4		250	250	20	2.5	B5	P
P441N	047 231 800 0000	00	045 231 600		4	22	250	250	36	2.8	B7	P
P455	284 300 000 0000	00	264 300 000		4	15	250		30	5.5	UX4	T
P455	023 100 870 0000	00	023 100 650		4	25	250	250	36	2.6	8SC	P
P460	842 300 000 0000	00	642 300 000		4	40	200		50	3.5	B4	T
P469	047 231 800 0000	00	045 231 600		4	14	250	275	72	8.5	B7	P
P495	047 231 800 0000	00	045 231 000		4	6	200	200	32		B7	P
P496	047 231 800 0000	00	045 231 600		4	6	200	200	32	9.5	B7	P
P520	842 370 000 0000	00	642 350 000		5	17	200	150	12	1.3	B5	P
P625	842 300 000 0000	00	642 300 000		6	26	250		24	2.5	B4	T
P625A	842 300 000 0000	00	642 300 000		6	39	200		25	2.3	B4	T
P625B	842 300 000 0000	00	642 300 000		6	1	200			2.8	B4	T
P626	023 100 780 0000	40	023 100 560	G1	6.3	32	250	250	26	2.5	8SC	P
P628	023 100 780 0000	40	023 100 560	G1	6.3	17	250	250	56	2.5	8SC	P
P650	842 300 000 0000	00	642 300 000		6	1	100		37	2.7	B4	T
P861	29X 130 000 0000	00	289 130 000		6				30		UX5	RR
P1320	023 100 780 0000	00	023 100 560		13	20	250	250	22	1.9	8SC	P
P2018	842 310 000 0000	00	642 310 000		20	15	200		20	4	B5	T
P2020N	842 310 000 0000	70	642 310 000	G2	20	18	200	200	20	1.7	B5	P
P2060	023 140 780 0000	00	023 140 560		24	19	200	100	40	3.2	8SC	P
P2460	842 310 000 0000	70	642 310 000	G2	24	19	200	100	40		B5	P
P3580	047 231 800 0000	00	045 231 600		33	8.5	200	200	45	8	B7	P
P4100	842 300 000 0000	00	642 300 000		4	40	400		30		B4	T
PA20	842 300 000 0000	00	642 300 000		2	36	300		49	5.2	B4	T
PA1	842 310 000 0000	00	642 310 000		4	10	200		40	5	B5	P
PA40	842 300 000 0000	00	642 300 000		4	90	400		200	10	B4	T
PAB1	023 1Y0 X90 0000	00	023 1Y0 980		6						8SC	DDD
PABC80	YX1 239 148 0000	00	Y91 238 146		9.5	2.3	200		1	1.4	B9A	DDDT
PB1	234 800 000 0000	00	234 600 000		2	4	150		11.5	3.8	B4	T

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
PB495	9X2 300 000 0000	00	892 300 000		4				30		B4	RR
PBF2	028 9X7 310 0000	40	026 895 310	G1	6	3	250	100	5.8	1.2	A08	DDP
PC86	841 234 148 0000	00	641 234 146		3.8	1.5	200		12	14	B9A	T
PC88	414 234 484 0000	00	414 234 464		4	1.2	150		12.5	14	B9A	T
PC92	802 304 100 0000	00	602 304 100		3.2	2	250		10	5	B7G	T
PC93	842 314 800 0000	00	642 314 600		4.7	4	100		16	8	B9A	P
PC95	142 380 100 0000	00	142 360 100		3.6	1.2	200		10	10.5	B7G	T
PC96	412 314 800 0000	00	412 314 600		3.1	1	200		11.5	6.7	B7G	T
PC97	142 380 100 0000	00	142 360 100		4.5	1	150		14	16	B7G	T
PC900	412 380 100 0000	00	412 360 100		4	1	150		12	15	B7G	T
PCC84	158 234 118 0000	00	147 234 116		7	3.0	90		14	6	B9A	TT
PCC85	841 238 510 0000	00	641 237 410		9	2.1	200		10	5.8	B9A	TT
□ PCC88	841 238 510 0000	00	641 237 410		7	1.2	90		15	12.5	B9A	TT
PCC89	148 235 118 0000	00	147 234 116		7.2	1.2	90		15	12	B9A	TT
PCC186	841 228 513 0000	00	641 227 413		7.2	8.5	250		10.5	2.2	B9A	TT
PCC189	841 238 510 0000	00	641 237 410		7.6	1.4	90		15	12.5	B9A	TT
PCC805	148 235 118 0000	00	146 234 117		7	1.2	90		15	9	B9A	TT
PCC806	148 235 118 0000	00	146 234 117		7	1.2	90		15	16.5	B9A	TT
PCE80	841 238 751 0000	00	641 237 541		10	[	200		10	3.4	B9A	TP
							200	200	10	12.5		
PCE82	841 238 751 0000	00	641 237 541		10	[	4.9	150	10	3.7	B9A	TP
							2.9	200	200	12.5		
PCE800	841 238 751 0000	00	641 237 541		9.4	[	7.8	200	10	3.4	B9A	TP
							2.7	200	200	7.5		
PCF80	857 238 114 0000	00	645 237 114		9	[	2	100	14.0	5.0	B9A	TP
							2.0	200	175	10.0		
PCF82	857 238 114 0000	00	645 237 114		9.5	[	1.0	150	0	8.5	B9A	TP
							1.0	250	100	5.2		
PCF84	415 238 718 0000	00	576 234 141		9	[	2	100	14	2.5	B9A	TP
							0	200	175	8		
PCF86	151 234 887 0000	00	141 234 675		8	[	3	100	14	6	B9A	TP
							1.2	200	150	10		
PCF87	178 238 415 0000	00	157 236 414		7.4	[	3.2	100	15	8.5	B9A	TP
							2.5	125	125	10		
PCF200	114 123 878 5000	00	114 123 756	Adap 13 G	8	[	1	175	8.5	5	B10B	TP
							1.7	160	135	13		
PCF800	178 238 415 0000	00	157 236 414		9	[	2.2	100	15	5	B9A	TP
							2.4	200	150	8.5		
PCF801	151 238 784 0000	00	141 237 564		8.5	[	3	100	15	8.5	B9A	TP
							1.2	200	125	10		
PCF802	857 238 114 0000	00	645 237 114		9.0	[	2.0	200	3.5	3.5	B9A	TP
							1.0	100	100	6.0		
PCF803	151 238 784 0000	00	141 237 564		9	[	3	100	15	9	B9A	TP
								150	100	10		
PCF805	878 231 514 0000	00	657 231 414		7.4	[	3	100	14	5.5	B9A	TP
							1.5	150	150	10		
PCF806	151 238 784 0000	00	141 237 564		8	[	3	100	14	5.5	B9A	TP
							1.2	200	150	10		
PCF808	878 231 514 0000	00	657 231 414		7.4	[	3	100	14	5.5	B9A	TP
							1.7	150	150	12		
PCH200	114 723 851 8000	00	114 523 741	Adap 13 A1	9	[	1	100	9	8.8	B10B	TH
							0	12.6	12.6	0.8		
PCL81	471 238 815 0000	00	451 237 614		12.6	[	1.9	150	1.3	1.6	B9A	TP
							6.5	200	200	30		

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
PCL82	415 238 718 0000	00	414 237 516		16	[1.5 11	200 200	175	1.7 41	2.4 7.5	B9A	TP
PCL83	841 238 175 0000	00	641 237 154		12.5	[8.5 9.0	250 200	0 175	10.5 30	2.2 4.7	B9A	TP
PCL84	481 238 157 0000	00	461 237 145		15	[1.7 2.9	200 200		3 18	4 10	B9A	TP
PCL85	841 238 715 0000	00	641 237 514		18	[0.85 15	100 175		5 41	5.5 7	B9A	TP
PCL86	417 238 158 0000	00	415 237 146		14.5	[1.7 5.7	250 250		1.2 39	1.6 10.5	B9A	TP
PCL88	415 238 718 0000	00	414 237 516		16	[2.1 200	200 200		10	3.4	B9A	TP
PCL200	841 123 875 0000	00	641 123 654		16	[1.5 2.1	200 200		8.5 40	5.2 28	B10B	TP
PCL800	415 238 718 0000	00	414 237 516		16	[2.1 18	100 200		10 45	4.3 7.5	B9A	TP
PCL805	841 238 715 0000	00	641 237 514		18	[0.85 15	100 170		5 41	5.5 7	B9A	TP
PC03/3A	023 014 700 0000	80	023 014 500	A1	2		300	125		1.4	8SC	P
PC03/3B	023 014 700 0000	80	023 014 500	A1	4		300	125		1.4	8SC	P
PC05/15	023 014 700 0000	80	023 014 500	A1	4		400	250	40	1.3	8SC	P
PD220	548 230 800 0000	00	446 230 700		2	1.2	150		0.8	0.9	B7	TT
PD220A	548 230 800 0000	00	446 230 700		2	3	140		5	1.5	B7	TT
PD500	100 230 040 0000	80	1** 230 040	A1	7.3	10	400		1.6	0.14	B9D	T
PDD2	284 79X 130 0000	00	264 589 130		6.3	6	250	36		9	A08	DDP
PE04-10	023 114 700 0000	80	023 114 500	A1	12		400	300	27	7.5	8SC	P
PE05-15	023 114 700 0000	80	023 114 500	A1	12				40	1.5	8SC	P
PE05-25	278 130 000 0000	80	256 130 000	A1	12.6	80	400	200	70		B5B	P
PE06/40P	123 114 700 0000	80	123 114 500	A1	6	40	400	300	40		8SC	P
PE1-100	247 811 300 0000	00	245 611 300		12	33	400	250	40	6	B7A	P
Pen4DD	X19 238 700 0000	40	918 236 500	G1	4(5)	6	250	250	36	9.5	B7	DDP
Pen4V	842 310 000 0000	70	642 310 000	G2	4	10	250	200	35	3	5B	P
Pen4VA	047 231 800 0000	00	642 310 000	G2	4	22	250	250	36	2.8	B5	P
Pen4VA	842 310 000 0000	70	045 231 600		4	20	250	250	36	2.8	B7	P
Pen4VB	047 231 800 0000	00	045 231 600		4	5.8	250	250	36	9.5	B7	P
Pen4VX	842 310 000 0000	70	642 310 000	G2	4	15	350	200	22	3.5	B5	P
Pen13	023 100 780 0000	40	023 100 560	G1	13	14	200	200	25	2.5	8SC	P
Pen13A	023 110 780 0000	40	023 110 560	G1	33	8.5	200	200	45	8	8SC	P
Pen13C	047 231 800 0000	00	045 231 600		13	11	250	250	32	6.5	B7	P
Pen20	842 310 000 0000	70	642 310 000	G2	20	18	200	200	20	1.7	B5	P
Pen24	028 740 030 0000	00	206 540 030		2	3.3	200	125	5	4	M08	P
Pen25	208 740 030 0000	00	206 540 030		2	3.6	200	125	5	3	M08	P
Pen26	023 100 780 0000	40	023 100 560	G1	24	19	200	100	40	3.1	8SC	P
Pen36A	145 231 800 0000	00	145 231 600		35	8.5	200	200	45	8	B7	P
Pen36C	047 231 800 0000	00	045 231 600		33	8.5	200	200	45	8	B7	P
Pen40DD	X19 238 700 0000	40	918 236 500	G1	44	8.5	200	200	45	8	B7	DDP
Pen44	218 740 030 0000	00	216 540 030		4	11	300	275	70	10.6	M08	P
Pen45	218 740 030 0000	00	216 540 030		4	8.5	250	250	49	8.8	M08	P
Pen45DD	218 7X0 930 0000	40	216 590 830	G1	4	8.5	250	250	40	8.8	M08	DDP
Pen46	210 740 030 0000	80	210 540 030	A1	4(5)	8	300	225	63	8.5	M08	P
Pen141	208 740 030 0000	00	206 540 030		1.4	9	90	90	5.5	1.4	M08	P
Pen220	842 370 000 0000	00	642 350 000		2	4.9	150	150	9	2.2	B5	P
Pen220A	842 370 000 0000	00	642 350 000		2	9	150	150	18	2.2	B5	P
Pen230	842 370 000 0000	00	642 350 000		2	4.5	150	125	6	2.2	B5	P

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
Pen231	842 370 000 0000	00	642 350 000		2	2.5	150	125	5	4.4	B5	P
Pen383	218 740 030 0000	00	216 540 030		38	10	200	175	64	10.5	M08	P
Pen384	218 740 030 0000	00	216 540 030		38	7	150	125	40	7.8	M08	P
Pen425	842 370 000 0000	00	642 350 000		4	25	300	200	20	1.7	B5	P
Pen428	047 231 800 0000	00	045 231 600		4(5)	13.8	250	250	72	8.5	B7	P
Pen453DD	218 7X0 930 0000	40	216 590 830	G1	45	10	200	175	64	10.5	M08	DDP
Pen650	023 114 700 0000	80	023 114 500	A1	6	24	400	300	30	5	8SC	P
Pen1340	047 231 800 0000	00	045 231 600		13	8.6	250	250	41	6.4	B7	P
Pen2020	023 100 780 0000	40	023 100 560	G1	20	19	200	100	40	3.1	8SC	P
Pen3520	047 231 800 0000	00	045 231 600		35	8	200	200	40	7.3	B7	P
Pen3820	047 231 800 0000	00	045 231 600		38	10	150	175	64	10.5	B7	P
PenA1	842 370 000 0000	00	642 350 000		4	16.5	250	250	32	3	B5	P
PenA4	007 231 800 0000	00	005 231 600	G1	4	5.8	250	250	36	9.5	B7	P
PenA4	047 231 800 0000	40	045 231 600		4	5	250	250	40	9.1	B7	P
PenB1	842 370 000 0000	00	642 350 000		2	4.5	150	150	8.5	2.5	B5	P
PenB4	047 231 800 0000	00	045 231 600		4(5)	14	250	275	72	8.5	B7	P
PenDD61	98X 231 700 0000	40	869 231 500	G1	6	5.3	250	250	32	8.5	B7	DDP
PenDD1360	X89 231 700 0000	40	968 231 500	G1	13	5.3	250	250	32	8.2	B7	DDP
PenDD2530	98X 231 700 0000	40	869 231 500	G1	25	7.8	250	250	43	7.8	B7	DDP
PenDD4020	X89 231 700 0000	40	968 231 500	G1	40	7.7	250	250	43	7.8	B7	DDP
PenDD4021	X89 231 700 0000	40	968 231 500	G1	45	10	200	175	64	10.5	B7	DDP
PF9	028 710 310 0000	40	026 510 310	G1	6	3.5	250	100	7.5	1.7	A08	P
PF83	701 238 014 0000	00	501 236 014		4.5	2	60	50	1.9		B9A	P
PF86	701 238 014 0000	00	501 236 014		4.5	2	250	150	3	2	B9A	P
PF462	041 230 700 0000	80	041 230 500	A1	2	1	150	150	3	1.9	B7	P
PF472	041 230 700 0000	80	041 230 500	A1	2	0.5	150	150	2.5	1.7	B7	P
PFL200	517 823 147 80000	00	415 623 145	Adap 13 A2	16.5	2.6	175	175	30	21	B10B	PP
PL11	802 301 470 0000	00	602 301 450		17.5	2.3	150	150	10	8.6		
PL33	028 740 310 0000	00	026 540 310		19	5.3	250	250	32	9	F8 A08	P
PL36	020 740 310 0000	80	*2* 540 310	A1	25	21	200	175	100	11	A08	P
PL38	120 740 310 0000	80	120 540 310	A1	30	5.5	200	200	75	13.5	A08	P
PL81	041 230 071 0000	80	*41 23* *51	A1	21.5	28	200	200	40	6	B9A	P
PL81A	041 230 071 0000	80	*41 23* *51	A1	21.5	24.5	150	150	45	6	B9A	P
PL81F	041 230 071 0000	80	*41 23* *51	A1	21.5	28	200	200	30	6	B9A	P
PL82	041 230 807 0000	00	041 230 605		16	14.2	200	200	45	7.6	B9A	P
PL83	741 231 800 0000	00	541 231 60*		15	2.3	200	175	36	10	B9A	P
PL84	041 230 807 0000	00	*41 23* 6*5		15	12.5	200	175	70	10	B9A	P
PL95	412 387 400 0000	00	412 365 400		4.5	9	250	250	24	5	B7G	P
PL136	721 441 270 0000	80	521 441 450	A1	35	12	100	100	90	19	A08	P
PL183	741 231 840 0000	00	541 231 640		12.6	2.1	150	225	40	25	B9A	P
PL300	721 441 370 0000	80	521 441 350	A1	35	22.5	200	150	100	10	B8A	P
PL302	020 740 310 0000	80	02* 340*310	A1	25	12	100	100	60	20	A08	P
PL500	441 237 710 0000	80	441 235 51*	A1	27	14	150	150	100	10	B9D	P
PL502	441 237 710 0000	80	441 235 510	A1	35	30	200	200	100	2.0	B9D	P
PL504	441 237 710 0000	80	441 235 510	A1	27	20	150	150	70	11	B9D	P
PL505	417 237 141 0000	80	415 235 141	A1	40	35	150	150	100	10	B9D	P
PL508	407 238 140 0000	00	4*5 236 14*		17.0	18	200	200	60	6	B9D	P
PL509	407 237 041 0000	80	405 235 041	A1	40	37	160	160	80	14	B9D	P
PL802	141 237 871 0000	00	141 235 651	P1	16.0		170	170	30	40	B9A	P
PL820	041 231 771 0000	80	041 231 551	A1	21.5	22	200	175	45	6.2	B9A	P

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
PLL80	748 235 187 0000	00	546 235 165		12	9	250	250	24	6	B9A	PP
PLL80			546 234 175		12	9	250	250	24	6	B9A	PP
PM04	412 387 100 0000	00	412 365 100		6.3	1.2	250	100	11	4.4	B7G	P
PM05	412 387 100 0000	00	412 365 100		6.3	2.3	150	150	7	4.3	B7G	P
PM07	412 381 700 0000	00	412 361 500		6.3	2	250	250	10	7.5	B7G	P
PM1A	842 300 000 0000	00	642 300 000		2		100		1	1.2	B4	T
PM1HF	842 300 000 0000	00	642 300 000		2	3	150		1.5	0.8	B4	T
PM1HL	842 300 000 0000	00	642 300 000		2	1.5	150		2.3	1.2	B4	T
PM1LF	842 300 000 0000	00	642 300 000		2	5	150		3	0.9	B4	T
PM2	842 300 000 0000	00	642 300 000		2		100		4	0.9	B4	T
PM2A	842 300 000 0000	00	642 300 000		2	6	160		5	2	B4	T
PM2B	548 230 800 0000	00	446 230 700		2	1	150		3	2.5	B7	TT
PM2DL	842 300 000 0000	00	642 300 000		2	4.5	150		2	1.5	B4	T
PM2DX	842 300 000 0000	00	642 300 000		2	5	150		2.3	1.1	B4	T
PM2HL	842 300 000 0000	00	642 300 000		2	1.5	150		2.2	1.4	B4	T
PM3	842 300 000 0000	00	642 300 000		4		100		2	1.1	B4	T
PM4DX	842 300 000 0000	00	642 300 000		4		100		1.5	2	B4	T
PM5	208 748 130 0000	00	206 546 130		6.3	15	200	200		11.0	A08	TI
PM12	742 300 000 0000	80	542 300 000	A1	2	0	150	75	4	1.1	B4	P
PM12A	742 300 000 0000	80	542 300 000	A1	2	1	150	75	2	1.5	B4	P
PM12M	742 300 000 0000	80	542 300 000	A1	2	1	150	90	1.4	1.4	B4	P
PM12V	742 300 000 0000	80	542 300 000	A1	2		150	90		0.7	B4	P
PM14			542 300 000	A1	4		150	75	2.7	0.8	B4	P
PM14V	742 300 000 0000	80			4		150	75	2.7	0.8	B4	P
PM14L	742 300 000 0000	00			2	1.5	150		2.3	1.2	B4	T
PM22	842 370 000 0000	00	642 350 000		2	10	150	150	15	1.3	B5	P
PM22A	842 370 000 0000	00	642 350 000		2	4.5	150	150	5.6	2	B5	P
PM22C	842 370 000 0000	00	642 350 000		2	16	150	150	23	3	B5	P
PM22D	842 370 000 0000	00	642 350 000		2	2.4	150	150	5	3	B5	P
PM24	842 310 000 0000	70	642 350 000		4	11	150	150	20	1.7	B5	P
PM24			642 310 000	G2	4	11	150	150	20	1.7	B5	P
PM24A	842 370 000 0000	00	642 350 000		4	22.5	300	200	20		B5	P
PM24S	842 370 000 0000	00	642 350 000		4	40	400	300	30	2.1	B5	P
PM24C	842 370 000 0000	00	642 350 000		4	20	400	200		3	B5	P
PM24D	842 370 000 0000	00	642 350 000		4(5)	35	400	200	50	4	B5	P
PM24DC	842 370 000 0000	00	642 350 000		4(5)	42	300	200	20	1.5	B5	P
PM24E	842 370 000 0000	00	642 350 000		4	40	300	300	83	3.9	B5	P
PM24M	842 370 000 0000	00	642 350 000		4	17	250	250	30	3	B5	P
PM84	401 237 808 0000	00			4.2	22	250	250	0.5		B9A	TI
PM202	842 300 000 0000	00	642 300 000		2	14	150		14	3.5	B4	T
PM252	842 300 000 0000	00	642 300 000		2	2	150		14	3.7	B4	T
PM254	842 300 000 0000	00	642 300 000		4	21	200		15		B4	T
PM256	842 300 000 0000	00	642 300 000		6	27	250		20		B4	T
PN2	842 370 000 0000	00	642 350 000		2	7.5	150	150	6		B5	P
PP2	842 300 000 0000	70	642 300 000	G2	2	5	150	150	7	2.1	B4	P
PP2	842 370 000 0000	00	642 350 000		2	5	150	150	7	2.1	B5	P
PP2S	023 004 780 0000	00	023 004 560		2	5	150	150	7	2.1	8SC	P
PP3/250	842 300 000 0000	00	642 300 000		4	37	300		48	5.2	B4	T
PP4	842 370 000 0000	00	642 350 000		4	15	250	250	36	3	B4	P
PP4S	842 370 000 0000	00	032 004 560		4	15	250	250	36	3	8SC	P

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
PP4S	032 004 780 0000	00	642 350 000		4	15	250	250	36	3	B5	P
PP5/400	842 300 000 0000	00	642 300 000		4(5)	32	400		62	8.2	B4	T
PP6AS	023 104 780 0000	00	023 104 560		6	18	250	250	32	2.8	8SC	P
PP6B	287 413 000 0000	00	265 413 000		6	6	250	250	36	10	UX6	P
PP6BG	028 740 310 0000	00	026 540 310		6	6	250	250	36	10	A08	P
PP6BS	028 740 310 0000	00	026 540 310		6	6	150	250	36	9	A08	
PP6C	028 740 310 0000	00	026 540 310		6	12	250	200	36	10	A08	P
PP6E	047 231 800 0000	00	045 231 600		6	17	500	275	72	8.5	B7	P
PP13A	047 231 800 0000	00	045 231 600		13	12	200	200	40	2.6	B7	P
PP13S	023 100 780 0000	40	023 100 560	G1	13	14	200	200	25	3.5	8SC	P
PP24	007 231 800 0000	40	005 231 600	G1	24	19	200	100	40	3	B7	P
PP24S	023 100 780 0000	40	023 100 560	G1	24	19	200	100	40	3	8SC	P
PP34	007 231 800 0000	40	005 231 600	G1	35	6.5	200	200	45	8.5	B7	P
PP34S	023 100 780 0000	40	023 100 560	G1	35	6.5	200	200	45	8.5	8SC	P
PP35	047 231 800 0000	00	045 231 600		35	6.5	200	200	45	8.5	B7	P
PP36	147 231 800 0000	00	145 231 600		35	6.5	200	200	45	8.5	B7	P
PP37	007 231 800 0000	40	005 231 600	G1	35	9.5	200	100	45	8.5	B7	P
PP60	028 740 310 0000	00	026 540 310		6	15	250	250	55	6.3	A08	P
PP215	842 370 000 0000	00	642 350 0000		2	4.5	90	90	8	1.7	8SC	P
PP215S	032 004 780 0000	00	032 004 560		2	4.5	90	90	8	1.7	8SC	P
PP220	842 300 000 0000	00	642 300 000		2	12	150		12.5	3	B4	T
PP222	842 370 000 0000	00	642 350 000		2	6	150	150	12	2.5	B5	P
PP225	842 370 000 0000	00	642 350 000		2	12	150	150	18	2	B5	P
PP225S	023 004 780 0000	00	023 004 560		2	12	150	125	18	2	8SC	P
PP415	842 370 000 0000	00	642 350 000		4	12	200	200	12	1.8	B5	P
PP416	842 370 000 0000	00	642 350 000		4	12	200	75	10	2	B5	P
PP430	842 370 000 0000	00	642 350 000		4	25	200	200	20	2	B5	P
PP431	842 370 000 0000	00	642 350 000		4	20	250	250	22	1.9	B5	P
PP472	041 230 700 0000	80			2	0.5	150	150	2.5	1.7	B7	P
PP2018	842 310 000 0000	70	642 310 000	G2	20	18	200	200	20	2.5	B5	P
PP2018	047 231 800 0000	00	045 231 600		20	18	200	200	20	2.5	B7	P
PP2101	384 720 000 0000	00	364 520 000		2	3	150	150	7	2.1	UX5	P
PP3521	040 231 800 0000	00	040 231 600			25	200		70	6.3	B7	T
PP4100	842 370 000 0000	00	642 350 000		4	40	400	300	30	3	B5	P
PP4101	842 370 000 0000	00	642 350 000		4	14	250	250	36	3.5	B5	P
PP4118	180 472 300 0000	00	160 452 300		40	10	200	175	35	6.5	C7	P
PT	047 231 800 0000	00	045 231 600		4	6	250	250	32.5	7.5	B7	P
PT2	842 370 000 0000	00	642 350 000		2	4.5	150	125	5.3	2.6	B5	P
PT2	842 300 000 0000	70	642 300 000	G2	2	4.5	150	150	6.5	2.5	B4	P
PT2A	842 370 000 0000	00	642 350 000		2	10.5	150	150	18		B5	P
PT2K	842 370 000 0000	00	642 350 000		2	4.5	150	150	9.5	2.5	B5	P
PT4	842 370 000 0000	00	642 350 000		4	17	250	250	30	3	B5	P
PT4	047 231 800 0000	00	045 231 600		4	6	250	250	36	9.5	B7	P
PT4	218 047 300 0000	00	216 045 300		4	6	250	250	31	7	B7	P
PT4D	X89 231 700 0000	40	968 231 500	G1	4	6	250	250	32.5	7.5	B7	DDP
PT5	047 231 800 0000	00	045 231 600		26	7	250	250	36	9	B7	P
PT10	047 231 800 0000	00	045 231 600		3	7.5	250	250	40	9	B7	P
PT12	204 731 102 0000	80	204 531 102	A1	10	15	250	250	62	6	B9	P
PT15	742 310 000 0000	80	542 310 000	A1	6	25	300	300	40	2.8	B5	P
PT16	842 370 000 0000	00	642 350 000		4	15	300	300	55	4.8	B5	P

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
PT25	842 370 000 0000	00	642 350 000		4	22	400	200	62	4	B5	P
PT25H	842 370 000 0000	00	642 350 000		5	16	400	300	62	6.5	B5	P
PT41	842 370 000 0000	00	642 350 000		4	12.5	250	200	30	3	B5	P
PT41B	842 370 000 0000	00	642 350 000		4	40	400	300	30	2.2	B5	P
PT225	842 370 000 0000	00	642 350 000		2	6	150	150	8	2.3	B5	P
PT225	842 300 000 0000	70	642 300 000	G2	2	6	150	150	8	2.3	B4	P
PT240	842 370 000 0000	00	642 350 000		2	9	150	150	16	2.5	B5	P
PT250	842 370 000 0000	00	642 350 000		2	15	250	250	40		B5	P
PT425	842 370 000 0000	00	642 350 000		4	7.5	150	150	15	2	B5	P
PTA	047 231 800 0000	00	045 231 600		13	10	250	250	32	4	B7	P
PTAD	X89 231 700 0000	40	968 231 500	G1	4	6	250	250	7	7	B7	DDP
PTE11	287 004 130 0000	00	265 004 130		18	3	210	210	20	11	B8G	P
PTS	047 231 800 0000	00	045 231 600		26	5.5	250	250	40	6	B7	P
PTS	007 231 800 0000	40	005 231 600	G1	26	8.2	250	250	32	6	B7	P
PTSA	98X 231 700 0000	40	869 231 500	G1	26	5.5	200	200	40		B7	DDP
PTSD	X89 231 700 0000	40	968 231 500	G1	26	5	250	200	40	6	B7	DDP
PTT120P	841 238 510 0000	00	641 237 410		18	1.5	250		10	5.5	B8D	TT
PTT141	802 441 443 0000	00	602 441 443		6.3	1.2	150		22	25	B9A	T
PTT202	412 378 010 0000	00	412 356 010		18	2.2	200	200	8	5.5	B8D	P
PTT203	028 710 310 0000	40	026 510 310	G1	18	5	200	200	35	8.5	A08	P
PTT203P	028 700 310 0000	40	026 500 310	G1	18	5	200	200	35	8.5	A08	P
PTT208P	412 378 110 0000	00	412 356 110		18	4.5	200	200	18	6	B8D	P
PTT212P	412 378 010 0000	00	412 356 010		18	1.6	200	200	10.5	8.5	B8D	P
PTT213P	412 378 010 0000	00	412 356 010		6.3	1.6	200	200	10.5	8.5	B8D	P
PTT214P	412 387 110 0000	00	412 365 110		6.3	1.8	150	150	12.5	13.5	B8D	P
PTT216	402 108 073 0000	00	402 106 053		6.3	1.8	150	150	12.5	13.5	B8D	P
PTT217	123 141 718 0000	00	123 141 516		6.3	1.6	150	150	12.5	16	B9A	P
PTT241P	412 378 000 0000	00	412 356 *00		6.3	2.9	250	225	34	12.5	B8D	P
PTT243P	421 378 130 0000	00	421 356 130		6.3	1.5	150	150	26	28	B8D	P
PTT244P	817 141 230 0000	00	615 141 230		18	1.5	150	150	26	27	B8D	P
PTZ	007 231 800 0000	40	005 231 600	G1	40	5.5	250	200	40	7.5	B7	P
PV06-20	400 237 100 0000	80	400 235 100	A1	6	40	200	300	40	4	B7	P
PV06-25	401 237 100 0000	80	401 235 100	A1	6	40	200	300	40	4	B7	P
PV1-35	401 237 100 0000	80	401 235 100	A1	12	25	250	200	40	2	B7	P
PV4	9X2 300 000 0000	00	892 300 000		4				60		B4	RR
PV25	0X1 231 900 0000	00	091 231 800		25				60		B7	RR
PV29	0X1 231 900 0000	00	091 231 800		30				60		B7	RR
PV29S	123 190 0X0 0000	00	123 180 090		30				60		8SC	RR
PV30	0X1 231 900 0000	00	091 231 800		30				30		B7	RR
PV30A	123 190 0X0 0000	00	123 180 090		30				30		8SC	RR
PV30S	123 1X0 090 0000	00	123 190 080		30				60		8SC	RR
PV75/1000	9X2 300 000 0000	00	892 300 000		4				30		B4	RR
PV200/600	9X2 300 000 0000	00	892 300 000		4				120		B4	RR
PV400	902 300 000 0000	00	802 300 000		4				30		B4	R
PV430	9X2 300 000 0000	00	892 300 000		4				15		B4	RR
PV3018	1X0 912 300 0000	00	190 812 300		30				60		C7	RR
PVB6	9X2 310 000 0000	00	892 310 000		6				60		B5	RR
PX2	842 300 000 0000	00	642 300 000		2	22	150		22	1.5	B5	T
PX4	842 300 000 0000	00	642 300 000		4	43	300		43	6	B4	T
PX5	842 300 000 0000	00	642 300 000		4	34	400		62.5	6.5	B4	T

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
PX25	842 300 000 0000	00	642 300 000		4(5)	31	400		40	7.5	B4	T
PX25A	842 300 000 0000	00	642 300 000		4(5)	100	400		62.5	3.7	B4	T
PX41	842 300 000 0000	00	642 300 000		4	40	250		49	6	B4	T
PX230	842 300 000 0000	00	642 300 000		2	15	150		17.5	3.5	B4	T
PX230SW	802 300 000 0000	40	602 300 000	G1	2	15	150		18	3.5	B4	T
PX240	842 300 000 0000	00	642 300 000		2	32	200		25	3	B4	T
PX2100	842 300 000 0000	00	642 300 000		7.5	30	400		18	1.6	SM4	T
PY31	020 090 310 0000	00	020 080 310		17				120		A08	R
PY32	029 090 310 0000	00	026 060 310		29				180		A08	R
PY71	200 900 030 0000	10	200 800 030	C	21				120		B8B	R
PY80	001 230 009 0000	00	001 230 008		19				180		B9A	R
PY81	000 230 009 0000	10	*** 23* **8	C	17				120		B9A	R
PY82	001 230 009 0000	00	**1 23* **8		19				180		B9A	R
PY83	000 230 009 0000	10	*** 23* **8	C	20				120		B9A	R
PY88	000 230 009 0000	10	*** 23* **8	C	26				120		B9A	R
PY300	029 090 310 0000	00	028 08* 310		29				180		A08	R
PY500	909 230 990 0000	10	*82 23* 88*		42				100		B9D	R
PY800	000 230 009 0000	10	*** 23* **6	C	19				120		B9A	R
PY801	000 230 009 0000	10	*** 23* **6	C1	19				170		B9A	R
PZ	284 730 000 0000	00	264 530 000		2.5	16.5	250	250	31	2.5	UX5	P
PZO3-3	401 237 000 0000	80	401 235 000	A1	4	25	300	125	25	1.4	B7	P
PZO5-15	401 237 000 0000	80	401 235 000	A1	4		400	150	40	1.2	B7	P
PZ30	02X 193 210 0000	00	029 183 210		26				120		A08	RR
PZH	287 413 000 0000	00	265 413 000		2.5	16.5	250	250	34	2.2	UX6	P
QA2400	412 381 700 0000	00	412 361 500		6	2.5	200	200	8	2.5	B7G	P
QA2401	802 384 100 0000	00	6*2 364 100		6	8.5	250		10.5	2.2	B7G	T
QA2402	412 380 700 0000	00	412 36* 500		6	13.5	250	250	16	2.6	B7G	P
QA2403	412 381 700 0000	00	412 361 500		6	[2.0	250	250	10.0	7.5	B7G	P
QA2404	1X2 310 900 0000	00	192 310 800		6	1.6	200	150	4.0	6.4	B7G	DD
QA2405	241 878 153 0000	00	241 657 143		6	14	250	150	30	3.9	B9G	PP
QA2406	581 228 413 0000	00	471 226 413		6	2	250		10	5.5	B9A	TT
QA2407	902 30X 100 0000	00	802 309 100		6				30		B7G	RR
QA2408	581 481 230 0000	00	471 461 230		6	8	250		9	2.6	A08	TT
QB65	481 581 230 0000	00	461 471 230		6	8	250		9	2.6	A08	TT
QB309	841 228 513 0000	00	641 227 413		6	2	250		10	5.5	B9A	TT
QB329	X41 228 413 0000	00	741 226 413		12.6	8.5	250		10.5	2.2	B9A	TT
QB339	X41 228 413 0000	00	741 226 413		12.6	2	250		1.2	1.6	B9A	TT
QC05/35	237 242 300 0000	80	235 242 300	A1	1.6		200	200	100	7	A08	P
QD77	192 310 X00 0000	00	182 310 900		6						B7G	DD
QE04/10	287 711 413 0000	00	265 511 413		6	12	300	150	25	1.9	B9G	P
QE05	127 141 300 0000	80	125 141 300	A1	6		200	200	100	7	A08	P
QE06/50	274 130 000 0000	80	254 130 000	A1	6	14	200	250	83	6.5	UX5	P
QL77	802 384 100 0000	00	6*2 364 100		6	8.5	250		10.5	2.2	B7G	T
QN77	412 380 700 0000	00	412 360 500		6	12.5	250	250	16	2.6	B7G	P
QP21	548 237 800 0000	00	446 235 700		2	4.5	150	150	11	2.3	B7	PP
QP22A	487 230 785 0000	00	465 230 574		2	12	150	150	3	4	B9	PP
QP22B	458 237 800 0000	00	446 235 700		2	11.7	150	150	3.8		B7	PP
QP25	208 745 830 0000	00	207 544 630		6	2	150	125	10	3	M08	PP
QP230	548 237 800 0000	00	446 235 700		2	9.6	150	125	4.6	3	B7	PP
QP240	487 230 785 0000	00	465 230 574		3	5	150	150	25	4	B9	PP
QQ03/12	801 237 144 0000	00	602 235 144		6		300	250	45	7	B9A	P
QQC03/14	415 238 782 0000	00	412 657 240		3.1		200	200	30	3.2	B9A	PP

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
QQC04/15	283 824 740 0000	00	263 724 540		6	14	200	200	20	2	B8B	P
QQE02-5	417 228 783 0000	00	414 226 573		6.3	50	250	200	45	10.5	B9A	PP
QQE03-12	514 228 783 0000	00	414 226 573		6.3	15	200	200	30	3.3	B9A	PP
QQE03/20	257 134 200 0000	88	245 134 200	A1/A2	6	17	400	200	20	2.5	B7A	PP
QQE04-20	247 135 200 0000	88	245 134 200	A1/A2	6	26	400	250	30	3	B7A	PP
QQE06-40	257 134 200 0000	88	245 134 200	A1/A2	6		400	250	30	3.4	B7A	PP
QQV02-6	415 228 783 0000	00	414 226 573		6.3	2.5	150	150	25	10.5	B9A	PP
QQV03-10	514 228 783 0000	00	414 226 573		6	10	200	150	30	3.3	B9A	PP
QQV03-20	247 135 200 0000	88	245 134 200	A1/A2	6.3	17	300	200	20	2.5	B7A	PP
QQV03-25	257 104 300 0000	88	345 124 300	A1/A2	6.3	15	400		40	2.5	B7A	PP
QQV04-15	257 134 200 0000	88	245 134 200	A1/A2	6.3	27	400	250	30	3	B7A	PP
QQV04-20	251 731 420 0000	88	241 531 420	A1/A2	6	23	400	200	25	4	B7A	PP
QQV06-40	247 135 200 0000	88	245 134 200	A1/A2	6.3		400	250	30	3.4	B7A	PP
QQV07-40	247 135 200 0000	88	245 134 200	A1/A2	6.3		300	250	25	1.9	B7A	PP
QQV07-50	257 104 300 0000	88	345 124 300		6.3		400	250	100	4.5	B7A	PP
QQV07-50	347 125 300 0000	88			6.3		400	250	100	4.5	B7A	PP
QQZ03-20	247 105 200 0000	88	245 1*4 200	A1/A2	1.6		300	250	40	4	B7A	PP
QQZ04-15	283 825 740 0000	00	273 625 540		3	10	300	200	20	2	B8B	PP
QQZ06-40	257 304 200 0000	88	245 3*4 200	A1/A2	2.1		200	200	30	4.5	B7A	PP
Q/U37	023 000 000 0000	90	023 000 000	D1	1.4						B3G	D
Q/U452	230 000 000 0000	90	230 000 000	D1	2						B3G	D
QU456	230 000 000 0000	90	328 000 000		6.3						B3G	D
QV03-12	801 237 144 0000	00	602 235 144		6	7.5	250	250	45	7	B9A	P
QV04-7	287 711 413 0000	00	265 511 413		6	30	300	250	25	1.9	B9G	P
QV04-12	801 237 144 0000	00	601 235 144		6	7.5	250	250	45	7	B9A	P
QV04-15	247 135 200 0000	88	245 134 200	A1/A2	6.3	60	400	250	90		B7A	PP
QV04-20	241 731 520 000	88	241 531 420	A1/A2	6	22	400	200	25	4	A08	PP
QV05-25	274 130 000 0000	80	254 130 000	A1	6	12.5	300	250	83	6.5	UX5	P
QV06-20	127 141 310 0000	80	125 141 310	A1	6	28	200	200	100	7	A08	P
QW77	412 381 700 0000	00	412 361 500		6	2.5	200	200	8	2.5	B7G	P
QZ06-20	237 242 300 0000	80	235 242 300		1.6		200	100	100		A08	T
QZ77	412 381 700 0000	00	412 361 500		6	2	250	250	10	7.6	B7G	P
R1	9X2 300 000 0000	00	892 300 000		4				30		B4	RR
R2	9X2 300 000 0000	00	892 300 000		4				60		B4	RR
R4B	902 300 000 0000	00	802 300 000		4				60		B4	R
R10	112 311 100 0000	90	112 311 100	D1	4				5		B7G	R
R11	002 300 000 0000	90	002 300 000	D1	4				5		B4	R
R12	023 000 000 0000	90	023 000 000	D1	6				0.1		B3G	D
R13A	029 0X0 310 0000	00	028 090 310		13				30		A08	RR
R14	029 1X3 210 0000	00	028 193 210		26				120		A08	RR
R16	123 000 000 0000	90	123 000 000	D1	1.4				2		B3G	D
R17	001 230 000 0000	90	**1 23* ***	D1	6				120		B9A	R
R19	230 232 032 0000	90	230 232 032	D1	1.2						B9A	D
R20	230 232 032 0000	90	23* 232 *32	D1	2						B9A	R
R41	9X2 300 000 0000	00	892 300 000		4				60		B4	RR
R43	9X2 300 000 0000	00	892 300 000		4				180		B4	RR
R52	030 90X 020 0000	00	030 809 020		5				60		20mA	RR
R80	284 300 000 0000	00	264 300 000		4	24	250		20	4	UX4	T
R116	028 740 310 0000	40	026 540 310	G1	10	2.2	200	200	8		A08	P
R120	028 040 310 0000	00	026 040 310		6.3		250		60	6.4	A08	T
R122N	028 710 310 0000	40	026 510 310	G1	18		200	200	8	5.5	A08	P

