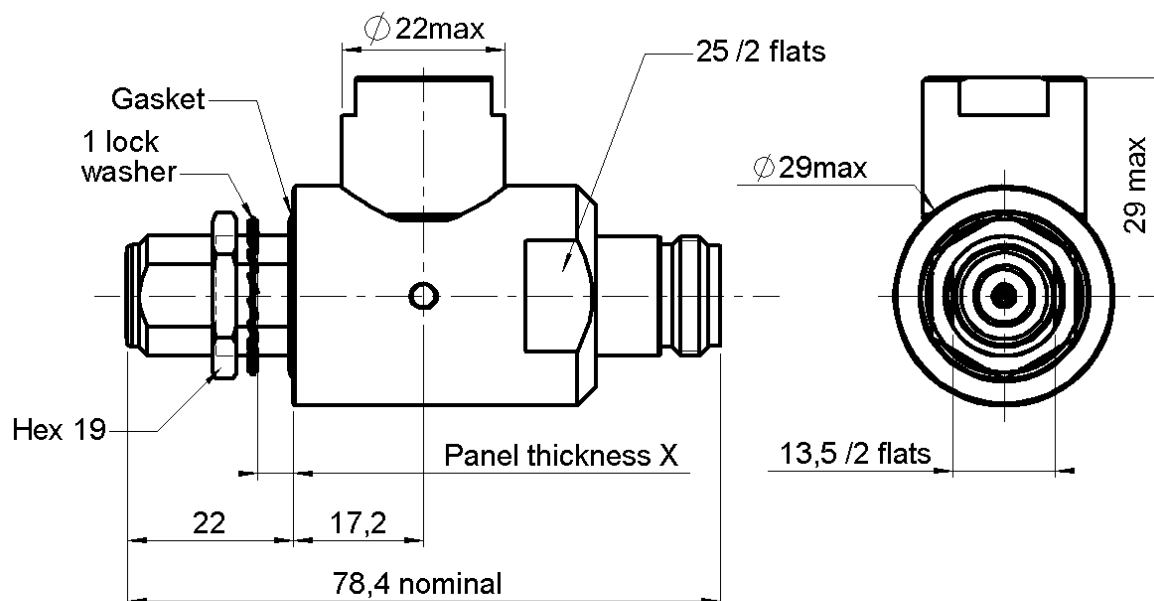


MULTIBAND QUARTER WAVE STUB 824-2200

BULKHEAD N F TO N F

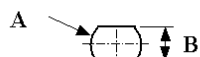
R445.M00.000

Series : MBQWS



X mini= 1.5
maxi= 6

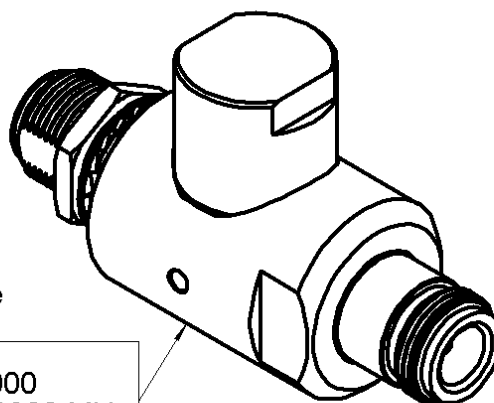
PANEL CUT OUT



	mm	
	Maxi	mini
A	16.1	16
B	13.7	13.6

Etiquette
Label

RADIALL
R445M00000
MBQWS 824-2200 MHz
Lot: An Se



All dimensions are in mm.



COMPONENTS	MATERIALS	PLATINGS (µm)
BODY	BRASS	BBR-0.5 OVER SILVER 3
CENTER CONTACT	BERYLLIUM COPPER, BRASS	BBR 0.5 OVER SILVER 3
OUTER CONTACT	BRASS	BBR-0.5 OVER SILVER 3
INSULATOR	PTFE	
GASKET	SILICONE RUBBER	
OTHERS PARTS	BRASS	BBR 2
-	-	-
-	-	-

Issue : 0113 A

In the effort to improve our products, we reserve the right to make changes judged to be necessary.



MULTIBAND QUARTER WAVE STUB 824-2200**BULKHEAD N F TO N F****R445.M00.000**

Series : MBQWS

PACKAGING

Standard	Unit	Other
1	-	Contact us

SPECIFICATION**ELECTRICAL CHARACTERISTICS**

Impedance		50 Ω
First frequency band	824 to 960	MHz
VSWR		1.2 Maxi
Insertion loss		0.2 dB Maxi
Second frequency band	1700 to 2200	MHz
VSWR		1.2 Maxi
Insertion loss		0.2 dB Maxi
RF leakage	- (	100 - F(GHz)) dB Maxi
Residual Voltage	15 V at	2.5 kA (8/20 μ s test pulse waveform)
Intermodulation		-110 dBm (2x20W)

SURGE ARRESTER CAPSULE

(Not supplied)

Form	NA
Radiall part number :	NA
Recommended torque for nut	NA N.cm

OTHERS CHARACTERISTICS**MECHANICAL CHARACTERISTICS**

Protected connector	N - FEMALE
Unprotected connector	N - FEMALE
Center contact retention	
Axial force – Mating end	27 N mini
Axial force – Opposite end	27 N mini
Torque	NA N.cm mini
Recommended torque	
Mating (protected)	NA N.cm
Mating (unprotected)	NA N.cm
Panel nut	500 N.cm
Clamp nut	NA N.cm
A/F clamp nut	0.000 mm
Mating life	500 Cycles mini
Weight	259.337 g

ENVIRONMENTAL

Operating temperature	-40/+80 °C
Hermetic seal	NA Atm.cm3/s
Panel leakage	IP67

Issue : 0113 A

In the effort to improve our products, we reserve the right to make changes judged to be necessary.