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
R123	028 700 310 0000	40	026 500 310	G1	18		200	200	35	8.5	A08	P
R125C	028 9X0 310 0000	40	026 890 310	G1	18	5.5	250		5	2.5	A08	DDT
R126F	028 710 310 0000	40	026 510 310	G1	18		200	200	6	1.7	A08	P
R128	029 1X0 310 0000	00	028 190 310		18						A08	DD
R134	028 741 310 0000	00	026 541 310		18		200	200	18	6	A08	P
R142	412 378 010 0000	00	412 356 010		6.3		200	200	10.5	8.5	B8D	P
R143	412 378 010 0000	00	412 356 010		6.3		200	200	8	5.5	B8D	P
R144	412 381 700 0000	00	412 361 500		6.3	2	250	250	10	7.6	B7G	P
R145	412 378 010 0000	00	412 356 010		18		200	200	8	5.5	B8D	P
R147	412 378 110 0000	00	412 356 110		18		200	200	18	6	B8D	F
R148	841 238 510 0000	00	641 237 410		18		250		10	5.5	B8D	TT
R150	123 141 718 0000	00	123 141 516		6.3	1.6	150	150	12.5	16	B9A	P
R236	028 710 300 0000	40	026 510 300	G1	1.2	2	100	100	1	0.5	A08	P
R242P	400 123 080 0000	00	400 123 060		6.3	4.5	150		15	4.3	B5A	T
R244	402 013 080 0000	00	402 013 060		6.3		150		13		B8D	T
R265	412 380 710 0000	00	412 360 510		6.3		100	100	7.5	5	B8D	P
R271	412 183 710 0000	00	412 163 510		6.3	2	150	125	5.2	3.2	B8D	P
R290	020 090 030 0000	00	020 080 030		1.2				5		A08	D
R2018	842 310 000 0000	00	642 310 000		20	2.5	200		2.5	3	B5	T
R5559	802 101 413 0000	00	6*2 1*1 413		6.3	1.5	150		25	25	B5D	T
RA	9X2 310 000 0000	00	892 310 000		13				30		B5	RR
RA1	384 200 000 0000	00	364 200 000		15	4.5	90		4.5	1.2	UX4	T
RB350/80	9X2 300 000 0000	00	892 300 000		4				30		B4	RR
RB500/120	9X2 300 000 0000	00	892 300 000		4				60		B4	RR
RB650/250	9X2 300 000 0000	00	892 300 000		4				120		B4	RR
RC5B	023 009 080 0000	40	023 008 060	G1	12.6	0	100		24	6	8SC	DT
RC5C	023 009 080 0000	40	023 008 060	G1	2.4	0	100		24	6	8SC	DT
RE034	842 300 000 0000	00	642 300 000		4	3	200		2	1.2	B4	T
RE052	842 300 000 0000	00	642 300 000		2	3	150		1	1	B4	T
RE054	842 300 000 0000	00	642 300 000		4	4	150		4	1.3	B4	T
RE062	842 300 000 0000	00	642 300 000		2	9	150		4	1	B4	T
RE074	842 300 000 0000	00	642 200 000		4	9	150		3.5	0.9	B4	T
RE074D	842 300 000 0000	00	642 300 000		4	3	150		3.5	0.5	B5	T
RE074N	842 300 000 0000	00	642 300 000		4	9	150		3.5	0.9	B4	T
RE076	842 300 000 0000	00	642 300 000		6	9	150		4	1.5	B4	T
RE084	842 300 000 0000	00	642 200 000		4	4	150		4	1.5	B4	T
RE114	842 300 000 0000	00	642 300 000		4	15	150		13	1.3	B4	T
RE122	842 300 000 0000	00	264 300 000		2	4.5	150		3	1.3	UX4	T
RE122	284 300 000 0000	00	642 300 000		2	19	150		7	1.2	B4	T
RE124	842 300 000 0000	00	642 300 000		4	18	150		11	1.6	B4	T
RE134	842 300 000 0000	00	642 300 000		4	17	250		12	2	B4	T
RE144	842 300 000 0000	00	642 300 000		4	9	150		2	0.7	B4	T
RE304	842 300 000 0000	00	642 300 000		4	32	250		20	1.9	B4	T
RE402B	084 235 800 0000	00	064 234 700		2	0	150		3		B7	TT
RE404	842 300 000 0000	00	642 300 000		3.5	125	200			0.6	B4	T
RE604	842 300 000 0000	00	642 300 000		4	45	250		40	2.5	B4	T
REL39	402 387 100 0000	00	402 365 100		6.3	2	300	150	10	9	B7G	P
REN704	872 310 000 0000	40	652 310 000	G1	4		100		2	1.2	B5	P
REN904	842 310 000 0000	00	642 310 000		4	3.5	200		6	2.4	B5	T
REN914	842 310 000 0000	00	642 310 000		4	1.5	200		0.2		B5	T

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
REN924	842 310 000 0000	90	642 310 000	D1	4	3	200		6	2	B5	DT
REN1004	842 310 000 0000	00	642 310 000		4		200			1.5	B5	T
REN1104	842 310 000 0000	00	642 310 000		4	16	200		12	1.3	B5	T
REN1814	842 310 000 0000	00	642 310 000		20	1.6	200		0.2	1	B5	T
REN1817D	872 310 000 0000	40	652 310 000	G1	20		100	100		1.1	B5	P
REN1821	842 310 000 0000	00	642 310 000		20	3	200		6	2.3	B5	T
REN1822	842 310 000 0000	00	642 310 000		20	18	200		15	1.6	B5	P
REN1826	842 310 000 0000	90	642 310 000	D1	20	3	200		6	1.8	B5	DT
RENS1204	742 310 000 0000	80	542 310 000	A1	4	2	200	60	4	1	B5	P
RENS1214	742 310 000 0000	80	542 310 000	A1	4	2.2	200	100	6	1	B5	P
RENS1224	184 772 300 0000	40	164 552 300	G1	4	1.5	200	125	3	0.6	C7	P
RENS1234	187 472 300 0000	40	165 452 300	G1	4	2	200	75	3	1.8	C7	P
RENS1264	742 310 000 0000	80	542 310 000	A1	4	2	200	100	3	2	B5	P
RENS1264 B1	[742 300 000 0000	80	542 300 000	A1	4	2	200	100	3	2	B4	T
RENS1274D	842 310 000 0000	70			4	18	250	250	24	2.5	B5	P
RENS1284	742 310 000 0000	80	542 310 000	A1	4	2	200	100	3	2.5	B5	P
RENS1294	742 310 000 0000	80	542 310 000	A1	4	2	200	100	4.5	2	B5	P
RENS1374D			642 310 000	G2	4	18	250	250	24	2.5	B5	P
RENS1384	842 310 000 0000	70	642 310 000	G2	4	22	250	250	36	2.8	B5	P
RENS1818	742 310 000 0000	80	542 310 000	A1	20	2	200	100	3	2	B5	P
RENS1819	742 310 000 0000	80	542 310 000	A1	20		200	60	4	1	B5	P
RENS1823D	842 310 000 0000	70	642 310 000	G2	20	18	200	200	20	1.7	B5	P
RENS1884	742 310 000 0000		542 310 000	A1	20	2	200	100	3	2.4	B5	P
RENS1894	742 310 000 0000	80	542 310 000	A1	20	2.2	200	100	4	1.8	B5	P
RES094	742 300 000 0000	80	542 300 000	A1	4	2	200	75	4	7	B5	P
RES105	842 300 000 0000	70	642 300 000	G2	5	15	200	150	12	1.3	B4	P
RES164	842 370 000 0000	00	642 350 000		4	11.5	250	75	12	1.4	B5	P
RES174D	842 300 000 0000	70	642 300 000	G2	4	19	250	150	12	1.3	B4	P
RES212	842 370 000 0000	00	642 350 000		2	4.4	150	125	6	2.2	B5	P
RES364	842 370 000 0000	00	642 350 000		4	2.5	300	200	20	1.7	B5	P
RES374	842 370 000 0000	00	642 350 000		4	42	300	200	20	1.5	B5	P
RES664D	842 370 000 0000	00	642 350 000		4	40	400	200	30	1.9	B5	P
RES964	842 370 000 0000	00	642 350 000		4	15	250	250	36	2.8	B5	P
RFG5	003 200 000 0000	90	003 200 000	D1	6						F8	R
RFP8/14	041 231 700 0000	80	041 231 500	A1	4	20	400	250	35	4	B7	P
RFP8/14	742 310 000 0000	80	542 310 000	A1	4	20	400	250	35	4	B5	P
RG250/ 1000	[002 300 000 0000	90	002 300 000	D1	4				120		B4	R
RG250/ 3000	[290 300 000 0000	00	280 300 000		2.5				120		UX4	R
RGN354	902 300 000 0000	00	802 300 000		4				15		B4	R
RGN504	9X2 300 000 0000	00	892 300 000		4				15		B4	RR
RGN564	902 300 000 0000	00	802 300 000		4				30		B4	RR
RGN1054			892 300 000		4				30		B4	RR
RGN1074	9X2 300 000 0000	00	892 300 000		4				60		B4	RR
RGN1304	902 300 000 0000	00	802 300 000		4				60		B4	R
RGN1404	092 300 000 0000	00	082 300 000		4				120		B4	R
RGN1503	9X2 300 000 0000	00	892 300 000		2.5				30		B4	RR
RGN2504	9X2 300 000 0000	00	893 300 000		4				60		B4	RR
RGN4004	9X2 300 000 0000	00	892 300 000		4				120		B4	RR

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
RH	081 231 700 0000	40	061 231 500	G1	4	1.7	250	100	7.9	7	B7	P
RK10	284 300 000 0000	00	264 300 000		7.5	100	350		50		UX4	T
RK15	284 300 000 0000	00	264 300 000		2.5	33	250		22	2.3	UX4	T
RK16	284 130 000 0000	00	264 130 000		2.5	28	250		26	2.6	B4	T
RK19	200 300 000 0000	9X	200 300 000	D1/D2	7.5				120		UX4	RR
RK21	200 300 000 0000	90	200 300 000	D1	2.5				120		UX4	R
RK24	384 200 000 0000	00	364 200 000		2	13.5	200		8	1.6	UX4	T
RK39	274 130 000 0000	80	254 130 000	A1	6	14	300	250	83	6.5	UX5	P
RK60	200 300 000 0000	9X	200 300 000	D1/D2	5				120		UX4	RR
RL2T2	238 400 000 0000	00	236 400 000		1.9	1.5	100		15	2.4	5AA	T
RL7	287 114 113 0000	00	265 114 113		6	1.7	250	250	10	7.7	B9G	P
RL12P2	287 114 113 0000	00	265 114 113		12.6	6	150	150	15	2.3	B9G	P
RL15A	710 423 208 0000	00	510 423 206		2.4	20	350	200	57		B9A	P
RL16	241 800 003 0000	00	241 600 003		6	2.5	250		10	6.5	B9G	T
RL18	123 000 000 0000	00	123 000 000		6	3.3	200		7.5	2.9	B3G	T
RL37	244 884 413 0000	00	244 664 413		6	1.5	250		10	9	B9G	T
RO337	9X2 300 000 0000	00	892 300 000		2.5				30		B4	RR
RO481			802 300 000		4				120		B4	R
RO534	9X2 300 000 0000	00	892 300 000		5				60		B4	RR
RO771	902 300 000 0000	00	802 300 000		7.5				120		B4	R
RRAF	842 300 000 0000	00	642 300 000		4	2	100		4	1.4	B4	T
RRBF	842 300 000 0000	00	642 300 000		4	2.5	100		10	1.2	B4	T
RS	902 310 000 0000	00	802 310 000		3				60		B5	R
RS242	842 300 000 0000	00	642 300 000		3.8	5	400		70	3	B4	T
RS1009	247 135 200 0000	88	245 134 200	A1/A2	6	25	400	250	30	3.4	B7A	PP
RS1019	247 235 200 0000	88	245 134 200	A1/A2	6	20	400	250	20	2.5	B7A	PP
RSAF	742 300 000 0000	80	542 300 000	A1	4	1	150	75	4.5	1.2	B4	T
RT1-2	842 300 000 0000	00	642 300 000		4	2.6	150		26	2.5	B4	T
RT2	842 300 000 0000	00	642 300 000		4	4	200		18	1.7	B4	T
RT3	842 300 000 0000	00	642 300 000		4	2.3	300		15	2.8	B4	T
RTR4141	028 710 310 0000	40	026 510 310	G1	5.2	3	250	100	2.5	1.2	A08	P
RTR4142	028 710 310 0000	40	026 510 310	G1	5.2	8	250	125	15	2.7	A08	P
RTR4341	081 231 700 0000	40	061 231 500	G1	21	2.2	150	8	8	8	B4	P
RTR4342	007 231 800 0000	40	005 231 600	G1	21	5.8	150	125	48	9	B7	P
RV12P2000	470 812 310 0000	00	450 612 310		12.6	2.3	200	75	1.8	1.5	B7	P
RV120/250	9X2 300 000 0000	00			12.6	2.3	200	75	1.8	1.5	B7	P
RV120/ 350S	[023 090 0X0 0000	00	023 080 090		4				60		8SC	RR
RV120/ 500S	[023 090 0X0 0000	00	023 080 090		4				60		8SC	RR
RV200/600	9X2 300 000 0000	00	892 300 000		4				120		B4	RR
RV210	042 310 000 0000	80	042 310 000	A1	4	53	400		70	5.8	B5	T
RX21	200 030 000 0000	90	200 030 000	D1	2.5				120		UX5	R
RX215	39X 200 000 0000	00	389 200 000		2.5				5		UX4	RR
RZ	023 100 090 0000	00	023 100 080		20				60		8SC	R
S2	742 300 000 0000	80	542 300 000	A1	2	1	150	60	2.3	1.1	B4	P
S2P20	801 227 413 0000	00	601 225 413		5	10	150	150	28	4.4	B9A	P
S4V	742 310 000 0000	80	542 310 000	A1	4	1	200	75	1.5	1.1	B5	P
S4VA	742 310 000 0000	80	542 310 000	A1	4	1.5	200	100	2.8	2	B5	P
S4VB	742 310 000 0000	80	542 310 000	A1	4	1.5	200	125	4.6	2.5	B5	P
S6F12	412 381 700 0000	00	412 361 500		6	2	250	250	10	7.5	B7G	P

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V † Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
S6F17	412 381 700 0000	00	412 361 500		6	5	100	100	12.5	4	B7G	P
S6F17F	412 381 700 0000	00			6.3		200	200	17	4	B7G/F	P
S6F33	412 381 700 0000	00	412 361 500		6.3	3.3	200	200	7.1	4	B7G	P
S11E12	028 741 310 0000	00	*26 541 310		6.3	8.5	150	150	200	13.5	A08	P
S12	742 300 000 0000	80	542 300 000	A1	2	1	100	30	2.5	0.7	SM4	P
S19G6	012 300 000 0000	90	*12 3** *00	D1	4				30		B7G	R
S21	742 300 000 0000	80	542 300 000	A1	2	1.5	150	75	2	1.1	B4	P
S22	742 300 000 0000	80	542 300 000	A1	2	1.5	150	75	1.5	1.7	B4	P
S23	742 300 000 0000	80	542 300 000	A1	2	1.5	150	75	2.8	1.1	B4	P
S24	742 300 000 0000	80	542 300 000	A1	2	1	150	75	3.2	1.4	B4	P
S30C	842 300 000 0000	00	642 300 000		4	38	300		50	5	B4	T
S30D	842 300 000 0000	00	642 300 000		2	38	300		50	5	B4	T
S207	742 300 000 0000	80	542 300 000	A1	2	1.5	200	100	3	0.7	B4	P
S208	542 300 000 0000	80	542 300 000	A1	2		200	100	2	0.8	B4	P
S209	023 010 780 0000	40	023 010 560	G1	2	0.5	150	125	2.4	0.7	8SC	P
S210	842 300 000 0000	70	642 300 000	G2	2	1.5	150	90	3	1.2	B4	P
S213	742 300 000 0000	80	542 300 000	A1	2	0.5	150	90	3	1.3	B4	P
S215	742 300 000 0000	80	542 300 000	A1	1	1	150	90		0.9	B4	P
S215A	742 300 000 0000	80	542 300 000	A1	2	1	150	60	2	1.1	B4	P
S215B	742 300 000 0000	80	542 300 000	A1	2	1	150	60	1.5	1.2	B4	P
S215VM	742 300 000 0000	80	542 300 000	A1	2	1.4	150	60	1	0.8	B4	P
S217	742 300 000 0000	80	041 230 500	A1	2	0.5	150	150	2.5	1.7	B7	P
S217	041 230 700 0000	80	542 300 000	A1	2	0.5	150	150	2.3	1.7	B4	P
S218	041 230 700 0000	80	041 230 500	A1	2	0.5	150	150	3	1.9	B7	P
S220	742 300 000 0000	80	542 300 000	A1	2		150	75	4	1.1	B4	P
S310A	287 113 000 0000	40	265 113 000	G1	10	3	150	150	5.5	1.9	UX6	P
S311A	287 130 000 0000	40	265 130 000	G1	10	15	150	150	30	2.8	UX5	P
S328A	287 113 000 0000	40	265 113 000	G1	7.5	3	150	150	5.5	1.9	UX6	P
S329A	287 130 000 0000	40	265 130 000	G1	7.5	15	150	150	30	2.8	UX5	P
S329L	287 113 000 0000	40	265 113 000	G1	7.5	50	150	125	30	2.8	UX6	P
S406/7	742 300 000 0000	80	542 300 000	A1	4	2	200	150	1.5	1	B4	P
S408	742 300 000 0000	80	542 300 000	A1	4	1.5	200	75	4	0.7	B4	P
S409	742 300 000 0000	80	542 300 000	A1	4	1.5	200	75	4	8.8	B4	P
S410	742 300 000 0000	80	542 300 000	A1	4	1.5	200	75	4	1	B4	P
S410N	742 310 000 0000	80	542 310 000	A1	4	2	200	60	4	1	B5	P
S412N	742 310 000 0000	80	542 310 000	A1	4	1.3	200	100	1.5	1	B5	P
S415N	742 310 000 0000	80	542 310 000	A1	4	2	200	100	6	1	B5	P
S420	081 231 700 0000	40	061 231 500	G1	4	3	250	250	11.5		B7	P
S423	023 110 780 0000	40	023 110 560	G1	4	3	250	100	8	1.8	8SC	P
S424	023 110 780 0000	40	023 110 560	G1	4	2	250	100	3	2.1	8SC	P
S430N	742 310 000 0000	80	542 310 000	A1	4	1.3	200	100	1.5	0.9	B5	P
S431N	742 310 000 0000	80	542 310 000	A1	4	1.5	250	100	3	2	B5	P
S432N	023 110 780 0000	40	023 110 560	G1	4	3	250	100	2.5	2.2	8SC	P
S434N	742 310 000 0000	80	542 310 000	A1	4	2	200	100	4.5	2.3	B5	P
S434N	041 231 700 0000	80	041 231 500	A1	4	1.5	200	100	4.5	2	B7	P
S435N	742 310 000 0000	80	041 231 500	A1	4	2	200	100	3	2.3	B7	P
S435N	041 231 700 0000	80	542 310 000	A1	4	2	200	100	3	2.3	B5	P
S440	081 231 700 0000	40	061 231 500	G1	4	2.4	250	250	4.1	3.5	B7	P
S493	742 310 000 0000	80	542 310 000	A1	4	2	200	100	4		B5	P
S495	742 310 000 0000	80	542 310 000	A1	4	2	200	100	6	2.5	B4	P

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
S617	023 110 780 0000	40	023 110 560	G1	6.3	3	250	100	2.5	2.2	8SC	P
S620	023 110 780 0000	40	023 110 560	G1	6.3	2.5	250	100	3.5	2	8SC	P
S1323	023 110 780 0000	40	061 231 500	G1	13	3	200	100	8	1.9	B7	P
S1323	081 231 700 0000	40	023 110 560	G1	13	3	200	100	8	1.9	8SC	P
S1324	081 231 700 0000	40	061 231 500	G1	13	2	200	100	3	2.4	B7	P
S1327	023 110 780 0000	40	023 110 560	G1	13	2.5	250	100	3.5	2	8SC	P
S1328	023 110 780 0000	40	023 110 560	G1	13	2	200	100	3	2.4	8SC	P
S2010N	742 310 000 0000	80	542 310 000	A1	20	2	200	60	4	1	B5	P
S2108	041 231 700 0000	80	041 231 500	A1	20	3	200	60	4	1.2	B7	P
S2108	742 310 000 0000	80	542 310 000	A1	20	3	200	60	4	1.2	B5	P
S2030N	742 310 000 0000	80	542 310 000	A1	20	2	200	100	3	2	B5	P
S2035N	742 310 000 0000	80	542 310 000	A1	20	2.5	250	100	3.5	2	B5	P
S2043	742 310 000 0000	80	542 310 000	A1	20	2.5	250	100	5	2	B5	P
S2020A	274 300 000 0000	00	254 300 000		2	1	150		1.3	0.6	UX4	T
S2020B	842 300 000 0000	00	642 300 000		2	1	150		1.3	0.6	UX4	T
S4021A	284 300 000 0000	00	264 300 000		4	8	150		20	3	UX4	T
S4021B	842 300 000 0000	00	642 300 000		4	8	150		20	3	B4	T
S4022AR	238 400 000 0000	00	236 400 000		4	4.5	150		5	2.2	UX4	T
S4022B	842 300 000 0000	00	642 300 000		4	4.5	150		5	2.2	B4	T
S4045A	842 370 000 0000	00	642 350 000		5	70	250	75	45	1.5	B5	P
SD	9X2 310 000 0000	00	892 310 000		5						B5	DD
SD2	842 300 000 0000	00	642 300 000		2	1.5	150		2.2	1.4	B4	T
SD6	092 310 000 0000	00	*82 310 *00		6				5		B7G	R
SD61	213 000 000 0000	90	123 000 000	D1	6				5		B3G	D
SD917A	402 013 080 0000	00	402 013 060		6.3	3.6	100		1.4	2.7	B8A	T
SD917A	402 013 090 0000	00			6.3	4.7	100		1.4	2.7	B8A	T
SE211	742 300 000 0000	80	542 300 000	A1	2	1	150	75	1	1.5	B4	P
SE2018	742 310 000 0000	80	542 310 000	A1	20	3	200	60	4	1.2	B5	P
SE2118	742 310 000 0000	80	542 310 000	A1	20	24	200	100	3	3	B5	P
SG2	742 300 000 0000	80	542 300 000	A1	2		150	75	2.5	1	B4	P
SG215	742 300 000 0000	80	542 300 000	A1	2	1.5	150	75	2.7	1	B4	P
SG215VM	742 300 000 0000	80	542 300 000	A1	2	1.5	150	75		1.5	B4	P
SG220SW	872 300 000 0000	40	652 300 000	G1	2	1.5	150	75	2.4	1.5	B4	P
SG2150	742 300 000 0000	80	542 300 000	A1	2	1.5	150	75	1.5	1.1	B4	P
SGA1	742 310 000 0000	80	542 310 000	A1	4		200	100	6	3	B5	P
SN1016	412 183 710 0000	00	412 163 510		6.3	1.5	100	100	7.5	5	B8D	P
SN954	092 913 090 0000	00	082 813 080		6.3				30		B8A	R
SN956B	023 990 000 0000	00	023 880 000		1.2						B3G	D
SN1007	412 183 710 0000	00	412 163 510		6.3	0.8	100	100	5.3	3.2	B8A	P
SN1038A	412 183 710 0000	00	412 163 510		6.3	1.4	100	100	7	5	B8D	P
SN1039	412 387 100 0000	00	412 365 100		6.3	2	120	120	7.5	5	B7G	P
SN1039A	412 387 100 0000	00	412 365 100		6.3	1.4	100	100	7	5.1	B7G	P
SO1	284 300 000 0000	00	264 300 000		15	40.5	200		21	1.5	UX4	T
SO2	284 300 000 0000	00	264 300 000		7.4	88	400		55	2.1	UX4	T
SO401	002 300 000 0000	84	002 300 000	A	4		400			2	B4	T
SP2	041 230 700 0000	80	041 230 500	A1	2		150	150	3	1.8	B7	P
SP2B	081 230 700 0000	40	061 230 500	G1	2	1	150	150	2.6	0.8	8SC	P
SP2BS	032 004 780 0000	00	032 004 560		2	0.5	150	150	2.6	0.8	8SC	P
SP2D	081 230 700 0000	40	061 230 500	G1	2	1	150	150	1.4	1.7	B7	P
SP2D	742 300 000 0000	80	542 300 000	A1	2	1	150	125	1.5	1.7	B4	P
SP2V	041 230 700 0000	80	041 230 500	A1	2		150	75	2.9	1.1	B7	P

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
SP4(TUNG)	081 231 700 0000	40	061 231 500	G1	4	2	200	100	3	2.3	B7	P
SP4(MUL)	041 231 700 0000	80	041 231 500	A1	4	2	200	100	3	2.3	B7	P
SP4	742 310 000 0000	80	542 310 000	A1	4	2	200	100	3	2.3	B5	P
SP4A	041 231 700 0000	80	041 231 500	A1	4	2	250	100	3	2.4	B7	P
SP4B	081 231 700 0000	40	061 231 500	G1	4	2.4	250	250	4	3.4	B7	P
SP4C	023 110 780 0000	40	023 110 560	G1	4	2.4	250	250	4	3.4	8SC	P
SP4S	023 110 780 0000	40	023 110 560	G1	4	2	250	100	3	2.5	8SC	P
SP6	412 381 700 0000	00	412 361 500		6	[2 1.4	250 200	250 150	10 4	7.5 6.4	B7G	P
SP6S	023 110 780 0000	40	023 110 560	G1	6	2	250	100	3	2	8SC	P
SP13	081 231 700 0000	80	061 231 500	A1	13	2	200	100	3.3	2.2	B7	P
SP13	023 110 780 0000	40	023 110 560	G1	13	2	200	100	3.3	2.2	8SC	P
SP13C	081 231 700 0000	40	061 231 500	G1	13	2.2	200	200	2.5	2.8	B7	P
SP13S	023 110 780 0000	40	023 110 560	G1	13	2	150	100	3	2.4	8SC	P
SP20	742 310 000 0000	80	542 310 000	A1	20		200	100	4.5	3.5	B5	P
SP22	208 710 030 0000	40	206 510 030	G1	2	1	150	125	1.1	1.2	M08	P
SP35	023 110 780 0000	40	023 110 560	G1	35	8	200	200	41	7	8SC	P
SP41	218 710 030 0000	40	216 510 030	G1	4	1.5	200	200	10.9	8.5	M08	P
SP42	218 710 030 0000	40	216 510 030	G1	4	1.3	200	125	20	8.4	M08	P
SP61	218 710 030 0000	40	216 510 030	G1	6	1.5	200	200	10.9	8.5	M08	P
SP62	218 710 030 0000	40	216 510 030	G1	6	1.3	200	100	16	9	M08	P
SP65	023 110 780 0000	40	023 110 560	G1	6	2	250	100	3	2.1	8SC	P
SP141	208 700 030 0000	40	206 500 030	G1	1.4	1	90	90	1.3	0.8	M07	P
SP181	218 710 030 0000	40	216 510 030	G1	18	1.5	200	200	10.9	8.5	M08	P
SP210	041 230 700 0000	80	041 230 500	A1	2	1	125	125	1.1	1.2	B7	P
SP215	041 230 700 0000	80	041 230 500	A1	2	1.5	150	80	2.1	1.6	B7	P
SP220	842 300 000 0000	00	642 300 000		2	12	150		14	3	B4	T
SP514	401 108 073 0000	00	402 106 053		6.3	1.7	150	150	12.3	13.5	B9A	P
SP804E	211 043 000 0000	80	211 043 000	A	6.3	15	400	40	4		UX6	T
SP804F	211 043 000 0000	84	211 043 000	A	6.3	15	400		40	4	UX6	T
SP1320	041 231 700 0000	80	041 231 500	A1	13	1.5	150	100	4.4	2	B7	P
SP2220	041 231 700 0000	80	041 231 500	A1	22	3	250	200	4.9	2.7	B7	P
SPT2	041 230 700 0000	80	041 230 500	A1	2	1	125	125	2.8	1.5	B7	P
SPT4A	041 231 700 0000	80	041 231 500	A1	4	1.5	250	100	2	2.3	B7	P
SPTA	081 231 400 0000	40	061 231 400	G1	13	2.5	200	100	2.2	1.4	B7	P
SPTA	041 231 700 0000	80	041 231 500	A1	13	2.5	250	100	2.2	1.4	B7	T
SPTS	041 231 700 0000	80	041 231 500	A1	13	1.5	250	100	2	3	B7	P
SR2	842 300 000 0000	00	642 300 000		2	16	200		10	3	B4	T
SR4	842 310 000 0000	00	642 310 000		4	20	250		20	4	B5	T
SRS4451	247 135 200 0000	88	245 134 200	A1/A2	6	25	400	250	30	3.4	B7A	PP
SS210C	742 300 000 0000	80	542 300 000	A	2	1	150	175	0.6	1.4	B4	P
SS210D	842 300 000 0000	00	642 300 000		2	4.5	150		2	1.6	B4	T
SS210DDT	892 3X0 000 0000	40	682 390 000	G1	2	5.5	150		2.4	1.4	B5	DDT
SS210HF	842 300 000 0000	00	642 300 000		2	4	150		1	0.8	B4	T
SS210HL	842 300 000 0000	00	642 300 000		2	1.5	150		21.4	12.5	B4	T
SS220P	842 300 000 0000	00	642 300 000		2	12	150		6	1.5	B4	T
SS220PA	842 300 000 0000	00	642 300 000		2	6	150		8	3.5	B4	T
SS220SP	842 300 000 0000	00	642 300 000		2	12	150		14	3.5	B4	T
SS2018	742 310 000 0000	80	542 310 000	A1	20	3	200	100	3	3	B5	P
ST507	802 441 443 0000	00	602 441 443		6.3	1.2	150		23	25	B9A	T

VALVE TYPE	VCM163 only		VCMs Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
SU25	020 000 300 0000	90	*2* 0** 3*0	D1	2						A08	D
SU42	030 000 020 0000	90	030 000 020	D1	4						A08	R
SU45	112 311 100 0000	90	112 311 100	D1	4				30		B7G	R
SU61	023 000 000 0000	90	023 000 000	D1	6				0.35		B3G	D
SU3130	002 300 000 0000	90	002 300 000	D1	2						B4	D
SW1	902 300 000 0000	00	802 300 000		4				30		B4	R
SWG2	872 300 000 0000	40	652 300 000	G1	2		150	75		1.5	B4	P
T2	842 300 000 0000	00	642 300 000		2	1	100			1	B4	T
T2M05	882 345 100 0000	00	672 344 100		6	[0 3	100 150		8.5 5	5.3 4.5	B7G	TT
T4D	123 000 000 0000	90	123 000 000	D1	4				5		B3G	D
T5D	123 000 000 0000	90	123 000 000	D1	6				5		B3G	D
T6D	213 000 000 0000	90	213 000 000	D1	6.3				5		B3G	R
T13U	023 100 080 0000	40	023 100 060	G1	13	4	200		5.9	2.6	8SC	T
T41	218 040 030 0000	00	216 040 030		4		100		30	2k	M08	THY
T113	842 300 000 0000	70	642 300 000	G2	3	3	12	12	0.2	0.2	B4	P
T116	842 300 000 0000	70	642 300 000	G2	1.2	3	12	12	0.2	0.2		
T134	742 300 000 0000	80	542 300 000	A1	4	1	150	75				
T136	842 300 000 0000	00			4	8	200		6	1.6	B4	T
T151	842 300 000 0000	70	642 300 000	G2	4	15	200	150	12	1.8	B4	P
T204	023 004 080 0000	00	023 004 060		2	1	150		1.8	0.6	8SC	T
T223	023 004 080 0000	00	023 004 060		2	2	125		3	2.5	8SC	T
T435	023 100 080 0000	40	023 100 060	G1	4	5	250		6	2.5	8SC	T
T460	023 004 080 0000	00	023 004 060		4	45	250		60	6	8SC	T
T635	023 100 080 0000	40	023 100 060	G1	6.3	16	250		20	2.2	8SC	T
T1335	023 100 080 0000	40	023 100 060	G1	13	4.5	225		6	2.5	8SC	T
TB13	902 310 000 0000	00	802 310 000		13						B5	D
TB032	842 300 000 0000	00	642 300 000		2	30	150		12	1.5	B4	T
TB052	842 300 000 0000	00	642 300 000		2	15	150		7	1.2	B4	T
TB062	842 300 000 0000	00	642 300 000		2	10.5	150		13	2	B4	T
TB102	842 300 000 0000	00	642 300 000		2	4	150		5	1.3	B4	T
TB122	842 300 000 0000	00	642 300 000		2	4.5	150		6	3.5	B4	T
TB172	842 300 000 0000	00	642 300 000		2	4.5	150		4	1.4	B4	T
TB282	842 300 000 0000	00	642 300 000		2	1.5	150		2	1.3	B4	T
TB402	548 230 800 0000	00	446 230 700		4		150		6		B7	TT
TB452	742 300 000 0000	80	542 300 000	A1	2		150	75	2	1.5	B4	P
TB552	742 300 000 0000	80	542 300 000	A1	2		150	75	4	1.5	B4	P
TB622	742 300 000 0000	80	542 300 000	A1	2		150	90	2	1.4	B4	P
TB9920	842 310 000 0000	00	642 310 000		20	1.5	200		0.2	4	B5	T
TBC14	90X 231 800 0000	40	809 231 600	G1	4	7	250		4	2	B7	DDT
TBC113	90X 231 800 0000	40	809 231 600	G1	13	5	200		4	3.6	B7	DDT
TC05-25	842 300 000 0000	00	642 300 000		4		400		65	2.2	B4	T
TC432	842 370 000 0000	00	642 350 000		2	4.5	150	150	9.5	2.5	B5	P
TC432	842 300 000 0000	70	642 300 000	G2	2	4.5	150	150	9.5	2.5	B4	P
TD05-12	021 010 310 0000	84	*21 010 310	A1/G1	6		150		10	4	A08	T
TD044	842 300 000 0000	00	642 300 000		4	40	250		40	3	B4	T
TD2	842 300 000 0000	00	642 300 000		2	7	150		4	0.9	B4	T
TDD1C	023 19X 080 0000	00	023 189 060		13	5	200		4	2	B7	DDT
TDD13	023 19X 080 0000	40	023 189 060	G1	13	1	100			2.9	8SC	DDT
TDD25	90X 231 800 0000	40	809 231 600	G1	25	1	100		4	2	B7	DDT

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V † Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
TE2	029 0X0 310 0000	00	028 090 310		26				30		A08	RR
TE3	029 0X0 310 0000	00	028 090 310		12				30		A08	RR
TE5	029 0X0 310 0000	00	028 090 310		6.3				30		A08	RR
TE094	842 310 000 0000	00	642 310 000		4	16	200		12	1.3	B5	T
TE104	842 300 000 0000	00	642 300 000		4	26	400		61	4	B4	T
TE244	842 310 000 0000	00	642 310 000		4	3.5	200		6	2.4	B5	T
TE384	842 310 000 0000	00	642 310 000		4	2	200		3	1.5	B5	T
TE424	742 310 000 0000	80	542 310 000	A1	4		200	100	3	2	B5	P
TE434	842 370 000 0000	00	642 350 000		4	14	250	250	36		B5	P
TE464	041 231 700 0000	80	041 231 500	A1	4		200	100	3	2.5	B7	P
TE474	041 231 700 0000	80	041 231 500	A1	4	1.5	200	100	4.5	2	B7	P
TE534	842 310 000 0000	70	642 310 000	G2	4	15	250	250	24		B5	P
TE564	041 231 700 0000	80	041 231 500	A1	4	1.5	200	100	4.5	2.2	B7	P
TE634	047 231 800 0000	00	045 231 600		4	22	250	250	36		B7	P
TE994	842 310 000 0000	00	642 310 000		4	1.6	250		4	4	B5	T
TF64	081 231 700 0000	40	061 231 500	G1	4	2.7	250	250	11	2	B7	P
TF104	842 300 000 0000	00	642 300 000		4	36	400		61	4	B4	T
TH1	288 475 131 0000	00	276 454 300		6.3		100		4		B8B	TH
TH4	[847 231 800 0000 057 231 800 0000	[50 50]	645 231 700	G1	4	[2 2]	150 200	100	6 3.5	1.2	[B7]	TH
TH13C	[847 231 800 0000 057 231 800 0000	[50 50]	645 231 700	G1	13	[2 1.5]	150 250	75	6 4.0	1.2 1.8	[B7]	TH
TH21C	[847 231 800 0000 057 231 800 0000	[50 50]	645 231 700	G1	21	[2 1.5]	150 250	75	6 4	1.2 1.8	[B7]	TH
TH22C	[847 231 800 0000 057 231 800 0000	[50 50]	645 231 700	G1	29	[2 2]	150 250	100	5 3.5	6	[B7]	TH
TH29	[847 231 800 0000 057 231 800 0000	[50 50]	645 231 700	G1	29	[2 2]	100 250	100	12.0 3.5	4.5	[B7]	TH
TH30	[847 231 800 0000 057 231 800 0000	[50 50]	645 231 700	G1	30	[2 2]	100 150		9.5	5.5	[B7]	TH
TH30C	[847 231 800 0000 057 231 800 0000	[50 50]	645 231 700	G1	29	[2 2.5]	250 250	100	3.5 3.25		[B7]	TH
TH31	[218 840 730 0000 218 050 730 0000	[50 50]	217 740 530	G1	4	[3 3]	100 250	100	10.2 3	4	[M08]	TH
TH41	[218 840 730 0000 218 050 730 0000	[50 50]	217 640 530	G1	4	[3 3]	100 250	100	10.2 3	4 3.1	[M08]	TH
TH62	[028 748 310 0000 028 750 310 0000	[50 50]	027 546 310	G1	6	[2 2]	100 250	100	4.4 3	2.4	[A08]	TH
TH232	[847 231 800 0000 057 231 800 0000	[00 00]	645 231 700		23	[3 2]	75 150	100	4.5 3		[B7]	TH
TH233	[218 840 730 0000 218 050 730 0000	[50 50]	217 640 530	G1	23	[2 2]	100 150	100	14 2.6	2.1 3	[M08]	TH
TH401			174 652 300	G1	4	[2 2]	150 75	75	11 2.5	2	[C7]	TH
TH2320	[847 231 800 0000 057 231 800 0000	[50 50]	645 231 700	G1	23	[3 3]	100 150	100	4.5 3	5.3	[B7]	TH
TH2321	[847 231 800 0000 057 231 800 0000	[50 50]	645 231 700	G1	23	[2 2]	100 150	100	4 2.6	5.2 3	[B7]	TH
TH2620	[847 231 800 0000 057 231 800 0000	[50 50]	645 231 700	G1	26	[1 1]	100 250	100		5.3 3.9	[B7]	TH
TK406	023 104 780 0000	00	023 104 560		4	5	250	250	0.1	†2.0	8SC	TI
Ø TM05	882 345 100 0000	00	672 344 100		6	[0.8 3]	100 150		8.5 5	5.3 4.5	[B7G]	TT