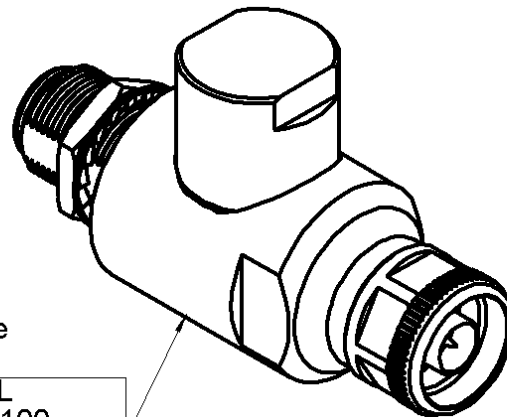
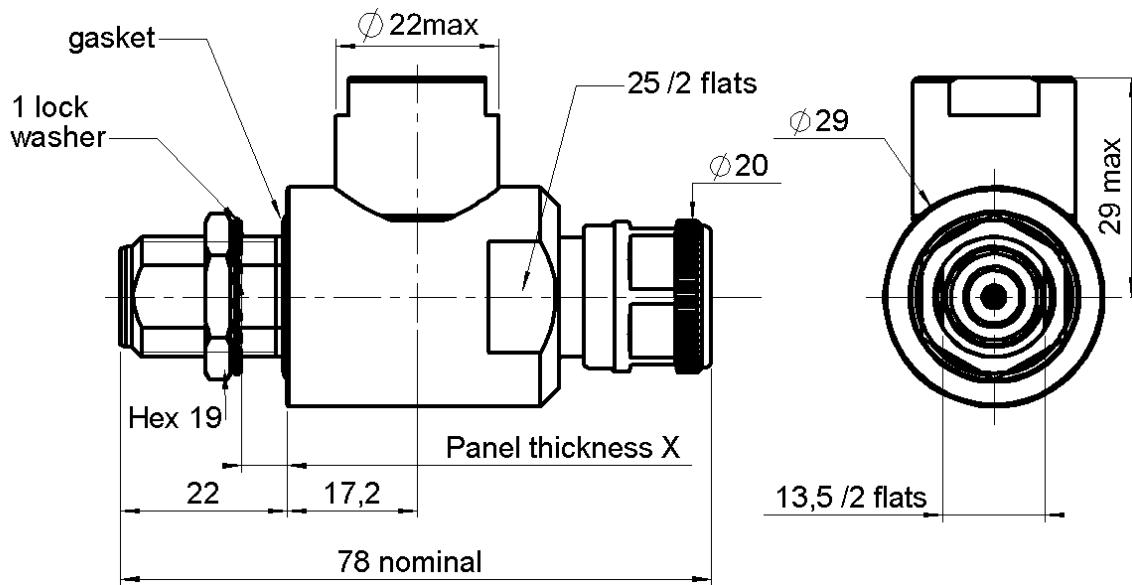


MULTIBAND QUARTER WAVE STUB 824-2200

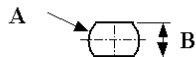
BULKHEAD N F TO N M

R445.M00.100

Series : MBQWS



PANEL CUT OUT



	mm	
	Maxi	mini
A	16.1	16
B	13.7	13.6

Etiquette
Label

RADIALL
R445M00100
MBQWS 824-2200 MHz
Lot: An Se

All dimensions are in mm.



COMPONENTS

MATERIALS

PLATINGS (μm)

BODY
CENTER CONTACT
OUTER CONTACT
INSULATOR
GASKET
OTHERS PARTS

BRASS
BERYLLIUM COPPER, BRASS
BRASS
PTFE
SILICONE RUBBER
BRASS

BBR-0.5 OVER SILVER 3
BBR-0.5 OVER SILVER 3
BBR-0.5 OVER SILVER 3

BBR 2

Issue : 0113 A

In the effort to improve our products, we reserve the right to make changes judged to be necessary.



MULTIBAND QUARTER WAVE STUB 824-2200**BULKHEAD N F TO N M****R445.M00.100**

Series : MBQWS

PACKAGING

Standard	Unit	Other
1	-	Contact us

SPECIFICATION**ELECTRICAL CHARACTERISTICS**

Impedance		50 Ω
First frequency band	824 to 960	MHz
VSWR		1.2 Maxi
Insertion loss		0.2 dB Maxi
Second frequency band	1700 to 2200	MHz
VSWR		1.2 Maxi
Insertion loss		0.2 dB Maxi
RF leakage	- (100 - F(GHz))	dB Maxi
Residual Voltage	15 V at 2.5 kA (8/20 μ s test pulse waveform)	
Intermodulation		-110 dBm (2x20W)

SURGE ARRESTER CAPSULE

(Not supplied)

Form	NA
Radiall part number :	NA
Recommended torque for nut	NA N.cm

OTHERS CHARACTERISTICS**MECHANICAL CHARACTERISTICS**

Protected connector	N - FEMALE
Unprotected connector	N - MALE
Center contact retention	
Axial force – Mating end	27 N mini
Axial force – Opposite end	27 N mini
Torque	NA N.cm mini
Recommended torque	
Mating (protected)	NA N.cm
Mating (unprotected)	170 N.cm
Panel nut	500 N.cm
Clamp nut	NA N.cm
A/F clamp nut	0.000 mm
Mating life	500 Cycles mini
Weight	246.482 g

ENVIRONMENTAL

Operating temperature	-40/+80 °C
Hermetic seal	NA Atm.cm3/s
Panel leakage	IP67

Issue : 0113 A

In the effort to improve our products, we reserve the right to make changes judged to be necessary.

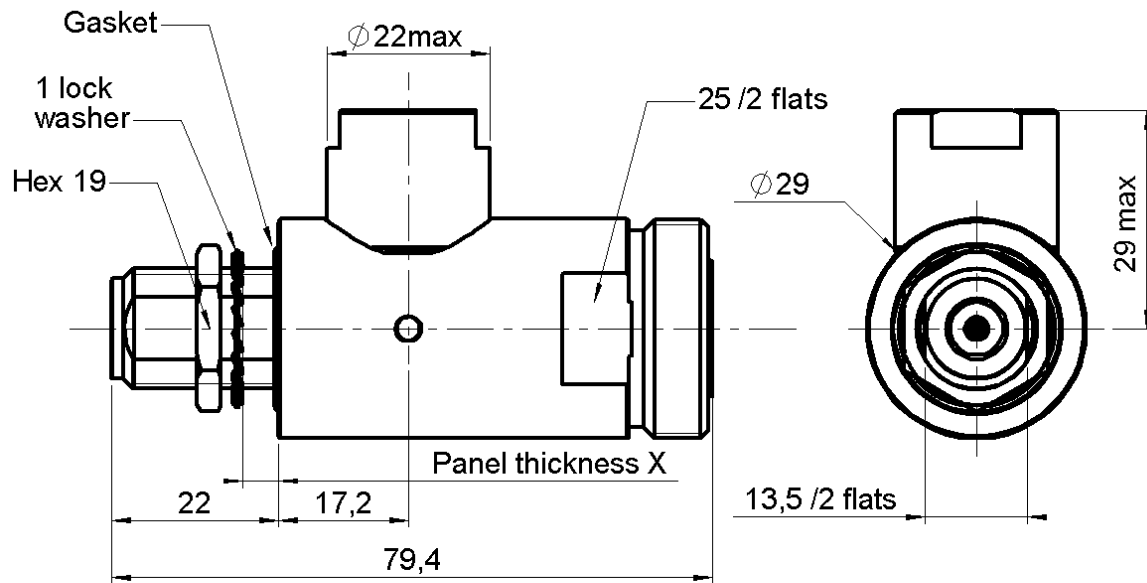


MULTIBAND QUARTER WAVE STUB 824-2200

BULKHEAD N F TO 7-16 F

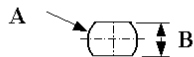
R445.M01.000

Series : QWS



X mini= 1.5
maxi= 6

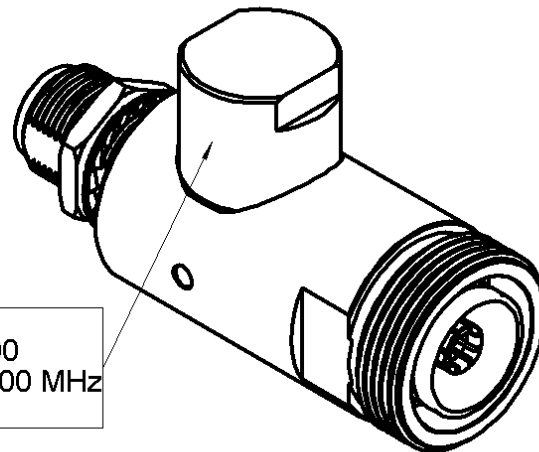
PANEL CUT OUT



mm		
	Maxi	mini
A	16.1	16
B	13.7	13.6

Etiquette
Label

RADIALL
R445M01000
MBQWS 824-2200 MHz
Lot: An Se



All dimensions are in mm.



COMPONENTS	MATERIALS	PLATINGS (μm)
BODY	BRASS	BBR-0.5 OVER SILVER 3
CENTER CONTACT	BERYLLIUM COPPER, BRASS	BBR 0.5 OVER SILVER 3
OUTER CONTACT	BRASS	BBR-0.5 OVER SILVER 5
INSULATOR	PTFE	
GASKET	SILICONE RUBBER	
OTHERS PARTS	BRASS	BBR 2
-	-	-
-	-	-

Issue : 0113 A

In the effort to improve our products, we reserve the right to make changes judged to be necessary.



MULTIBAND QUARTER WAVE STUB 824-2200**BULKHEAD N F TO 7-16 F****R445.M01.000**

Series : QWS

PACKAGING

Standard	Unit	Other
1	-	Contact us

SPECIFICATION**ELECTRICAL CHARACTERISTICS**

Impedance		50 Ω
First frequency band	824 to 960	MHz
VSWR		1.2 Maxi
Insertion loss		0.2 dB Maxi
Second frequency band	1700 to 2200	MHz
VSWR		1.2 Maxi
Insertion loss		0.2 dB Maxi
RF leakage	- (	100 - F(GHz)) dB Maxi
Residual Voltage	15 V at	2.5 kA (8/20 μ s test pulse waveform)
Intermodulation		-110 dBm (2x20W)

SURGE ARRESTER CAPSULE

(Not supplied)

Form	NA
Radiall part number :	NA
Recommended torque for nut	NA N.cm

OTHERS CHARACTERISTICS**MECHANICAL CHARACTERISTICS**

Protected connector	N - FEMALE
Unprotected connector	7-16 - FEMALE
Center contact retention	
Axial force – Mating end	27 N mini
Axial force – Opposite end	27 N mini
Torque	NA N.cm mini
Recommended torque	
Mating (protected)	NA N.cm
Mating (unprotected)	NA N.cm
Panel nut	500 N.cm
Clamp nut	NA N.cm
A/F clamp nut	0.000 mm
Mating life	500 Cycles mini
Weight	298.551 g

ENVIRONMENTAL

Operating temperature	-40/+80 °C
Hermetic seal	NA Atm.cm3/s
Panel leakage	IP67

Issue : 0113 A

In the effort to improve our products, we reserve the right to make changes judged to be necessary.

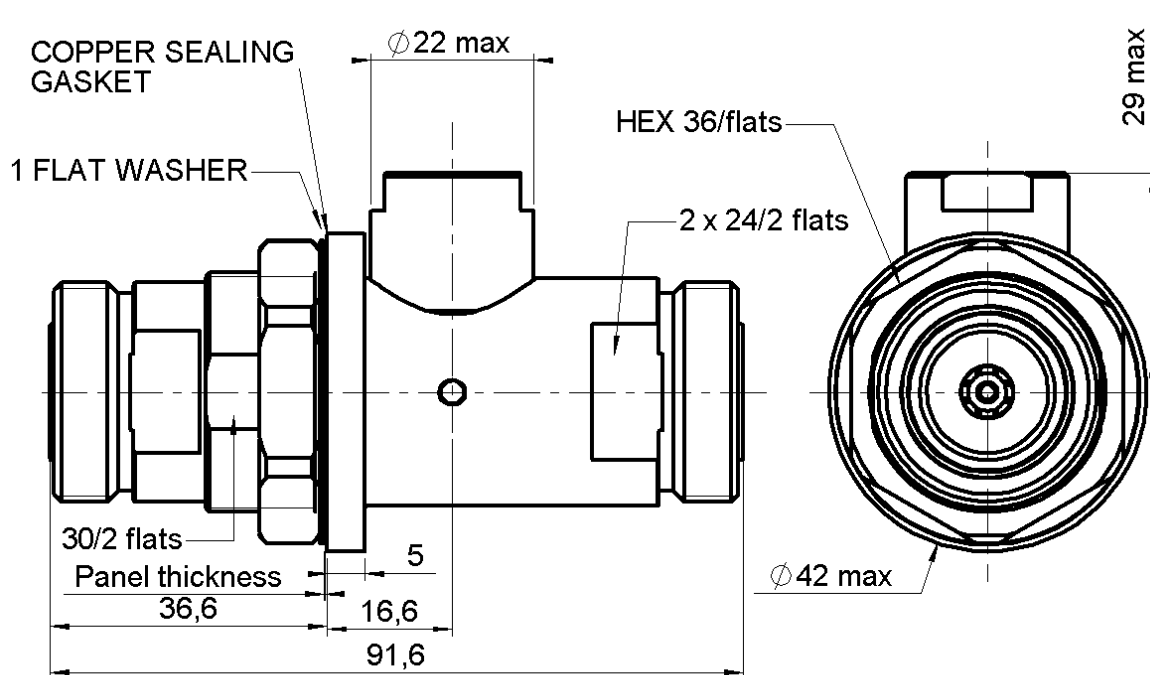


MULTIBAND QUARTER WAVE STUB 824-2200

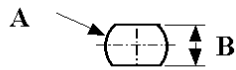
BULKHEAD 7-16 F TO 7-16 F

R445.M02.000

Series : QWS


 X : mini = 2
 maxi = 7

PANEL CUT OUT



	mm	
	Maxi	mini
A	32.4	32.2
B	30.5	30.3

 RADIALL
 R445M02000
 MBQWS 824-2200 MHz
 Lot: An Se

All dimensions are in mm.