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
TM12	412 344 800 0000	00	412 344 600		6.3		150		15	12	B7G	T
TP4	781 231 840 0000	50	571 231 640	G1	4	[3 5	150 250	200	1.5 5.5	1.4 1.6	B9	TP
TP22	781 230 840 0000	50	571 230 640	G1	2	[1 1	100 150	60	0.8 1.2	1.2 1	B9	TP
TP23	[841 230 800 0000 051 230 800 0000	50]	645 230 700	G1	2	[1 1.5	100 150	60	4.5 1	2.1 1	B7	TP
TP25	[208 840 730 0000 208 050 730 0000	50 50]	207 640 530	G1	2	[1 1.5	100 150	60	3.7 1	1.5 1	M08	TP
TP26	208 840 730 0000	50	207 640 530	G1	2	[1 1	150 150	75	2.2 1.5	1.5 15.	M08	TP
TP230	781 230 840 0000	50	561 230 740	G1	2	[100 150	75	20	4.3	1.1 1.3	B9	TP
TP443	842 370 000 0000	00	642 350 000		4	22	250	250	36	5	B5	P
TP1340	781 231 840 0000	50	571 231 640	G1	13	[6	200 250	250	2 6.5	1.4 2.1	B9	TP
TP2620	081 231 840 0000	50	571 231 640	G1	26	[2.5 4	250 250	200	1.5 6.5	1.4 3.4	B9	TP
TS49	281 704 130 0000	00	261 504 130		20	4.5	250	150	15	6	B8B	P
TS51	412 387 100 0000	00	412 365 100		6	2.3	150	150	7	4.3	B7G	P
Ø TS52	882 345 100 0000	00	672 344 100		6	[0.8 3	100 150		8.5 5	5.3 4.5	B7G	TT
TS53	741 238 001 0000	00	541 236 **1		18	1.8	200	100	15	10	B9A	P
TS54	741 238 001 0000	00	541 236 **1		6.3	1.7	200	125	10	9	B9A	P
TSE4	081 231 700 0000	40	061 231 500	G1	4	2.5	250	150	8	14.5	B7	P
TSP4	081 231 700 0000	40	061 231 500	G1	4	2.5	200	200	8	4.7	B7	P
TT2	222 933 3X0 0000	00	222 833 390		4.4						A08	DD
TT4	842 310 000 0000	00	642 310 000		4	16	250		20	3.2	B5	T
TT4A	842 310 000 0000	00	642 310 000		4	9	250		20	4.1	B5	T
TT11	020 470 310 0000	80	020 450 310	A1	6	11	250	150	30	3.5	A08	P
TT12	204 731 102 0000	80	204 531 102	A1	19	13	250	250	72	6	B9G	P
TT14	204 071 103 0000	80	204 051 103	A1	6	13	250	250	72	6	B9G	P
TT15	241 878 153 0000	00	241 657 143		6	14	250	150	30	3.9	B9G	PP
TT19	241 878 153 0000	00	241 657 143		19	16.5	250	150	30	3.9	B9G	PP
TT20	247 135 200 0000	88	245 134 200	A1/A2	6	17	400	200	20	2.5	B7A	PP
TT21	020 740 310 0000	80	020 540 310	A1	6.3	30	300	300	80	7	A08	P
TT22	020 740 310 0000	80	020 540 310	A1	12.6	30	300	300	80	7	A08	P
TT23	415 228 783 0000	00	414 226 573		6.3		150	150	25	10.5	B9A	PP
TT24	514 228 783 0000	00	414 226 573		6.3		250	200	30	3.3	B9A	PP
TT25	247 818 352 0000	88	245 617 342	A1/A2	6.3		400	250	30	3.4	B7A	PP
TT210	023 085 480 0000	00	023 074 460		2		150		1.5		8SC	TT
TV4	023 140 780 0000	00	023 104 560		4	21	250	250	0.2	†1.0	8SC	TI
TV6	023 104 780 0000	00	023 104 560		6.3	5	250	250	0.09	†2.0	8SC	TI
TV03-10	452 310 000 0000	88	442 310 000	A1/A2	6	17	300		17	3.2	B5	TT
TW1	902 310 000 0000	00	802 310 000		20				60		B5	R
TW2	9X2 310 000 0000	00	892 310 000		30				60		B5	RR
TX4	847 231 800 0000	50	645 231 700	G1	4	[5 1.5	150 300	90	9 5.5	1.5	B7	TH
TX21	[847 231 800 0000 057 231 800 0000	50 50]	645 231 700	G1	21	[2 1.5	150 250	90	15 5.5	2.5	B7	TH
TX41	[847 231 800 0000 057 231 800 0000	50 50]	645 231 700	G1	4	[3 2.5	100 250	100	9 3.2	3.8	B7	TH

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V † Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
TY86F	230 232 032 0000	90	23* 232 *32	D1	7.5						B9A	R
TZ40	204 300 000 0000	80	204 300 000	A1	7.5	1	100			0.4	UX4	T
U4C	842 300 000 0000	00	642 300 000		4	12	200		35	3.2	B4	T
U4E	842 300 000 0000	00	642 300 000		4	40	400		45	4	B4	T
U4F	842 300 000 0000	00	642 300 000		4	40	400		45	4	B4	T
U5	9X2 300 000 0000	00	892 300 000		5				15		B4	RR
U8	9X2 300 000 0000	00	892 300 000		7.5				60		B4	RR
U9	9X2 300 000 0000	00			4				30		B4	RR
U10	9X2 300 000 0000	00	892 300 000		4				30		B4	RR
U12	9X2 300 000 0000	00	892 300 000		4(5)				60		B4	RR
U14	9X2 300 000 0000	00	892 300 000		4				60		B4	RR
U15	902 300 000 0000	00	802 300 000		6				120		B4	R
U16	002 300 000 0000	90	002 300 000	D1	2				5		B4	R
U17	002 300 000 0000	90	002 300 000	D1	5				30		B4	R
U19	002 300 000 0000	90	002 300 000	D1	4(5)				120		B4	R
U19/23	002 300 000 0000	90	002 300 000	D1	4				120		B4	R
U22	200 000 030 0000	90	200 000 030	D1	2(3)				5		M08	R
U22FH	200 000 030 0000	90	200 000 030	D1	2						M08	D
U23	002 300 000 0000	90	002 300 000	D1	4(5)				120		B4	R
U24	030 000 200 0000	90	030 000 200	D1	2				1		A08	R
U25	023 000 000 0000	90	023 000 000	D1	2				120		B3G	D
U26	3X1 221 900 0000	00	391 221 800		13				60		B7	RR
U26	231 232 132 0000	90	231 232 132	D1	2				0.2		B9A	D
U27	002 300 000 0000	90	002 300 000	D1	4				30		B4	R
U29	002 300 000 0000	90	002 300 000	D1	2				5		B5	R
U30	3X1 221 900 0000	00	391 221 800		13				60		B7	RR
U30/250	902 300 000 0000	00	802 300 000		4				30		B4	R
U31	020 090 310 0000	00	020 080 310		26				120		A08	R
U33	002 300 000 0000	90	002 300 000	D1	2				2		B4	R
U35	020 000 030 0000	90	020 000 030	D1	1.4				2		A08	R
U37	023 000 000 0000	90	023 000 000	D1	1.4				0.5		B2G	D
U41	020 000 300 0000	90	*2* 0*0 3*0	D1	1.2				1		A08	D
U43	023 000 000 0000	90	023 000 000	D1	6				0.5		B2G	D
U49	230 232 032 0000	90	230 232 032	D1	2				0.2		B9A	D
U51	030 X09 020 0000	00	030 908 020		5				120		A08	RR
U52	030 X09 020 0000	00	030 908 020		5(5.7)				120		A08	RR
U52IT	009 0X0 230 0000	00	008 090 230		5(5.7)				120		A08	RR
U54	030 X09 020 0000	00	030 908 020		5(5.7)				120		A08	RR
U60	020 000 300 0000	90	*2* *** 3*0	D1	6.3						A08	D
U60/500	9X2 300 000 0000	00	892 300 000		4				60		B4	R
U65/550	902 300 000 0000	00	802 300 000		7.5				60		B4	R
U70	029 0X0 310 0000	00	028 090 310		6				30		A08	RR
U71	020 090 310 0000	00	020 080 310		30				60		A08	R
U74	020 090 310 0000	00	020 080 310		30				120		A08	R
U77	020 90X 020 0000	00	*20 809 020		5				180		A08	RR
U78	902 30X 100 0000	00	802 309 100		6				30		B7G	RR
U81	00X 009 230 0000	00	009 008 230		6				60		B8B	RR
U84	00X 009 230 0000	00	009 **8 230		4				30		B8B	RR
U101	290 009 130 0000	00	280 008 130		50				120		B8B	R
U107	291 009 300 0000	00	281 008 300		40				60		B7G	R

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
U118	290 000 130 0000	00	280 *** 130		40				60		B8A	R
U119	001 230 009 0000	00	**1 23* **8		38				120		B9A	R
U120/500	9X2 300 000 0000	00	892 300 000		2				120		B4	R
U134	029 1X0 310 0000	00	028 190 310		13				60		A08	RR
U142	290 000 130 0000	00	280 000 130		31				60		B8A	R
U143	020 X09 030 0000	00	020 908 030		4				30		A08	RR
U145	290 000 130 0000	00	280 000 130		40				60		B8A	R
U147	029 0X0 310 0000	00	028 090 310		6				30		A08	RR
U149	20X 009 130 0000	00	209 008 130		6				30		B8B	RR
U150	290 00X 130 0000	00	280 009 130		6				30		B8A	RR
U152	001 230 009 0000	00	001 230 008		19				120		B9A	R
U153	000 230 009 0000	10	*** 23* **8	C	17				120		B9A	R
U154	001 230 009 0000	00	**1 23* **8		19				120		B9A	RR
U191	000 090 230 0000	10	0** 080 230	C1	19				120		A08	R
U192	001 230 009 0000	00	**1 23* **6		19				120		B9A	R
U193	000 230 009 0000	10	*** 23* **6	C1	19				120		B9A	R
U201	020 090 310 0000	00	020 080 310		20				60		A08	R
U251	000 230 009 0000	10	*** 23* **8	C	25				120		B9A	R
U281	020 090 310 0000	00	020 080 310		28				120		A08	R
U282	001 000 230 0000	90	001 000 230	D1	28				120		A08	R
U291	029 090 310 0000	00	028 08* 310		29				180		A08	R
U301	000 090 230 0000	10	0** 080 230	C	30				120		A08	R
U309	001 230 009 0000	00	**1 23* **8		20				120		B9A	R
U329	000 230 009 0000	10	*** 23* **8	C	25				120		B9A	R
U381	001 230 009 0000	00	**1 23* **8		38				120		B9A	R
U403	201 090 030 0000	00	201 080 030		40				120		M08	R
U404	290 000 130 0000	00	280 *** 130		40				60		B8A	R
U415	842 300 000 0000	00	642 300 000		4	10.5	150		5	1.4	B4	T
U418	842 300 000 0000	00	642 300 000		4	13	150		10	1.6	B4	T
U650	902 300 000 0000	00	802 300 000		6				30		B4	R
U709	901 230 X00 0000	00	8*1 23* 9**		6				60		B9A	RR
U718	2X0 009 130 0000	00	29* **8 130		6.3				60		B8A	RR
U801	129 9XX 310 0000	00	128 899 310		80				120		A08	RR
U2140P	3X1 221 900 0000	00	391 221 800		13				60		B7	RR
U4020	902 310 000 0000	00	802 310 000		40				120		B5	R
UA55	827 415 738 0000	00	625 414 537		55	6	90	90	36	7	B9A	PP
UAA11	023 19X 100 0000	00	023 189 100		22				5		B8C	DD
UAA91	192 310 X00 0000	00	182 310 900		19				5		B7G	RR
UAA171	120 913 0X0 0000	00	120 813 090		25				5		B8B	DD
UABC80	Y91 23X 148 0000	00	181 239 146		28	1	100		0.8	1.4	B9A	DDDT
UAF21	287 914 130 0000	00	265 814 130		20	2	250	100	6	2.8	B8A	DP
UAF41	289 174 130 0000	00	268 154 130		13	2	200	90	5	2	B8A	DP
UB41	201 X09 130 0000	00	201 908 130		19				5		B8A	RR
UB91	192 310 X0C 0000	00	182 310 900		19						B7G	DD
UBC1	208 091 X30 0000	40	206 081 930	G1	13	1.7	200		3	2	A08	DDT
UBC41	284 0X9 130 0000	00	264 098 130		14	1.6	200		1.5	1.6	B8A	DDT
UBC81	841 239 0X0 0000	00	641 238 09*		14	1.5	200		1.5	1.6	B9A	DDT
UBF2	208 791 X30 0000	40	206 581 930	G1	12.5	2	250	100	5	1.8	A08	DDP
UBF11	9X2 381 470 0000	00	892 361 450		20	2	200	75	5	1.8	F8	DDP

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
UBF15	9X2 381 470 0000	00	892 361 450		27	2	250	100	12	5	F8	DDP
UFB80	741 238 9X1 0000	00	541 236 891		17	2	200	125	5	2.2	B9A	DDP
UBF89	741 238 9X1 0000	00	541 236 891		19	2	200	100	9	3.8	B9A	DDP
UBF171	9X2 741 380 0000	00	892 541 360		20	3.2	250	75	6	1.8	B8B	DDP
UBL1	208 791 X30 0000	40	206 581 930	G1	55	11.5	200	200	55	8.5	A08	DDP
UBL21	284 7X9 130 0000	00	264 598 130		55	13	200	200	55	8	B8B	DDP
UBL3	023 19X 780 0000	40	023 189 560	G1	55	6	100	100	29	7.5	8SC	DDP
UBL71	284 79X 130 0000	00	264 589 130		55	5.2	250	250	44	9.5	B8B	DDP
UC88	414 234 484 0000	00	414 234 464		12		150		12.5	14	B9A	T
UC92	802 304 100 0000	00	602 304 100		9.5	1	200		11.5	6.4	B7G	T
UC95	142 380 100 0000	00	142 360 100		10.8	1.2	200		10	10.5	B7G	T
UC96	412 314 800 0000	00	412 314 600		9.3	1	200		11.5	6.7	B7G	T
UCC84			147 234 116		21	1.5	90		12	6	B9A	TT
UCC85	841 238 510 0000	00	641 237 410		26	2.1	200		10	5.8	B9A	TT
UCC88	841 238 510 0000	00	641 237 410		21	1.2	90		15	12.5	B9A	TT
UCC89	148 235 118 0000	00	146 234 117		21.6	1.2	90		15	12	B9A	TT
UCC189	841 238 510 0000	00	641 237 410		21	1.2	90		15	12.5	B9A	TT
UCF12	218 745 830 0000	50	642 371 450		20	[1 2	100 200	100	5	3 2	F8	TP
UCF80	857 238 114 0000	00	645 237 114		27	[2 2	100 200	175	14 10	5 6.2	B9A	TP
UCH4	218 745 830 0000	50	217 544 630	G1	20	[2 2	100 200	100	6 5.2	3 2.2	A08	TH
UCH5	123 814 780 0000	50	123 644 570	G1	20	[2 2	100 250	100	6.3 6.5	2.7 2.6	8SC	TH
UCH11	[842 381 570 0000 052 381 570 0000	[00 00	642 371 450		20	[2 2	100 250	100	5 4.7	2.4 2.5	F8	TH
UCH21	288 475 131 0000	00	276 454 131		20	[7 2	100 200	90	6.4 5.2	2.2 2.2	B8B	TH
UCH41	[288 474 130 0000 280 575 130 0000	[00 00	276 454 130		14	[2 2	100 200	90	6.4 2.7	2.2 1.7	B8A	TH
UCH43	[288 475 130 0000 280 575 130 0000	[00 00	276 454 130		14	[2 2	100 200	75	5 8	2 2.2	B8A	TH
UCH71	288 475 131 0000	00	276 454 131		20	[2 2	100 200	90	16.4 5.2	2.2 2.2	B8B	TH
UCH80			541 23* 764		14.5	[2 3	75 250	85	5.1 3		B9A	TP
UCH81			541 237 164		19	[2.6 2.6	100 200	125	5 7.6	2.3 2.4	B9A	TP
UCH717			642 544 370		20	[2.5 2	200 200	100	3 2		B8B	TP
UCL11	572 381 480 0000	00	452 371 460		60	[8.5 8.5	200 200	200	45	0.7 2.1 9	F8	TP
UCL81	471 238 815 0000	00	451 237 614		39	[1.9 7	150 200	200	1.3 30	1.6 8.7	B9A	TP
UCL82	415 238 718 0000	00	414 237 516		50	[1 16	200 200	200	3.7 35	2.5 6.4	B9A	TP
UCL83	841 238 175 0000	00	641 137 154		40	[1.5 9.5	200 200	175	2.4 30	2.5 5.5	B9A	TP
UCL84	481 238 157 0000	00	461 237 145		45	[1.7 2.1	200 200	175	3 18	4	B9A	TP
UCL86	417 238 158 0000	00	415 237 146		44	[1.7 7	250 250	250	1.2 36	1.6 10	B9A	TP

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
UD2	842 300 000 0000	00	642 300 000		2	12	150		14	2.5	B4	T
UDDL71	023 19X 780 0000	40	023 189 560	G1	44	10	200	200	60	9	8SC	DD
UDH	902 310 000 0000	00	803 310 000		20				60		B5	R
UDP12	023 190 780 0000	40	023 180 560	G1	40	10	200	200	60	9	8SC	DP
UDP13	028 790 310 0000	40	026 580 310	G1	40	10	200	200	60	9	A08	DP
UDT1	023 19X 080 0000	40	023 189 060	G1	15	3	200		10.3	3	8SC	DD
UE1	023 100 090 0000	00	023 100 080		25				60			
UE2	123 190 0X0 0000	00	123 180 090		50				60		8SC	RR
UE13	020 090 310 0000	00	020 080 310		25				60		A08	R
UE100	209 000 130 0000	00	208 0*0 130		50						A08	R
UEL11	572 381 780 0000	40	452 371 560	G	48	[6	100	300	2.4	1.6	F8	PP
UF5	023 110 780 0000	40	023 110 560	G1	12.5	2.5	100	100	3.2	2.2	8SC	P
UF6	023 110 780 0000	40	023 110 560	G1	12.5	20	100	100	3	1.8	8SC	P
UF8	208 711 130 0000	40	206 511 130	G1	12	2	200		6	1.6	B8B	P
UF9	208 701 130 0000	40	206 501 130	G1	12.5	2.5	200	100	6	2.2	A08	P
UF10	023 110 780 0000	40	023 110 560	G1	12.5	2.4	200	100	5.5	2.4	8SC	P
UF11	802 301 470 0000	00	602 301 450		15	2	200	75	6	2.2	F8	P
UF14	812 370 140 0000	00	612 350 140		25	5	200	200	12	7	F8	P
UF15	812 301 470 0000	00	612 301 450		25	2	200	100	12	5.5	F8	P
UF21	287 104 130 0000	00	265 104 130		12.5	2.5	200	100	6	2.2	B8B	P
UF40	280 047 130 0000	00	260 045 130		12.6	2	200	150	3	1.8	B8D	P
UF41	280 074 130 0000	00	26* *54 130		12.5	3	200	125	7.2	2.3	B8A	P
UF42	280 174 130 0000	00	260 154 130		21	2	200	175	10	8.5	B8A	P
UF43	280 174 130 0000	00	260 154 130		21	2	200	125	15	6.3	B8A	P
UF80	141 230 871 0000	00	141 230 651		19	2	200	170	10	7.4	B9A	P
UF81	741 238 000 0000	00	541 236 000		12.6	2.5	250	125	6	2.2	B9A	P
UF85	141 231 871 0000	00	141 231 651		19	2	200	100	9.7	5.9	B9A	P
UF86	701 238 014 0000	00	501 236 014		12.6	2	200	150	3	1.8	B9A	P
UF89	041 230 871 0000	00	041 230 651		12.6	2	200	100	9	3.8	B9A	P
UF172	112 740 380 0000	00	112 540 360		20	2	200	100	4.5	3	B8B	P
UF174	112 740 380 0000	00	112 540 360		30	3	200	150	12	8	B8B	P
UF175	112 740 380 0000	00	112 540 360		30	2	200	75	10	5.7	B8B	P
UF183	141 230 871 0000	00	141 230 651		18.9	2	200	90	12	12.5	B9A	P
UF184	141 230 871 0000	00	141 230 651		18.9	2.5	200	200	10	15	B9A	P
UH3	023 110 780 0000	00	023 110 560		13	3	250	100	8	2.2	8SC	P
UH4	9X3 200 000 0000	00	893 200 000		4				5		B5	RR
UHP51	023 110 780 0000	00	023 110 560		13	2.5	250	100	3.5	2	8SC	P
UL1	108 740 130 0000	00	206 540 130		60	11.5	200	200	55	8.5	A08	P
UL2	023 104 780 0000	00	023 104 560		35	5	200	200	20	7	8SC	P
UL11	802 301 470-0000	00	602 301 450		45	14	200	200	45	9	F8	P
UL12	802 301 470 0000	00	602 301 450		60	8	200	125	75	12	F8	P
UL21	287 004 130 0000	00	265 004 130		45	13	200	200	55	8	B8B	P
UL22	287 004 130 0000	00	265 004 130		46	10	200	175	61	9	B8B	P
UL41	280 074 130 0000	00	26* *54 130		45	9	200	175	54	9.5	B8A	P
UL43	280 174 130 0000	00	260 154 130		50	2.6	250	250	36	10	B8A	P
UL44	200 174 130 000	80	200 154 130	A1	45	13.5	200	175	28.5	7	B8A	P
UL46	281 074 130 0000	00	261 054 130		45	9	200	175	54	9.5	B8A	P
UL71	284 700 130 0000	00	264 500 130		45	5.2	200	200	22	6.5	B8B	P
UL84	041 230 807 0000	00	*41 23* 6*5		45	12.5	200	175	70	10	B9A	P
UL171	102 741 380 0000	00	102 541 360		55	8.5	200	200	45	9	B8D	P

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
ULL80	748 235 187 0000	00	546 234 175		25		250	250	24		B9A	PP
ULP	842 310 000 0000	00	642 310 000		13	20	250		27	4	B5	T
ULP51	823 147 000 0000	00	623 145 000		40	17	250	250	36	2.5	8SC	P
ULP61	023 100 780 0000	40	023 100 560	G1	33	8	200	200	55	9	8SC	P
UM4	208 748 130 0000	00	206 546 130		12.6	[4.2 12.5	200 200	200		†1.0 †1.0	A08	TI
UM11	208 748 130 0000	00	206 546 130		15	[4.2 12.5	200 200	200		†1.0 †1.0	A08	TI
UM34	028 748 310 0000	00	026 456 310		12.6	[4.2 12.5	250 250	250		†1.0 †1.0	A08	TI
UM80	410 230 807 0000	00	41* 23* 6*5		19	14	200	200	0.4	†0.5	B9A	TI
UM81	410 230 807 0000	00	41* 23* 6*5		19	14	200	200	0.4	†0.5	B9A	TI
UM84	401 237 808 0000	00	4*1 235 6*6		12.6	22	250	250	0.4	†0.5	B9A	TI
UM85	401 237 808 0000	00	401 235 607		19	13	200		1	†0.2	B9A	TI
UM85	401 237 80X 0000	00	401 235 607		19	13	200	200	1	0.2	B9A	
UN955	213 480 000 0000	00	213 460 000		6.3	7	250		6.3	2.2	5AA	T
UP			892 300 000		4				30		B4	RR
UP2	023 140 780 0000	00	023 140 560		25	19	200	100	40	3	8SC	P
UP6	023 100 780 0000	40	023 100 560	G1	35	8	200	200	55	9	8SC	P
UP13	028 740 310 0000	00	026 540 310		35	8	200	200	55	9	A08	P
UP13	040 231 700 0000	80	040 231 500	A1	13	1	200	100		3	B7	P
UP35U	023 100 780 0000	40	023 100 560	G1	35	8	200	200	55	9	8SC	P
UPX	842 310 000 0000	00	642 310 000		25	34	250		38	7	B5	T
UQ80	741 238 114 0000	00	541 236 114		12	1	250	20	0.9	7	B9A	P
UR1	023 100 090 0000	00	023 100 080		20				60		8SC	R
UR1C	902 310 000 0000	00	802 310 000		20				60		B5	R
UR2	123 190 0X0 0000	00	123 180 090		30				60		8SC	RR
UR3C	9X1 231 900 0000	00	091 231 800		30				60		B7	RR
UT2	023 100 080 0000	40	023 100 060	G1	15	5	100		6	3	8SC	T
UTH4	523 184 780 0000	50	423 164 570	G1	17	[2.5	100 200	90	4 3	2 0.8	8SC	TH
UTH12	523 184 780 0000	50	423 164 570	G1	17	[2.5	100 250	30	4 3	2 0.7	8SC	TH
UU2	9X2 300 000 0000	00	892 230 000		4				30		B4	RR
UU3	9X2 300 000 0000	00	892 300 000		4				30		B4	RR
UU5	9X2 300 000 0000	00	892 300 000		4(5)				60		B4	RR
UU6	209 0X0 030 0000	00	208 090 030		4				60		M08	RR
UU7	209 0X0 030 0000	00	209 090 030		4				60		M08	RR
UU8	209 0X0 030 0000	00	208 090 030		4				120		M08	RR
UU9	2X0 009 130 0000	00	290 008 130		6				30		B8A	RR
UU10	9X2 300 000 0000	00	892 300 000		4				60		B4	RR
UU12	901 230 X00 0000	00	8*1 23* 9**		6				60		B9A	RR
UU30/250	9X2 300 000 0000	00	892 300 000		4				15		B4	RR
UVG51	123 1X0 090 0000	00	123 190 080		30				60		8SC	RR
UY1	399 029 120 0000	00	388 028 120		50				120		A08	R
UY1NS	309 020 120 0000	00	3*8 02* 120		50				120		A08	R
UY2	023 190 000 0000	00	023 180 000		26				30		F8	R
UY3	023 100 090 0000	00	023 100 080		50				120		8SC	R
UY4	023 100 090 0000	00	023 100 080		35				30		8SC	R
UY11	902 300 100 0000	00	802 300 100		50				120		F8	R
UY21	290 900 130 0000	00	280 80* 130		50				120		B8B	R
UY22	290 909 130 0000	00	280 80 130		26				60		B8B	R

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
UY31	020 090 310 0000	00	020 080 310		50				120		A08	R
UY42	290 000 130 0000	00	280 *0* 130		31				60		B8A	R
UY82	001 230 009 0000	00	**1 23* **8		55				180		B9A	R
UY85	001 230 009 0000	00	**1 23* **8		38				120		B9A	R
UY89	101 230 009 0000	00	1*1 23* **8		31				60		B9A	R
UY91	912 390 900 0000	00	812 380 800		26				60		B7G	R
UY92	002 390 100 0000	00	**2 38* 100		26				60		B7G	R
V2M70	902 30X 100 0000	00	802 309 100		6.3				30		B7G	RR
V20	902 310 000 0000	00	802 310 000		20				60		B5	R
V20/7000	002 300 000 0000	90	002 300 000	D1	4				15		B4	R
V20S	023 100 090 0000	00	023 100 080		20				60		8SC	R
V22/7000	000 010 100 0000	90	000 010 100	D1	6.3				5		B8B	D
V25	091 231 X00 0000	00	081 231 900		25				60		B7	RR
V30	902 310 000 0000	00	802 310 000		30				120		B5	R
V30/1	002 300 000 0000	90	002 300 000	D1	2						B4	D
V41	090 00X 230 0000	00	*8* **9 230		4				30		B8B	RR
V51	290 00X 130 0000	00	280 009 130		5				30		B8A	RR
V61	290 00X 130 0000	00	28* **9 130		6.3				30		B8A	RR
V99	283 400 000 0000	00	263 400 000		3	4.5	90		2.5	0.4	UX4	T
V226	041 230 700 0000	80	041 230 500	A1	6	5	400	250	14	3	B7	P
V245	041 240 700 0000	80	041 240 500	A1	3		250	250	16	5	B7	P
V248A	200 740 030 0000	80	200 540 030	A1	2	10	150	150	32	5.2	M08	P
V311	290 000 130 0000	00	28* ** 130		31				60		B8A	R
V312	802 310 000 0000	40	602 310 000	G1	4	4.8	250		6	2.3	B5	T
V339	000 231 800 0000	40	000 231 600	G1	4		250			1.7	B7	T
V453	218 710 030 0000	40	216 510 030	G1	4	1.8	250	100	4.5	2	M08	P
V503	842 300 000 0000	00	642 300 000		4	85	400		100	4.5	B4	T
V872	218 710 030 0000	40	216 510 030	G1	6	4	200	200	6.7	3.4	M08	P
V884	412 381 700 0000	00	412 361 500		6.3	2.5	250	200	8	2.5	B7G	P
V914	9X2 310 000 0000	00	892 310 000		4						B5	DD
V960	002 300 000 0000	90	002 300 000	D1	4				60		B4	R
V1120	047 231 000 0000	80	045 231 000	A1	6	9.8	200	200	40	8.7	B7	P
V1120B	040 231 700 0000	80	040 231 500	A1	4(5)	9.8	200	200	40	8.7	B7	P
V1906	002 300 000 0000	90	002 300 000	D1	4(5)				60		B4	R
V1928	112 311 100 0000	90	112 311 100	D1	4				5		B7G	R
V2018	002 300 000 0000	90	002 300 000	D1	20				30		B4	R
V2118	902 310 000 0000	00	802 310 000		20				60		B5	R
V4200	802 300 000 0000	00	802 300 000		4				120		B4	R
VBF11	9X2 381 470 0000	00	892 361 450		35	2	200	75	5	1.9	F8	DDP
VC1	023 100 080 0000	40	023 189 060	G1	55	2	200		6	3	8SC	DDT
VC1	023 19X 080 0000	40			55	2	200		6	3	8SC	DDT
VCH11	[842 381 570 0000 052 381 570 0000]	[00]	642 371 450		40	[2.5 0.5]	100 100	90	4 2	[2 0.7]	F8	TH
VCL11	572 381 480 0000	00	452 371 460		90	[4.5]	200	200	12	2.4 5	F8	TH
VDS	742 310 000 0000	80	542 310 000	A1	16	2	200	75	5	1.6	B5	P
VDSB	742 310 000 0000	80	542 310 000	A1	16	1	200	75	5	3	B5	P
VEG51	023 100 090 0000	00	023 100 080		20				60		8SC	R
VEL11	472 381 780 0000	50	452 371 560		90	[6]	100 200	30 200	2.4 22	[1.6 5]	F8	PP
VF3	023 110 780 0000	40	023 110 560	G1	55	2.5	250	100	5	2	8SC	P
VF14	812 370 140 0000	00	612 340 140		60	4.5	250	250	12	7	F8	P

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
VFT4	028 740 310 0000	00	026 540 310		4	22	250	250	0.2	†1.0	A08	TI
VG406	9X2 300 000 0000	00	892 300 000		4				30		B4	RR
VG411	9X2 300 000 0000	00	892 300 000		4				60		B4	RR
VG421	9X2 300 000 0000	00	892 300 000		4				60		B4	RR
VG2908	9X2 300 000 0000	00	892 300 000		2.5				30		B4	RR
VG3016	9X2 300 000 0000	00	892 300 000		4				60		B4	RR
VG3630	9X2 300 000 0000	00	892 300 000		4				120		B4	RR
VG5006	9X2 300 000 0000	00	892 300 000		4				60		B4	RR
VG5007	023 090 0X0 0000	00	023 080 090		4				60		8SC	RR
VG5107	902 300 0X0 0000	00	802 300,090		4				60		F8	RR
VH2	912 390 100 0000	00	812 380 100		6				5		B7G	D
VH3	142 384 100 0000	00	142 364 100		6	4.5	150		13	5	B7G	T
VH5	412 387 100 0000	00	412 365 100		6	2	200	125	7.7	5.1	B7G	P
VHP13	041 231 700 0000	80	041 231 500	A1	13	1.5	200	100	4	2	B7	P
VHT2	847 230 800 0000	40	645 230 600	G1	2		150	75			B4	H
VHT2A	847 230 800 0000	40	645 230 600	G1	2		150	50			B7	H
VHT4	747 231 800 0000	40	545 231 600	G1	4	3	200	100	3.6		B7	H
VHTA	123 184 770 0000	40	123 164 550	G1	13	1.5	250	100	3.2		8SC	H
VHTA	747 231 800 0000	40	545 231 600	G1	13	1.5	200	100	3.2		B7	H
VHTS	847 231 700 0000	40	645 231 500	G1	13	3	200	100	2.6		B7	H
VHTS	747 231 800 0000	40			13	3	200	100			B7	H
VL1	023 100 780 0000	40	023 100 560	G1	55	14	200	200	25	2.2	8SC	P
VL4	023 100 780 0000	40	023 100 560	G1	110	8.5	200	200	45	8	8SC	P
VLS61	002 300 000 0000	90	002 300 000	D1	2				3		B4	R
VM1	200 000 300 0000	90	2** 00* 300	D1	1.4						B7G	D
VM3R	047 231 800 0000	00			4		22	250	250	0.2	B7	TI
VM4V	742 310 000 0000	80	542 310 000	A1	4	1	200	80	14	2.4	B5	P
VME4	047 231 800 0000		045 231 600		4	22	250	250		†1.0	B7	TI
VMP4	041 231 700 0000	80	041 231 500	A1	4	2	250	100	3	3.5	B7	P
VMP4	742 310 000 0000	80	542 310 000	A1	4	1	250	100	5	3.5	B5	P
VMP4G	041 231 700 0000	80	041 231 500	A1	4	2	250	100	8	2.7	B7	P
VMS4	742 310 000 0000	80	542 310 000	A1	4	1	200	80	11	2.1	B5	P
VMS4B	742 310 000 0000	80	542 310 000	A1	4	1	200	80	5.2	2.4	B5	P
VO2	847 320 800 0000	40	645 320 600	G1	2		150	90	1.8		B7	O
VO2S	023 084 780 0000	40	023 064 560	G1	2		150	50	2		8SC	O
VO4	847 231 700 0000	40	645 231 500	G1	4	1.5	250	75	1.6		B7	O
VO4S	023 174 780 0000	40	023 154 560	G1	4	1.5	250	75	1.6		8SC	O
VO6	123 184 780 0000	40	123 164 560	G1	6	3	100	100	4.6		8SC	O
VO13	847 231 700 0000	40	645 231 500	G1	13	1.5	250	75	1.6		B7	O
VO13S	123 174 780 0000	40	123 154 560	G1	13	1.5	250	75	1.6		8SC	O
VO133	023 184 780 0000	50	023 164 570	G1	13	[1	100		1	1.2	B7	TH
VP2	041 230 700 0000	80	041 230 500	A1	2	1	150	150	3	1.5	B7	P
VP2B	081 230 700 0000	40	061 230 500	G1	2	1.5	150	150	1.6	0.7	B7	P
VP2B	032 004 780 0000	00	065 231 500	G1	2	1.5	150	60	2	1.4	B7	H
VP2B	087 231 700 0000	40	032 004 560		2	15	150	150	2.5	0.7	8SC	P
VP2BS	032 010 780 0000	40	032 010 560	G1	2	1	150	150	2.5	0.7	8SC	P
VP2D	081 230 700 0000	40	061 230 500	G1	2	1.5	150	75	1.3	2	B7	P
VP3			023 110 560	G1	55	2.5	250	100	5	2	8SC	P
VP4	041 231 700 0000		542 310 000	A1	4	2	200	100	4.5	2.3	B5	P
VP4	041 231 700 0000	80	041 231 500	A1	4	2	200	100	4.5	2.3	B7	P
VP4C	041 231 700 0000	80	041 231 500	A1	4	2	250	250	11.5	4	B7	P