COMPONENTS	MATERIALS	PLATINGS (μm)
BODY	BRASS	BBR-0.5 OVER SILVER 3
CENTER CONTACT	BERYLLIUM COPPER, BRASS	BBR 0.5 OVER SILVER 3
OUTER CONTACT	BRASS	BBR-0.5 OVER SILVER 5
INSULATOR	PTFE	
GASKET	COPPER	
OTHERS PARTS	BRASS	BBR 2
-	-	-
-	-	-

Issue : 0104 A

In the effort to improve our products, we reserve the right to make changes judged to be necessary.



MULTIBAND QUARTER WAVE STUB 824-2200**BULKHEAD 7-16 F TO 7-16 F****R445.M02.000**

Series : QWS

PACKAGING

Standard	Unit	Other
1	-	Contact us

SPECIFICATION**ELECTRICAL CHARACTERISTICS**

Impedance		50 Ω
First frequency band	824 to 960	MHz
VSWR		1.2 Maxi
Insertion loss		0.2 dB Maxi
Second frequency band	1700 to 2200	MHz
VSWR		1.2 Maxi
Insertion loss		0.2 dB Maxi
RF leakage	- (	100 - F(GHz)) dB Maxi
Residual Voltage	15 V at	2.5 kA (8/20 μ s test pulse waveform)
Intermodulation		-110 dBm (2x20W)

SURGE ARRESTER CAPSULE

(Not supplied)

Form	NA
Radiall part number :	NA
Recommended torque for nut	NA N.cm

OTHERS CHARACTERISTICS**MECHANICAL CHARACTERISTICS**

Protected connector	7-16 - FEMALE
Unprotected connector	7-16 - FEMALE
Center contact retention	
Axial force – Mating end	200 N mini
Axial force – Opposite end	100 N mini
Torque	NA N.cm mini
Recommended torque	
Mating (protected)	NA N.cm
Mating (unprotected)	NA N.cm
Panel nut	3500 N.cm
Clamp nut	NA N.cm
A/F clamp nut	0.000 mm
Mating life	500 Cycles mini
Weight	480.196 g

ENVIRONMENTAL

Operating temperature	-40/+80 °C
Hermetic seal	NA Atm.cm3/s
Panel leakage	IP67

Issue : 0104 A

In the effort to improve our products, we reserve the right to make changes judged to be necessary.

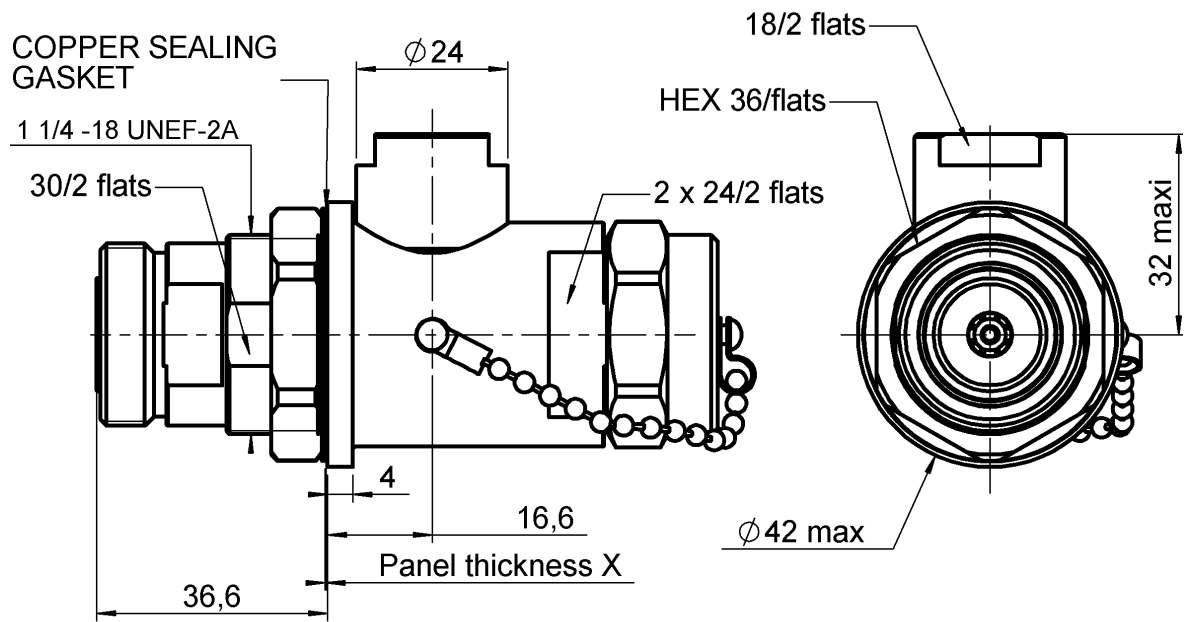


MULTIBAND QUARTER WAVE STUB 870-2200

BULKHEAD 7-16F TO F WITH CHAIN&CAP

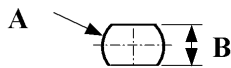
R445.M02.001

Series : MBQWS



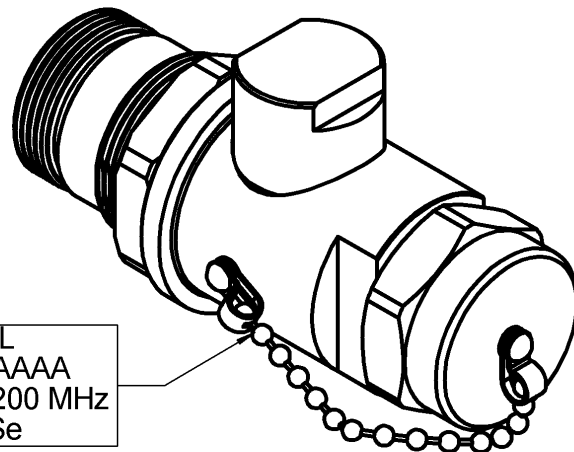
X : mini = 2
maxi = 7

PANEL CUT OUT



	mm	
	Maxi	mini
A	32.2	32
B	30.4	30.2

Etiquette
LABEL
RADIALL
3BK 25444 AAAA
MBQWS 870-2200 MHz
Lot: An Se



All dimensions are in mm.