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
VP4S	023 110 780 0000	40	023 110 560	G1	4	2	250	100	8	1.8	8SC	P
VP4S	081 231 700 0000	40	061 231 500	G1	4	3	250	100	8	1.8	B7	P
VP6	412 381 700 0000	00	412 361 500		6	2.5	250	200	8	2.1	B7G	P
VP6	081 231 700 0000	40	061 231 500	G1	6	3	250	100	7.5	1.7	B7	P
VP6S	023 110 780 0000	40	023 110 560	G1	6	3	250	100	7.5	1.8	8SC	P
VP12D	028 X97 310 0000	40	026 985 310	G1	13	3	250	125	9	1.1	A08	DDP
VP13	041 231 700 0000	80	041 231 500	A1	13	1.5	200	100	6.3	3	B7	P
VP13	081 231 700 0000	40	061 231 500	G1	13	3	200	100	8	2.8	B7	P
VP13A	023 110 780 0000	40	023 110 560	G1	13	2	200	100	4	2.2	8SC	P
VP13B	081 231 700 0000	40	061 231 500	G1	13	2	200	200	9	2.2	B7	P
VP13S	081 231 700 0000	40	061 231 500	G1	13	3	200	100	8	2.8	B7	P
VP13S	023 110 780 0000	40	023 110 560	G1	13	3	200	100	8	2.8	8SC	P
VP20	742 310 000 0000	80	542 310 000	A1	20	2	200	100	4	2.2	B5	P
VP21	041 230 700 0000	80	041 230 500	A1	2	1	150	60	1.8	1.1	B7	P
VP22	208 710 030 0000	40	206 510 030	G1	2	1.5	150	60	1.2	0.8	M08	P
VP41	218 710 030 0000	40	216 510 030	G1	4	2.7	250	250	7.7	2	M08	P
VP41	081 231 700 0000	40	061 231 500	G1	4	3.3	250	250	11	2	B7	P
VP133	218 710 030 0000	40	216 510 000	G1	13	2.7	150	150	8	2.1	M08	P
VP210	041 230 700 0000	80	041 230 500	A1	2	1.5	150	60	1.1	0.8	B7	P
VP210	742 300 000 0000	80	542 300 000	A1	2	1.5	150	60	1.1	0.8	B4	P
VP215	742 300 000 0000	80	542 300 000	A1	2	1.5	150	75	2	0.7	B4	P
VP215	041 230 700 0000	80	041 230 500	A1	2	1.5	150	75	2	0.7	B7	P
VP215B	081 230 700 0000	40	061 230 500	G1	2	1.5	150	125	1.5	1	B7	P
VP215C	041 230 700 0000	80	041 230 500	A1	2	1.5	150	125	1.5	1	B7	P
VP1320	041 231 700 0000	80	041 231 500	A1	13	2.7	250	100	5	2	B7	P
VP1321	041 231 700 0000	80	041 231 500	A1	13	2.8	200	200	7.4	2	B7	P
VP1322	081 231 700 0000	40	061 231 500	G1	13	2.8	250	200	7.4	2	B7	P
VPT2	742 300 000 0000	80	542 300 000	A1	2	1.5	150	60	1.5	1.1	B4	P
VPT2	041 230 700 0000	80	041 230 500	A1	2	1.5	150	60	1.5	1.1	B7	P
VPT4	041 231 700 0000	80	542 310 000	A1	4	3	250	100	5.5	2	B5	P
VPT4	742 310 000 0000	80	041 231 500	A1	4	3	250	100	5.5	2	B7	P
VPT4B	041 231 700 0000	80	041 231 500	A1	4	3	250	100	6	3.2	B7	P
VPTA	041 231 700 0000	80	041 231 500	A1	13	2	250	100	4.2	2.9	B7	P
VPTS	041 231 700 0000	80	041 231 500	A1	13	3	200	100	5.5	2.6	B7	P
VPU1	080 231 700 0000	40	060 231 500	G1	13	1	250	200		3.5	B7	P
VSGA1	742 310 000 0000	80	542 310 000	A1	4	1.5	200	100	7	6.1	B5	P
VT1	842 310 000 0000	00	642 310 000		4	5	200		5	2	B5	T
VT2	842 310 000 0000	00	642 310 000		4	2	200		3	1.9	B5	T
VT121			264 310 000		6.3	7	250		6.3	2.2	5AA	T
VTf6	028 740 310 0000	00	026 540 310		6.3	22	200	200	0.2	11.0	A08	TI
VT121			264 310 000		6.3	7	250		6.3	2.2	5AA	T
VTP4			542 310 000	A1	4	3	200	100	5.5	2	B5	P
VX2	081 237 700 0000	40	061 235 500	G1	2	1	150	60	1	0.5	B7	H
VX2S	023 017 780 0000	40	023 015 560	G1	2	1	150	60	1	0.5	8SC	H
VX4	717 231 800 0000	40	515 231 600	G1	4	2	250	75	1.8	0.5	B7	H
VX4S	023 117 780 0000	40	023 115 560	G1	4	2	250	75	1.8	0.5	8SC	H
VX6S	023 117 780 0000	40	023 115 560	G1	6	3	250	100	1.9	4	8SC	P
VX13	717 231 800 0000	40	515 231 600	G1	13	2	250	75	1.8		B7	P
VX13S	023 117 780 0000	40	023 115 560	G1	13	2	250	75	1.8		8SC	H
VX8045	402 183 700 0000	00	402 163 500		6.3	1.4	100	100	7	5	B8D	P
VX8046	402 873 180 0000	00	402 653 160		6.3	2	100	100	7.5	5.3	B8D	P

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
VX8054	412 073 700 0000	00	412 053 500		6.3	9	100	100	31	5	B8D	P
VY1	023 100 090 0000	00	023 100 080		55				60		8SC	R
VY2	023 190 000 0000	00	023 180 000		30				15		8SC	R
VY2N	023 100 090 0000	00	023 100 080		30				15		8SC	R
W4	842 300 000 0000	00	642 300 000		4	7.5	150		3	1.2	B4	T
W4-500	9X2 300 000 0000	00	892 300 000		4				60		B4	RR
W30	041 231 700 0000	80	041 231 500	A1	13	1	250	250	12	4	B7	P
W31	041 231 700 0000	80	041 231 500	A1	13	3	250	100	8	2.7	B7	P
W42	081 231 700 0000	40	061 231 500	G1	4	3	250	100	7.6	1.5	B7	P
W61	028 710 310 0000	40	026 510 310	G1	6	3	250	75	8.5	2.9	A08	P
W63	028 710 310 0000	40	026 510 310	G1	6	3	250	100	7.6	1.5	A08	P
W101	287 104 130 0000	00	265 104 130		19	3	250	100	8	2.8	B8B	P
W107	412 381 700 0000	00	412 361 500		12.5	2.5	200	200	8	2.5	B7G	P
W119	141 230 871 0000	00	141 230 651		13	1.3	200	100	13	4.4	B9A	P
W145	280 174 130 0000	00	260 154 130		13	2.5	200	100	7	2.3	5BA	P
W148	287 140 130 0000	00	265 140 130		6	2.5	250	150	9.5	2.8	B8B	P
W149	287 104 130 0000	00	265 104 130		6	3	250	100	8.5	1.8	B8B	P
W213	842 300 000 0000	00	642 300 000		2	2.5	150		1	1.2	B4	T
W216	040 120 780 0000	00	040 120 560		2	1.5	150	90	3	1.2	B7	P
W318	90X 231 800 0000	40	809 231 600	G1	4	2	100		3.5	2.5	B7	DDT
W406	842 300 000 0000	00	642 300 000		4	7.5	150		3	1.2	B4	T
W411	842 300 000 0000	00	642 300 000		4	2.5	150		3	2.2	B4	T
W412	842 300 000 0000	00	642 300 000		4	7.5	150		3	1.2	B4	T
W415N	842 310 000 0000	00	642 310 000		4	2.5	200		2.5	1	B5	T
W420	842 300 000 0000	00	642 300 000		4	4	150		4	1.3	B4	T
W4080	842 310 000 0000	00	642 310 000		4	2.5	200		2.5	1	B5	T
W4110	842 310 000 0000	00	642 310 000		4	1.5	200		1	3	B5	T
WD2	842 300 000 0000	00	642 300 000		2	2.5	150		1	1	B4	T
WD30	780 231 9X0 0000	40	560 231 890	G1	13	1	250	100	7	2.6	B9	DDP
WD40	780 231 9X0 0000	40	560 231 890	G1	4	1	250	100	7	3.5	B9	DDP
WD70	741 238 9X1 0000	00	541 236 891		6	2	250	90	5	2.2	B9A	DDP
WD119	741 238 9X1 0000	00	541 236 891		19	1.5	200	100	11	4.5	B9A	DDP
WD142	289 174 130 0000	00	268 154 130		13	2	200	90	5	2.1	B8A	DP
WD150	289 174 130 0000	00	268 154 130		6	2	250	100	5	2.1	B8A	DP
WD709	741 238 9X1 0000	00	541 236 891		6	2	250	90	5	2.2	B9A	DDP
WE23	742 310 000 0000	80	542 310 000	A1	4	2	200	100	3	2.5	B5	P
WE24	742 310 000 0000	80	542 310 000	A1	4		200	100	3	2.5	B5	P
WE27	842 310 000 0000	00	642 310 000		4	3.5	200		6	2.4	B5	T
WE28	842 310 000 0000	00	642 310 000		4	1.5	200		1	2.5	B5	T
WE29	842 310 000 0000	90	642 310 000	D1	4	3	200		6	2	B5	DT
WE30	842 370 000 0000	00	642 350 000		4	15	250	250	36	2.8	B5	P
WE33	023 110 780 0000	40	023 110 560	G1	4	3	100	250	8	1.9	8SC	P
WE35	023 004 780 0000	00	023 004 560		4	15	250	250	15	2.8	8SC	P
WE37	023 19X 080 0000	40	023 189 060	G1	4	7	250		4	2	8SC	DDT
WE38	023 104 780 0000	00	023 104 560		4	6	250	250	36	9	8SC	P
WE39	023 100 080 0000	40	023 100 060	G1	4	5.5	250		6	2.5	8SC	P
WE51	9X2 300 000 0000	00	892 300 000		4				30		B4	RR
WE52	9X2 300 000 0000	00	892 300 000		2				60		B4	RR
WE53	023 090 0X0 0000	00	023 080 090		4				60		8SC	RR
WE54	023 090 0X0 0000	00	023 080 090		4				30		8SC	RR

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
WE350A	274 130 000 0000	80	254 130 000	A1	6	4.5	400	250	83	6.5	UX5	P
WE377	02X 190 310 0000	00	029 180 310		117				60		A08	RR
WE403A	412 387 100 0000	00	412 365 100		6	2.3	150	150	7	4.3	B7G	P
WHTS			745 231 600	G1	13	[1	150			0.6	B7	TH
						1	250	75		1.5		
WT210-0006	[02X 190 310 0000	00	029 180 310		6						A08	DD
WT210-0007	[028 740 310 0000	00	026 540 310		6	18	350	250	54	5.2	A08	P
WT210-0012	[2X9 300 000 0000	00	298 300 000		5				60		UX4	RR
WT210-0013	[29X 300 000 0000	00	289 300 000		5				120		UX4	RR
WT210-0019	[29X 300 000 0000	00	298 300 000		5				120		UX4	RR
WT210-0021	[029 0X0 310 0000	00	028 090 310		6				30		A08	RR
WT210-0025	[02X 190 310 0000	00	029 180 310		117				60		A08	RR
WT210-0029	[028 040 310 0000	00	026 040 310		6	8	250		8	2	A08	T
WT210-0037	[128 479 310 0000	00	126 458 310		117	[5.2	100	100	60	5.3	A08	RP
									43			
WT210-0040	[902 30X 100 0000	00	802 309 100		6				30		B7G	RR
WT210-0042	[030 90X 020 0000	00	030 809 020		5				60		A08	RR
WT210-0048	[020 90X 030 0000	00	020 809 030		5				120		A08	RR
WT210-0081	[021 417 380 0000	00	021 415 360		6	2	250	100	3	1.7	A08	P
WT210-0082	[028 740 310 0000	00	026 540 310		6	12.5	250	250	45	4.1	A08	P
WT210-0083	[218 4X9 130 0000	00	216 498 130		6	2	250		2.3	1.6	B8B	DDT
WT210-0084	[028 456 310 0000	00	027 446 310		6	5	250		3	1.6	A08	TT
WT210-0085	[412 387 400 0000	00	412 365 400		50	7.5	150	100	49	7.5	B7G	P
WT210-0087	[028 748 310 0000	50	027 546 310	G1	6	[1	100		8	2.5		
						3	250	100	4	1.2	A08	TH
WT210-0089	[028 740 310 0000	00	026 540 310		6	9	200	175	15	2.3	A08	P
WT210-0090	[287 113 000 0000	40	265 113 000	G1	6	3	250	100	2	1.2	UX6	P
WT210-0094	[481 581 230 0000	00	461 471 230		6	8	250		9	2.6	A08	TT
WT210-0108	[481 581 230 0000	00	461 471 230		6	31.5	150		100	9	A08	TT
WT210-0148	[02X 090 310 0000	00	029 080 310		6				60		A08	RR
WT389	038 740 320 0000	00	036 540 320		1.4	[4.6	90	90	8	2	A08	P
						8	250		8	2		
WT390	028 040 310 0000	00	026 040 310		6		150		5.5		A08	T
WT-T102	020 90X 030 0000	00	020 809 030		5				60		A08	RR

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
WT-T122	021 417 380 0000	00	021 415 360		6	3	250	100	3	1.6	A08	P
WT-T123	028 740 310 0000	00	026 540 310		6	12.5	250	250	45	4.1	A08	P
WT-T124	218 4X9 130 0000	00	216 498 130		6	2	250		2.3	1.6	B8B	DDT
WT-T125	028 458 310 0000	00	027 446 310		6	5	250		3	1.6	A08	TT
WT-T126	412 387 400 0000	00	412 365 400		50	7.5	150	100	49	7.5	B7G	P
WT-T128	020 048 310 0000	50	027 546 310	G1	6	[1	100		8	2.5	A08	TH
	028 700 310 0000	50				3	250	100	4	1.2		
WT-T130	028 740 310 0000	00	026 540 310		6	9	200	175	15	2.3	A08	P
WT-T131	287 113 000 0000	40	265 113 000	G1	6	3	250	100	2	1.2	UX6	P
WT-T135	020 90X 030 0000	00	020 809 030		5				120		A08	RR
X14	028 748 300 0000	40	026 546 300	G1	1.4		90	50	1.8	0.5	A08	H
X17	288 424 300 0000	00	266 424 300		1.4	4	75		4.5	1.2	B7G	H
X18	288 484 300 0000	00	266 464 300		1.4	4	75		4	1.2	B7G	H
X21	847 230 800 0000	40	645 230 600	G1	2		150	75			B7	H
X22	847 320 800 0000	40	645 320 600	G1	2		150	75			B7	H
X23	[841 230 800 0000]	50			2	[1.5	100		2.1		B7	TH
	051 230 800 0000	50	645 231 700	G1			150	60	0.7			
X24	[841 230 800 0000]	50			2	[1.5	100		2.1		B7	TH
	251 230 800 0000	50	645 231 700	G1			150	60	0.7			
X30	847 231 800 0000	40	645 231 600	G1	13	3	150	75	7		B7	H
X31	[841 231 800 0000]	50					150		2.2		B7	TH
	051 231 800 0000	50	645 231 700	G1	13	[	250	75	2.3			
X41	[841 231 800 0000]	50			4	[6	150		5	1.4	B7	TH
	051 231 800 0000	50	645 231 700	G1		3	250	75	2.3	1.4		
X42	842 231 800 0000	40	642 231 600	G1	4	3	250	100	7	2	B7	H
X61	028 748 310 0000	50	027 546 310	G1	6	[2	100		5.4	2.2	A08	TH
	028 750 310 0000	50				2	250	100	3	0.7		
X61M	[028 748 310 0000]	50	027 546 310		6	[2	100		7.5	2.6	A08	TH
	028 750 310 0000	50				2	250	100	8	2.6		
X63	028 747 310 0000	40	026 545 310	G1	6	3	250	100	6	1.6	A08	H
X64	028 740 310 0000	40	026 540 310	G1	6	3	250	100	5.3	1.1	A08	H
X65	[028 748 310 0000]	50			6	[1	100		8	2.5	A08	TH
	028 750 310 0000	50	027 546 310	G1		3	250	100	4	1.2		
X66	[028 748 310 0000]	50			6	[1	100		8	2.5	A08	TH
	028 750 310 0000	50	027 546 310	G1		3	250	100	4	1.2		
X71	[028 748 310 0000]	50			15	[3	100				A08	TH
	028 750 310 0000	50	027 546 310	G1			250	100				
X73	028 748 310 0000	40	026 546 310	G1	6	3	150	75			A08	H
X75	028 748 310 0000	40	026 546 310	G1	15		150	75			A08	H
X76	[028 748 310 0000]	50			13	[1	100		8	2.5	A08	TH
	028 750 310 0000	50	027 546 310	G1		3	250	100	4	1.2		
X77	412 388 100 0000	00	412 366 100		6	2	100		12	6.5	B7G	H
X78	[752 388 400 000]	00			6	[2	100		5	2.2	B7G	TH
	752 380 500 0000	00	542 376 400			1	150	75	5.3	2.2		
X79	[751 238 480 0000]	00			6	[2	100		5	2.2	B9A	TH
	751 238 500 0000	00	541 237 46*			3	250	75	10	3		
X81	[288 475 130 0000]	00			6	[1	100		4.8	1.4	B8B	TH
	280 575 130 0000	00	265 454 130			2	250	100	4	2		
X99	284 300 000 0000	00	264 300 000		3	4.5	90		2.5	0.4	UX4	T
X101	[288 475 130 0000]	50			19	[2	100		3		B8B	TH
	280 575 130 0000	50	276 454 130	G1			250	100	3			
X107	412 387 400 0000	00	412 365 400		19		100	250	4		B7G	O

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
X108	[752 388 400 0000 752 380 500 0000 00]	00	542 376 400		19	[2 1]	100 250	75	5 5.3	2.2 2.2	B7G	TH
X109	[751 238 480 0000 751 238 500 0000 00]	00	541 237 46*		19	[2 3]	100 250	75	5 2.9	2.2	B9A	TH
X118	[288 475 130 0000 280 575 130 0000 00]	00	276 454 130		28	[2.5]	100 200	100	5 3	4 2.5	B9A	TH
X119	751 238 184 0000	00	541 237 164		19	[1 2.2]	100 200	100	13.5	3.7 2.3	B9A	TP
X142	[288 475 130 0000 280 575 130 0000 00]	00	276 454 130		14	[2 2]	100 200	75	5 8	2 2.2	B8A	TH
X143	[288 475 130 0000 280 575 130 0000 00]	00	276 454 131		6	[2 2]	100 250	90	6.3 5.3	2.4 2.2	B8B	TH
X145	[288 475 130 0000 280 575 130 0000 00]	00	276 545 130		28	[3.3 2.5]	100 200	100	6 8	2 2.5	B8A	TH
X147	[028 748 310 0000 028 750 310 0000 50]	50	027 546 310	G1	6	[2 2]	100 250	100	5.4 5	2.2 2.4	A08	TH
X148	[288 475 130 0000 280 575 130 0000 00]	00	276 454 130		6	[1 2]	100 250	100	4.8 4	1.4 2	B8B	TH
X150	[288 475 130 0000 280 575 130 0000 00]	00	276 454 130		6	[2 2]	100 250	100	5 8	2.6 2.2	B8A	TH
X719	751 238 084 0000	00	541 237 164		6	[3 2]	100 250	100	5 6.5	2.3 2.3	B9A	TH
X727	412 388 100 0000	00	412 366 100		6	2	100		11	7	B7G	H
X6030	020 990 330 0000	00	020 880 330		3						B8B	D
XC88	414 234 484 0000	00	414 234 464		2		150		12.5	14	B9A	T
XC95	142 380 100 0000	00	142 360 100		1.8	1.2	200		10	10.5	B7G	T
XCC82	841 228 513 0000	00	641 227 413		6.3	0	100		11.8	3.1	B9A	TT
XCC89	148 235 118 0000	00	146 234 117		3.6	1.2	100		15	12	B9A	TT
XCC189	851 238 410 0000	00	741 236 410		4.5	1.2	90		15	12.5	B9A	TT
XCF80	857 238 114 0000	00	645 237 114		4.5	[2 1]	100 200	150	14 10	5 6.2	B9A	TP
XCF82	857 238 114 0000	00	645 237 114		4.8	[1 2]	150 200	100	18 10	8.5 5.2	B9A	TP
XCL82	415 238 718 0000	00	414 237 516		8	[0 1.7]	100 200	150	3.5 41	2.5 7.5	B9A	TP
XCL84	481 238 157 0000	00	461 237 145		7.8	[2.9 0.8]	200 100	200	18 5	10.4 6.5	B9A	TP
XCL85	841 238 715 0000	00	641 237 514		8.6	[0.8]	100 200	150	41	7.5	B9A	TP
XCL86	417 238 158 0000	00	415 237 146		7.5	[1.7 7]	250 250	250	1.2 36	16 10	B9A	TP
XD	842 300 000 0000	00	642 300 000		2	1.5	75		0.7	0.8	SM4	T
XD1.5V	842 300 000 0000	00	642 300 000		1.5		50		0.4	0.4	SM4	T
XD2.0V	842 300 000 0000	00	642 300 000		2	1	60		0.5	0.6	SM4	T
XE2	823 000 000 0000	00	623 000 000		1.25	2.9	12		0.1	0.1	B3G	T
XE4	823 000 000 0000	00	623 000 000		1.25	2	12		0.23	0.12	B3G	T
XF80	141 230 871 0000	00	141 230 651		3.4	2	200	175	10	7.2	B9A	P
XF85	141 230 871 0000	00	141 230 651		3.4	2	250	100	10	6	B9A	P
XF86	701 238 014 0000	00	501 236 014		2.5	2	250	150	3	2.3	B9A	P
XF94	412 387 100 0000	00	412 365 100		3.1	1.0	250	150	10.8	5.2	B7G	P
XF183	141 230 871 0000	00	141 230 651		3.6	2	200	90	12	12.5	B9A	P
XF184	141 230 871 0000	00	141 230 651		3.6	2.5	200	200	10	15	B9A	P
XFG1	824 300 000 0000	00	624 300 000		1.5		40		1.5		B5A	T

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
XFR1	872 430 000 0000	00	652 430 000		1.2		40	40	3	2	B5A	P
XFR2	872 430 000 0000	00	652 430 000		1.2		60	60	1.8	1.9	B5A	P
XFR3	824 300 000 0000	00	624 300 000		1.2	5	150		4	1.7	B5	T
XFR5	872 430 000 0000	00	652 430 000		1.2		60	60	1.8	1.1	B5A	P
XFW10	873 420 000 0000	00	653 120 000		0.6		20	20			B5A	P
XFW20	872 430 000 0000	00	652 430 000		0.6		20	20			B5A	P
XFW30	873 420 000 0000	00	653 420 000		0.6		20	20			B5A	P
XFW40	873 420 000 0000	00	653 420 000		0.6		20	20			B5A	P
XFW50	873 420 000 0000	00	653 420 000		0.6		20	20			B5A	P
XFY10	873 420 000 0000	00	653 420 000		1.3	1.3	20	20	0.5	0.4	B5A	P
XFY11	873 420 000 0000	00	653 420 000		1.2		20	20	0.3	0.4	B5A	P
XFY12	873 420 000 0000	00	653 420 000		1.2	0.5	20	20	0.3	0.4	B5A	P
XFY14	873 420 000 0000	00	653 420 000		1.2	6.5	60	60	3.1	0.6	B5A	P
XFY15	873 420 000 0000	00	653 420 000		1.2	6.5	60	60	3	0.6	B5A	P
XFY20	873 420 000 0000	00	653 420 000		0.6		20	20			B5A	P
XFY21	873 420 000 0000	00	653 420 000		1.2		20	20	0.4	0.4	B5A	P
XFY22	873 420 000 0000	00	653 420 000		1.2	1.2	20	20	0.3	0.4	B5A	P
XFY23	873 420 000 0000	00	653 420 000		1.2	2	20	20	0.4	0.3	B5A	P
XFY31	873 420 000 0000	00	653 420 000		1.2		20	20	0.4	0.4	B5A	P
XFY32	873 420 000 0000	00	653 420 000		1.2	1.5	20	20	0.4	0.3	B5A	P
XFY33	873 420 000 0000	00	653 420 000		1.2	2	20	20	0.4	0.3	B5A	P
XFY34	873 420 000 0000	00	653 420 000		1.2	4	40	40	1.5	0.6	B5A	P
XFY35	873 420 000 0000	00	653 420 000		1.2	1.5	40	40	0.7	0.6	B5A	P
XFY41	873 420 000 0000	00	653 420 000		1.2	1.2	40	30	0.3	0.4	B5A	P
XFY43	873 420 000 0000	00	653 420 000		1.2	2	20	20	0.4	0.3	B5A	P
XFY51	873 420 000 0000	00	653 420 000		1.2		20	20	0.2	0.3	B5A	P
XFY53	873 420 000 0000	00	653 420 000		1.2	3	20	20	0.5	0.3	B5A	P
XFY53M	873 420 000 0000	00	653 420 000		1.2	3	20	20	0.5	0.3	B5A	P
XFY54	873 420 000 0000	00	653 420 000		1.2	2	20	20	0.3	0.3	B5A	P
XH2.0V	842 300 000 0000	00	642 300 000		2	1	60		0.5	0.6	SM4	T
XHP1.5V	284 830 000 0000	50			1.5	[4.5	50		1.7	0.7	] SM5	TT
						0	50		0.5	0.5		
XL	842 300 000 0000	00	642 300 000		2	1.5	75		1.5	0.9	SM4	T
XL01.5	842 300 000 0000	00	642 300 000		1.5	1	60		0.9	0.7	SM4	T
XL01.5V	041 230 807 0000	00	*41 23* 6*5		8	7.3	250	250	48	11.3	B9A	P
XL1.5	842 300 000 0000	00	642 300 000		1.5	1	60		0.7	0.6	SM4	T
XL2.0V	842 300 000 0000	00	642 300 000		2	1	60		1	0.8	SM4	T
XL36	842 300 000 0000	00	642 300 000		1.5	4.5	50		1.7	0.7	SM4	T
XL84	802 384 100 0000	00	6*2 364 100		2	1	50		1.1	0.9	B7G	T
XL86	020 740 310 0000	80	*2* 540 310	A1	12.8	8.3	100	100	77	11	A08	P
XP	842 300 000 0000	00	642 300 000		2	4.5	100		9.5	1	SM4	T
XP1.5V	842 300 000 0000	00	642 300 000		1.5	4	60		1.8	0.8	SM4	T
XP2	842 300 000 0000	00	642 300 000		2	4.5	75		4	1	SM4	T
XPH1.5			264 730 000	GL	1.5	[4.5	50		1.7	0.7	] SM5	TT
						0	50		0.5	0.5		
XR2	208 037 240 0000	00	206 035 240		1.2	7.5	150	125	7	1.9	B8D	P
XR4	208 037 240 0000	00	206 035 240		1.2	7.5	150	125	7	1.9	B8D	P
XR6	412 183 710 0000	00	412 163 510		6.3	1.4	100	100	7	5	B8D	P
XR7	412 873 180 0000	00	412 653 160		6.3	2	100	100	7.5	5.5	B8D	P
XR8	482 803 180 0000	00	462 603 160		6.3	2.5	100		8	4.2	B8D	T

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Vb	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
XR9	852 113 480 0000	00	742 113 460		6.3	1.8	100		8.5	5	B8B	TT
XSG	742 300 000 0000	80	542 300 000	A1	2	1	150	60	1.4	0.7	Sm4	P
XSG1.5V	742 300 000 0000	80	542 300 000	A1	1.5	0	50	30	0.5	0.3	Sm4	P
XSG2.0V	742 300 000 0000	80	542 300 000	A1	2	0	60	30	0.6	0.4	Sm4	P
XVS2.0V	742 300 000 0000	80	542 300 000	A1	2	0	60	30	0.4	0.3	Sm4	P
XW1.5	274 830 000 0000	00	254 630 000		1.5	0	60	30	0.7	0.5	Sm5	P
XW1.5			251 630 000	G1	1.5	0	50	50	0.7	0.5	Sm5	P
XW2.0V	274 830 000 0000	00	254 630 000		2	0	60	50	0.9	0.6	Sm5	P
XW075A	873 420 000 0000	00	653 420 000		0.6		40	30	0.3	0.2	B5A	P
XW075B	873 420 000 0000	00	653 420 000		0.6		40	30	0.2	0.2	B5A	P
XXB	208 458 320 0000	00	206 447 320		1.4		90		4.5	1.3	B8B	TT
XXD	218 458 130 0000	00	216 447 130		12.5	10	250		9	2.1	B8B	TT
XXFM	284 19X 130 0000	00	264 189 130		6.3	2	250		1.5	1.5	B8B	DDT
XXL	280 004 130 0000	00	260 004 130		6	8	250		8	2.3	B8B	T
XY	274 830 000 0000	00	254 630 000		2	3	75	75	4	1.2	SM5	P
XY1.4A	873 420 000 0000	00	653 420 000		1.4	4.5	40	40	1.8	0.5	B5A	P
XY1.4B	873 420 000 0000	00	653 420 000		1.2	4.5	40	40	1.6	0.6	B5A	P
XY1.4C	873 420 000 0000	00	653 420 000		1.2	1.5	40	40	0.5	0.5	B5A	P
XY1.5	274 830 000 0000	00	254 630 000		1.5	1.5	40	40	1.7	1	SM5	P
XY2.0V	248 730 000 0000	00	246 530 000		2	2	60	50	1.7	1.4	SM5	P
XY14B	873 420 000 0000	00	653 420 000		1.2	4.5	40	40	0.3	0.6	B5A	P
XY14CC	873 420 000 0000	00	653 420 000		1.2	1.5	40	40	0.5	0.5	B5A	P
XY88	000 230 009 0000	10	*** 23* **8	C	16				120		B9A	R
Y13	047 231 800 0000	00	045 231 600		13	20	250	250	40	3.9	B7	P
Y25	400 230 080 0000	00	4*0 320 060		1.4	34	250		0.09	†2.2	B8A	TI
Y61	028 740 310 0000	00	026 540 310		6.3	22	250	250	0.2	†1.0	A08	TI
Y62	028 740 310 0000	00	026 540 310		6.3	22	250	250		†1.0	A08	TI
Y63	028 740 310 0000	00	026 540 310		6.3	22	250	250	0.2	†1.0	A08	TI
Y64	028 740 310 0000	00	026 540 310		6.3	22	250	250		†1.0	A08	TI
Y65	028 740 310 0000	00	026 540 310		6.3	11	250	250		†1.0	A08	TI
Y119	410 270 807 0000	00	41* 25* 6*5		19	14	200	200	0.4	†0.5	B9A	
Y220	842 300 000 0000	70	642 300 000	G2	2	4.5	150	150	10.5	2.5	B4	P
Y220	842 370 000 0000	00	642 350 000		2	4.5	150	150	10.5	2.5	B5	P
Y230	842 370 000 0000	00	642 350 000		2	3	150	150	5		B5	P
YA1000	230 232 032 0000	80	230 232 032	A1	4				180		B9A	R
YC88	414 234 484 0000	00	414 234 464		2.6		160		12.5	14	B9A	T
YC95	142 380 100 0000	00	142 360 100		2.2	1.2	200		10	10.5	B7G	T
YCC89	148 235 118 0000	00	146 234 117		4.8	1.9	100		15	12	B9A	TT
YCL82	415 238 718 0000	00	414 237 516		10.8	0	100		3.5	2.5	B9A	TP
							200	150	41	7.5		
YCL84	481 238 157 0000	00	461 237 145		10	1.7	200		3	4	B9A	TP
							200	150	18	11		
YCL86	417 238 158 0000	00	415 237 146		10	1.7	250		1.2	1.6	B9A	TP
						7	250	250	36	10		
YD2	842 300 000 0000	00	642 300 000		2	4.5	150		6	3	B4	T
YF183	141 230 871 0000	00	141 230 651		4.2	2	200	100	12	12.5	B9A	P
YF184	141 230 871 0000	00	141 230 651		4.2	2.5	200	200	10	15	B9A	P
YL84	041 230 807 0000	00	*41 23* 6*5		8	7.3	250	250	48	11.3	B9A	P
YL86	041 230 807 0000	00	041 23* 6*5		8	12.5	200	200	75	10	B9A	P
YL1000	014 237 188 0000	00	014 235 166		1.1	6.5	100	100	30	4.3	B9A	P
YL1020	247 105 200 0000	88	245 1*4 200	A1/A2	1.6		300	250	40	4	B7A	PP

VALVE TYPE	VCM163 only		VCM.s Mk 1-4 incl and CT/VT 160		Vf	Vg1	Va	Vg2	Ia mA	gm mA/V †Ra MΩ	BASE	TYPE
	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP								
YL1030	247 305 200 0000	88	245 3*4 200	A1/A2	2.1		200	200	30	4.5	B7A	PP
YL1060	247 135 200 0000	88	245 134 200	A1/A2	6.3	15	300	250	95	5	B7A	PP
YL1080	425 238 782 0000	00	424 236 572		1.6		200	200	30	3.3	B9A	PP
YL1130	423 878 324 0000	00	423 756 324		1.1		200	200	40	7	B9A	PP
YL1150	701 423 100 0000	80	245 611 300		6.3		400	250	100	35	B7A	P
YL1190	431 878 235 0000	00	432 756 234		1.5		150	150	45	9.5	B9D	PP
YL1200	247 811 300 0000	00	245 611 300		12.6	17	100	250	100		B7A	P
YL1240	415 228 783 0000	00	414 227 563		6.75		400	200	30	3.3	B9A	PP
YY88	000 230 009 0000	10	*** 23* **8	C	22				180		B9A	R
Z14	038 700 200 0000	40	036 500 200	G1	1.4	1	100	100	0.5	0.6	A08	P
Z21	742 300 000 0000	80	041 230 500	A1	2	1	150	150	1.1	1.2	B7	P
Z21	041 230 700 0000	80	542 300 000	A1	2	1	150	150	1.1	1.2	B4	P
Z22	041 230 700 0000	80	041 230 500	A1	2	0	150	150	2.5	1.4	B7	P
Z22Met	041 230 700 0000	80	041 230 500	A1	2	0	150	150	2.5	1.4	B7	P
Z26	047 231 800 0000	00	045 231 600		26	5.5	250	250	32	7.5	B7	P
Z62	028 710 310 0000	40	026 510 310	G1	6	2	300	150	10	7.5	A08	P
Z63	028 710 310 0000	40	026 510 310	G1	6	3	250	100	2	1.2	A08	P
Z66	028 710 310 0000	40	026 510 310	G1	6	1.5	200	200	10.9	8.5	A08	P
Z73	028 710 310 0000	40	026 510 310	G1	6	3	250	100	6.5	1.7	A08	P
Z77	412 381 700 0000	00	412 361 500		6	2	250	250	10	7.5	B7G	P
Z90	278 101 403 0000	00	256 101 403		6	1.5	200	150	4	6.4		
Z142	280 174 130 0000	00	260 154 130		21	2	250	250	10	6	B9G	P
Z145	281 714 130 0000	00	261 514 130		22	1.8	200	200	10	9	B8A	P
Z150	280 174 130 0000	00	260 154 130		6	2	250	250	10	9.5	B8A	P
Z152	141 230 871 0000	00	141 230 651		6	2	200	200	10	7.4	B9A	P
Z220	842 370 000 0000	00	642 350 000		2	7.5	150	150	15	2	B4	P
Z220	842 300 000 0000	70	642 300 000	G2	2	7.5	150	150	15	2	B5	P
Z309	141 223 871 0000	00	141 223 651		6	2	250	250	20	15	B9A	P
Z319	141 231 877 0000	00	141 321 655		6	2	350	250	12.5	11.5	B9A	P
Z329	141 230 871 0000	00	141 230 651		7.3	1.9	200	175	10	8.8	B9A	P
Z359	141 230 871 0000	00	141 230 651		12	2	250	250	20	15	B9A	P
Z719	141 230 871 0000	00	141 230 651		6	2	200	175	10	7.4	B9A	P
Z729	701 238 014 0000	00	501 236 014		6	1	250	100	2	1.8	B9A	P
Z749	141 230 871 0000	00	141 230 651		6.3	1.9	200	175	10	9.2	B9A	P
Z759	141 023 871 0000	00	141 023 651		6	2	250	250	15	15	B9A	P
ZD	9X2 310 000 0000	00	892 310 000		13						B5	DD
ZD2	842 300 000 0000	00	642 300 000		2	12	150		7	1	B4	T
ZD17	209 784 300 0000	00	208 564 300		1.4	1	90	90	2.7	0.6	B7G	DP
ZD25	209 784 300 0000	00	2*8 564 300		1.4	1.5	60	60	0.2	0.2	B7G	DP
ZD152	741 238 9X1 0000	00	541 236 891		6	2	250	90	5	2.2	B9A	DDP

APPENDIX

TEST DATA FOR HIGH VOLTAGE RECTIFIERS

The following procedure should be adopted when testing high voltage rectifiers.

Make insulation checks with valve cold end hot as stated in paragraphs 1 and 2 of the Abbreviated Working Instructions.

Then set Anode and Screen Voltage switches to their minimum value (i.e. 20) and Anode Current Controls to figure shown in Data column. With circuit Selector set to TEST and Anode Selector at A1 increase Anode Volts setting until indicating meter reads in a forward direction.

The setting of the Anode Voltage switch for a good valve should not exceed the figure given in column headed Anode Volts.

When checking full wave or voltage doubler rectifiers, check second Anode with Anode Selector at A2.

NOTE:—The valve should be heated to working temperature before setting Circuit Selector to position TEST and only left at this position for sufficient time to take a reading.

VALVE	SELECTOR SWITCH	TOP CAP	SELECTOR SWITCH	TOP CAP	Vf	Anode Volts (Max.)	Ia mA (Min.)	Valve Holder	Type	Remarks
	VCM 163 only		VCM.s Mk 1-4 incl and CT/VT 160							
†1B3	020 000 300 0 00	80	020 000 300	A1	1.25	200	6	A08	R	
†1Z2	232 232 300 0000	80	232 232 300	A1	1.4			B7G	R	
†2V3	020 000 300 0000	80	020 000 300	A1	2.5(3)			A08	R	
†2V3G	020 000 300 0000	80	020 000 300	A1	2.5(3)			A08	R	
†2X2	200 300 000 0000	80	200 300 000	A1	2.5(3)	100	10	UX4	R	
†2Y2	200 300 000 0000	80	200 300 000	A1	2.5	100	10	UX4	R	
†3B2	320 200 000 0000	80	320 200 000	A1	2.5	60	10	UX4	R	
†6W2	230 000 000 0000	80	230 000 000	A1	6	100	9	Nil	R	
†225DU	[082 323 000 0000]	00	082 323 600		2	40	20	B7	RR	Test A1 & A2
†405BU	[802 300 000 0000]	00	672 300 000		4	40	20	B4	RR	Test A1 & A2
†732A	230 300 000 0000	80	230 300 000	A1	2.5	60	10	UX4	R	
†879	200 300 000 0000	80	200 300 000	A1	2.5	100	10	UX4	R	
†1876	123 000 800 0000	00	123 000 700		4			8SC	R	
†1877	002 300 000 0000	80	002 300 000	A1	4	100	10	B4	R	
†8016	020 000 300 0000	80	020 000 300	A1	1.25	200	6	A08	R	
†8020	200 300 000 0000	80	200 300 000	A1	5	100	22	B4	R	
†CE230	320 200 000 0000	80	320 200 000	A1	2.5	60	10	UX4	R	
†EY51	230 000 000 0000	80	230 000 000	A1	6	100	9	B3G	R	
†HVR2	002 300 000 0000	80	002 300 000	A1	4	100	10	B4	R	
†HVR2A	002 300 000 0000	80	002 300 000	A1	2(2.5)	100	10	B4	R	
†R12	230 000 000 0000	80	230 000 000	A1	6.3	100	9	B3G	R	
†SU61	230 000 000 0000	80	230 000 000	A1	6.3	100	9	B3G	R	
†SU2150	002 300 000 0000	80	002 300 000	A1	2(2.5)	60	4	B4	R	
†SU2150A	002 300 000 0000	80	002 300 000	A1	2	200	50	B4	R	
†U17	002 300 000 0000	80	002 300 000	A1	4	40	35	B4	R	
†U19	002 300 000 0000	80	002 300 000	A1	4(5)	40	70	B4	R	
†U21	002 300 000 0000	80	002 300 000	A1	2	60	4	B4	R	
†U22	200 000 030 0000	80	200 000 030	A1	2(3)	60	4	M08	R	
†U23	002 300 000 0000	80	002 300 000	A1	4(5)	40	100	B4	R	
†U24	020 000 300 0000	80	020 000 300	A1	2	20	0.5	A08	R	
†U41	020 300 000 0000	80	020 300 000	A1	1.25	200	6	A08	R	
†U43	230 000 000 0000	80	230 000 000	A1	6.3	100	9	Nil	R	
†U151	230 000 000 0000	80	230 000 000	A1	6.3	100	9	Nil	R	
†V21/7000	002 300 000 0000	80	002 300 000	A1	4	100	10	B4	R	
†V960	002 300 000 0000	80	002 300 000	A1	4	80	90	B4	R	
†V1906	002 300 000 0000	80	002 300 000	A1	4(5)	60	100	B4	R	
†V1907	002 300 000 0000	80	002 300 000	A1	4	150	70	B4	R	
†V1913	002 300 000 0000	80	002 300 000	A1	4(5)	40	100	B4	R	
†V1920	002 300 000 0000	80	002 300 000	A1	4(5)	100	90	B4	R	
†VL51	002 300 000 0000	80	002 300 000	A1	4	100	10	B4	R	
†CV317	322 322 222 0000	80	322 322 222	A1	4	60	80	B9G	R	
†CV121	002 300 000 0000	80	002 300 000	A1	4(5)	100	90	B4	R	

Commercial Valve Index and Cross Reference to British Service Types

NOTE:-

Many of the commercial equivalents listed in the following pages will have different CV numbers, this is due to special service requirements which do not affect the radio engineer, e.g. inter electrode capacitance, bulb size, life test etc. It should also be noted that test data given in this manual may differ between equivalent valves, due to different sets of potentials having been selected for the test.