COMPONENTS	MATERIALS	PLATINGS (μm)
BODY	BRASS	BBR-0.5 OVER SILVER 3
CENTER CONTACT	BERYLLIUM COPPER, BRASS	BBR 0.5 OVER SILVER 3
OUTER CONTACT	BRASS	BBR-0.5 OVER SILVER 5
INSULATOR	PTFE	
GASKET	SILICONE RUBBER	
OTHERS PARTS	BRASS	BBR
-	-	-
-	-	-

Issue : 0117 A

In the effort to improve our products, we reserve the right to make changes judged to be necessary.



MULTIBAND QUARTER WAVE STUB 870-2200**BULKHEAD 7-16F TO F WITH CHAIN&CAP****R445.M02.001**

Series : MBQWS

PACKAGING

Standard	Unit	Other
1	-	Contact us

SPECIFICATION

ALCATEL 3BK 25444 AAAA APZZA

ELECTRICAL CHARACTERISTICS

Impedance		50 Ω
First frequency band	870 to 970	MHz
VSWR		1.1 Maxi
Insertion loss		0.1 dB Maxi
Second frequency band	1700 to 2200	MHz
VSWR		1.1 Maxi
Insertion loss		0.1 dB Maxi
RF leakage	- (	100 - F(GHz)) dB Maxi
Residual Voltage	15 V at	2.5 kA (8/20 μ s test pulse waveform)
Impulse discharge current		40 kA (8/20 μ sec)
Intermodulation		-110 dBm (2x20W)

SURGE ARRESTER CAPSULE

(Not supplied)

Form	NA
Radiall part number :	NA
Recommended torque for nut	NA N.cm

OTHERS CHARACTERISTICS**MECHANICAL CHARACTERISTICS**

Protected connector	7-16 - FEMALE
Unprotected connector	7-16 - FEMALE
Center contact retention	
Axial force – Mating end	N mini
Axial force – Opposite end	N mini
Torque	N.cm mini
Recommended torque	
Mating (protected)	N.cm
Mating (unprotected)	N.cm
Panel nut	3500 N.cm
Clamp nut	N.cm
A/F clamp nut	0.000 mm
Mating life	500 Cycles mini
Weight	0.000 g

ENVIRONMENTAL

Operating temperature	-40/+80 °C
Hermetic seal	Atm.cm3/s
Panel leakage	IP67

Issue : 0117 A

In the effort to improve our products, we reserve the right to make changes judged to be necessary.

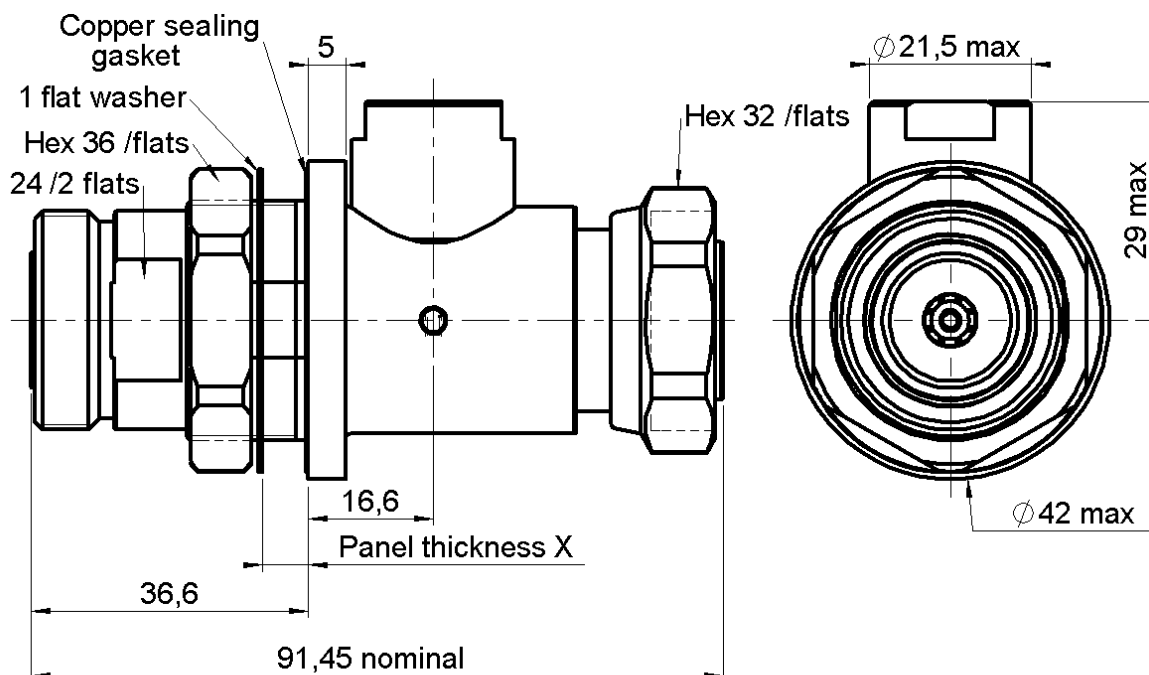


MULTIBAND QUARTER WAVE STUB 824-2200

BULKHEAD 7-16 F TO 7-16 M

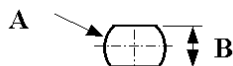
R445.M02.100

Series : MBQWS



X: mini= 2
maxi= 7

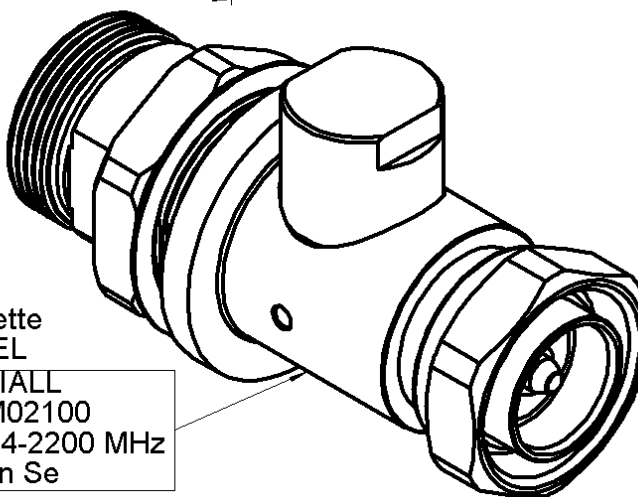
PANEL CUT OUT



	mm	
	Maxi	mini
A	32.4	32.2
B	30.5	30.3

Etiquette
LABEL

RADIALL
R445M02100
MBQWS 824-2200 MHz
Lot: An Se



All dimensions are in mm.

COMPONENTS	MATERIALS	PLATINGS (μm)
BODY	BRASS	BBR-0.5 OVER SILVER 3
CENTER CONTACT	BERYLLIUM COPPER, BRASS	BBR 0.5 OVER SILVER 3
OUTER CONTACT	BRASS	BBR-0.5 OVER SILVER 5
INSULATOR	PTFE	
GASKET	COPPER	
OTHERS PARTS	BRASS	BBR 2
-	-	-
-	-	-

Issue : 0103 A

In the effort to improve our products, we reserve the right to make changes judged to be necessary.



MULTIBAND QUARTER WAVE STUB 824-2200**BULKHEAD 7-16 F TO 7-16 M****R445.M02.100**

Series : MBQWS

PACKAGING

Standard	Unit	Other
1	-	Contact us

SPECIFICATION**ELECTRICAL CHARACTERISTICS**

Impedance		50 Ω
First frequency band	824 to 960	MHz
VSWR		1.2 Maxi
Insertion loss		0.2 dB Maxi
Second frequency band	1700 to 2200	MHz
VSWR		1.2 Maxi
Insertion loss		0.2 dB Maxi
RF leakage	- (100 - F(GHz))	dB Maxi
Residual Voltage	15 V at 2.5 kA (8/20 μ s test pulse waveform)	
Intermodulation		-110 dBm (2x20W)

SURGE ARRESTER CAPSULE

(Not supplied)

Form	NA
Radiall part number :	NA
Recommended torque for nut	NA N.cm

OTHERS CHARACTERISTICS**MECHANICAL CHARACTERISTICS**

Protected connector	7-16 - FEMALE
Unprotected connector	7-16 - MALE
Center contact retention	
Axial force – Mating end	200 N mini
Axial force – Opposite end	100 N mini
Torque	NA N.cm mini
Recommended torque	
Mating (protected)	NA N.cm
Mating (unprotected)	3500 N.cm
Panel nut	3500 N.cm
Clamp nut	NA N.cm
A/F clamp nut	0.000 mm
Mating life	500 Cycles mini
Weight	489.766 g

ENVIRONMENTAL

Operating temperature	-40/+80 °C
Hermetic seal	NA Atm.cm3/s
Panel leakage	IP67

Issue : 0103 A

In the effort to improve our products, we reserve the right to make changes judged to be necessary.

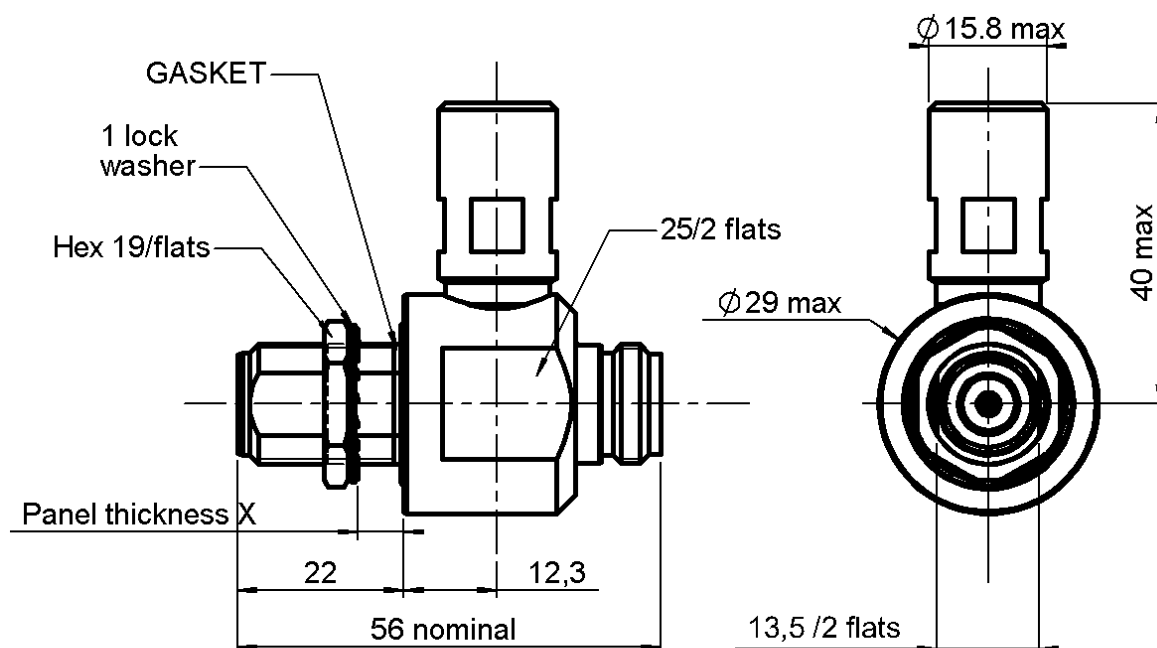


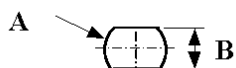
QUARTER WAVE STUB 1710-1990 MHZ

BULKHEAD N F TO N F

R445.Q00.000

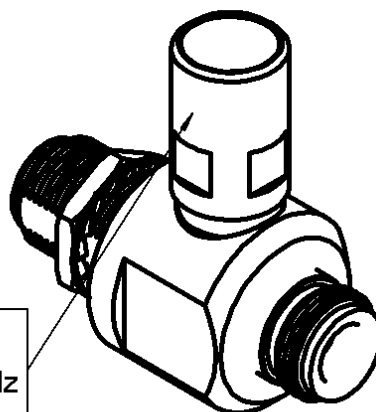
Series : QWS


 X mini=1.5
maxi=6

PANEL CUT OUT


	mm	
	Maxi	mini
A	16.1	16
B	13.7	13.6

 Etiquette
LABEL

 RADIALL
R445Q00000
QWS 1710-1990 MHz
Lot: AN Se


All dimensions are in mm.



COMPONENTS	MATERIALS	PLATINGS (µm)
BODY	BRASS	BBR-0.5 OVER SILVER 3
CENTER CONTACT	BERYLLIUM COPPER, BRASS	BBR 0.5 OVER SILVER 3
OUTER CONTACT	BRASS	BBR-0.5 OVER SILVER 3
INSULATOR	PTFE	
GASKET	SILICONE RUBBER	
OTHERS PARTS	BRASS	BBR 2
-	-	-
-	-	-

Issue : 0103 A

In the effort to improve our products, we reserve the right to make changes judged to be necessary.