TYPE	CV No.	EQUIVALENTS	TYPE	CV No.	EQUIVALENTS
01 A	750		1AD5		1W51AD5
02DF	2260	DF64	1AF4		DF961F1 W251AJ4
09	2725	3209	1AFS	9024	DAF96 N14
09D	1596	"s209	1AHS		DAF961FD1 ZD25IAJ5
09J	1518	3209	1AJ4		DF96 W251F1 IAF4
0517		PL5557	1AJS		ZD25IAH5 DAF96 W25/1F1
OA/2	1832	5TV150/30150C2 G150/4K	1AM4		IT4SF
OA2WA	4020	M8223	1AN5		DF97
OA3	3798	VR75/30 Q575/40	1AQS		IR5SF
OA70	8243	1 N87 Q575/40	1B3/51C6	514	U41
OA73	442	1 N616	1B3GT	1830	U41 DY30
OA79		1N541	1B4P	758	
OA85	1354		1BSJ25S	759	
OA86		1 N480	1B7GT	760	
OA87		1 N490	1821A	3586	471A
OA91	7130	1N617	1B22	761	W E1378X
OA95	7041	1 N618	1B23	539	729A
OA202	7040		1B24	725	
OB2	1833	5TV108/30108C1	1B24A	3548	
OB2WA	4028	M8224 Q51211	1B26	576	
OB3	3799		1B27	713	TRC1
OC3	686	VR105/30 G105/1D Q51206	1B32/532A	2648	532A
OC16	7010	2N115	1B35	369	
2-OC16		2N116	1B35A	3628	6038 B5412
OC44	7003	GETB74TK31C	1B38	3549	
OC70		2N279	1B40	2914	
OC71	7005	2N280	1B41	3550	
OC72	7006	2N281	1B49	508	
2-OC72		2N282	1B58	3745	
OC73	5337	2N283	1B63A	2826	
OC76		2N284	1C1	782	X171R5 DK91
OC77	7007	2N284A	1C2		DK92 X181 AC6 X20
0CP71	7129	2N577	1C3		X251AB6 DK96
OD3	216	Q5150/40 VR150/30150C3	1C5	1805	DL35 N14
		G150/3D	1C5G	1803	DL35 N14
OE3	431	85A1	1CSGT	1805	DL3S
OG3	449	5TV85/1085A2	1C21	762	G1502D
OZ4	692		1CP1	2302	DH3-91
OZ4A	517	1003	1D5	764	U4020405UA URIC/S
1		G160J1 C	1DSGP	705	1 DSGT
1 A		G279/1 C	1D5GT	1806	
1A3	753	DA901D13	1D7	765	
1A4P	754		1DSGT	1811	
1A5G	755	DL31	1D13	753	DA901 A3
1A5GT	756		1E3		DCBO 6375
1A6	757		1E5		KF3S
1A7G	1800	X14	1E5GP	766	1 E5GT
1A7GT	18C2	DK32 X14	1E7	1812	
1AB(1		DK961C3 X25	1F1		DF961AJ41AF4 W25
1AC6		DK92 X181C2 X20	1F2	1758	D F921 L4
1AD4	2237	DF62 DF652	1F3	785	DF911T4 W17

TYPE	CV No.	EQUIVALENTS	TYPE	CV No.	EQUIVALENTS
1F4	767		2C33	793	RX233 RX233A
1F5	768	KL3S	2C34	18	4074A
1F6	769		2C39A	2515	TD1-100A 3H151J
1F7GV	770		2C40	2643	446A 446B
1FD1		DAF96ZD251AH51AJ5	2C42	2932	TD3-12
1FD9	784	DAF9IISZDI7	2C43	688	TD3.S-12
1G3	1817	IH4G	2C45	596	38142
1G5	771		2C46	2933	TDO5-12
1G6G	772		2C51	2831	
1G6GT	773		2C51W	2866	
1G8	7026	ZRI1	2C53	3559	
1G35	1787	4C35 XHS-100	2D2	794	
1G50	2050	EN32	2D4A	795	D41 D400 DDL4 V914
1H4G	774		2D13A		DDT13S
1H5G	1818	DAC32 HDI4	2D13C	796	10D1
1H5GT	1820	DAC32	2D21	797	EN912GA357274G/2BGK
1L4	1758	DF921F2	2D21W	2876	M8204
1LA6	775		2D21 Wa	4018	M8204
1LB4	776		2DP1	1813	
1LC5	777		2E22	798	2P22
1LC6	778		2E26	3990	QVO-10
1LD5	779		2E30	2517	
1LH4	780		2G	1842	
1LN5	781		2G8	7027	2R1215001
1LNSE	781		2G/402G	1835	3B28 E5U103 RR3-250
1T4	785	DF91 W 171 F3	2G/4728	2518	4832 RR3-1250
1T5GT	1829		2G/4i3C	2399	GXU3 RR3-1250A
1U4	2507	DF9045910	2H28	1835	3828 RR3-250
1U5	3912	DAF92	2H66	32	866A RG3250A
1V	1999	6Z3	2J21	2778	2J21A
1V2	3994		2J21A	719	
1V3		DCF60	2J22	800	
1V5		1 W51 ADS	2J26	1760	
1W5		1V51AD5	2J31	1807	
1X2A	5032	DYBO R19	2J32	1808	
1X2B		R19	2J33	1809	
1Z2	2510		2J34	1810	
2		G155	2J36	514	
2-25A		AZ3S	2J42	3676	JP9-7 MAG3 M503
2-150D	3878	152RA	2J42A	3997	MAG4 JP9-156027
2A3	1831		2J48	1822	
2A5	1834		2J49	3687	JP9-50B
2A6	1769		2J50	2793	JP9-50C
2A7	787		2J51	3560	JPT9-602J51A
2AJICOA		Dj1	2J57A	5134	JPT9-602J51
2A/115D		2823	2J54	801	
2AP1	790	D?;4-11814P1	2J56	2852	JP9-50
2AP1 A	790	1814r?1 D64/1	2J58	997	3092
2B4	648	885	2K28	1892	
2B7	1837		2K33	1786	
2B21	597	2X2A	2K41	3?04	
2B22	2937		2K48	3669	
2B23		2A115D	2N115	7G10	CCI6
2B29	2666	8298 QQVO7-40	2N280	7005	0C71
2B32	788	832A QQVO4-15	2N281	7C06	GC72
2B35	1092	6D i EA50	2N2E4A	7077	0C77
2B36	1078	T4D	2S/140G	469	EA766489
2B52	2789	QQVO3-20A 6252 TT2G	2S/141G	45C4	7435
2B94	2797	QQVO6-40A 5894 TT25	25J280K	371	19G6
2BP1	3678		2S/3068	121	19H1
2C21	875	RK331642 RK22	25J3i0D	265	i9E2
2C22	792		2S/460A		E5U112
2C26	802	2C26A	2S/460C	2160	E5U77
2C26A	1759	3B/105D	2S/49CC	1504	V1901

TYPE	CV No.	EQUIVALENTS
2S/550C	490	19H5
2S/570E		P5V13
2S/590E		19H12
2T/240D	277	19G3
2T/27QK	261	HR2 R106305
2T/350D	2180	?9H4
2T/360B		19G12
2T/450E	3587	705A
2T/46CC	74	E5U74
2V3G	SC4	
2V/301B		E5U101
2V/302B		E5U110
2V/360C	1446	4C17B
2V/390C		2V/474C
2V/395C	2943	ESU76
2V/400A	32	886A DQ2 E5U8862H66 RG3-250A
2V/4GIC	1446	40178
2V/470C	1355	4049C
2V/471 A	1449	872A
2V/474C		2V/390C
2V/5CGC	5	4049D RG4-1250 U20/21
2V/S2GA		DCG6/18
2V/521		E5U107
2V/531E	1420	86584078A
2V/540		E5U111 WL-8698
2V/561E		4079
2VJ69GE		4080A
2VVJS4OE	1601	42228
2W/541E		4007A
2W/542E		4222B
2Xj105G	?48	QA71 GEX54
2XI?C6G	425	CA74 GEX44
2X2	3748	2B21143D 2Y22X2A
2X2A	597	1 K22 R612G 879
2X2JE97	3748	2X2A
2XM-6QCM		B6BA
2Y2	597	R162528212X2
3iG2AM	213C	965K
3A	3812	1P313AE
3A4	2s9?	DL93
3A5	809	DCC30
3A/105B	809	
3A/107A	249	
3A/1076	1655	AR11425XP
3A/108A	1653	AR1240iGA
3A/108B	1657	402C8
3A/109A	1671	4G21A
3A/109B	1663	AR2040218
3A/110B	1659	40228
3A/135A	2598	264A 426A
3A/141A	1639	4101E3A/141AY
3A/142A	1641	4102D 3A/142AY
3A/144A	1694	
3A/145/J	16	525A
3A/746J	53	
3A/147J	82	
3A/148J	88	
3A/167M	5112	437A
3A/204U	24	HL41
3A/205D	1130	HL23
3AB4		PC92
3AE	3812	1P313A
3AJ8		XCHB1

TYPE	CV No.	EQUIVALENTS
3AL5		XAA91
3ALP1	2175	DG7-5
3AMP1	2431	UG7-32
3AP1	602	906P1
3AT4A		PC93
3AU6		XF94
3B4	2240	DL98
3B7	811	
3B21	2959	3822
3B22	3815	
3824	812	732A 428T CE230
3B24W	2858	1 K24428T 732A
3B24WA	4021	732A 428T 3B24
3B26	3575	
3B28	1835	RR3/250 E5U1302H28
		GXU12G/4G2A
3B29	3689	1 K29
3B/100B	1fi89	PA1
3B/102B	84	
3B/105D	1759	2C26A
3B/151A	1648	4205E
3B/152K		11A1
3B/2008	1047	TZOS-2Q T206
3B/240M	2214	
3B/241M	5116	
3B/2528	1688	4033L
3B/254D		68D4A
3B/251A	1448	4043C
3B/350A/B	1448	4043C
3B/4QOA	1452	4300A
3B/401J	127	
3B/402A		E511 Q1
3B/501A	49	
3B/5038		4304CB
3B15048	1288	4304CB
3B/650A		4094
3B/651 A		4242
3B/850A	25	4242A E585
3B/851A	1620	DET64094A
3BLP7		DP7-10
3BLP31		DH7-10
3BP1	814	3BPI A
3BP1A	2934	
3BX6		XF80
3BY6		XF8S
3BY7		XFB5
3C4		DL961 P1 N25
3C6		XXB
3C22	999	
3C23		FL3C23 TQ1/2
3C24	789	2T24
3C31/C1B	1755	5664
3C3b	941	HK2425T
3C45	372	XH3-0451G45P
3C/100E		E51102
3C/201A		4212E
3C/250A	1Q34	DET3
3C/270A	1252	4212E V5505 MY3-275
3C/270E		DET27R
3C/350E	30	4270A
3C/351H	27	4357A 833A TY4-350
3C/495A	3581	V1501
3C/500E		14D12
3C/750G		EHZ350

TYPE	CV No.	EQUIVALENTS	TYPE	CV No.	EQUIVALENTS
3C/751E		14D14	3Q/212E	1797	4G81A
3C/800E		15D12	3Q/213E	173b	
3D6/1299	815	12993D6	3Q/214E	1797	4081A
3D21A	2659	5B/152D	3Q/220E		40098
3D22	2851	4G/401A	3Q/260E	446	
3D/100A	1422		3Q/293E	1447	4030D
3D/102E		E51001	3Q/310E	3873	
3Di120E	1422	3L?/100A	3R/167E		16P13
3D/150G	?735	4015A	3R/1675		16P12
3DL4		YC3B	3R/167W		16P14
3DP1	816		3RP1	3941	
3E5		N251P1 DL96	3S4	820	N17 DL921P10
3E29	3599	QQVS-P10	3V4	2983	DL94 N191P11
3EG1	1526	701 D	3V/280B		4039A
3EH7		XF183	3V/281B		V L5432A
3EJ7		XF184	3V/390A	5027	PL5559 XG1-2500
3EF1	817	180GP1	3V/390B	5828	FG57
3ERS		YC95	3V/390E	5027	
3ER6		PC95	3V/391A		21N15
3FP7	1761		3V/4208	2126	
3G15		Ct A	3V/470A		4049GD
3G/450A		ZT701121B72	3V/490A		XG2-6400
3G/501A	2215	TK2;6 XR1-640055b5	3V/490E		4049G D
3G/502A		6807 XR1-6400A	3V/500A		E5T102
3G/510A		21B13	3V/530E	477	
3GP1	516		3V/531 E	477	
3GRK	442	GEX3S 0A73	3V/540A		21N12
3H/151J	2516	2C39A TD1/100A	3V/590E		4080GA
3J37	1788		3W4		3545F
3J/121E	28	ACT9	3WP1	3946	DG7-36
3J/122E		8R1138	3Z/252E		E5V4002
3J/160E	2245		4-65A	1905	QY3-653F65
3J/162J		BR1129	4/IOOBU	1264	FW4-500 U18/20
3J/166E		16J12	4-125A	2963	4F214D21 Q160-1 R5685
3J/167E		E5A1500	4-240A	2131	
3J/170E	2905		4-250A	2964	QY4-250 Q404/15F225D22
3J/195E	5071		4-400A	3879	QY4-40085F23
3J/196E	1688	E5A891	4-1000	3880	7F25
3J/197E	904	E5A892	4A1	821	
3J/198E	2687	E5A5000	4A/1378	243	4045A
3J/260E	2908		4B13	26	813 QY2-1005C/I00A
3JP1	2935	DG7-14	4B22	2936	
3JP7	2869	DP7-14	4B24	822	EL3L
3JP12	2816		4B25		WL67OA
3KP1	3733		4B26	1836	1163
3NP4	1737	MW6-2	4B28	2777	
3P/270B	?950	129B 3Q/191 E	4B30	934	15R 8022
3Q4	818	N18 DL95 ??	4B31	3510	
3QSGT	819	DL33 N16 f?L73	4B32	2518	RR3-1250 DQ4 GXU22G/4728
3Q84E		4220C	4B35	926	12X825 WE327A
3Q/120G	16G5	4013C	4B36	2779	20X672
3Q/150E	145G	c228A	4B/700A		4282B
3Q/167E		ES W 1500	4B/700E		4282B
3Q/180E	1603	4014A	4BL8		XCF80
3Q/181E	160G	4006A	4C21	2576	211211W
3Q/183E	2749	4087 A	4C22	2987	HF100
3Q/184E		4220C	4C27	92	E1232
3Q/185E		4220C	4C30	933	15E 8023
3Q/191E	570	3Q/195E	4C35	1787	XH8-100
3Q/195E	570	3QJ191E	4C/100A	2756	4260A
3Q/196E	2688	ESNJB91	4C/800E		4278A
3Q/197E	904	ESW892	4CFB		PCF86
3Q/198E	2687	ESW5OGO	4CM4		PCB6
3Q/211E	1604	551971	4CX250B	6137	72034HC/16M

TYPE	CV No.	EQUIVALENTS
4CX250F	7204	3A/172B HLI3C
4D1	1109	HLI32D
4D21	2963	Q160/14-125A R5685
4D32	3543	C1123
4DLb		PCBB
4E27	824	HK257B
4EH7		YF183
4EJ7		YF184
4EP1		DHIO-94
4ER5		PC95
4ES8		XCCIB9
4FRI5R	2519	4X150A QV1-150A
4FC7		XCCB9
4FP7		5087
4FY5		PC97
4G8	7028	2R1415003
4G23		3C23
4G63		5563
4G93		393A
4G/280K	797	2D2120A3 EN91
4G/281D	1848	20A2
4G/320D	1424	21A1
4G/401A		3D22
4H32	2518	48323B22 RR3-1250 GXU-2
4H72		872A
4H73		673
4H88		8008
4H/135M	2519	4X150A QV1-150A 4CX250B
4H/136M	3991	4X150D QV1-150D
4H/160M	2487	4X250B
4H/182E	1883	
4HC/160M	6137	4CX250B
4J/26	3779	
4J27	3780	
4J28	3781	
4J29	3782	
4J30	3783	
4J31	1914	M518A
4J33	1916	
4J34	1897	M518A
4J35	1898	M518A
4J50	2284	J P9-250
4J52	3569	JP9-80
4J52A	5018	JP9-80A
4J53	513	M518
4J54	3947	
4J55	3948	
4J56	3949	
4J57	3950	
4J58	3951	
4J78	3953	JP9-250A
4JC/201E		7007
4KM100LA		K376
4KM100LF		K377
4PR6CA	2752	QV20-P18 C1133
4SH	1126	
4SHA	825	
4T16		1 OOTL
4T17	1924	IQOTH
4T100		813
4THA	826	A36C TH4 ACJTH1
4TPB	828	
(CLEAR)		
4TPB (MET)	829	

TYPE	CV No.	EQUIVALENTS
4TSP	R30	TSP4 AC/SP3
4X150A	2519	QV1-150A 4F15R
4X150D	3991	4F20R QV1-150D
4X150G	3893	QV1-150G
4X250B	2487	4H/160M QV2-2508
4X500A		QBL4/800 QY4/500A
4XP	116R	AC044 PP3/250 PX4
5/62CM		5BHP1
5/62PM		SBHP11
5A6	2360	
5A/102A	3784	
5A/1Q2D	1724	329A
5A/105A	1726	
5A/1288	244	4046A
5A/136A	2619	4328A
5A/136D	245	43?SD
5A/150A		QVO5-25 R074310A
5A/156M	1136	EF54
5AJ157D	35R	EF37A 0M56
5A/159N	20CQ	EF91 HP6 £iAM6 Z7'7
5A/160H		6F116AM66064
5A/160K		6F116AM66064
5A/163K	1635	
5A/164K	3536	LS40BA
5A/170K	3998	E180F 6688 EF861
5A/172G	4501	7432
5A/173G	4502	7433
5A/174G	4503	7434
5A/175G	4506	
5A/185K		D3A
5A/200D	1116	6F32
5A/201K	329	6F33
5A/204D	276	11E2
5A/207D		5P41
5A/208D		V453
5A/210K	416	6F17
5ADP1	5035	DGI3-34
5ADP7	5125	DPI3-34
5ADPI1		DB13-34
5AL5	1377	GZ34
5AP1	832	1805P1
5AQ4	1864	GZ325V4G 5T4
5AR4	1377	U52 GZ34
5AZ4	1268	U50 R525Y3
5B1	1018	Z21 PMI25215
5B21		1164
5B/100A	1369	4061A
5B/102D		11 E14
5B/1038	73	11E3
5B/104D		ZAA
5B/151A	1080	4307A 307A
5B/152D	2659	3D21A
5B/250A	124	QVO5-25807 QEO6/50
5B/251M	428	5BJ254M
5B/252M	391	L56505B/255M
5B/253M	499	5B/256M
5B/254M	428	5B/251M
5B/255M	391	LS650
5B/256M	499	5B/253M
5B/257M	2220	
5B/258M	2347	
5B/3008	834	
5B/351 D	345	12E1
5B/352D		12E1A

TYPE	CV No.	EQUIVALENTS	TYPE	CV No.	EQUIVALENTS
5B/353D		12E1B	5X4	1852	
5B/354D		12E14	5X4G	1851	
5B/355D		12E1C	5Y3G	1854	U5Q R525AZ4
5B/362D		12E13	5Y3GT	1856	U50 R525AZ4
5B/502A	1096	828	5Y3WGTA	4C27	
5B/600A	1081	4052A	5Y4GT	1857	
5B/700A	631	828	5Z3	1851	U504274A 22S/200A
5BKP/31	5168	DHI3-97	5Z4	1964	GZ30 R52U50
5BP1	601	5HP1	5Z4G	1863	GZ3Q
5BP4	836		5Z4GT	2748	GZ30
/1802P4			6/02K		1652M
5C22	2520	XHI6-200 HT415	6/30L2	5264	87296GAB ECCBO4
5C/100A	26	813 QY2-100	6A3	73^	
5C/101 A	1372	4669A	6A6	1867	HLA241 htl'L 354V ACHL B63
5C/450A	1506	E5P450	6A7	1870	6A7E
5C/500		P30?1	6A8	579	X63
5CP1	600	DGI3-2	6A8G	578	X63
5CPIA	2191	DGI3-2	6A8GT	580	
SCP7	838	SCP7A	6A/203K	132	6H7
5D21	2814	P552/1E Q160-14-250A 48;602E	6A64		EC92
5D22	2964	Q400-1 R5686	6A85	843	6N5
5D/100A	1627		6A87	IBiS	?fi53
5EGP1		SADP1	6ABB		ECLBO LN15263TP
5E58		YCCI89	6AC5G	fi44	
5F22A	2131	6156 QY4-250	6ACSGT	fi45	
5FC7		YCCB9	6AC7	660	1852 BAJ7
5FP4A		MWI3-35	6A87	87fi	
5FP7	718	MFI3-1 MPI3-39	6ADB		E8F81
5FP7	1789	5FP14	6AEB	5115	X79
(Special)			6AF4	5036	EC9?
5FP7A	3959	MFI3-1	6AF4A	?074	
5FP11	5070	MBI3-1	6AF6G	847	
5H4	840		6AG5	84fi	LFS668C5
5H69A		8698	6AG6	1438	EL33 KT616fVi6
5HP1	3583	SBP1	6AG7	?2;2	ELfi21
5HPIA	3583	SBP1	6AN6	5?1	
5J23	542		6AJ4	5126	ECfir
5J26	3502	JN?1-500W	6AJ5	955	
5J29	3842		6AJ7	B49	8AC71852
5J30	3843		6AJB	2128	ECHB16C12 X17
5J31	5844		6AK5	850	EF9S 5654 E94F
5J32	1533				EF90555916096
5J59	3952		6AK5W	2877	M8100
5J/180E	445		6AK6	1762	EL91
5JP1	1791	5JPIA	6AK7	1784	6AG7
5JP2A	38;g		6AKB		EABCBO 6LD12 DH7196T8
5L/444	311				BGXS
5LP1	741	2511A5	6AL3		EYBB
5NP1	74Q	2505A5	6ALS	283	EB916D2 D77 EAA91 M8079
5R4GY	717	SR4VJGA	6ALSW	2882	M82125726
5R4WGY	2fi35		6AL7	3708	
5T01 A	1868	MFI3-15FP7A MFI3-39	6AM4	5073	
5T4	1846	U52 GZ345U4	6Ahi5	136	EL91 N1447D96P17 N77
5T21		250TH	6AFd6	138	EF916F12 Z77 SP6 SD36064
5T33	635	833A TY4-3503C/402E	6AN4	3989	
5U4G	575	U52 GZ315V4G	6AN5	2854	
5U4GT	B41	U52	6AN7		ECHBO
5U8		XCFB2	6AQ4	417	EC916L34
5UP1	5223	DGI3-22	6AQ5	1862	EL90 N727
5UP7	2840		6AQ5W	2883	M82456005
5V4G	729	GZ32 SAQ452KU	6AQ6	2937	EBC916AV66066
5W4	1849	U5C	6AQB		ECC8S 6L1287196463
5W4G	842		6AR6	3613	EL34
5NJ4G i	5Q3		6A55	2522	

TYPE	CV No.	EQUIVALENTS
6A56W	2884	M81965725
6AS7G	2523	A18346080
6AT6	452	E8C90 DH77
6AUB	2524	EF9B
6AU6WA	4Q23	
6AU7	5002	ECCB2
6AV3		EYB9
6AV4	135	EZ91
6AV6	2525	G8C91 DH77
6B4		6A3
684G	851	
6B5	1885	
6B6	1887	DH63
687E	1g91	
6BSG	1893	E8F32
68A6	454	EF93 W727
6BAW	5037	5749
68A7	2527	
68C4	5038	
68C5	848	6AG5 EF96
68D7		E8C80
68D7A		E8C816LD13
68E6	453	EK90 X77 X7275750
BBE7		EQBO
BBG6	1887	
68H5		EFB1
68H6	3908	E9OF 62657693
68J5		N78
68J6	3909	
6BKB	2901	EFB66267
68L6	3614	
6BL7	5039	
6BLB	5215	ECFBO 6C;6
6BM6	3616	
6BM6A	3939	
6BM8		ECLB26PL12
6BN5	3526	ELB5
6BQ5	2975	EL84 N7096P15
6BQ6	5040	
6BQ7A	5365	ECCiBO
6BR5	1352	EM8065ME
6BR7	2135	8D56059
6B54		EC93
6BS7	5Q36	EFB68D7
6BT4	3891	EZ40 UU966KU U150
6BT6	152	EBC9Q DH776AT66Q66
6BW4	5072	EZ81 UUI2 U709
6BW6	2136	
6BW7	5817	EF80 8D6 2152
6BX6	1376	EF80 Z719 Z152645PT
6BY7	1375	EFB5 W719 6F19
6C4	133	ECH90 L77 EC90 QA2401
6C4W	2842	EC90
6C4WA	4058	M8080
6C5	582	L636J5
6C5G	581	
6CFGT	583	
6C6	585	
6C7	854	
6CSG	1886	
6C9	3888	ECH42 X150 ECHII3
6CI O	3888	ECH42 X15062TH 6CU7
6C12	2128	ECHB1 X7196AJB
6C16	5215	ECFBO 6BLB

TYPE	CV No.	EQUIVALENTS
6C21	855	ZP52710005P
6C31	1581	ECH35 X656K86E8
6C56		EH90
6CA4	5072	EZB1 UUI2 U709
6CA7	1741	EL34 KT77
6C86	7995	EF1906CF6
6CD7	394	EM34
6CF6	8995	EF1906CB6
6CFB	2901	EF86 EFBOfiS Z729 EF22
6CH6	2127	EL82161327D10
6CJ5	3886	EF41
6CJ6	2i21	ELB1
6CK5	3889	EL41
6CK6	2726	ELB9
6CL6	5041	
6CM4		ECB6
6CM5	2940	EL36
6CNS	862	N66 EL35
6CN6	450	EL3B
6CQ6	2937	9D6 EF92 W776F21 QA2400
6CR4		A2521
6C56	453	EH90
6CT4	5242	A2599
6CT7	3883	EA42 WD150
6CU7	3888	ECH426C9 X150
6CV7	3882	E8C41 LD36C10 DH150
6CW5	5C94	ELB6
6CW7	5281	ECCB46L16 B319
6DI	1G92	EA506DR45835
6D2	383	6ALS E891 D77 D152 DD6
6D4	1949	EN93
6D6	1900	
6D7	1776	
6D8	1902	X73M
6DA5	5055	EMB1
6DA6	5156	EFB9
6DC8		E8F896FD12
6DG7		EM8S
6DJ8	5358	ECCBB
6DL4		ECBB
6DLS		EL95
6DR8		E8F83
6D58		ECHB3
6DU6		EFB9F
6DXB		ECLB4
6DY5		ELB2
6E5	1906	
6E8		X616K8
6EH7	5831	EF1836F29
6EJ7	5810	EF1846F30
6ER5		EC95
6E56		EF97
6E58	5331	ECCIB9
6ET6		EF9B
6F1	3841	
6F4	2939	
6F5	1909	H63
6F5G	1908	H63 N6:
6F5GT	1910	
6F6	1912	N63 KT63
6F6G	1911	KT63
6F6GT	731	KT63
6F7	1915	6F7E 6F78
6F8	1819	

TYPE	CV No.	EQUIVALENTS
6F8G	1917	
6F11	1901	
6F12	138	6AM68D3 EF91 Z77 SP6
6F13	1839	IT5GT
6F14	1919	
6F15	3886	EF41
6F16	3886	EF41 W15062VP 6CJS
6F17	416	5A/210K
6FI B		W7396EC7
6F19	1375	68Y7 EFB5 W719
6F20		N79 W729
6F21	131	EF92 VP6 W776CQ69D6
6F22	2901	EFB6 Z7296267
6F29		EF1836EH7
6F30		EF1846EJ7
6F32	1116	5A/200D
6F33	329	5A/201K
6F33 Special	2209	6ASB
6F50R		4X500A QY4-500A
6FD12		E8F89
6FG6		EMB4
6G5		6U56M1
6G5G		6M1 Y61 EM35
6G6G	1926	
6G8	7029	15004
6GBG	856	
6G10		FG105 XGQ2-6400
6G45	2215	5545 XR1-6400
6GM8		ECCB6
6GWB		ECLB6
6H1	132	V8856A/203K
6H5		6U56M16G5
6H6	1930	D63 EB34
6H6G	1929	D63
6H6GT	1931	D63
6HV6		EMB7
6J4	1763	M8248
6J4WA	5029	M8232
6J5	1933	L63
6J5G	1932	L63
6J5GT	1934	
6J6	858	ECC91 M8081
6J6W	2843	
6J6WA	4031	M8081 M82126101
6J7	1936	Z63 KTZ63
6J7G	1935	Z63
6J7GT	1937	
6JBG	859	6C316K8
6JXB		ECHB4
6K4	468	EC706778
6K5G	860	
6K5GT	861	
6K6G	1938	
6K6GT	1940	
6K7	1942	W63 W61 KTW63
6K7G	1941	KTW63
6K7GT	1943	
6K8	1945	X616C31
6K8G	1944	X65ECH35
6K8GT	1946	
6K25	2217	
6L5G	862	
6L6	1948	KT66
6L6G	1947	EL37

TYPE	CV No.	EQUIVALENTS
6SQ7GT	7991	
6SR7	867	
6SS7	1993	
65T7	1996	
65T7G	1995	
65U7		ECC3S
6T4	3808	
6T7		DH73
6T7G	500	
6T8		EABCBO DH7196AKB
6T35		15D12
6THB		6P8
6U3		EYBO
6U4GT	5287	
6U5/6G5	504	6M1
6U5G	2747	Y61 Y63 EM35
6U7G	706	W63 KTW63
6U8	5065	ECFB26678
6V3A	5021	
6V4	1535	EZ80
6V6	510	
6V6G	509	
6V6GT	511	
6V7G	870	
6W2		6X2 EY51 R12 RI2A
6W5		U70 EZ35
6W7		SD4
6W7G	512	
6W50		W5/1G
6X2	426	EY51 R12 RI2A 6W2 U43 U151
6X4	493	EZ90 U78 QA2407
6X4W	4005	6063
6X5	573	U706ZY5 EZ35
6X5G	572	
6X5GT	574	U70 EZ3S U147
6X5WGT	3734	
6Y3	1816	
6Y6G	515	
6Z4	619	84
6Z5	871	1225
6Z7G	872	
6ZY5		6X5 EZ35 U70
6ZY5G	873	
7	874	
7A	823	WE7A
7A2	1174	Pen4VA AC/Pen MKT4 PT4
7A3	1181	PenA4 AC2/Pen KT41
7A4	1770	
7A6	876	
7A7	877	W81
7A7LM	877	W81
7A8	878	
7AH7		PCCB4
7AHP1	2352	DGI6-22
7AHP7	2498	DPI6-22
7AHPI1		D816-22
7AN7	5192	PCCB4 B31930L1
7AU7		XCCB2
7B	824	HK257B
7B4	879	
7B5	880	EL22 KTB1 NI48
785E	880	
7B5LT	881	
7B6	882	DHB1 DLB2

TYPE	CV No.	EQUIVALENTS
7B6LM	822	DHB1
7B7	522	W149
7B8	883	
7BSLM	883	
7BP7	884	1813P77B4
7BP7A	3637	1813P7
7C4/1203A	2706	7C4
7C5	885	N148
7C5LT	886	
7C6	887	DH149
7C7	1777	
7C24	5762	
7D5	1425	N30
7D6	1672	Pen3520 Pen36C Pen383
7D8	889	Pen13C Pen1340
7DBS	1328	
7D9	136	EL916AM5 N1446P17 N77
7D10	2127	EL8216CH6 EFB2
7DJB		PCCB8
7E5/1201	2704	1201
7EG	891	
7E7	892	
7E58		PCCI B9
7F7	893	
7F8	2968	
7F16	3886	EF416CJ5
7F25A		4-1000A
7G7	894	EF22
7H7	895	W148 W81
7H57		857B
7HGB		PCFB6
7J7	gg7	
7K7	896	
7MBIA	1880	
7N7	8gg	
7Q7	ggg	
7R7	900	
7S7		X81 X148
7UP7	3639	
7W7	902	1282
7Y4	901	U82 U149
7YP2	5061	
7Z4	1790	U82
8A1	1124	SP4 MSP44046A 5A128B
8A1	1282	DG7-36 AC/5G
8A3	3813	WEBA
8A8		30C1 PCFBO LZ319 LZ3299A8
8B/087B		T954T
8D2	1108	5P13C
8D3	138	DF916AM66F12 SP6 Z77
8D4		6W7
8D5	2135	fiBR7
8D6		68W7
8D7		6857
8D/03L3M	6143	
8F66R		6166
8G7	7030	15007
8HG8		PCF86
8T21		9C21
8T21R		9C22
8T71R		5671
8T92		892
8T92R		892-R E5A8923J 197E
9/01	254	30D5

TYPE	CV No.	EQUIVALENTS
9/O3HB		TQ38Z
9/O3LB	5300	T938Y 2273P
93	368	
9A1	1172	VMP4G AC/UP1 MVS/Pen
9A8		PCFBO LZ31930C1 LZ329 SAS
9AB4		UC92
9AK8		PABCBO
9AQB		PCCB5
9D2	1106	VP132213VP8
9D5	1053	OMS EF39
9D6	131	EF926F21 W776CQ6 VP6
9D1387		5102/3K
9HP7	905	
9JP1	1783	
9LD1	254	
9L01A	4fi4	T921Z
9LP7	2789	2P455
9MD6	262	
9M06A	2108	
9MW5AX	2192	
9PKS	109	
9T71		5770
9U8		PCFB2
10	603	2C23
10 Special	906	GL1602
10C1		X145 X118
10C14		UCHB1 X11919D8
10D1	1300	DD6202D13C
10D2		UAA91
10D3	1419	HAD132013DHA
10F1		Z145
10F9		W118 W14512AC5
10F18		UFB9 W119
10FDI2		UBFB9 WD11919FL8
10KP7	3693	
10L14		B109 UCCB5
10LD3		DH118 DH142 U8C4114L7
10LDI1		DL145
10LD12		UABCBO DH109
10LD13		DH119 U8C81
10M2		UM4 UM35
10P13	1977	N118 N145 UL41
10P18		N119 UL8445B5
10PLI2		UCLB2508M8 LN119
10Y	603	
11A1		3B/152K
11A2	2813	AC/HL/DD MHD4 DDT
11D3	1419	HLDOI32OTDDI3C
11D5	1695	DH30
11 D12		ECC230 A453533B160D
11E1	2798	QQVO3-10
11E2	276	5A/204D
11E3	73	V112085B/1038
11E13		55B/I00K
12/O3HB		T939Z 3073Q
12/O3LB		T939Y
12A/112A	1774	EF9
12A5	908	
12A6	525	
12A6GT	526	
12A7	909	ECCB2
12ASGT	910	
12AC5		UF41 W14210F9
12AEP6	429	MF31-55 CI2R

TYPE	CV No.	EQUIVALENTS	TYPE	CV No.	EQUIVALENTS
12AH7GT	529		12SY7	3fi68	
12AH8	5317		12T01A	1869	
12AJ8		HCH81	12T03A	2328	MF31-95
12AT6		H8C90	12X825		68510
12AT7	455	8309 ECCB18152	12XP4		MW31-74
12AT7WA	4024	M8162 ECCSOIS	12XP4A		MW31-74
12AU6	1961	HF94	12Y4	523	
12AU7	491	B329 ECCB26067	12Z3	927	14Z3
12AU7WA	4003	6189 M8136	13CM5		XL36
12AV6		H8C91	13D1	423	255N7GT
12AX7	492	ECCB36L1383396057	13D2	1988	6SN7GT
12AY7	3650		13D3	2212	6158
12BSGT	911		13DHA	1b19	11D3 HLDD320 TDDI3C
12BA6	1928	HF93	13E1	2377	C11585B/900A
12BE6		HK90	13PGA		15D1 FCI3C
12BH7	5042		13SPA	929	8D25P13C
12BK6		H8C9112AV6	13VPA		9D2 VP1322 VPI3C
12C8	531		14/O3TB		T935W
12C8GT	3827		14A7	"s935	12B7
12DP7	913		14ABP4		AW36-20
12DP8	914	12DP7	14ABP4A		AW36-20
12E1	345	581351D	14AF7		X X D
12E1A		5B/352D	14AHP4A		A W 36-80
12E1B		5B/353D	14AKP4A		MW 3G-24
12E1C		5B/355D	14C7		1280
?2E12	398	7158 P535/IE 4B/603E	14D12		3C/751 E
12E13		SB/362D	14F7	930	
12E14		5B/354D	14K7		UCH42 X142141TF1
12FP7	915		14KP4A		MW36-24
12H6	916		14L	1087	
12J5	534		14L7		U8C41 DH142 iOLU3
12J5GT	535		14LP4		MW3G-24
12J7GT	917		14R7	3937	
12K7		W76	14S7	3936	
12K7GT	918	W76	15	931	
12K8	703	X76M	15A	986	
12KBGT	3927	X76M	15A2	3576	MX4041 MPG ASOA FC4 X42
12L01 A	2162	i 922Z	15A6		PLB3 N309 N153
12MW3		CI2D	15B	326	
12MW3A		CI2B	15CW5		PLB4 N37930P18
12Q7		?H7G	15D1	2956	FCI3C 15D2
12Q7GT	547	DH76	15D2	1107	
12S7		UAF42 WD147	15D12		3C/SOOE
12SA7	537	125Y7	15DQ8		PCLB4
12SA7GT	538		15E	933	80234C30
12SC7	540	1634	15L01A	1744	
12SF5	919		15MW3A		CI5B
12SF5GT	920		15R	934	4B308022
12SF7	921		16A5		PLB230P16 N154 N329
12SG7	694	65G7Y	16A8		PCLB230PL12
12SH7	922		16AQ3		XYSB
12SH7GT	3651		16J12		3J/166E ESA2500
12SJ7	697		16P12		3R/1675
12SJ7GT	698		16P13		3R/167E
12SK7	543		16P14		3R/167W
12SK7GT	544		16STE		L102/2K
12SL7GT	924		17(thy)	2957	PL5557 XG5-500
12SN7GT	925	B36	17BQP4		MW43-69
12SP7	3655		17BTP4		AW43-80
12SQ7	546	DH76	17C8		UBF80171 DDP
12SQ7GT	547		17CVP4		CI7AA CME1706 AW43-8B
12SR7	700		17Z3		PY81 V253 PYB3
12SW7	3666		1BGVB		PCLB5
12SX7	3697	125W7 B36	19AQ5		HL9D