QUARTER WAVE STUB 1710-1990 MHZ**BULKHEAD N F TO N F****R445.Q00.000**

Series : QWS

PACKAGING

Standard	Unit	Other
1	-	Contact us

SPECIFICATION**ELECTRICAL CHARACTERISTICS**

Impedance		50 Ω
First frequency band	1710 to 1990	MHz
VSWR		1.2 Maxi
Insertion loss		0.2 dB Maxi
Second frequency band	NA to NA	MHz
VSWR		NA Maxi
Insertion loss		NA dB Maxi
RF leakage	- (	100 - F(GHz)) dB Maxi
Residual Voltage	15 V at	2.5 kA (8/20 μ s test pulse waveform)
Intermodulation		-110 dBm (2x20W)

SURGE ARRESTER CAPSULE

(Not supplied)

Form	NA
Radiall part number :	NA
Recommended torque for nut	NA N.cm

OTHERS CHARACTERISTICS**MECHANICAL CHARACTERISTICS**

Protected connector	N - FEMALE
Unprotected connector	N - FEMALE
Center contact retention	
Axial force – Mating end	27 N mini
Axial force – Opposite end	27 N mini
Torque	NA N.cm mini
Recommended torque	
Mating (protected)	NA N.cm
Mating (unprotected)	NA N.cm
Panel nut	500 N.cm
Clamp nut	NA N.cm
A/F clamp nut	0.000 mm
Mating life	500 Cycles mini
Weight	170.588 g

ENVIRONMENTAL

Operating temperature	-40/+80 °C
Hermetic seal	NA Atm.cm ³ /s
Panel leakage	IP67

Issue : 0103 A

In the effort to improve our products, we reserve the right to make changes judged to be necessary.

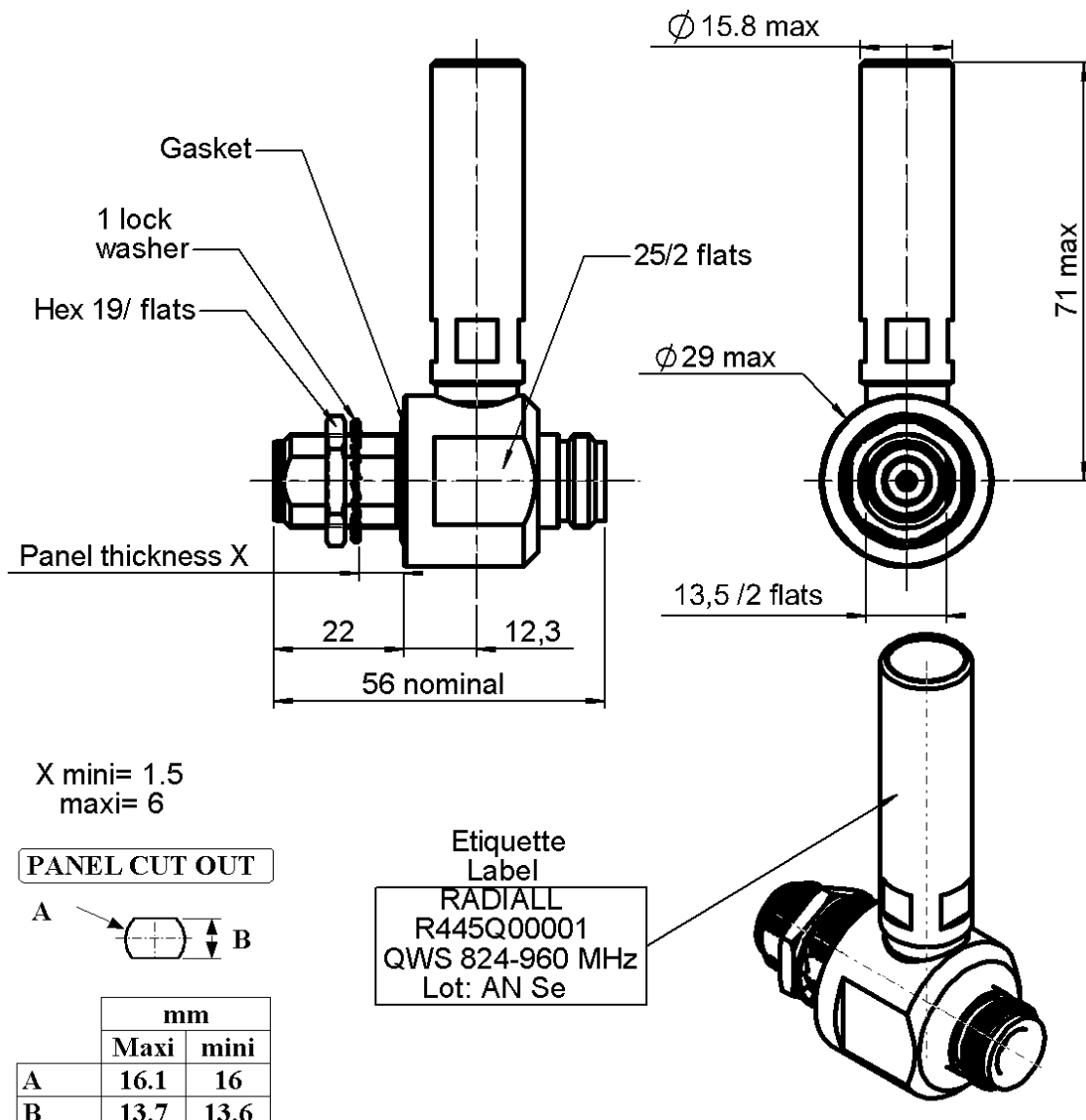


QUARTER WAVE STUB 824-960 MHZ

BULKHEAD N F TO N F

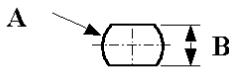
R445.Q00.001

Series : QWS



X mini= 1.5
maxi= 6

PANEL CUT OUT



	mm	
	Maxi	mini
A	16.1	16
B	13.7	13.6

Etiquette
Label
RADIALL
R445Q00001
QWS 824-960 MHz
Lot: AN Se

All dimensions are in mm.



COMPONENTS

MATERIALS

PLATINGS (μm)

BODY
CENTER CONTACT
OUTER CONTACT
INSULATOR
GASKET
OTHERS PARTS

BRASS
BERYLLIUM COPPER, BRASS
BRASS
PTFE
SILICONE RUBBER
BRASS

BBR-0.5 OVER SILVER 3
BBR 0.5 OVER SILVER 3
BBR-0.5 OVER SILVER 3

BBR 2

Issue : 0103 A

In the effort to improve our products, we reserve the right to make changes judged to be necessary.