TYPE	CV No.	EQUIVALENTS	TYPE	CV No.	EQUIVALENTS
19BD		PYBO U15219U319X3	26D	2727	3226D
19BR5		UMBO	26J	27g5	
19D3		UCHBII9DB	27	944	
19D8		UCHB1 X11910C1419D3	27G85		PL500
19E2	265	2S/370D	27M1	337	931A 1P21
19FI8		U8F89 WD11910Fp12	28D7	945	
19G3	277	2T/240D	28D7GT	946	
19G6	371	5U452S/280K	29C1	430	2AJ230D
19G12		2T/360B	29D	2728	3229D
19H1	121	V192025j3068	30	604	
19H4	2180	2T/350D	30A5		HL94
19H5	490	2S/550C	30AE3		PYB8
19H12		2S/590E	30C1		PCF809A8 LZ3198A8 LZ329
19SU		PYB2 U154 U319 U19219Y3	30CA	987	V1040
19T8		PY82 U319	30C12P7	1746	
19U3		PYBO U15219X3	30D5	1860	
19X3		PYBO U309 U152	30E7	400	V1063P1
19Y3		PYB2 U319 U154 U19219SU	3OESP1	2216	
20A1	1424	TH4B AC/TH1 TH4 X4141 STH	3OHM(HD)	1140	PX25420XP D024
20A2	1848	EN3265744G/281D	30L1	5192	PCCB4 B3197AN7
20A3	797	2D21 EN91 PL21	30P16		PLB2IBA5 N329 N154
20CV	5120		30P18		PLB415CW8 N37915CW5
20D2		X31	30TWIN	1780	
20D3		12AH8	31	947	
20K	1379		31A3		UY47U142U4043115U
21/2	3584		31C2	2965	RL707B-2B
21A6	5077	PLB1 N339 N359	31D14		T938Z
21812		3G/450A ZT1011 XR1-1600	31E16		T939Z
21B13		3G/510E	32	711	32E 34
21CJP4		MW53-20	32A	951	32G 32E
21C L P4		A W 53-80	32E	957	32G 32A
21DKP4		AW53-88	32G	953	32A 32E
21DKP4A		AW53-88	32J	958	2BJ
22M1		1 B59	32L7GT	984	32A
21N12		3V/540A		949	
21N13	612	57	33A/100A	1750	
21N14	5828	3V/390B	33A/138A	18	7074A
24A	936	24E	33A/158M	1884	
24B1	6008	V2023 GIT/180E	33B/152M	7540	
24B2	339		33B/160D		17 D12
24C3	125	V2024 GIT/350E	34	1751	32
24G		3C24	34E	1751	
25AB	549	KT33	35/51	1752	
25A6GT	550		3SASLT	1753	
25A7GT	937		35L6	561	
25BG	939		35L6GT	562	
25BBGT	940		35T	BB8	DETI8
25E5		PL3B 30P4	3STG	1754	
25L6	552	KT32	35W4		HY90
2SL6GT	553	KT32	35Z3	5B4	
25RE	942	25Y5	35Z3LT	72B	
255N7GT	423	13D1	3SZ4GT	2500	U76
25T	941	HK243C34	35ZSGT	56B	
25TG	789	HK24G 3C24	36	1775	
25Y4		PY31 U3125Z4	37	BOB	
25Y5	942		3B	712	
25Z4		U31 PY3125Y4	38A	772	
25Z5	555		38A3		UYBS U119 U381
25ZB	558		39/44	1771	329
25Z6GT	559		40	2501	
26	943		40PPA		7D3
2BA7GT	3577		40SUA	1287	1D5 U4020 URIC
2BAE6		PYB6	40Z5	2530	
26B6		2BDB	40Z5GT	2530	

TYPE	CV No.	EQUIVALENTS	TYPE	CV No.	EQUIVALENTS
41	BO5	41E	59A3	2982	1 N3BA
41 DS	1131		59A4	2892	818
41FP	2502	ML4 AC/P	59D		W L828
41 MH	2503	MH41484V HLA2 AC/2HL	59TAV3		WL817
41 MHF	1037	354V AC/L MH4	60A3		WL820
41MHL	2504	354V MH4244V ACJHL	61A3		WL930
41MLF	1038	b1MHL 244V	61BT	1879	
41 MP	1458	ML4 TT4 AC/P	61DV3		W L928
41 MPG	2505	MXbo FC415A2 X42 VHT4	61P	2539	
41MPT	2506		628T	1745	
41MRC		AC/2HL	62DDT	3882	E8C41 BLD3 BCV7 DH150
41MSG		MS4B SP4 ACJSG MS/Pen	62TH	3888	ECH428C10 X1566CU7
		SPT4A	62VP		EF41 BFIB BCJ5 WISO
41MTL	1117	354V AC/HL	63D	2540	
41MVSG		SP4	63DS	2731	32B3D5
41 MXP	1122	PA1 AC/P1354V	63ME	2747	BM1 BUSG EM35 Y63
41 PGD	3576	15A2 FC4 MX40	63SPT	1081	EF50 Z80
41 STH	2508	AC/TH1 X4120A1 TH4	63T1		ECLBO LN1526A88
42	B09	42E	63Tp		ECLBO BABS
42E	609		64ME	384	EM34BCD7
42MP/Pen	1181	PenA47A3 PT4 KT41 AC2 Pen	64SPT		EFBO Z718 BBW7 BBXB7 Z152
42MPT	1325		64SU	135	EY91
42/OT	2511	PenA47A3 PT4 AC2 Pen KTA	65ME		EM80 BBR5
42/OTDD	2512	PenDD DDPP4B DN41 AC/2	66KU	3881	EZ40 BBT4 V150 UU8
42/SPT	1444		67PT	3888	EL416CK5 N150
43	2514		70B1	470	
43E	2514		71A	2541	12A
43IU	1039	R2 UUS MUI4 IW4J350	71A3	1764	CE21 P30
44A/160M	415	TTI S	72	709	RX232 3B24
44IU	1039	R3 UU5 IW4/500	72R	709	RX232 3B24
45	610		73	2543	RK73 RKR73
45A5	1977	UL41 N142	73R	2543	RK73 RKR73
4585		ULB4 N11910P18	75	619	
45D5	2528		75B1	284	Q575-20
45IU	2529		76C1	4685	3065 M8161
455P	596	384122C45	77	616	
45Z5GT	2530		78	2544	
4B	2531		7BDS	1328	Pen1340 Pen13C
47	1772		79	2545	4274A 22S/200A
49	2532		80	617	
50	2533		81	2546	
50BM8		UCLB2IOPLI2	82	1773	
50C5	1959	HL92	82AV4		WL919
50L6G	2534	KT71	83V	2548	??V/310A
50L6GT	571	KT71	84	2548	84/6Z4
50Y6GT	805		84/6Z4	619	84
51	487		84A3		WL923
51 A3		W L927	85	2549	
52CG	2896	203A CMG22	85A1	431	OE3
52KU	1863	SV4 GZ32	85A2	449	
53	2535				Q583/3 OG3 Q51209/5651
53A	2536	3-50J4	85A4		WL928
53KU	378	U5b GZ37	86BA		2XM-600
54KU	729	GZ325AQ4	88D	2185	
54NCP11	2885	54NCP11	89	833	89Y
55	2537		89D	21H3	
55B/100K		11E13	89J	2750	
55B/200K		C1134	89Y	833	89
55CG	405	927 CMG25 CMG34X	90AG	2270	FZ9011G CAG29
55N3		UYB2	90AV	2132	VA50 FZ9011V CAV29
56	611		90CG	2133	FZ8012G CMG29
57	612	XG1-25005558 BT5 SV/880A	90C1	5175	Q51215
58	673		90CV	2134	FZ9012V CMV2B
59	2538		90EG4	1587	901q

TYPE	CV No.	EQUIVALENTS	TYPE	CV No.	EQUIVALENTS
95A1	28B	5M85 Q585/10	210VPT	1083	W21 VP210 VP2
100B1	1188		211	B20	4C21
100R	2887	8020	211	257B	4C21
100TH	2552		(Special)		
101D	1778	3A/141A	211H		T100-1
101F	2553		212E	2577	4212E MY3-2753C/270A
102D	1779	3A/142A	212K		MW53-80 C2IKM
104D		3A/144A	213Pen	5077	PL81 N33921A6
104V	1161	ML4 PA145P AC/P	215P	1019	PLI5
105		PL105 XGQ2?400	215SG	1018	PMI2M Z21 S23
108C1	1833	OB2 STV 108/30 G108/1K Q51208	218	2579	
111 A	2554.,		2208	1032	PM2B PD220
112	1774		220C	2580	
116Pen	1337		220DD	794	2D2
117L7GT	2558		220HPT	1118	PM22A 2200T KT2
117N7GT	2557		2201PT	1333	Z22
117ZBGT	2558		220LF	1313	
120A		4120A B4B/1A	220LPT	1195	KTW63
121 A	25B0	4121 A B8B/7A	220/OT	1118	PM22A KT2 Pen220 PT2
121K		CI2FM MW53-80 MW31-74	220P	1020	PL2 PM2
121VP		UF4112AC5	220PA	1022	LP? L2 P22Q PB1
122A	2561		220PT	1051	Pen220A PT240
1288	2850	3P/27083Q/181E	220RC	1312	
141 DDT		U8C4110LD314L7	220SG	1018	Z212155G PMI25B1
141K		MW36-24	220TH	1082	X24 TH2
141TH		UCH4214K7 X142	220V5	2582	PMI2M V522 W21
143D	557	D42	220VSG	1028	PMI2M
15082	2225	6354 Q51200	225DU	1454	
150B3	287	Q5150/75	228A	734	4228A 3Q/150E
150C2	1832	OA25TV150/30 G150/45 Q51207	230XP	1023	P2 PM202 P220A
150C3	21B	OD3 VR150/30 G150/3D	231 D	2584	6AN5
150C4	1832	OA2 Q51207 G150/4K	238B		5555
152RA	3878	2-150D	239	1771	39/44
154V	1037	MHL4	240B	2586	B21 PM2BA PD220
161	1708		240QP	1G35	QP230 QP21
163 Pen		PLB2 N32816A5	242A		E5854242A 38i850A
164V	25B2	MHL4	242B		4242A E5853B/850A
171DDP		U8F8017C8	242C	2?·87	4242A E5853B/850A
172K		MW43?8178QP4	244A	2588	
173K		MW93-89178QP4	244V	1038	354V h9H4 HLA2
1858T	1980	1B5BTA	249A		2V/400A
200	2888	H V 18	250TH	?589	RK63
202	1200		250TL		WL806
202DDT	1418	11 D3 HLDDI320 TDDI3C	256B	2592	
202STH		TH2321 TH21C	257A	2593	
203A		4242A	258B	2594	
2038	2888		259A	2595	
204A	2583	UV204A	262A	2597	
205D	1748	3B/151A	264A	2598	
205E	2568	3B/151A	264C	2599	
205F	2587		267B	2fi00	F267B
2IODDT	1044	TDD2A H207	2i0A	30	4270A 3C/350E
2IODET	2588	HL2210HF PM2HI	271A	2601	
210HF	2570	PM2HL HL2 HLB7	272	2957	5557 XGS-500
210HL	2571	PM2HL 210HF HL210	272A	26G2	
210HPT		KTS Pen220	274A	2603	424A
210LF	1021	HLB1 L2	274B	684	5U4G
210PG	1043	FC2 X22	275A	2604	
210PGA	1043	FC2A X21	276A		4242A
210RC	2877	HL2 HLB1 PM2HL	278A		4278A 4CJBOCE
210SPG		FC2 X22	279A	669	4279A
210SPT .	1048	Z22 Z21 SP2	282A	2605	4282B 4B/7QOA
210VPA	2574	W21 Vp210	293A	3829	
			296A		WL849

TYPE	CV No.	EQUIVALENTS	TYPE	CV No.	EQUIVALENTS
300A	2608	43C0A	417A	2642	2K41
300B	2609	9300A	420T	2511	
302THA		TH2321	420XP	1040	PX2S D024
303	2610		428T	812	CE230428T
303A	2986		431U	1039	R3IW4-500 MUI4
304	1202		436A		A2674
304TH	2611	HK304H WL535	437A		3A/167M
304TL	3580		441U		R3 UU5 IW4(50C
305D		W L801 A	442BU	1796	R2 DW4-340 UU5 U14
307A	2612	4307A	446	3725	GL446
310A	2613		446A	932	1656
310B	1781		446B	687	2C40
311		4242A 2428203A	446C	2272	
311A	2614		450TH	2572	
311B		4311B	451PT	1977	UL4145A5 N142
311CH		T100-1211H	460BU	2644	R3 DW4-500 U14 UU5
3115U		UY4131A3 U142 U404	464A	688	2C43
313C	2615	4313C G150/1A	471A	3586	1 B21A
314A	2616		484V	1678	HLA2 AC2/HL MH41
316A	683	CL316A	506BU	2645	DW2 U101821 R1 UUS
322A	fi23	RK2BA 38803	552	999	3C22
323A	2617		532	2647	
327A	2618	56373-10063/327A 483512X825	532A	2648	7832
328A	2619	3828A	541U		UL41
329A	2620		575A		E5U5752V/510A
330B	2621		576	3749	
331A	2622		578	2987	802010CR
332A	2623	WE322A	610XP	1154	PM254
332Pen	1401	CL33	615	3506	HY615
337A	2624	WE337A	616		KT66
338A	2625		625P	1208	PM256
34QA	1782		6dd	670	H K645
343A		400983Q/220E	648P9	74G	
346A	2626		651		5552A 656
349A	2627	ELB36CK6	652		5551 A 657
3498	2628		653B	666	9004
350A	2629		G57		5551 A 652
350D	621	38101 L801	fi72		3V/390A
351A	2630		673		E5U6732V/511A
351B	2630		676		3V/490A XG2-6400
352A	2631		700A	689	4J42
354A	2632		7008	695	4J42
354V	1173	244V A3OD AC/HL MH4	700C	696	4J42
357A	691	4357A 3C/351H	700D	fi99	4J42
3578	32	3C24 GVI2	701A	677	WE701 A
362A	2633		702A	678	7028
367	2634		703A	679	368AS
368A	710		705A	3587	80212T/450E
371B	3511		706A	3588	
375A	2636		707A	3589	K3Q7
388A	2637		7078	1768	2K28
393A	2638		708A	3590	
394A	2639		709A	2652	
400TDD	2521	6AH6	710A	62	EI QbG
401A	967	E4103-B-4	713A	3593	
401CAHA	389		714AY	2653	
402Pen	1672	Pen36C	715A	265b	
4058U	2640		715B	2655	P535(1E 715C
408A	2205	E4103-E-14 SA/164K	715C	598	4B601E P535/I E
4088U		DW2506BU 7821 R1	717A	2594	G5163Q
40BCAHA	2211	408CAHA	719A	3956	
410LF	1152	L410	720C	3907	
410PT	1167	PM24A	721A	3595	
415XP	1154	PM254	722A	3596	CE302

TYPE	CV No.	EQUIVALENTS
723A	720	
723A/B	1795	KS9-2Q
724A	2656	
724B	1793	
725A	722	JP9-250D
726A	676	
726B	3597	
726C	3644	
729A	539	1 B23
731A	850	EF956AK5
732A	812	3824
800	2657	RK30
801	621	38101 WE3SOD
801 A	fi21	V E310
802	622	GL802
803	623	RK2BA 38802
804	624	4Q52A 5B/600A
805	625	T100-1
806	2658	GL806
807	124	QVOS-255B(250A QEO6/50
807W	3809	QVO5-255B/250A
808	626	
809	2fi60	N U302 H Y302
810	627	W L810
811	628	GL811
812	2681	
813	26	QY2-I OQ C1435C/100A
814	629	RK47
815	2663	QQVO4-20
816	724	
822	264	
825	2665	C144 QQVO7-40
826	630	
828	631	5B/700A
829A	3599	3E19
8298	2666	QQVO7-40
8308	702	HY513 CB3CB
832	1088	832A
832A	788	QQVO4-15
833	635	TY4-350
833A	635	TY4-350 E58333C/402E
836	636	
837	637	RK44
838	638	H F130
841	906	1602
843	639	
845	735	T100-1
845W	3646	
846	2668	
849	2669	
849H	2670	
851	2671	
852	2672	
857		DQ7
857B	2673	DQ7
859	2779	2826
860	640	
861	641	
863	267h	E5W8722V/471A
864	2675	
865	2B76	
866	32	2V/400A GUI23828 AH201
866A	32	R63-250A 3828 AH201 G!!12
866JR	2679	2B2&

TYPE	CV No.	EQUIVALENTS
868	2680	1 P23918 CMG32
869		E5U1112V/540
869B	2723	DQ6 E5U111
872	642	F3534832 AH2172V/471A
872A	1449	DQ42V/471A
872AX		DGC5/5000G8
873		TQ4
874	643	3918
875A	644	
876	645	
878	2683	
879	597	2X2
880	2685	5658
884	647	
885	648	2B4
889	2686	E5W50003Q/198E
889R-A	2687	E5A50003J198E
891R	2688	E5W8913Q198E
892R	904	8R175 E5A8923J197E
893R	2689	
901A	1587	ECR3590EG4
902A	2301	
902M	2244	
902P1	3600	902P1A
904V	2690	MH41 HLA2 AC/2HL
905	736	
906	737	3AP1
906P1	6C2	3AP1
908A	1529	
913	2691	
918	2692	1 P23
919SHIT	420	
927	405	5SCG CMG34X
929	2693	5961 DV3
930	2694	G51650
930B	702	HY51B
931	2695	1P2127M1
931 A	2898	27M11 P21
935	2897	
948A	1521	E4412/M/9
953	738	
954	1095	ZA24B72
955	1039	HA2
956	849	
957	2700	
958	650	
958A	2701	
959	1794	
965K	2230	
987	2957	5557 TQ2 XG5-500
972	642	TQ4
972A		DQ4
973		TQ4873
991	651	NEIB CD2005
994V	1037	154V
1000UHF		W L1000T
1005	2874	
1043	1097	E4504/B/16
1048		68530
1163	2775	68506
1164		68508
1201	2704	7E5
1207 A	2704	7E5
1203	2705	

TYPE	CV No.	EQUIVALENTS
1229	711	32E
1231	2707	
1232	303	EF22
1252W	2464	
1257	5027	5559 XG1-2500
1267	1992	Z300T
1280		14C7
1282	902	7W7
1291	811	3B7
1294	2709	1 R43B7
1295		W L6328573V/390A
1299	815	3D6
1378X	761	1822
1500T	2771	
1547	3789	IW4 R3
1561	1064	DW4-500 U14 R3 UU5
1601A	1385	E4504J8/16
1601A8C	440	
1601E	440	
1603	652	6C6
1608A	1391	E4504/E/16
1609	2712	
1610	2713	
1611	653	6F6
1612	654	
1613	655	
1614	2774	QVO6-20
1616	656	
1619	723	
1620	657	6J7GT
1622	658	6L6G
1625	B59	
162fi	1755	
1629	1756	
1630	2715	
1637	1052	OM9 EL32
1638	1054	E834
1639	1055	DL3B E8C33
1642	875	2C21 RK33
1646A	966	E4504/M/16
1652M	1530	6LY1
1655	2716	65C7
1656	932	446A/B
1658M	307	6LY1
1659	1769	2A6
1672		W L172
1701		PL5557
1729	2717	
1754	3518	5948
1805P1	832	5AP1
1808P1	817	3EP1
1813P7	884	78P7 ZP468
1814P1	790	2AP11814P1
1821	1443	DW2 V10 UU5 R1
1851	599	GL1851
1852	B60	6AC7
1853	1873	6A87
1861	1039	IW4-500 MUI4 R3
1867		IW4-350 R2 MUI4 R42 UU5
1868	3755	R2 UU4!W4/350 MUI2
1876	2718	
1877	1290	HVR2
1881	3759	R2 UU4 IW4/350 MUI2
1904		3V/390A

TYPE	CV No.	EQUIVALENTS
1907	3521	XH25-500
1908P1	1783	9JP1
1909A	2291	
1924	2719	
1960	1792	5836
1971		WL207
2000	1836	685061163
2000T	998	
2050	2565	EN3220A24G/2BID
2051	1798	20A2
2100A	2987	WL8020 RV12-100802?
2211BRA	439	22/IBXA
2218B	439	22/II BXA
2269Y	2463	
2273P		T938Y
2501A3	602	906P1
2505A5	740	5MP1
2511A5	741	5LP1
2529A5	1791	5J P1A
2634		4074A
3017A		40178
3025	2722	
3069		868A DCG4/1000G 2V/400A
3069A		4069A 5C/101A
3069Q		T939Z
3069QMM		T9392
3070		872A OCG5J5OOOGB 2V/?71A
3071	2723	8688
3072		WLBS7B
3073Q		T939Y
3078		DCG9/208508
3209	2725	09J
3220K	954	20K
3226D	2727	26D
3226J	2786	26J
3229D	2728	29D
3263D5	2731	63D5
3530	405	SSGG CMG34X
3572		866A DCG4/I000G 2V/400A
3881B	2519	QELI504X150A QV1-150A
		4HI3oM
3874A	26	QB2-250813 QY2-1005C/100A
3885		D C X4 J1 OOG
3900A		G500/1G
3901A		G1500/1G
3903A		G1800/1G
3904A		G100/1G
3945		845
3951	2733	
3982	2680	1P23
4001AM		T4A/9AA
4001C		T4A/75AA
4001F		T4A/I5AB
4242		3B/651 A
4242A	25	E585 UE3113B/850A
4282		4B/700A
4304C8		3B/503B
4311G		311B
4313C	75	313C G150/1A
4316A	683	316A
4317	1201	317
4328A	2619	328A 5A/I3BA
4328D	245	5A/136D 328D
4357A	27	357A E53513C/357H

TYPE	CV No.	EQUIVALENTS	TYPE	CV No.	EQUIVALENTS
4378	1453		6002	3902	QK221
4407	1084		6005	4019	M82456AQ5W
4409	995	6AJ5	6007		D L67
4410	1087		6008		DF67
4412E		V1505	6021	3986	ECC70
4502	1086		8024	3539	ATR387 TRW7
4602	956		8027	3997	JP9-152J42A
4605	1085		6029		CK573XA
4606	2764		8031	5027	575559HG1-2500
4607	690	RK4BA	6038	3628	1B35A
4608	1511		6052	2898	5896
4671	1059	HA2955E50111	6053		59b3
4672	1095		6056		5907
4673	2765		6057	4004	M8137 ECCBO3S
4687	2766		6058	4025	QA2404 M8079 EAA9OI S
4690	2767		6059	4006	68R7
4701A	677	701A	6060	4024	M8162 ECCBOI S
4702A	678	702A	6081	4043	68W64Yf8f1E-
4703A	679	703A	6062	4039	M80915783
4705A	3587	705A	6063	4005	BX4WA QA2407 M8096
4706A	3588	706A	6064	4014	56F12 QA2403 M8083
4707A	3589	707A	6065	4015	M8161 QA2400
4708A	3590	708A	6067	4003	M8138 ECCBO2S 12AU7WA
4713A	3593	713A	6073	2903	OA2WA 5TU150/30 M8223
4717A	3594	717A	6074	4028	OB2WA 5TU108/30 M8224
4721 A	3595	721A	6075		KPWS/3500 CW1100 QY5-3000W
4722A	3596	722A			
4726	676	726A	6076	5129	KS7-85A QBIS/3500 CR1100
5031		g72q			QY5-3b00A
5121	797	2D21	6077		T8W12/100 TYI2-50
5215A	1081		6079	3522	QYS-5bb R5687
5221	1835	3828	6080	2984	11DI2ECC230338/160D
5517	3609	CK1013	6080WA	5008	
5544	2210	XR7-3200	6083		PE1/10?
5545	2215	XR1-640056863G/502A 6807/G	6084	2729	EBOF
5556	3640	405BU	6085	5989	EBOCC
5557	2957	XG5-500	6088	2699	
5559	5027	XG1-250057157 BT5	6095	4019	6AQ5W M82456005
5586	3611		6096	4010	56546AK5W 6096 M8100
5610	4058	M8080	6097	4007	M821257268097 GAL5W EAA9OI S
5620		4004B			
5626	298	FAIS	6100	4022	6C4WA M8080
5628	2952	FAI3	61b1	4031	6JBWA M8081
5629	2662		6106	2996	H L41 D D
5632	5234	PL5632 C3J ZT10118063 XR1-1600A	6111	3961	
			6117	3906	
5636	3928	EF730	6125	4022	0A24016135
5641	473	EY705Ng54	6130	3629	3C45 XH3-045
5642	2241	DY70	6131	3632	
5643	474	EN70	6132	4055	BCH6
5644	3987		6135	4022	M80806C4WA QA2401
5647	3916		6137	1993	6557
5651	2573	Q5120985A2	6146	3523	0V05-20 QEb3/40
5651WA	4048	M8098Q51212	6155	2130	OY3-125 RS 685
5654	4010	6AK5WA M8100	6156	2131	OY4-250 R5586
5656	2g70		6157	2218	R17
5657	3958		6158	4068	13D3
5663	3610		6159		QVO6-20C QEOS/40H
5664	1765	3C31/C1B	6161	3901	55805946
5667	2687	889R	6174		CK1027
5670	4013		6180	278	6SN7 QA2408
5672	2238	DL620	6187	4011	M819657256A56W
5675	2g71		6189	4003	12AU7WA M8136 ECCBO2S
5976	5900	KS7-85A TKB1	6198		P810

TYPE	CV No.	EQUIVALENTS	TYPE	CV No.	EQUIVALENTS
6199		15OAVP 6291	7C97		J P2-2.5A
6201	3508	ECCBO1S M816212AT7WA	7092		TB5/2500 TY6-80015D12
6202	4005	QA24076b636203	7118		E181 CC
6203	5009	QA240760636202	7119	5766	E182CC
6205	2432		7125		E B F89
6218	5724	ESOT	7136		DCG6/I BGB
6227		EBOL	7203		4CX 2508
6252	2799	0QV03-20A TT2b 558/200A	7204		4CX 250F
6267	2901	EFB6 Z7296F22	7292		J P2-2.5W
6268	1787	4C35 XHS-100	7432	4501	EF72
6279	2520	5C22 XHI6-200	7433	4502	EF73
6291		15OAVP 6199 XP1060	7434	4503	EF731
6305		2T/270K R10 HR1	7435	4504	EA76
6308	4054	M8142	7436	4505	EF71
6326		pgl3	7437	4507	51966
6354	2225	150B2 Q51200	7438	4508	EF70
6360	2798	QQVO3-1011 E13 TT2455B/100A	7471	1070	GDIOOB Q592/10
6370	5106	E1T	7580	2487	4X250B
6373	2105	DL70	7700	585	6C6
6374	2235	EYB4 R18	7721		5A/185K D3A
6375	2275	DC70	7971		511E12 L5B/280D
6391	476	EF74	7972		13E15B/900A
6410	3903	Q K338	7973		52P20 L5A/220K
6488	446	EF73	7974		16P123R/1535
6489	469	EA76	8001	824	
6516	4063	M8082	8003	2768	T100-1
6538	2236	Z800U	8008		DCG5/5000G5 E5U8000
6539	2255	X801U	8008AX		DCG5/5000G5
6574	2253	EN3221A14G3200	8011	62	E1046
6617		TBW12/25 TY12-25W	8012	662	GL8012
6618		TBL12J25 TY12-25A	8013A	716	5C13
6626	4020	M8223	8016	541	1 B3GT R6158A
6627	4028	OB2WA M8224	8019		43?J4C8
6661		E9OF	8020	2967	RY12-100
6662		E99F	8021	3587	378A
6686		E81L	8022	934	27
6687		E9IH EH9OOS	8023	933	4C3015A
6888	3998	E180F 5A/170K	8025	6fi3	3E29
6688WA		E186F	8025A	's915	
6689		E83F	8026	92	4C27
6693		DCG6/18 RG4-3000 2V/520A	8078		14D123C/SOOE
6700	5277	ET51	9001	1757	
6778	468	EC70	9002	664	GL9002
6779	2434	Z803U	9003	6fi5	
6807		3G/502A XR1-6400	9004	fi66	GS3B
6844A		G N-4A	9005	667	GL9CO5
6866		E702	9006	2769	100R WL578
6870	5121		9901		5867
6922	2492	EBBCC	9903		589481135
6923	5140	EA52	10667F		pgl3
6939	2466	QQEO2-5 QQVO2-6 TT23	13077	2770	
6960		QBW7/800 TY7-6000W	18042		6086
6961	5239	QBL7/800 TY7-6000A	18046		IL861
6972		J P9-75	38116		1163
6977	6094	DM160	3511		DCG4/1000G 866A 2V/400A
7001	4067	M8167	38217	2957	5557 XG5-500
7004		TBL2/300 TD2-300A	68503	2773	68510
7007		4J C/201E	68504	2774	
7028		J P9-2.5	68506	2775	1163
7034	2519	QV1-150A 4X-150A	68508		llfiq
7035	3991	4X150D QV1-150D	68510	2776	
7036		5915A EH9OOS	68530	3755	1048
7062	5766	EIBOCC	/U600		
7090		J P2-0.2	178148		11636850638116

TYPE	CV No.	EQUIVALENTS
180238		116468508
189048	2777	1163
189049		116368506
217283		11 fi418023868508
289414		116318904938116
289416		116328941418904938116
765766		116421728318023868508
859483	2779	4B36 20X672
A11B		UU5 R21W4-350
A11C		1 W4-500 R3 UU5
A11D		1 W4-350 R2 UU5
A20B		2D4A D41 V914
A23A		TDD411A1 MHD4 AC/HLDD
A27D		Pen4DD
A30B	2806	AC/2HL 484V MH41
A30D		354V MH4 HLA2 AC/HL
A36A	1424	20A1 ACJTH1 TH4 X41
A36B		TH4B 20A1 X41 AC/TH1
A36C		TH4B AC/TH1
A39A	1412	TV4
A40	2800	HA1
A40M	1165	ACJSGVM
A40/N3	2801	
A41	1175	ZA1 AP4
A50A		SP48A1 SPT4A AC/S2Pen
A50B		SP4B M5/PenB
A50M		9A1 VP4 VMP4G AC/VP1
AC/SG	2822	8A1 MSP4 S4VB
AC/SG	1190	E1046
AC/SGVM	1165	A551249A1
ACSH	1677	S4VB MS4B SP4 SPT4A
AC/SL		SP4 SPT4A
AC/SP1	2820	AC/S2Pen
AC/SP3	2923	TSP4
AC/SP3RH	1430	
AC/SIVM	1165	VPT4
AC/TP	1718	TP4
ACT6	2825	
ACT9	28	8R15283J/121E
ACT10	2827	5762 YD1120 TY6-SOOOB
ACT14		8R140
ACT16	1431	
ACT17	225	
ACT19	379	
ACT22	257	
ACT23	288	
ACT24	240	
ACT25	436	
ACT28	2163	
ACT29	6057	BR1138
ACT30	2383	5762
AC/TH1	2830	TH4B X4120A1
AC/VH	3788	VP4
AC/VP	1169	ME14015802
ACIVPI	518	VP4A/59A1
AC/VP2	2832	VP4B MVSPenB Wd2
AC/VPB	2832	VP4B
AC/VS	1165	
AC/Y	1174	KT427A2
AC/YY	1326	APP4E(B4)
AC/Z	1181	PenA4 PT4(F)
AD/P4	1198	ACP4
AF2	1169	?A1 UP4 VMP4G
AF3	2833	

TYPE	CV No.	EQUIVALENTS
AF22-10		T938Z 2269P
AF31-10		T939Z 3069Q
AF350	1252	4212E 14D133C/270K
AFH202	12	E1791
AFX203	2868	C1A
AFX212	1949	EN936D4
AFX234	5023	EN936D4
AG3B2B		3828
AGS	1G57	EK32
AG5209	449	85A2 OG3
AG5210	1833	108C1 OB2
AG5211	1832	OA2150C2
AGBBEA	32	DCG4/1000G RG3-250A GUI2
AGB72A	642	DCGS/5000G8
AG8008		DCG5/5000G5
AGR9950		5869
AGR9951		5870 DCGI2/30
AH200	1628	
AH201	32	E5U866 RG3-250A 866A
AH205	2673	8578
AH211A	532	GU2h
AH213	2723	869B
AH217	642	DCG5/5000G8872A 2V/471A
AH221	5	RG4-12504049D GU212V/500C
AH238	1629	RG3-1250 GUI B 2V/474C
AHC	1039	R3 UU5 IW4/500 MUI4
AK1	3576	15A2 FC4 MX40 X42
AL1	159	
AL22-10	5300	2273P 9RP33 T938Y T956Y
AL31-10		T939Y 30730
AL60	9	
AN1	1128	ME1502 GTI C
AP4	175	X5G1.5
APP4A	1683	7A2 AC/Pen N40 KT42
APP4B	1181	7A3 PenA4 AC2Pen KT41
B142	1927	E58333C/402E
B152	455	12AT78309 ECCB1
B217	1021	HLB1 D210
B22B	1673	PM2HL
B230	1032	PD220
B240	1032	PM2B
B262	1018	Z2156215 S23
B309	455	ECCB1 B15212AT7
B319	5192	PCC847AN730L1
B329	491	ECCB212AU7
B339	492	12AX7 ECCB370256L13
B719		ECCBS 6AQB 6L146L12
B1109	2736	3C24
B1135	8479	58679901 TY4-400 R5630
B204B		X281G
B204G		X291B
BA9-?0	2393	7635 N1010
BD7B	2125	
BF61	3389	EL41 6CK5
BF62	3890	EL42
BK24	2126	5552A
BK34		5553B
BK42		5551A
BK44	1742	5554
BK46		5555
BL63	1102	
BLC/1C	433	
B0L014	984	S2A
BPM04		6AQ5 EL90 N727

TYPE	CV No.	EQUIVALENTS
BR1	692	OZ4
BR29	2687	ML5667889
BR129	2687	ESA5000
BR152	28	ACT9
BR153	2159	ACTI4
BR161	2322	
BR175	9U4	E5A892
BR179	2323	
BR191	383	
BR191G	5289	5762 TY6-50008 YD1120
BR112g		3J/162J
BR113U		5736
BR113B		3J/122E
BR1160	8730	TY65000B
BS3	189	
BS4A	1859	
BS5	233	
BS48	460	
BS52	1841	
BS60	527	DA60
BS62	1 B58	
BS64	1743	
BS82	463	
BS84	462	
BS92	461	
BS100	7219	DA100
BS1100		E51102
BTS	5U27	5559XG1-2500573V/390A
BT9	1145	
BT9A	11b6	
BT9B	13	
BT19	1144	XG2-500
BT35	1147	21N13
BT45	22	
BT69		6786 DCG7/t00B XGI5-12
BT7S	4gg	
BT79	372	3C45 FX227
BT83	1120	5622 XHI6-3200
BT91	?210	5544 XR1-3200
BTR32	458	
BTR34	b59	
BUI0016	2867	
BW	1600	CAT14006A
BW129	2686	E5W50003Q/198E
BW140	2871	CAT6
BW 153	2872	CAT9
BW173	1600	3Q/181E
BW175		E5W892
C1A	2868	AFX203
C1B	1765	5664
C1C	1400	
C1K	2790	
C3J	5234	56325G63 ZT1011 XR1-1600A
C3JA	5234	56845G63 XR1-I6QOA 2/B12
C6A	714	
C6SS/1 B		VL5492A8
C6SS/1G	1527	VL5492AG
C9A		CRM92
CI 0B	764	UR1 C V201 D5 BTY36
CI 0SS/1 B		4Q96AB
C10/SS/2G	2794	
C12/1		MW31-74
C12A		CRMI21
C12B	2315	

TYPE	CV No.	EQUIVALENTS
C12FM		MW31-74
C12R	429	12AEP26
C14/3A		A W36-20
C14HM	3535	
C14LM/1		T935W
C16G5/2G	2745	4050AG
C17-1 A		M W 43-69
C17-2A		M W43-69
C17-4A		M W43-80
C17-5 A		A W 43-80
C17-7 A		A W 43-88
CI7AA		AW43-88 CME1706
C19-A K		A W 47-90
C19-7 A		A W 47-90
C19-1 OA		A W 47-91
C19-1 OA P		A47-13W
C20C		IODI2DI3C
C21AP,		A W 53-88
C21-1A		M W 53-80
C21-7A		A W 53-88
C21KM		M W53-8Q
C21NM		M W 53-20
C23AK		A W 59-90
C23B	3503	11D3 HLDDI320 TDDI3C
C 23-7A		A W 59-90
C23-10A		A W 59-91
C27D		Pen4ODD
C30B		HLI3C 4D1 HL1320
C36-24		M W 36-24
C36A		TH21 C TH2321202CTH
C36B		TH2321 TH3OC
C36C		TH2321 TH3OC
C39A	2942	EM1
C50B		5P13C SD2 BTY67
C56N		9C2 VP1322,13VPA
C70D		7D6 Pen383 Pen 36C
C70E	1672	7D6 Pen3520 Pen36C
C80B		FCI3C 15D1
C143	26	813QZ2-1005C/lbOA
C144	26fi6	QQVO7-408298
C178A	2797	5894 QQVOfi-40A TT25
C180	788	832A QQVO4-15
C200	2988	HVIB NU2003C/180A
C203A	2986	2Q3A HD203A
C243N	1118	KT2 PT222A
C833		833A
C866		DCG4/I OQCG
C566C		DCG4/1000G
C872		DCGS/50QOG
C932		P8IQ
C933		7C38
C980		5820
C962		7294
C1108	2130	8155 QY3-125 R5B85
C1111	427	5D217156
C1112	2131	6158 QY4-250 R5B86
C1123	3543	4D32
C1133	2416	4PR60
C7501	2869	3JP7
CAA322	1904	
CAR1	1601	42228 AW223
CAR4	1602	
CAT1	1B00	4006A BW173
CAT2	1606	

TYPE	CV No.	EQUIVALENTS	TYPE	CV No.	EQUIVALENTS
CAT3		8W173	CK546DX		DL651
CAT6	2871	TXI2-12W 8W140	CK5S6AX	2239	5876
CAT9	2872	8W153	CK549DX		D F651
CATI7	533		CK707	2848	
CAT20C	421	B W 187	CK1003	517	OZ4A
CAT29		B W 1139	CK1005	2874	1005
C8215	1032	PD220 PM2B	CK1027		6174
C8220	1696	PD220A PM2BA B21	CK5672	2238	DL620
CBC1		TDDI3	CK5678	2254	DF60
CBL6		CBL1	CK5704	2847	5704
CBL31	1463		CK5726		5726
CC2		HLI34D1	CK5886		DF703
CC3D	2870		CL4	2875	Pen26
CC3L	2266		CL33	1401	332Pen
CCB1 E		6201	CMGS	1432	G526
CCB2E		6067	CMG22	1473	52CG
CCA	2492	E88CC 6922	CM625	242	5568927
CCE305		3V/340B	CMG25	250	5SCG
CE1		CMG32	CMG25	1472	
CEIC	2692	918	CR176	2324	
CE1D	2680	1 P23	CR1100	5219	6076 QBL5J3500 QY5-3000A
CE1E		918	CR1101		6181
CE2	1764	1 P30	CRM91		C9A
CE3		1 P31	CRM92		C9A
C E4		1 P36	CRM121		CI2A
CE5		1 P35	CRT4/1		2880
CE11V		917	CRT5/1	d87	
CE20	1474	CE25 NU20	CTRI39		872R
CE21		920	CS2-A	103	
CE23		923	CS2-C	1907	
CE2S	405	1P32927CMG34X	CS3-A	253	
C E26		1 P33	CS3-B	1844	
CE29		1 P39929	CS4B	2258	
CE31V		919	CT1-500	1144	3V/340B XG2-500
CE34		934	CT1(2500		PL5559573V/390A
CE59		5581	CWS24A	1968	
CE72	7Q9	72R 3B24	CX25	1766	
CE91		1 P37	CX1113	2851	3D22
CE225		1163	CX'i119	7384	
CE226		1163	CXT1	2389	
CE230	819	PL33 N16	CXT2	2400	
CE235		1164	CY1		G2080 UR1 CY2
CE309	2957	PL5557 TQ2 XG5-500	CYIC		URIC V201D5 U4020
CE311		PL3C23 TQ1/2	CY3		U R3
CE866		DCG4/1000G	CY31	1402	OM1 U201
CEB72A		DCG5/5000GB	D1	1078	T4D
CE927		3546 P W /02	D2	2778	TJ21
CF1		5P13 SD2	D2N9	283	6AL56D2 E892 D77
CF2		VPI3A	D3A		5A/185K
CF7		5P138D2	D4	1037	354V AC/HL MH4 HLA2
CF61		ECH41	D41	1187	2D4A DDL4 V914
CF141		UCH41	D42	557	
CG1-C	425	0A74	D61	1092	EASO
CG1-E	425	CEX44	D63	554	6H6G E834
CG4E		2X105G GD5	D77	140	E8916ALS D1526D2
CG14	496		D143		12
CK1		FCI3	D152	283	E8916AL56D2D77
CK502AX	385	DL712E35	D210	1021	LK31
CK505AX	443	PF70	D400	1170	SD4A
CK506AX	387	DL72	D418	1686	
CK512AX	2107	DF66	DA	1109	4D1 HL1320 HLI3C
CK522AX	2699	6088	DA30	563	D026440XP V505 PX24A
CK523AX	210B	DL66	DA41	1076	TZ40
CK542DX		DL650	DA42	2394	1 D13 ES 71013B/402A

TYPE	CV No.	EQUIVALENTS
DA60	527	
DA90	753	1A31FD13
DA100	1219	E51102 MZ-1-1003C/100E
DAC1	2887	
DAC32	1818	IH5GT HDI4
DAF70	2104	
DAF91	784	1FD9155 ZD77
DAF92	3912	1 US
DAF96	9024	1AH5IFD1 ZD2S
DAG1	2	
DB7-36		g W p 1t
D813/34		SADPI1
D818?22		7AHP77
DC2P	1735	
DC51	1	
DC70	2275	6375
DC80		IE3
DCC90	808	3A5
DCF60		1 V6
DCG4	1625	DQ2A RG3-250 GUI2A
/1000ED		
DCG4	32	DQ2 RG3-250A 566A GUI2
/1000G		
DCG5-	642	872A DQ42V/471A
5000G8		
DCG6/18		2V/520A
DCG9/20		DQ6
DCX4-1000	1835	3828 DX2 RR3-2502G/402A
		GXU1
DCX4-5000	2518	4832 RR3-12502?/472B GXU2
DD4	1170	2D4A V914
DD4D		2D4B
DD6	140	E8916AL5 D77 D1526D26AL5
DD6G	140	6AL56D2 E891 D77 D152
DDI3	1300	1 OD12D73C
DD41	1403	
DD465		2D4
DD260	2889	
DDA1		2D4A
DDA41	795	V9142D4A D41
DDL4	1691	2D4A D41 V914 DDA41
DDLI3	1695	DH30
DDPP4BM	519	27D Pen4DD DN41 AC/2
DDPP4BS		ABL1
DDPP4M		Pen4DD
DDPP6BS		EBL1
DDPP6S		EBL1
DDPP39		PenDD-4020
DDPP39S		CBL1
DDR2	173	EF55
DDR3	135	EY91
DDR7	136	6AM5 EL91 N77
DDT	2813	H4D NA211A1 AC/HLDD
DDT	2890	TDD4 H4D
DDT2		TDD2A H2D
DDT2A		H D27
DDT2B	1044	HL21/DD TDD2 HD23
DDT4	2813	TDD4 ACHLDD MHD4IIA1/2
DDT4S		ABC1
DDT6S	1428	EBC3
DDTI3	3503	11D3 HLDDI320 TDDI3C
DDTI3S		2D13A
DDT220		TDD2A H2D
DDT527	6136	

TYPE	CV No.	EQUIVALENTS
DDX52	2232	
DE5	2891	
DEQ	1156	
DER	1642	
DETISW	2895	
DET3	1034	
DETS	1223	
DET5B	2892	
DET6	1620	4094A
DET9	2899	
DETIO	2900	
DET12	1288	4304C83B/5048
DET16	1363	8150
DETIB	419	35T
DET19	18	RK342C344074A 33A/138A
DET20	8	E1148
DET22	273	TDO3-10
DET23	354	TDO3-5
DET24	397	TDO4-20
DET25	1025	
DET27R		3C/270E
DET29	2397	
DF1	2907	
DF33	1823	1 N5GT Z14
DF60	2254	5678
DF61	2371	6611
DF62	2237	IAD4
DF63	2933	
DF64	2260	02DF
DF66	2107	CKI2AX
DF67		6008
DF70	433	BIC/IECK505AX
DF72	2101	
DF73	2703	
DF91	785	1T41F3 W17
DF92	1758	1 L41 F2
DF96	9025	1AJ41F1 W25
DF97		IAN5
DF850		CK549DX
DF904		1 U4
DG4-1	5131	
DG7-5	2175	3ALP1
DG7?2	2437	3AMPI SWP1
DG7-36	3948	3WP1
DGI3-2	2191	5CPIA
DGI3-34	5035	5ADP1
DGI6-22	2352	7AHP1
DG736		SA1
DGP	7141	GDT4C
DH ·	7B65	
DH3-91	2302	1 CP31
DH7-91	8095	AFP37
DHIO-94		4EP1
DHI3-97	5168	58KP37
DH30	7895	DDL7311D5
DH42		TDD4 AC/HLDD
DH63	587	6Q7G
DHB9M	587	6Q7GT
DH73		6T7 BQ6
DH73M	2909	
DH7B		72Q7GT DL74M
DH77	452	E8C90 BATB
DHB1	882	7B6
DH109		UABC8010LD12

TYPE	CV No.	EQUIVALENTS
DH118		DH142 U8C4114L7
DH119		10LD13
DH142		U8C4114L710LD3 DH118
DH147	1055	E8C33 BR7G DL63
DH749	887	7CB
DH150	3882	E8C41 BCV7 BLD3 B2DDT
DH719		EABC806AKB BTSA 8LD12
DH791		3AFP1
DH817		DH150
DK1	2970	
DK2		1 AC61 C2
DK20		GCIOD
DK32	1802	1A7 X14
DK91	782	1R51C1 X17
DK92	5172	1 ACB 1C2 X18
DK9B	9026	1 ABB 1 C3 X25
DK97		1C3 X251A86
DL	1661	
DL2	2911	
DL29		3DB
DL33	819	3Q5GT 3Q5 NI5
DL35	1805	1C5 N14
DL36	1055	1 QSGT
DL63	2912	BR7 DH147
DL64	2331	
DL66	2106	CK523AX
DL68	2259	
DL69	2361	
DL7O	2105	6373
DL71	385	CK502AX
DL72	387	CK506AX
DL73	2299	
DL74M		12Q7GT DH76
DL75	2102	
DL82		7B6 DHB1
DL91	783	1 S4
DL92	2370	3541P10 N17
DL93	2390	3A4
DL94	2983	3841P11 N193V4
DL95	818	N183Q4
DL96	2361	3C41P1
DL98	2240	3B4
DL145		10LD11
DL620	2238	XFR35672
DL650		CK542DX
DLS	190	Z530331
DLS10	979	Z530331560J1B
DLS15		S61/1B
DLS16		S62/1D
DLS19	342	Z530333 VL56315102/3K
DLS21		S62/3D
DLS23		S75/3D
DLS24		5558/1K
DM6	2146	
DM70	2980	1M3 Y251M1
DM71		1M11M3
DM160	6094	6977
DN41	519	AC/2PenDD
DN143		EBL21
D024	1040	PX25 PP5/400
D026	1178	440XP D026 PX25
D030	1178	DA30 PA40
D042		Pen4DD
D080	1206	8560 M205-60

TYPE	CV No.	EQUIVALENTS
DP7-5	5171	3ALP7
DP7-91		3APF7
DPI3-34	5125	3ADP7 SADP7
DPI6-22	2498	3AHP77AHP7
DP61	850	EF956AKS PMO5
DP495/6		Pen4DD
DQ5		ESU575
DQ2A	1625	DCG4/1000ED 3B28 AW201
		RG31250
DQ4	642	DCGS/5000GB 872A ZV/471A
DQ4A	3670	DCG5/5000EG RG4-10004064A
		2V/471C
DQ6		DCG9/206508869B
DQ7		AN205
DQP	1121	T41
DQZ		DCG4/I000G
DS	2979	H30
DR715C		P535/1 E 4B/603E 4B/601E
DR813		8135C/100A
DRB69B		ESUt 11
DS103	94	
DT70	798	2E22
DT436		TDD4 AC/HLDD
DV32	88	3AJ148J
DV34	127	3B/401J
DV4OB	228	V246A/1K
DV5S	230	V230C/1D
DV56	234	V230A/1K
DW2	1443	RV120/350506BU 1821 R1 UU5
DW3		DW4-350 R2 R4 U9
DW4		DW4-500 R3 R43 U141561
DW4/350	1796	RV120/350 R1 R4 R2 UU5
E1229	4	
E1231	52	
E1232	92	4C27
E1235	29	
E1236	69	
E1242	1510	QVO4-7 E1331
E1248	8	E1356
E1255	40	
E1267	41	
E1271	57	
E1273	58	
E1287	23	
E1289	1148	AFH202
E1297	5	AH221 GU21
E1320	51	Y65
E1323	63	
E1325	56	
E1331	1510	QVO4-7 E1242
E1335	61	
E1337	7g	
E1342	64	
E1355	1433	EC31
E1356	8	1248
E1359	76	
E1362	126	
E1365	114	
E1371	105	
E1373	99	
E1379	79	
E1411	153	
E1415	115	
E1416	281	X61M

TYPE	CV No.	EQUIVALENTS	TYPE	CV No.	EQUIVALENTS
E1417	117		E4504(C/16	1517	09D
E1419	154	T D04-20	E4504/E/16	1391	90E64
E1423	406		E4504/M/16	96B	
E1429	7g		EA50	1092	6D7
E1436	188	7475	EA52	5140	6923
E1453	1646		EA76	469	6489
E1457	257	ACT22	EAA97	283	6AL5 E891 D776D2
E1458	17B	XD60	EAA907S		5726 M8212
E1459	174		EABCBO		6AKB 6LD126T8 DH719
E1465	236		EAC91	137	
E1468	172		EA41	3883	EA42
E1474	7g		EA42	3883	6CT7 WD150
E1481	192		EB34	1054	6H6 D63
E1485	807	3A4 DL933V4	EB41	3881	
E1487	208		EB91	140	6D2 D77 D152 DD6
E1494	191		EBC3	1428	
E1495	259		EBC21	347	
E1496	240	A CT24	EBC33	1055	OM4 DL631639
E1497	215		EBC41	3882	6CV76LD3 DH15062DDT
E1511	355		EBC80		68D7
E1516	221	TTR31	EBC81		6LD138807A
E1524	338		EBC90	452	6ATB DH77
E1527	290		EBC91	2526	6AVB DH77
E1531	214		EBF2	2925	
E1532	1644		EBF32	501	3CV01
E1541	1716		EBF80		6N8 ZD152 WD709
E1563	1863	5Z46 R52	EBF81		6ADB
E1591	181	ECC32	EBF83		6DRB
E1599	272	KR6/4	EBF89		6DCB 6FD12
E1606	278	B65	EBL37	2926	
E1633	456		EC20	5112	3A/167M
E1647	288	ACT23	EC31	1433	
E1B48	135	EY91	EC50	2927	
E1659	543	125K7	EC52	7737	RLI6
E1706	437	KT67	EC53	1197	RLIB
E1714	408	A1714	EC54	66	RL37
E1789	397	DET24	ECS5	273	5861 TDO3-10G DET22G
E1860	240	A CT24	EC70	468	fi7786K4
E1935	415	TTIS	EC71		5718
E1938	493	BX4 U78	EC80	1886	6Q4
E1954	25	E5854242A 3B/850A	EC81	1868	6R4
E1955	797	2D21 EN914G/280K PL2D21	EC86		6CM4
E195B	2B1	2T/270K	EC90	133	6C4 L77
E1959	495	ME1401 VX32	EC91	417	6AQ46L34
E199B	436	ACT25	EC92		6AB4
E2004	2115	1 B3GT	EC95		6ER4
E2016	1758	EF92 BCQB 9D6 W77	ECC31	1285	6N7G
E2018	454	6BA6	ECC32	181	6SN7GT 13D2
E2095	471	EL70	ECC33	2821	65N7
E2133	2276	2319	ECC35	569	
E2734	2179		ECC40	3884	
E2157	455	ECC8112AT78309	ECC81	455	12AT781528309
E2163	491	ECCB212AU7 B329	ECC82	491	72AU78329
E21B4	492	12AX7 ECCB36L138339	ECC83	492	12AX76U37025 B339
E2221	2277		ECC84	5281	6CW76L76
E4103/B/4	1522		ECC85		6L126AQB 8719
E4103/E/4	2205		ECC86		6GMB
E4205/B/7	1588	ECR30	ECC88	5358	6DJB
E4025/C/7	1525		ECC91	858	6J66101
E4412/B/9	1587	ECR35	ECC180	5365	68Q7A
E4412/C/9	2301	902A	ECC189	5331	6E58
E4412/E/9	1529		ECC230	2984	608011 D12
E4412/M/9	1521		ECC801S	4024	6201 M816212AT7WA
E4504/B/16	1385		ECC802S	4003	6067 M813612AV7WA

TYPE	CV No.	EQUIVALENTS
ECC803	4004	6057 M81375751
ECC962		E92CC
ECF80	5215	68L8/6C16
ECF82	5065	6U8
ECH3	2929	
ECH22	302	
ECH33	2930	
ECH35	1347	6K8 X61M
ECH41		6?H
ECH42	2888	6CU76C9/X1506C1062TH
ECH71		ECH21
ECH80		6AN7
ECH81	2128	6AJ8 X7196C12
ECH83		6DSB
ECH84		6JXB
ECH113		ECH42
ECL80		6ABB LN152/63TP
ECL82	9167	68M86PL12
ECL84		6DXB
ECL86	8297	6GWB
ECR30	1588	701A
ECR35	1587	901A 90EG4 E4412/B/9
ECR60	1097	1601A
ECR75	1787	4C35
EE17	2957	5557 XG5-500
EE866		DCG4(I000G
EE8020	2967	
EF2	1427	EF9
EF5		EF9 EF8
EF8	1713	EF9 EF5
EF9	1427	EF8 EF5
EF22	303	7B7 W1437G7
EF36	1056	OMS EF37A
EF37	358	SA/157D OM5B
EF37A	5080	OM5
EF39	1053	6K7GT
EF40	3885	
EF41	3886	6CJ5 W1506F167F166ZVP
EF42	3887	Z1506F13
EF50	1578	Z90
EF51	1035	QP QTT2
EF53	1136	
EF54	1136	
EF55	173	
EF70	467	6487
EF71	475	5899
EF72	465	5840
EF73	466	6488
EF74	476	6391
EF80	1376	68X6 Z152 Z719645PT
EF81		6BH5
EF82	2127	6CH6
EF85	1375	6BY76F19 W7196F26
EF86	2901	62676F226CF8 Z729
EF89	5156	6DAB
EF91	138	6AMB BFI2 SPB Z77 SD3
EF92	131	BCQB fIFI29DB VPB W778F27
EF93	454	BBA6 W727
EF94	2524	BAUB
EF95	850	BAKS DPB1
EF96		BAG5
EF97		6E56
EF98	5B94	6ET6
EF183	5831	6EH7 BF29

TYPE	CV No.	EQUIVALENTS
EF184	5810	BEJ7
EF730	3928	5636
EF731	477	5899
EF734	2432	6205
EF861		
	3998	E180F 86885A/170K
EF905	4010	M81005B54
EFP60	5108	
EH90		6C56
EH900S	8687	£91 H
EHA5000	2887	889R 5667
EHM2	2139	
EHT1	19	V1901
EHT75		E5U15
EHW3000	2686	889 E5W5000
EHZ350		3C/750G
EK2	1426	
EK32	1057	
EK90	453	68E6 X77 X727
EL1-1 C		3822
EL7 C		3B22
EL2	1429	
EL3		EL3N
EL3C	822	4824
EL5B	2936	4B22
EL22	304	7B5 KTB1
EL31	2888	
EL32	1052	0M91637
EL33	2938	6AG6G KT616P25
EL34	1747	6CA7 KT77
EL35	1269	6L6G KT6658815932
EL36	2940	6CMS
EL37	586	6L6 KT66
EL38	450	6CN6
EL41	3889	6CK5 N15067PT
EL42	3890	N151
ELSO	2941	
EL70	471	59025N947D
EL71		5902
ELBO		BMS
ELB1	2721	6CJfi EL820
EL82		6DY5
ELB3	2726	BCK6
ELB4	2975	68Q5 N7096P15
EL85	3526	6BN5
EL90	1862	6AQ5 N727
EL91	136	BAM57D9 N77
EL95	8458	6DL5
EL360	5830	11 E145B/102D
EL820	2721	6CJ6 EL81
EL821	2127	6CH67D10
EL822	2382	
EL861		EBIL 6686
ELC3J	5234	TX2/356328063 ZT1011 XR1-1600A
ELC6J		5632
ELC6J/A		TX2/65684 XR1-6400A 6087
EM7	2942	
EM4	1434	
EM31	1077	
EM34	394	6CD7
EM35	1103	6U5G Y616M1
EM80	1352	68R565ME
EM81	5055	6DAS

TYPE	CV No.	EQUIVALENTS	TYPE	CV No.	EQUIVALENTS
EMB4	5434	EM8406FG6	EY51	426	6X2 R125U61 U43 U151
EM87		6HU6	EY70	473	SN9545641
EM91	797	2D2120A3	EY80		6U3
EM840		EM84	EY81	5905	6R3
EN30	2349		EY82		6N3
EN32	2253	6574	EY84	2235	6374 R18
EN70	474	5643	EY86	2966	6S2
EN91	797	2D2120A34G280K	EY87		652A
EN92	3512	5696	EY88		BALB
EN93	1949	6D4	EY91	135	
EQBO		6BE7	EZ22	?qg	7Z4
ES75	3853	R515	EZ35	574	6X5GT U147 GW5 U70
ES85	25	4242A 242C UE3112113BI850A	EZ40	3891	SBT4 U150 UU9 B8KU
ES204A	2563	204A	EZ80	1535	BV4
ES207	3850	R5207	EZ81	5072	BCA4 U709 UUI2
ES250M	7618	TZZ-250	EZ90	493	BX4 U78
ES253	3851	RS253	EZ91	135	6AV4
ES357	27	357A 4357A	F2	2338	1923
ES450	1207		F60		1163
ES833	635	833A TY4-3503C/402A	F123A	2949	T100-7
ES1001		3D/162E	F1298	2950	12983P/27083Q/191 E
ES1101		3B/402A	F228	734	228A
ES1102		3C/100E 8S1100	F353	642	872A A4217
ES1500	1614	MTI3	F353A	642	872A DQ42V/471A
ES1500A	1614	MTI3	F36BA	32	B6BA
ESA891	268B	891R 3J/196E	F3B98		E5U111
ESA892	701	892R 3J/197E	F375A		E5U575
ESA892C	904	892R BR175	FB9B	2723	SB9B
ESA1500		3J/167E	F872A	B42	DQ42V/471A 872A F353A
ESA2500		16J12	F872B	642	483240848
ESA500Q	2687	889R 56673J/198	F892R	904	892R
ES9250	1031	5G2504C/252G	F/572B	4049	M8180
ESP450	1506	5C/450A	F/5654	4050	M8180
ESU15		EHTI5	F/5750	4037	5750
ESU74	74	V19222T/46QC	F/8057	4035	M8214
ESU75	2945		F/6060	4033	M8144
ESU76	2943	2V395C	F/6081	4045	68WB6061
ESU77	2160	A2072S/460C	F/BOB3	4001	6X4WA
ESU101		2V301B	F/BOB4	4002	M8140
ESUI O3	1835	3B282G/402A GXU1	F/6087	4034	N8144
ESU107		2V/521A	F/B132	b056	6CH6 B132
ESU111		F369B WL-869B	F/B158	4089	13D36158
ESUII2		2S/460A	FAI3	2952	5628
ESU115		2V/3028	FAI4	2953	5829
ESU150	2946	2V/461C	FAI5	298	5626
ESU200	5	4049D GU20/21 RG4/1250	FC2	1043	210PG X22
ESU208	7260		FC2A	2954	VHT2A X22 FV2A
ESU300	2947	AH221 GU21	FC4	2955	15A2 V04 MX40 VHT441 MPG
ESU450	1259		FCI3C	2956	V01315D1
ESU575		F375A DQ5	FGI7	2957	5557 TQ2 XG5-500
ESU866	32	DQ2866A RG3-250A	FG27A	2958	873 BT5
		GUI22V/400A	FG57	5027	575559 XG1-2500 BT5
ESU872	642	DQ4872A 2V/471A	FGB7	742	12675728
ESU1500	2944		FG105		105 XGQ2-6400
ESU8008		DCGS/500052V/471B	FG154		3V/3908
ESV4002		3Z/252E	FG23SA		PL5552A
ESW501	1621		FG23BA		PL55538
ESW1500		3Q/t67E	FG271		PL5551A BK42C
ESW5000	2686	8893Q/198E	FP54	2960	5740
ET3	451	1 B3GT R6158A	FVD7	404	HR7
ET30	1030	T250	FW4/500	1264	RV200/B00 U18/20
ET51	5277	6700	FW4/800	31	U20
ET1COO		TB4/800	FX215	2203	GHT1
EW2A	?13g		FX219	2520	5C22 XHI6-200

TYPE	CV No.	EQUIVALENTS
FX225	1787	4C35 XHS-100
FX227	372	3C45 XH3-045
FX229	3521	5949 XH2S-500
FX231	2993	XHI B-2005C22
FY		PM24M
FZ9011G	2270	9OAG CAG29
FZ9011V	2132	9OAV CAV29
FZ9012G	2733	9OCG CMG29
FZ9012V	2134	9OCV CMV29
G1/235G	3524	
G1/371K	2224	
G5A-1200		Q51218/1200
G5A-1B00		Q51218/1800
G5A-2000		Q51218/2000
G5H	2247	
G-9		WL868918
GIOH	2173	MX103
G70/241E	2223	
GI2H	2287	
G14		WL920
GI SF	1913	WL927 CMG-33X
G20/5D		DQ6
G24	411	
G24E	2148	GM5B
G24H	2147	
G48		1163
G49		1163
G50/1 G	2208	
G6OE	2149	G6OE
G75/2D	3798	VR75/30
G75/3G	4030	QS75/60
G105/1D	686	VR105/30
G108/1K	1833	OB2 Q51208
G120/1B	438	
G150/1A	75	4313C 313C
G150/2D	216	OD3 Q5150-40
G150/4K	1832	0A2150C2 Q51207
G155/1C		2
G160/1C		1
G180/2D	2029	
G180/2M	395	Q5150/45
G210/1C	212	
G240/2D	2174	
G279J1 C		1A
G400/1K	2194	
G400/2G	4047	
G431		DW21821
G445B	1651	
G470		DW21821
G500/1G		3900A
G1000J1G		3904A
G1500/1 G		3901A
G1800/1G		3903A
G2080		CY1 URIC
G4120		DW4-500
G4120N		IW4-500
GASA	2647	532
GCI OA	2199	
GCI OB/S	2271	Z303C 6482
GCI O/4B	1739	
GCI OB/4B/L	6100	
GCI OB/L	6044	
GCI OD	5143	DK20
GDB5M/S	449	Q5120985A2 Q583/3

TYPE	CV No.	EQUIVALENTS
GDB5PR/S	4048	QS1212 M8098
GDB7M	2573	5651
GD9OM	5173	Q5121590C1
GD86W	2321	
GDB6W/S	2321	
GDI0OA/S	188	7475 Q5921105T11
GDI0OB/S	7070	7475 Q592/10
GDI0BM	1833	OB2 Q51208108C1
GDI20A/S	1110	5130
GDI20A/S	45	5130P
GDI50A/S	216	OD3150C3 OB3 G150/3D
GDI50M/S	1832	150C2 OA1 Q51207
GDIS0P/S	2225	Q57200150B2
GDT4B	1141	
GET2	743	V611 NE2
GEX36	2279	
GEX45/1	425	2X106G GD4
GEX54	448	0A71 GD5
GEX64	2310	
GEX66	2290	
GEX402	2902	
GEX541	5104	
GHT1	2203	FX215
GHT2	2418	
GL-75/30	3798	VR7S/30
GL448	3725	GL44BA
GL44BA	g32	
GL44BB	BB7	
GL455	2789	gLP7
GL484	3804	2C43484A
GL4B4A	B88	4BbA
GL47IA	3586	1821A
GL532	2847	532
GL572	2516	2C39A 3H/151J
GL592	1903	592
GL8OB	2658	806
GLB6B	2680	8B81 P23918
GLBB9B	1420	2V/531E
GLBBgR	2887	88gR
GLB92R	904	8g2R 8R175
GLgIB	2692	918
GLg27		3548PW
GL2050	2565	2050 B2A
GL8020	2%7	80208023
GL8023	933	15E 8023
GLE10000/02	1625	DCG4/100ED RG3-250
5/1		
GLE20000/2.		B508 DCGg/2
5/10		
GLY1		1852M
GMIB	214g	GBOE
GM4	2138	
GM5	411	
GM5B	2148	G24E
GM255/1 D		22M1
GN-4		Z520M
GN-6		XN3
GN24		D W21821
GR1		TV801
GR10A	5291	Z503M
GS-4		2521 M
G510C/S	2325	150256478
G51650	2894	930
(80-170)		

TYPE	CV No.	EQUIVALENTS
G516/160	248	CMG22/160
GSIB	1473	CMG22(80-170)
80-110)		
G518	242	CMG25
GS2B	1432	CMG8
G546	584	PE7B
G547X	405	3546PW 927 S5CG CMG34X
G5118	7801	
G5146	2892	918 CMG32
G5544X	1913	
GT1	2%9	84g
GT1A	1143	ME1502
GT1C	1128	ME1502 AN1
GT1E	530	
GT11	435	
GTE20000		6508 DCG9/2
/2.5/10		
GTP-1		NE1000
GTP-2		NE1004
GTRY5M/S	284	75P1
GTR9SM/S	286	5M95 QSPS/1095A1
GTR120A/S	45	5130P Q5150/1515083
GTRI50M/S	287	5M150
GU1	1262	RG1-250
GU5	1072	MU4250
GU7	2973	
GU8	1B28	
GU11	532	AW205
GU12	32	DQ2866A E5U866 RG3-250A
GU18	1829	RG3-1250 AH238
GU20	1435	AH211
GU20/21	5	RG4-1250
GU21	5	4049D ESU200
GU23		2V/474C
GUSO	7072	RGt-240A E5U1012V/307A
GWP-1	498	NEI4
GWP-2	395	NEI7
GWP-3	3B0	NE18
GWP-4	2B3	NE19
GX4W	4005	BOB3
GX402	2902	
GXU1	' 1836	3828 RRS-2502G/4?A
GXU2	2518	4832 RRS-12502G/4728
GXU3	29g9	AX2282G/479C RR9-1250A
GXU4		DCX4/5000
/1000		
GZ90	2748	5Z4GT
GZ31		5U4G
GZ32	5g3	5V454KU SAQ4
GZ93	5745	S3KU
GZ94	1377	5AR4 SU4
GZ97	378	53KU
GZ40		GZ41
H2	2977	PM2HL
H2D	1044?	TDD2A 2IODDT HD24
H4D	2813	11A1 ACJHLDD TDD4 MHD4
H12	2g78	
H20		R2018
H50	2g79	D5
H42	1182	HL4G
H45	375	BT793C45
HB3	1073	6F5G
H210	1873	PM2HL
H410	2g81	

TYPE	CV No.	EQUIVALENTS
H810	2gg2	
HA1	1171	A40 AT4
HA2	1059	9554B71
HAA91		12AL5
HAD	1419	11D3 HL/DD11320
HBC80		19T8
HBC90		12AT6
HBC91		12AVB 128K6
HCHB1		12AJ8
HDI4	1818	IH5G DAC32
HD21		DDT2A
HD22		TDD2A H2D
HD23		TDD2A
HD24	2985	TDD2A H2D 2IODDT
HD51		OA2
HD52		OB2
HD203A	2g86	203A
HF81	3886	6F15 EF41 BCJ5
HF82	183g	8F13 EF42
HF93	1g28	12BAB
HF94	1961	12AU6
HF100	2987	4C22
HF121		10F9 UF41
HF130	638	838 RKSB
HF150		T100-1
HF175		T100-1
HF200	2958	3C/150A
HF300	693	
HG2		DQ2A
HG25	32	886A
HK24	941	25T 3C34
HK24G	789	3C2425TG
HK54	707	4C25
HK90		128E6
HK954E	2g89	
HK257	824	4E27
HL2	1673	PM2HL2IOHF
HL2Met	2g91	
HL2K	7050	PM2HL
HL4	1173	354V
HL4G	1182	H42
HL4X	1037	di MTL ACHL
HLI3	1109	4D1 HL1320 HLI3C
HLI3C	1109	4D1 HL1320
HL27	1303	PMIHL
HL21DD	7044	TDD2AH2D2IODDT
HL23	1130	3A/205D
HL23DD	2995	
HL41	24	3A/204D
HL4IDD	2996	
HL90		19AQ5
HL92	1959	50C5
HL94		30A5
HL133	2998	
HLI33DD	2999	
HL210	35G0	PM2HL HL21
HL210A	7303	
HL610	3501	
HL1320	3502	HLI3C 4G1
HLA1	2806	AC/2HL
HLA2	1678	354V AC2HL 41 MHL
HLB1	1021	210LF DZIO HL2
HLDD1320	3503	DDTI311D313DHA
HMO4		68E6 EK90 X77

TYPE	CV No.	EQUIVALENTS
HN309		PCLB2
HP2	1032	220B PM2B PD220
HP6	138	EF916AM68D3 Z77
HP13	1106	9D2 VP1322
HP135		VPI3A
HP210	1322	SP210
HP215	1322	5P210 Z21
HP415	1169	9A1 VMP4G
HP4101	1124	
HP4101C	1282	5P48A1 SPT4A AC/SG
HP4105	1169	V P4
HP4106	1169	VMP4G 9A1
HP4115	1169	MVSPen 9A1
HR1		R106305
HR2	261	R102T/270K 6304
HR7	404	FVD7
HR21	1673	HL210 PM2HL HL2
HR210	1673	PM2HL
HSD	1695	11D5 DF930
HT7		XG5-500
HT415	3540	5C22
HVIB	2988	HF200 NU200
HV951	1420	2V/531E
HVR1	1290	U161877
HVR2	1134	5U2i50A
HYSIB	702	830B UE93OB
HY61	124	807
HY75	751	
HY90		35W4
HY168	3505	
HY615	350G	615 Det20
IFW1	1039	1W4431U
IL861		1B046
IVd2		R21881
IW3	1039	IW4-350 R21867 UU5
IW3-350	1039	APV4 R1 UU4 MUI2
IW4	1039	R3 UU5
IW4/500	1039	APV4 R3 UU5 MUI4
J231AAA		1163
JN2-2.5A.5A		7091
JN2-2.5W		7292
JP2-0.2		7090
JP2-2		7091
JP9-2.5		7G28
JP9-7	3676	MAG32J42
JP9-7A	370	M508
JP9-7D	1866	M503A
JP9-15	3997	MAG42J42A M513B
JP9-50	2852	2J56
JP9-75		6972 M575
JP9-BO	3569	4J52A
JP9-BOA	5018	4J52A
JP9-250	228b	4J50A
JP9-250A	3953	4J78
JPG9-02C	5443	
JPT9-O1	2420	
JPT9-02	2421	
JPT9-60	3560	2J51A
K2		DCG4/I000ED
K3A	410	
K7RF4	1808	2J32
K23B		TDD2A H2D 21 ODDT
K30A		PM2HL HL21
K30B	3531	L2 PM2DX L21

TYPE	CV No.	EQUIVALENTS
K30C		PM2HL 210HF
K30D		PM2HL
K30E	3532	L2 PM2DX L21
K30G	3620	PB1 P220 PM2A PL2
K30K		PM2HL HL21
K33A	1032	PD220 PM2B
K338	1696	PD220A
K40B	1018	5G215 PMI2A S21-24
KS0M	3787	VP210 VP2 VP21
K40N		PMI2M V52
K50N		VP2B VP210
K70B		PM22A Pen220 PT22200T
K70D	3578	PM22D
K77A		QP240
K77B		QP22B QP21
K80A		FC22IOPG VHT2A X22
K80B		FC2A
K301	2161	RX3-120
K302	2164	
K305	2263	
K307	1871	707B
K308	2283	
K312	2273	
K322	2791	
K326	230b	
K329		Z211/1G
K335	2343	
K376		4 KMI OOLA
K377		4KMI OOLF
K931A	6142	
K1051	2849	
K1105P2	3736	
K3103	8793	
K814024	3514	
KB2	3515	
KD21	3789	OA3 VR75/30 G75/2D Q575/40
KD24	6B6	OC3 VR105/30 G105/1D Q51206
KD25	216	OD3 VR150/30 G150/3D
		Q5150/b0
KK2	3516	
KL35	768	1F5
KR3	218	
KR6/1	116	
KR6J2	237	
KR6/3	238	
KR6/4	272	
KRN2	87	
KRN3	217	
KS7-85		2K26
KS7-85A	5900	5976
KS9-20	1795	723A/B
KS9-20A	2792	2K25
KS9-20D		723A/B
KT2	1118	PM22A Pen220220DT
KTS	1079	
KTBC	1079	
KT9-150W		55395
KT24	1334	PM22A PT2 Pen21
KT30	3519	
KT31	3520	N31
KT32	1287	25L6
KT33		25A6G
KT33C	1503	
KT36	1578	VT75A

TYPE	CV No.	EQUIVALENTS	TYPE	CV No.	EQUIVALENTS
KT41	1181	7A3 AC2Pen 42MP/Pen	L5408A	3536	53A
KT42	1174	7A2 AC/Pen	L5532	3542	
KT44	1577	VT75A	L5650	391	5B/252M
KT44T	1578	VT75A	L5737	273	DET22 ME1001
KT45	1825		LZ319		PCFBO 9A8 LZ3288A830C1
KTb1	1438	BAGB EL33 N1478P25	LZ329		30C1 PCFBO LZ3198A89A8
KTb3	118B	BFBG NB3	M2H	2888	
KT6B	1075	EL37 BLBG	M6	21b5	
KTb7	437		M215H	177	
KT71		5OLBGT	M500	353	
KT81	885	7C5 EL22	M501	76	
KT88	5220	12E13 B5507D11	M501 A	3660	
KTW61	1100	6S7	M502	2166	JP9-2504J50A
KTW62	1100		M502A	2373	JP9-180
KTW63	1195	6K7 BU7 WB3	M503D	1866	2J42 JP9-70
KTW73	1058	OM5 EF3B	M505	1747	
KTW73M	3527		M506A	3982	MAGI1
KTW74M	918	12K7 W7B	M507	69	
KTZ21	1320	5P210 Z21 SP2	M508	37Q	JP9-7A MAG3
KTZ41	3529		M509	3976	
KTZB3	1074	BJ7G Z63	M510	1827	2J32
KTZ73M	3530		M511	3953	4J78 JF9-2SQA
KU25	2993	5C22 FX219 FX231	M512	1828	2J36
KU45	3875	?	M513	3528	
L2	3531	PM2HL 270LF	M518A	lgg7	
		PM2HL	M519	1484	CV1483 CV5 CV6
L4	2815	AC/P TT4 SP2	M521	2376	
L9	328		M523	2412	
L21	3532	PM2HL 210LF	M525	2365	
L21DD	1308	TDD2A H2D	M526	3676	2J42 JP9-7
L22DD	3533		M528	1497	CV1495 to CV1500 incl.
L30	3534		M529	2426	
L63	1087	6J5G	M536		4J434J44
L77	133	EC90 BC4	M537	2281	K308
L102/2K		16STE	M539	2425	
L210	1021	PM2HL	M541		5J26
L410	1152	LbIO PM4DX	M542	3611	5586
LBOO	3537	LBOON BC22	M543		7182
L810	3538		M548	5031	
LA -3B	6087		M549	2424	
LD210	502	210LF D210	M551	3569	4J52A
LG210	1021	D210 L210	M559		8356
LL2	1732	PM2HL L2 LL21	M589		8357
LL4	1889	PA1 AC/P 104V	M8079	4025	6058 QA2404
LL4C	207	AC/P4	M8080	4058	61006C4WA
LN719		UCLB270PL12508M8	M8081	4Q31	61016J6 W A
LN152		ECLBO BABS B3TP	M8082	4063	6516 QA2402
LN309	5144	PCLB3	M8083	4014	6064 S6F12 QA2403
LN319		30PL1	M8091	4044	6443
LP2	54B	220 L2220 PA	M8096	4039	6062
LP2	1023	PM202	M8097	4059	
LP2	1304	L2220	M8098	4048	QS1212
(Selected)			M8099	4070	6AQ4
LP4	1168	AC044 PP3/250 PX4	M8100	4010	5654 6AK5W 6096
LP220	1166	LP2 PM2A L2	M8122	4007	5726/6AL5W
LS5	1637		M8124	4035	F/5750
LS5A	1650		M8136	4003	606712AU7WA
LS5B	2846		M8137	4004	605712AX7WA
LS5X	1667		M8140	400?	F/6064
LSBA	3541		M8141	4036	F/8141
LS7	7660		M8142	4054	Q51213
LSS	1656		M8144	4083	F/6060
LSBA	1676		M8149	4034	F/6067
LS9B	1B58		M8157	483	QVO4-7

TYPE	CV No.	EQUIVALENTS	TYPE	CV No.	EQUIVALENTS
M8161	4015	6065 QA2400	MRI O	34	
M8162	4024	12AT7WA 6060QA2406	MR75	1142	
M8163	4104		MR300	3557	
M8167	4067	7001	MR3OOE	3558	
M8179	4076	6J2 ECC91	MS4	1164	AC/SG
M8180	4050	F/5654	MS4B	3533	SP4 AC/SG SPT4A
M8190	4066	5783WA	MS4C		SP4 SPTdA
M8196	4011	5725/6A56W	MSG/HA		SP4 MSdB AC/SG
M8204	4018	5727/2D21	MSGJLA	1677	SP4 AC/SG MS4B
M8212	136	QA24025726	P?SP4	1282	SP4 MSFen SA1 AC/SG
M8216	3987	5644	MSP41	3562	
M8223	4020	OA2WA Q51210	MS/Pen	3561	SP48A1 AC/SG
M8224	4028	OB2WA QS1211	MS/Pen	1124	SP48A1
M8225	4080	75C1	(Clear)		
M8232	5029	6J4WA	MS/Pen	244	4046A
M8234	5082	5725/6A56W	(5Pin)		
M8237	4049	F/5726	MS/PenB	1125	
M8245	4019	6005/6AQJ	MS/Pen/T	1129	
MAGB	2380		MT4	1610	
MAG1	3982	M506A	MT9F	1439	
MB13-1	5070	5FP11	MT9L	1d40	
ME4S	1412	TV4	MT11SW	3563	
ME6S		TV6	MT12	3564	
ME41	3565		MT12A	1441	
ME1001	273	TDO3-10 DET22	MT13	1614	E51500A
ME1005	354	TDO3-5 DET23	MT14	1442	
ME1100	1795	KS9-20723A/B	MT16	1030	ET30 T250
ME1101	3&76	2J42 JP9-7 MAG3	MT17	2g57	5557 XG5-fi00
ME1101A	3997	JP9-152J42A	MT57	5027	555g XG1-2500
ME1101D	1866	JP9-7D	MT105		105 XGQ2IOOO
ME1400	432		MT5544	2210	5544 XRI?
ME1401	2269	5802	MT5545	2215	5596 XR1-6400
ME1402	2730	5800	MU1	3587	
ME1403	2348	5886	MU2	145g	
ME1500	474	EN705643	MUI2	1039	IW4?50 R2 R42 UU51867
ME1501	2253	6574 EN32	MUI2/14	103g	IW4-500 UU5
ME1502	1128	AN1	MU13?8		Tg2gB
ME1503	1787	XH-1004C35	MUI4	1039	R3 UUS IW4/500
MF13-1	3959	SFP7A T923Z	MUb250	1072	GU50 RG1-240A
MF22-22	3999		MVB-5	1976	
MF22-75	2372		MVSG	1165	ACJSG/VMS4B S4VA
MF31-55	429	CI2R I2AEP263069M	MVSPen	3579.	VMP4G 9A1 AC/VP1
MF31-95	2328	12T03A PenTI39	MVSPenB	3572	AC/VP2 W42
MGI3-38		TY29G	MW?2	1737	3NP4
MH4	1037	354V AC/HL HLA2	MW13?5	538g	SFP4A
MH4MeY	399	NR31	MWI3-38		T92gW
MH41	1505	HLA2 AC2/HL 484V	MWI3-75		SFP4A
MHD4	3546	DDT4 ACHL/DD DDT	MWIB-2		CRM71
MHL4	1038	41 MLF 244V	MW22-3		CRM92 CRM92A
MHLD6	11C1		MW22-22	3999	
MHT4	2955	FC4	MW31-1B		CI2FM
MKT4	1683	Pen4VA 7A2 ACPen MP/Pen	MW31-74		12XP4A CI2FM
ML4	1732	PA1 TT4 AC/P	MW43-69		17BQP4 C17/1A
MLG	1105		M WSO-23		21 CJ P4
MLBG9		E5U111	MWS3-80		C21/1A 212K 2ICLPb G21 KM
ML5667	2687	5667889R	MW100	25	E5854242A 3B/850A
MM4V	1165	AC/SG VM544	MXI.	1515	
MMI3-10	5164	SDHP32	MX2	418	
MP31-55	2314	CI2R I2AEP26	MXbO	3576	V0415A27AHP1 FC4 X42
MP/Pen	1683	Pen4VA AC/Pen KMT47A2	MX52	3?	
MPT4	1174	Pen4VA 7A2 ACPen MP/Pen	MXS7	20g	
MPT4K	3552		MX103	2150	
MPT42	2554	111A	MX105	2151	
MR4	1611		MX107	2152	

TYPE	CV No.	EQUIVALENTS
MX108	2153	
MX113		18513
MXII6		18514
MY3-275	1252	212E V1505
MYI3-38		T929R
MZO5-20	3573	
MZOS-80	1208	B560 DA60
MZ1	25	E&85242C
MZ1-75	444	
MZ1-7B	3574	
MZ1-100	1219	DA100 E511023C/100E
MZ2-200	200	
N1-1		GN-56N-1
N14	1803	DL351C5 GWP-1
N15	819	3Q5 DL93
N16	819	DL333Q5
N17	820	DL921P10 S34
N18	818	DL9S 3Q4
N19	2983	DL943Vd 1 P11
N25		DLgB 3C41P1
N30	1425	7D5 PPI3A
N31	3520	KT31
N40		7A3 MKT4 AC/Pen
N41	1181	PenA47A3 AC2Pen
		PT442MP/Pen
N43	1657	402233A/110B
NB3	1186	GFB KT63
NB6	SSB	EL37
N77	136	EL916P176AMS Nib47D9
N78	3711	68J5
N118		N14510P13
N119		ULB410P184585
N142	1977	UL4145A5451PT
N144	13B	EL916AM5 N77 BPI77D9
N145	1977	10P13
N147	2938	BAGB EL33 KT61
N148		7C5 ELL22 KTB1
N150	3889	EL416CK567PT
N151	3890	EL42
N152	5077	PL8121A6 N359 N339
N753		PLB315A6 N309
N154		PLB216A530P16 N329
N308		30P4
N309		PLB315A6 N153
N329		PLB216A530P16 N154
N339		PLB121A6 N152 N339
N359	5077	PLB121A6 N152 N359
N369		PCLB216A830P12
N379		PLB415CW530P18
N709	2975	ELB468Q56P15
N727	1862	ELoO 6AQ5 BPMOB
N1031	5401	
N1032	5402	
NE2	2976	VGI1 GET2
NEI6	651	GL991 CD2005
NEI7	359	GWP-2
NEIB	360	GWP-3
NEI9	263	GWP-4
N E1000		GT P-1
NE1004		GTP-2
NHP1	310	
NL715	2957	PL5557 XG5-500
N022M		6861
NP90	3607	

TYPE	CV No.	EQUIVALENTS
NSP1	220	631 P1
NSP2	2296	
NT2	2213	CC3L
NU1	2680	918 CMG-32 PJ23
NU20	1474	CE20 CE25
NU40T2	1076	DA41 T240
NU75H	751	HY75
NUI14B	3505	HYII4B
NU200	2988	HYI B
NU615	3506	615
054V	1698	PA1 ACP/1
0202		FC4
0406		FC4 VHT4
01307		FC13
OA2	1832	6073150C25TV150/30
OA2WA	4020	6073 M8223 Q51210
OA3	3798	VR75-30 Q575(40
OA4	752	
OA70	8243	1N87
OA73	442	1 N616
OA79		1 N541
OA79-2		1 N542
OA81	448	GEX59 GEX55
OA85	1354	1 N478
OA86		1 N480
OA87		1 N490
OA91	7130	1 N617
OA95	7041	1 N678
OB2	3799	VR90?05TV108/30180C1
OB2WA	4028	6074 M8224
OB3	3799	VR9O-30
OC2.5	1607	
OC3	686	VR105-30 Q51206
OC16		2N115
OC45	5105	GETB73 TK3OC
OC70	5457	2N279
OC71	7005	2N280
OC72	7006	2N281
OC72-2		2N282
OC73	5337	2N283
OC76	8541	2N284
OD3	216	VR750-30150C3 Q5150/40
OE3	431	85A1
OG3	449	85A2 Q583/3
OM1	1402	CY31 U281
OM3	1054	E834
OM4	1055	E8C336R7 DL63
OM5	1056	EF36
OM5A	358	EF37
OM5B	5080	EF37A
OM6	1053	EF39
OM7		EF39
OM8	1057	EK32
OM9	1052	EL32 KT61 EL32
OM10	1581	6KBGT ECH3PX6IM
OP41		PenB4 AC4Pen
OP42		PenA4 AC2Pen PT4
OS20		6474
OS20F		7294
OS40F		7293
OT400	635	E583/3
OZ4	517	1003
OZ4A	517	CK1003
OZ4QA	692	1003

TYPE	CV No.	EQUIVALENTS
P2	1246	PM202 P220A
P2-12		QGEO4/20832A
P2-40B		8298
P4	1168	AC044 PX4
P6	1836	1163
P12/250	1165	AC044 LP4 PP3/250 PX4
P15		1164
P27/500	1040	PP5/400 D024
P41	1408	
P57	1466	
P61	1066	
P120-I A	26	813
P215	1019	215P PM2
P220	3620	220PA L2
P220A	1023	PM202 P2
P240		PM202
P410	3621	P410 PM4X
P415	1154	PM254
P425	1154	PM254
P435		PM24M
P435/1E	398	715B
P440N		Pen4VA
P441N		Pen4VA
P460	1168	PX4 AC044 LP4 P11(2504XP
P495	1181	PenA4 PT4
P535/I E	398	C1111715B 481603E
P552/1E	427	5D12C111148/602E
P610	3622	P610
P625	1208	625P
P807		7293
P809		7294
P810		6198
P811		7295
P813		6332
P816		5820A
P817		6474
P822		7389
PA1	1689	1043B/1008 AC/P1054V
PA20	1732	ML4 ZP AC042
PA40	3623	V503 D030
PA5021		DCG4/1000G 866A 2V/400A
PABCBO		9AKB
PCS6		4CM4
PC95		4ER5
PCC84	5192	7AN7 30L1 B319
PCC85		9AQB
PCC88		7DJ8
PCF80	8433	30C19A8 LZ319 LZ3298A8
PCF82		9USA
PCF86		7HG8
PCL82		16A8 30PL12
PM22	3649	220PT
PM22A	3647	KT2 Pen220 PT22200T
PM22D	3578	KT2A Pen31
PM24A	1767	PT4 PenA1
PM24B		PM24C
PM24D	1237	PM24C
PM24E	3648	PT2S
PM24M	1181	PenA1 PT4
PM202	185	P220A P2
PM252		P220A P2
PM254	1153	
PM256	1208	625P
PMT58		T935W

TYPE	CV No.	EQUIVALENTS
PP2		PM22A Pen220 PT2
PP3/250	1188	AC044 PX4 LP4
PP4		PM24M Pen A1 Pen425
PP5/400	1040	P27/500 PX25 D024
PP6/400		PX25
PP6AS		EL2
PP6BG		EL33 KT616P256M6
PP6BS		EL3
PPI2A	1425	7D5 N30
PPI3A		7D5 N30
PP245	2875	CL4
PP3S		7D6 Pen383
PP36	1672	
PP60	1075	KT66 EL37
PP220		PM202
PP222	1118	KT2 Pen220
PP225	1051	Pen220A PM22C
PP2018		Pen20
PSV13		2S/570E
PT2	1118	PM22A KT2 Pen220220T
PT4	1181	7A3 PenA4 AC2Pen PT41
PT4D		DN41 AC/2PenDD
PT5	3652	
PT5E	3579	
PT6	3653	SW75Pen
PT10	2809	AC/SPen
PT11	3654	
PT15	1104	SW4OPen
PT25	1046	PM24E
PT41		PM24M PenAI
PT41 B		PM24
PT240	3649	PM22
PT425	3656	
PT425X	1167	
PTA	889	7D5 N30
PTS	3520	N31
PTZ	1672	7D6 Pen36C
PVO5-15	3657	
PV1-35	3658	
PV4		DW4-350 R42
PV2S	3752	U30
PV295		UR2
PV30	3758	UR3C
PV305		CY2 UR3
PV495	1443	DW21821 U10
PV4200		DW4-5001561
PX4	1168	AC044 LP4 PB3/2504XP P460
PX5	1040	420XP D024 PX25
PX25	1040	P27/500 PP5/400 PX5 D024
PX25A	3623	PA40 D030 DA30 V503
PX41	1168	AC044 LP4 PX44XP
PX230		PM202 LP2 P2
PY3-600	1373	
PY31	3753	25Z4 U31
PY32		U291
PY80		19X3 U152
PY81		17Z3 U153 U329
PY82		19Y3 U19219SU U319 U154
PY83		17Z3
PY88		30AE3
PZ1-35	1240	
PZ7-75	1221	5W75Pen PTSE
PZ30		R14
QA75/40	1895	STV70/60

TYPE	CV No.	EQUIVALENTS	TYPE	CV No.	EQUIVALENTS
QA2400	4015	6065 M81616CQ6	Q51200	2225	6354150B2
QA2401	133	L776C4 M80806100	Q51202	4052	
QA2b02	136	N77EL91 M80826518	QS1203	4053	
QA2403	4014	M8083606456F12	Q51205	3798	VR75/30 OA3 G75/2D
QA2404	4025	6058 E8916D25726 M8079	QS1206	686	VR105/30 OC3 G105/1 D
QA2405	415	44A/160M	QS1207	1832	OA250C2 G150/4K
QA2406	4024	M816212AT7WA 60606201	QS1208	1833	082108C1 G108/1K
QA2407	4005	60636X4WA	QS1209	449	85A2063
QA2408	3942	5692	QS1210	4020	M8223 OA2WA
QB2-250	26	813 QY2-1005C/I00A	QS1211	4028	OB2WA
QB3-300	2130	6155 C1108 Q160-1 R5685 QY3-125	QS1212	4048	M8098
			QS1213	4054	M8142
QB35-750		6156 C1112 Q400-3 R5G86 QY4-250	QVO3-12	2129	5763
		6079	QVO4-7	309	
QB5-1750			QVO4-7R	483	N18157
QBL5/3500	5219	6076 ACS4 CR1100 QY5?OOOA	QVO5-25	124	8075B/250A QED6-50
QBW5/3500		6075 CW1100 QY5-3000W	QVO6-20	3523	6146
QEO3-10	2129	5763QV03-12	QV1-150	2519	4X150A
QEO5/4CH		6159 QVO6-20C	QV1-150A	2519	4X150A 4H/135M
QEO6-50	124	5B/250A 807	QV2O-P18	2752	4PR6OA
QEL1/15C	2519	4X150A	QX21	797	2D21
QF196	1078	D12836	QY2-100	26	C1438135C/I00A
QK26	1768	7078	QY3-65	1905	4-65A
QK221	3902	6002	QY3-125	2130	6155 C1108 R5685
QK283	3685		QY4-250	2131	6156 C1112 R5686
QK284	368G		QY4-400	5959	C11367527
QK338	3903	6410	QY4-500A		QBL4/S004X500A
QK353	3737		QY5-500	3522	6079 R5687
QK533		N1034	QY5/500A	1098	ACS4 CR1100
QK610		N1010	QY5-3000W		CW11006075
QMG159	2874	1C05	QYSSO-P40	313	
QP21	1035	240QP QP230 QP321	QZO6-20	6123	8042
QP22A		QP240	R1	1443	APV4 U10 UU55068U
QP228	1035	QPT2 QP230240QP	R2		i W4-350 MUI4 R42
QP2S	556		R2/10	97	
QP230	1035	QP228240QP	R2/38	9g	'
QPT2	1035	240QP QP230 QP2V	R3	1039	IW4-500 UU5 MUI4
QQEO3-12	2798	E360 QQVO3-10 TT24	R3/10	95	
QQEO3-20	2799	C11346252 TT2055B/200A	R3/16	g6	
QQEO6-40	424	5894 C178A QQVOB-40A	R4	17g6	DVJ4-350 R?
		55B/400A	R4A	1074	DW4-500 R3 UU51561
QQVO2-6		TT23 QQEO2-56939	R6A	2775	1163
QQVO3-10	2798	11E13TT246360	R10	261	2T/270K HR26305
QQVO3-20	2799	6252	R11	1111	U27
QQVO3-20A	2799	TT20 C1134625255B/2OCA	R12	426	EY516X25U51 U43
QQVO4-15	788	832A C180	R14		PZ30
QQVO4-20	26E3	815	RI5A		1164
QQVO6-40	424	5894	R16		1T2 U37
QQVO6-40A	2797	TT25 C178A 589455B/400A	R17	2218	6157
QQVO7-50	5847		R19		1 X2B
QQV5-P10	2295	3E2g	R41		D W4-5001561
QQZO4-15	1838	5895	R42		1W4-350 UU51867 R2
Q574-40	3798	VR7S/30	R52	1863	5Z4G GZ30 U505Y3
Q575/20	284	75B15TV70/20	R121	5080	EF37A
Q575/40	3798	6939 VR75/30 OA3 G?51	R144	138	6AM66F12
Q575/60	434		R186	2235	EYB46374
Q583/3	449	85A2 Q512095651	R243		EC5558&1 DET22
QSg2/10	188	7475	R290		K8IA
Q595/10	286	95A1	R612G	597	2X2A
Q5105/45	422		R1169		XL6Q1
QS108/45	422		R201g		H?Q
QS150/15	287	SM150150A215083	R4410	521	
QS150/40	216	VR150/300D3150C3G150/3D	R6010	2353	
Q5150/45	395	8554 G180/2M	R6015	2304	

TYPE	CV No.	EQUIVALENTS	TYPE	CV No.	EQUIVALENTS
RE614		LK4101	RS1002		QB4/1100 R5868
REN51824		X2818	RS1007	1924	6155 QB3/300 QY3-125 RS685
REN51834		X2918	RS1013L		T8L12/50
RG1-125	1263		RS1013W		TBW12/50
RG1-209A		MU4250	RS1061		5868 TB4/1250 TY4-500
RG1-240	1676	GU50	RSQ15/5		TQ6
RG1-240A	1072	E5U1012V/301A	RVI8		3C/150A
RG1-250	3567	DCG1-250	RV120/250	1064	DW4-5001561
RG3-25Q	1625	DQ2A E5Q866 GUI2A	RV120/350		DW4-350 U14 R41561
RG3-250A	32	566A GUI2 DQ2	RV120/500		DW4-500 U14 UU51561
RG3-1250	1G29	DCG4/5000 GUIB 2V/474C	RV200/600		U18/20 FW4-500 FW4-800
RG3-1250A		GU21	RX3-120	1261	
RG4-1000	367U		RXI20A		1164
RG4-1250	5	GU70/21 AH2214049D 2V/500C	RX233	3688	2C33
RG5-500	1349	4064A	RX233A	793	2C33
RG5-12GC		6786 DGG7/1008	RX235	709	723824
RG1000	1449	DCG5/5000GB DQ4872A	RYI2-100	2967	8020
/3000			RZ		URIC 1D5 CYIC U4020
RGN4004		G4004	RZ1-150	3690	
RHK6332		723A/B	RZ1-250	2853	
RKIB		T571	SIM2	2134	9OCV
RK20		4052A 5B/600A	S1M5	2155	C512BR
RK20A	704		SIM95	286	GTR9SM/S 95A1
RK25		4061A 5B/100A	S1.5/80DV		5552A
RK2B	3672	4069A 5C/101 A	SM150	287	150A215083
RK2BA	3673	803	SN947D	471	EL705902
RK30	2657	800	SN954	473	5641 EY70
RK31	3674		SN956B	2241	DY70
RK33	875	2C211642	SP2	1320	2IOSPT SPT2 Z21
RK34	18	4074A 3AA/138A DETI9	SP2D	1322	5P10 Z21
RK3B	2591		SP4	1324	AC/S2 HP4101C MSPen SPT4A
RK47	3677	814	SP4B	3703	MS/PenB
RK4B		813 P120-1	SP6	136	EF91 SD36AM6 Z776F12
RK4BA	690		SP13	1108	8D25P13A
RK51		T50-1	SP13B	3704	SP13C
RK49	3679	807	SP13C	3704	5D213SPA C5OB
RK57	625	805 T100-1	SP40Pen	1104	PTIS
RK60	3680	1641	SP41	1574	5A/207D
RK62	3681		SP42	1336	
RK63	2589	250TH HK454H	SP61	1065	
RK6112	211fi		SP210	1322	SP2 Z21
RKR47	3683		SP215	1320	
RKR72	709	723824	SP220		PM202 P2
RKR73	2543	73	SP1320		5P13C
RL7	173G	EF54	SPT2	1049	2IOSPT Z21 SP2
RL16	1137	EC52	SPT4A	1282	8A7 MS/Pen AC/SG MSP4
RL17	2957	5557 XG5-500	SRS4452	2799	QQEO3/206252 QQVO3/20A
RL18	1197	EC53			TT20
RL21	797	2D21 EN9120A3	5S22AF	39	
RL37	66	EC54	55210	1018	5B1 PMI2 S235215
RL57	5027	5559 XG1-2500	S51971	1604	3Q/211 E
RL1267		1267 Z300T	5T11	188	7475 E1436
RR3-250	1835	3828 ESUIO3 GXU12G/402A	5T90K		Z900T 5823
RR3-1250	2518	4B32 GXU22G4728	5TE1000/2.5r	5027	5559 XG1-2500
RR3-1250A	2399	2G/473C GXU3 AX228	I5		
RR3-1250B		GXU4	STE1300/01/	797	2D21 EN914G/280K
RS384	1506	5C/45A	5		
RS566		3Q/310E	5TE2500/6/4		1055TE2500/640 XGO2-6400
RS613	1924	5866 T82.5/300 TY2-125	0		
RS630	8479	5867 TB3/750 TY4-400	5TE15000/15		DCG7/100
RS631	1351	5868 TB4/1250 TY4-500	/45		
RS685	2130	6155 Q83J300 QY3-125	5TR108/30		OB2 Q51204
RS686	2131	6156 Q83.5/750 QY4-250	5TR150/30	1832	OA2 Q51207
RS687	3522	6079 QB5/1750 QY5-500	5TV70/20	284	75B1

TYPE	CV No.	EQUIVALENTS
5TV70/60	1895	
STVB5/10	449	85A2 OG3 Q512095651
5TV108/30	1833	082108C1 G108;1K
STVI50/30	1832	OA2150C2 Q51207 G150/4K
5TV150/200	3709	
5TV280/40	1068	G280/1B
5TV280/80	1069	G280/2B
5TV280/50A	3712	
SU25	1921	U24
SU41	1113	U17
SU44	261	2T/270K
SU45	371	1%6
SU61		EY516X2 R12 RI2A U43 U151
SU750	128	
SU2130	1290	HVR1 U16
SU2150	3751	U21
SU2150A	1290	HVR2A
SU4150A	1134	HVR2
SV-OA2	1832	OA24020
SV-OB2	1833	OB2108C1
SV2C39A	2516	2C39A TD1-100A
SV-2D21	797	2D21 EN91
SV-3B28	1835	3828
SV-3D21A	2659	3D21A
SV-3D22	2851	3D22
SV-4B32	2518	4832
SV4X/150A	2519	4X150A
SV-4X150D	3991	4X150D
SV-57	5027	3V390B
SV-75/30	3598	
SV280/40	1068	
SV280/80	1069	
SV-705A	3587	705A 2T/45CE
SV813	26	813 C143
SV-828	631	828
SV-5545	2215	XR1-6400
SV-VR150	216	0D3150C3
/30		
SW5	3715	
SW7	s7la	cvloea
SW10H	107B	DAa1 TZ40
SW35Pen	.1370	PY1/35
SW75Pen	1371	PZ1-75
SX541	2384	Z510C
SX542	2413	Z520
SX843	4W7	Z521
SX844	4078	ZS22
T2G9/10E	357	D1B5747
T4A/9AA		4001AM
T4A(I5AB		4001F
T4A/I5AD		
T4A/I5DA		4005N
T4A(75AA		4001C
T4D	3721.,	D1
TBD		EA50
T20	3722	V970
T20G	1067	3B/2008
T21	3879	RK49
T40		T50-t
T41	3723	
T55		T50-1
T200	3724	H4D 11A2
T250	1030	ET30
T300/1		TB3/1000

TYPE	CV No.	EQUIVALENTS
T814	2858	80B
T901		MW41-1
T901A		MW41-1
T2000	1121	
TB2S/300	1924	5866 TY2-125
TB3/750	347a	5867 T3501-1 R5830 TY4?00
TB4/1250	1351	58B8 R5831 TY4-500
TB4/1500		81152
TB5/2500		70a2 TYB-B00 B1153
TBL2/300		7004 TD2?OOA
TBLB/8000	3928	5a24 TYB?OOOA
TBL7/8000		BaB1 TY7-BOOOA
TBL12/100		8078 TYI2-50A
TBL12/250		BBtg
TBWB(B00		5a23 TYB-SOOOW
TBW7/S00		8880 TY7-8000W
TBW12/25		8817 TYI2-25W
TBW12/100		8077 TYI2?OW
TD03-5	345	DET23
TD03-10	273	DET22
TD03-10F	2204	A2327
TD04-20	3a7	DET24
TD04-20A	5754	CV5747 Q/DET24
TD05-12	2a33	2C48
TD1-100A	2518	2C39A
TD2.5-12	B88	984A
TD3-12	2952	2C42
TD4-10	2201	E2043
TDB		EA502835 BD1
TDD2	1044	HL21 DD HD24
TDD2A	372B	HD24 H2D 21 ODDT
TDD4	3727	DDT4II D3 AC/HLDD DDT
TDDI3C	1419	DDTI3IID3 HL/DD/1320
TG30		3C45
TG57		PL5557
TG200	1787	82884C35 XHS-100
TG1000	2520	5C22 B27a XHI B-200
TG3000		5949
TGRB		872A 2V/471A
TH2	1410	X24220TH
TH4	1480	20A1 AC/TH1 X41
TH4A	1194	20A1 AC/TH1
TH4B	1194	ACTH1 X41
TH2IC		TH2321 TH29
TH22C		TH29 TH2320
TH41	1411	
TH225		2K25
TH813	26	QB2-250 QY2-1005C/100A
TH1249		2J49
TH1250		2J50
TH1450		4J50
TH1452		4J52
TH1478		4J78
TH1526		5J26
TH1725A		725
TH2200		K345
TH2312		TH29
TH5021 B	32	DCG4/1000G GUI2566A
TH5021 V	1625	DCG4/I000ED RG3-250
TH5031	1449	872A
TH5031 B	1835	DCG5/5000G83828872A TGRB
		2V/471A
TH5040		869B
TH5221		3B28

TYPE	CV No.	EQUIVALENTS	TYPE	CV No.	EQUIVALENTS
TH5221 V/B		DCX/100038282G/402A	TX3-200	3739	
TH6011		PL5577	TX4	1194	X4120A1 AC/TH1
TH6031		PL5559	TX5-400	3740	
TH6120		PL105	TXI2-12W	2871	CAT6
TH6220		PL5545	TX41		TH4B
TH6230		PL3C23	TXMI OO		2D21 EN91
TH6345		3C45	TY1-50	1288	DET128019
TH6435	1787	62684C35 XH8-100	TY2-125	1924	5866
TH6522	2520	5C22 HT415 XHI6-2006279	TY3-250	1350	5867 R5630 TY4-400
TH6907	3521	59491907 XH25-500	TY4-350	635	833A 3C/AO2E
TH7020		5551A BK42C	TY4-500	135	5868 R5631
TH7030		5552A BK24C	TY5-500		TB4/15008115214D12
TH7040		55538	TY6-800		TB5/25007092 B1153
TH9804		7038	TY6-5000A	3926	5924
TMC15B	3730		TY6-5000B	8730	8R1160 YD11205762
TMC16B	3731		TY6-5000W		5923 TBW6/60C0
TMC20B	3732	405UA	TY7-6000A	5239	TBL7/80006961
TP4	1718	AC/TP	TY7-6000W		TBW7/800082686960
TP22	1344		TYI2-25		TBW12/25
TP25	1345		TYI2-25A		T8W12/256618
TP26	3735		TYI2-50A		6078 T8L12/100
TQ1/2		3C23 A5G5023	TYI2-50W		6077 TBW12/100
TQ2		PLI7 TH6011 FGI7 A5G5017	TYS4-500	1889	
TQ2-3	2210	5544 A5G5044A XR1-3200	TZO3-20	1047	3BJ200B
TQ2/6	2215	5545 C6J TH6020 XR1-6400	TZ2-250	1618	E5250M
TRP4	2378		TZ2-300	3741	
TRP5	2379		TZ20	3742	
TRW1	2351		TZ40	1076	DA415W40W
TRW2	2303		U4	1608	
TRW5	2297		U5	3743	
TRW7	3539	6024 ATR3B7	U6	3744	
T570	798	2E22	U10	1443	RV120/350 R1 UU55068U
TSP4	560	ACISP3 RTSP4	U12	1064	DW4-500 UU120/350
T5W50	1288	DET124304CB 3B/504B	U14	1796	DW4-500 R31561 UU5
TSW5OA	1235		U15	3747	R4A 1561
TSY4-500	1889		U16	1290	5U2150A HVR1
TT4	1179	41 FP ML4 AC/P	U17	1113	
TTI 0	26	813 QY2-1005C/100A TH813	U18	1264	FW4-500451U
TT11	1501	E1192	U18/20	31	FW4-800 AZ50
TT12	524		U19	187	
TT15	415	44A/160M	U19/23	187	
TT16	2963	C11084-125A QY3-125B	U20	31	FW4-800
TT16D		C7108	U21	3751	FW4/800
TT17	2957	PL5557 XG5-500	U22	3750	
TT1B	2666	829B C144 QQVO7-40	U23	235	
TT20	2799	QQVO3-20AC11346252558/200A	U24	1921	Bt 42
TT23	2466	QQVO2-66939	U25		U47
TT24	2798	QQVO3-106360	U26	2966	EYB6 U496S2
TT25	2797	QQVO6-40A 5894	U27	1111	V190719G122T/3608
TTR21 MR	3841	6F1	U30	3752	
TTR31	221	E1516	U31	3753	25Z4G PY31
TTR3IMC	1748		U33		VL561
TTR3IMR	1923		U37	2289	1T2 R13
TVO3-10	1573		U41	2115	1T2IB3GT DY30
TVO3-10A	1089		U43	426	EY51 RI2A 6X2 U1515U61
TV4	1412	TV4A	U45		U25
TV4A	1412	TV4	U47		U26 U25
TV6	2942	RM1 ME6S	U50	1268	5Y3GT 5Z4
TV101		E5U151	U52	1071	SU4G GZ315931
TV102	1504	VU504	U54	378	53KU GZ37
TV801		4303C8 TY1-50	U60	4075	
T WS1		W13/1D	U70	574	6X5GT EZ3S U147
TX2/3	2210	5544 XR1?200	U74		3SZ4GT U76
TX2/6	2215	5545 XR1-64003G/502A 6807	UR2		PV295

TYPE	CV No.	EQUIVALENTS	TYPE	CV No.	EQUIVALENTS
UR3		CY3	V944A	3797	
UR3C	3758		V995	3770	
UR4O/F	4127		V980	54	
UR45	4116		V970	3772	
UU2		R2 R41	V1010	3773	
UU3		IW4?50 R2 R3 R1 MUI4 R421867	V1020	3774	
UU4	3759	IW4?50 R3 MUI4 R421867	V1021	3775	
UU5	1039	IW4-500 R3 MU74	V1023	3776	
UU6	1413		V1029	3777	
UU7	3761	UUS	V1040	987	
UU9	1855	EZ40 U75068T4 BBKU	V1042	275	
UU10		R V200/600	V1043	401	
UU12	5072	EZB16CA4 U709	V1047	961	
UU6O/250		IW4-350 R2 R4218B7 UU5	V1052	441	
UU120/250		IW4-350 R2 UU5	V1063P1	400	
UU120/350	1796	RV120/350 R2 DW4/350	V1101	1361	MXO5-20
UU120/500	1064	APV4 R3 IW4-500 MUI4 R3 R43	V1105	3778	
UV203A	2986	203A	V1111	1127	Pen46
UX866		DCG4/1000GB	V1120	72	
UX6653	3592		V1120B	73	11E3
UY21		UY1N	V1133	276	11E2
UY41		31A3 U1423715U U404	V1135B	345	12E1
UYB2		SSN3	V1135C	377	1963
UYB5		U38138A3 U119	V1501	3581	3C/495A
UY807		g07	V1505	1252	212E MY3-275
V20	764	URIC CYIC	V1507A	1504	EHT1
V2OS		CY1 UR1	V1901	1504	EHT12S/490C
V30	7011	1 D5 U4020	V1904	1072	MU4250
V40	2967	8020 RY12-100	V1906	20	
V41	3892	AZ41	V1907	1111	R11
V 54		K358	V1913	1508	U19
V61	3891	EZ40 UU968T4 U150	V1920	121	19H1
V7OD		T50-1	V1922	74	E5U74
V120	3762		V1924	100	
V123	37B8		V1928	261	2T/270K R1Q
V154		K353	V1939	371	19G6
V203A/1K	234		V2024	125	
V203C/LD	230		V2030F	349	
V226	3765		V2046A	486	
V230A/K	2gg		V2053	403	
V233A/1K	2190		VAI6	528	
V235A/1K	2221		VA35	285	
V239/1K	5048		VA50	2132	9OAV CAV29
V239C/1K		5048	VA201B	2494	K351
V240C/2K	2189		VA220		K345
V241C/1K	5049		VFO1	80	
V245	1367		VFO8	81	
V246A/1K	228		VFT6	2747	6U5G 6M1 Y61
V248A	1366		VG1	2976	NE2 GET2
V299	1723		VH550		DCG4/1000ED
V277C/34	5911		VH550A	32	DCG4/1000G GUI2
V312	3766	4IMTL	VH7400		DCG4/5000GB
V339	3767		VH7400A		DCG4/5000EG
V503	3768	DA30440XP 3B/3558	VHT2		FC2 X22
V625	g3		VHT2A	1043	FC2A 210PG X22
V630	207		VHT4	2955	FC415A2 MX404IMPG
V741	133	EC90	VHTA	2956	15D1 FCI3C
V872	1116	6F32	VHTS		X30
V877	3769		VJ5552		PL552A5
V884	131	6CQB EF929DB W77	VL561		U33
V885	132		VL5452	3784	5A/102A
V886	136	6AM5 EL91 N77	VL5492AG	1527	C655/1G
V887	136	EL91 N77	VL5631		5102/1KZ530333
V914	1170	2D4A DDL4 D41	VM4V		A54125

TYPE	CV No.	EQUIVALENTS	TYPE	CV No.	EQUIVALENTS
VME4		AC/ME	W21-4	171	2IQVPT
VMP4	1169	9A1 VPT4	W21-7	3804	VP21
VMS4B	1677	AC/SG MM4V	W25		DF961 AJ41 F1
VMP4G	1169	9A1 MVSPen VMP49	W30K	3805	
VMP4Met	1169	9A1	W31	3806	
VMS4	1165	A54125	W42	2832	AC/VP2 VP4B
V02		FC2A X22	W61	100	V19246K7
V04	2955	FC4 MX40 VHT4	W63	1183	6K7G 6UT KTW63
V06S	1426	EK2	W76		12K7GT KTW 74M
V013		FCI3C 15D1 TH2320	W77	131	EF929D66F21 VP66CQ6
V0135		FCI3	W81		7H7 W143
VP2	3787	VP21 W21210YPT	W118		W14510F9
VP2B	520	VP21 VP210	W119		10F18
VP2D	1083	VP210 VP2 VP21	W142		UF4II2AC5
VP4C	518	AC/VP1 VP4	W143		EF227H7 W148 W81
VP4Met	3788	9A1	W145		IOF9
VP4A	1159	9A1 AC/VP1 MVS/Pen	W147	1053	EF39
VP4B	3582	AC/VP2 MVS/PenB W42	W148		7H7 W143 W81
VP6	131	EF929D66CQ6 W776F21	W149		7B7
VP12D	531	12C8	W150	3886	EF416CJ562VP
VP13		VP1320	W719	1375	EFB56BY76F196F26
VP13B	3796	VP1322 VPI3C	W727	454	EF936BA6 PMO4
VP13C	3790	9D2 VP132213VPA	W729		6F20
VP13K	1106	9D2	W731D	2538	59
VP21	1083	VP210	W739		6F1810FD1219FL8
VP23	3792		WT-T110		5830
VP24Met	3793		WT-T111		5559 57 3V/390A
VP41	21	VP4B AC/VP2	WT-T172		6328
VP133	1457		WT-T113		KUB76
VP210	3794	VP2 W212IOVPT	WT-T117		5557
VP1322	3796	VPI3B 9D213VPA	WT-T118		105
VPT2		VP210210VPT W21	WT-T119		172
VPT4	1169	9A1 VP21 MVS/Pen AC/VP1	WT-T127		833A E58333C/402E
VPT4B	1169	9A1 AC/WP1	W T/T132		OA4G
VPT2IO	1083	VP2	WT-T141	3798	VR57 VR75/30 G75/2D
VPTS		W30	X14		1A7 DK32
VR7S/30	3798	OA3 G75/2D Q575140	X17	782	DK911R51C1
VR9O-30	3799	OB3	X20		DK92IAC6 X181C2
VR9O-ST		OB3	X21	3816	FC2A VHT2A
VR105-30	686	OC3 G105/?D Q512064678K	X21 Met	3817	
VR105-MT		OB2	X22	3818	FC2210PG
VR105-ST		OC3	X23	1082	220TH TH2
VR150-30	216	OD3 Q5150/40150C3 G150/3Q	X24	3819	220TH TH2
VR150-MT		OA2	X24Met	3820	220TH
VR150-ST		OD3	X25		DK961AB61C3
VS2	380Q	PMI2M W21	X30		1501
VS10G	5290		X31	3821	2002
VS10H	6103		X3IMet	3822	
VS1880	3625	PE8	X41	1460	2OAIACHTI4ISTH4
VS24	3802	PMI2M VS2	X4IMet	3823	
VS24/KMet	3803	PMI2M VS2	X42	3576	MH410515A241 MPG MX40
VS26	161		X61 M	281	ECH356K8 X65
VS210		PMI2M VS2 W21	X63	3825	6ABG
VS215		PMI2M VS2 W21	X64	1208	6L7G
VSGA1	1677	AC/SG	X65	3826	6K8G X147
VX2		VP2B	X66	1099	AF3
VX55QA		DCX4/1000	X71		12K8 X76M
VX7400		DCX4/5000	X76		12K8X71M
W5/1G		6W5Q	X77	132	EK906BE6 X727
W7/1D	2358		X79	5115	6AEB
W7/2D	2188		X81		7S7 X148
W7I3G	5293		X117		5D22
W13/1D		TWS1	X118		X14510C1
W17	785	DF911T41F3	X119		UCH8110C1419D8

TYPE	CV No.	EQUIVALENTS	TYPE	CV No.	EQUIVALENTS
X142		UCH4214K7141TH	Y63	1103	6U5G 6M163ME 6H45
X143		ECH21	Y64	2747	fiG5G 6M7
X145		X165 X11810C1	Y65	51	A1320
X147	1581	ECH3S 6KSG X61M	Y119		UM80198R5
X148		7S7 X81	Y220	1118	PT2 KT2
X150	3888	ECH426CU76C1062TH	Z14		IN5G DF33
X661	21g3		Z21	3836	2155G SPJ2
X662	2234		Z62	3838	12C57GT KTZ63
X719	2128	ECHB16AJ86C12	Z63		6J7G KTZ63
X727	453	EK9068E6 X77 X727	Z6fi	3839	68M6
X1100		N1029	Z77	138	EF918D36AM6 SP66F12
XB1	2293	UD143	Z90	1091	EF50
XBB75B		2051	Z142		U F4210F3
XB7674	1848	20A2	Z145		10F1
XCCB2		7AU7	Z150	3887	EF42
XE1	495	5802	Z152	1376	EF806BX668W7 Z719645PT
XE2	2202		Z203C	2271	GCI0B
XFB5		3BY7	Z211/1G		K329
XG1-2500	5027	5559 BT5	Z225		DQ2
XG2-12		255	Z239/1G	2187	
XG2-500	1144	BTI9	Z300T	1992	1267
XG2-6400		3V/490A	Z303C	2271	QCI OB 8482
XGS-500	2957	FGI75557 TTI7	Z319	2276	
XGI S/70		DCG7/100	Z319/1G	2187	
XGI5/12		DCG7/100B 8T69	Z327/1KW	5437	
XG25		PL260	Z329		30f5
XGQ2-6400		PL105	Z5025	2325	GCI0C/S
XGR3	151		Z520M		GN-4
XHI.5	3830		Z521M		GS-4
XH3-045	372	8T793C45 FX227	Z700U	5820	7710 CCT6
XHS-100	1787	62684C35	Z719	1376	68X6 EFBO 68W7 Z452645PT
XH16-200	2520	62795C22	Z729	2901	EF866F226287
XH2S-500	3521	59491907 FX229	Z759	5060	
XLO2.0V	1701		Z80WJ	2236	
XLI.5V	1720		Z801U	2255	
XL2V	3831		Z803U	2434	6779
XN	14		Z900T	5122	5823
XN3		GN6	Z530331		DL510 S60/1B
XPI.SV	176		Z530332	979	DL510
XP2.0V	1702		Z530833		VLSB315102/1K
XP4	1168	PX4	Z530352	979	DL510
XR1-12	5957	5855	ZA1	1175	A41 AP
XR1-1600	3706	579fi	ZA2	1095	4672954
XR1-1600A		21 B123G/450	ZAA		5B/104D
XR1-3200	2210	5544	ZD	2889	DD620
XR1-6400	2215	55453G/501A	ZDI7	784	DAF911551FD9
XR1-6400A		68073G/502A	ZD25		DAF96IAH5IFD1
XR6	465	EF72	ZD152		6N8 EBFBO WD709
XR7	466	EF736488	ZG532	2647	532
XR8	468	6K4 EC706778	ZG547	372	8T19
X5GI.5V	175		ZP455	2789	9LP7
XSG2.0V	3833		ZP477	914	12DP7
XW2.0V	1703		ZP527	855	6C21
XXB		3C6	ZP572		2C39A 3H/151J
XXD		14AF7	ZP579	3842	5J29
XXFM		7X7	ZP584	3843	5J30
Y25	2gg0	1M1 DM70	ZP590	3844	5J31
Y61	1103	6U5G 6M1			
Y62	2747	6G5G 6M1 Y64			