QUARTER WAVE STUB 824-960 MHZ**BULKHEAD N F TO N F****R445.Q00.001**

Series : QWS

PACKAGING

Standard	Unit	Other
1	-	Contact us

SPECIFICATION**ELECTRICAL CHARACTERISTICS**

Impedance		50 Ω
First frequency band	824 to 960	MHz
VSWR		1.2 Maxi
Insertion loss		0.2 dB Maxi
Second frequency band	NA to NA	MHz
VSWR		NA Maxi
Insertion loss		NA dB Maxi
RF leakage	- (	100 - F(GHz)) dB Maxi
Residual Voltage	15 V at	2.5 kA (8/20 μ s test pulse waveform)
Intermodulation		-110 dBm (2x20W)

SURGE ARRESTER CAPSULE

(Not supplied)

Form	NA
Radiall part number :	NA
Recommended torque for nut	NA N.cm

OTHERS CHARACTERISTICS**MECHANICAL CHARACTERISTICS**

Protected connector	N - FEMALE
Unprotected connector	N - FEMALE
Center contact retention	
Axial force – Mating end	27 N mini
Axial force – Opposite end	27 N mini
Torque	NA N.cm mini
Recommended torque	
Mating (protected)	NA N.cm
Mating (unprotected)	NA N.cm
Panel nut	500 N.cm
Clamp nut	NA N.cm
A/F clamp nut	0.000 mm
Mating life	500 Cycles mini
Weight	206.967 g

ENVIRONMENTAL

Operating temperature	-40/+80 °C
Hermetic seal	NA Atm.cm3/s
Panel leakage	IP67

Issue : 0103 A

In the effort to improve our products, we reserve the right to make changes judged to be necessary.

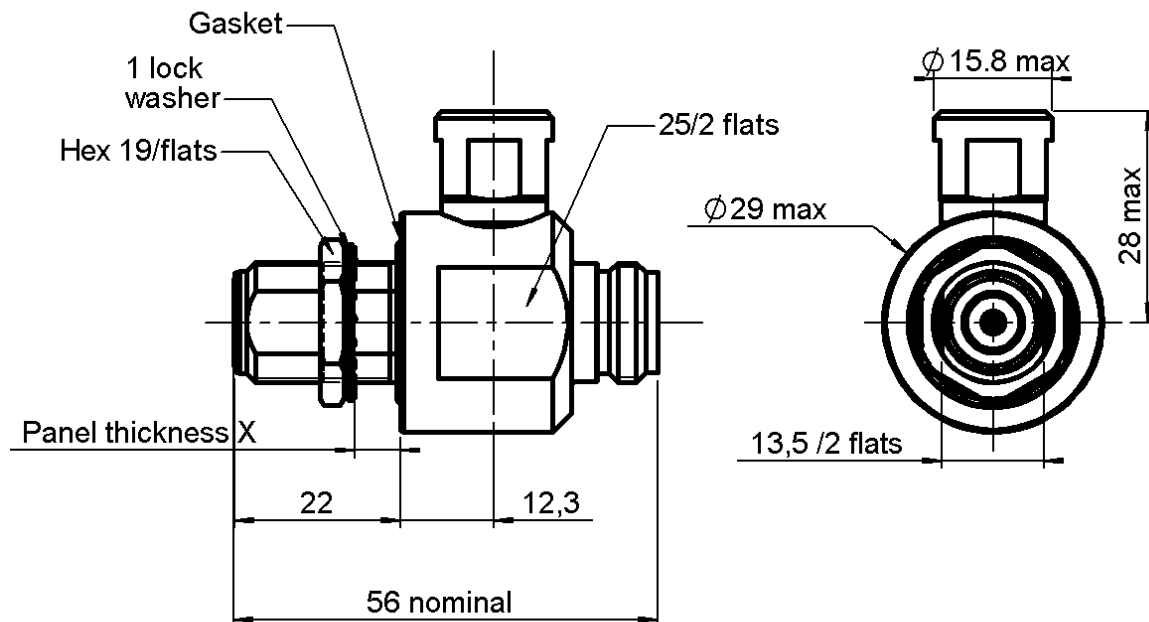


QUARTER WAVE STUB 3410-3600 MHZ

BULKHEAD N F TO N F

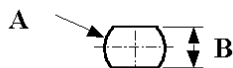
R445.Q00.002

Series : QWS



X mini=1.5
maxi=6

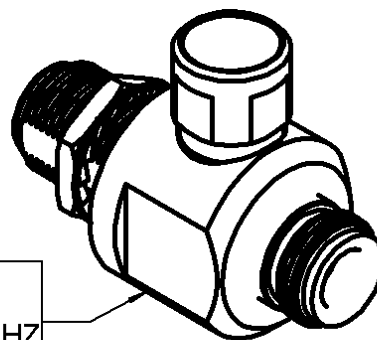
PANEL CUT OUT



	mm	
	Maxi	mini
A	16.1	16
B	13.7	13.6

Etiquette
LABEL

RADIALL
R445Q00002
QWS 3410-3600 MHZ
Lot: An Se



All dimensions are in mm.



COMPONENTS	MATERIALS	PLATINGS (μm)
BODY	BRASS	BBR-0.5 OVER SILVER 3
CENTER CONTACT	BERYLLIUM COPPER, BRASS	BBR 0.5 OVER SILVER 3
OUTER CONTACT	BRASS	BBR-0.5 OVER SILVER 3
INSULATOR	PTFE	
GASKET	SILICONE RUBBER	
OTHERS PARTS	BRASS	BBR 2
-	-	-
-	-	-

Issue : 0103 A

In the effort to improve our products, we reserve the right to make changes judged to be necessary.



QUARTER WAVE STUB 3410-3600 MHZ**BULKHEAD N F TO N F****R445.Q00.002**

Series : QWS

PACKAGING

Standard	Unit	Other
1	-	Contact us

SPECIFICATION**ELECTRICAL CHARACTERISTICS**

Impedance		50 Ω
First frequency band	3410 to 3600	MHz
VSWR		1.2 Maxi
Insertion loss		0.2 dB Maxi
Second frequency band	NA to NA	MHz
VSWR		NA Maxi
Insertion loss		NA dB Maxi
RF leakage	- (	100 - F(GHz)) dB Maxi
Residual Voltage	15 V at	2.5 kA (8/20 μ s test pulse waveform)
Intermodulation		-110 dBm (2x20W)

SURGE ARRESTER CAPSULE

(Not supplied)

Form	NA
Radiall part number :	NA
Recommended torque for nut	NA N.cm

OTHERS CHARACTERISTICS**MECHANICAL CHARACTERISTICS**

Protected connector	N - FEMALE
Unprotected connector	N - FEMALE
Center contact retention	
Axial force – Mating end	27 N mini
Axial force – Opposite end	27 N mini
Torque	NA N.cm mini
Recommended torque	
Mating (protected)	NA N.cm
Mating (unprotected)	NA N.cm
Panel nut	500 N.cm
Clamp nut	NA N.cm
A/F clamp nut	0.000 mm
Mating life	500 Cycles mini
Weight	158.430 g

ENVIRONMENTAL

Operating temperature	-40/+80 °C
Hermetic seal	NA Atm.cm3/s
Panel leakage	IP67

Issue : 0103 A

In the effort to improve our products, we reserve the right to make changes judged to be necessary.

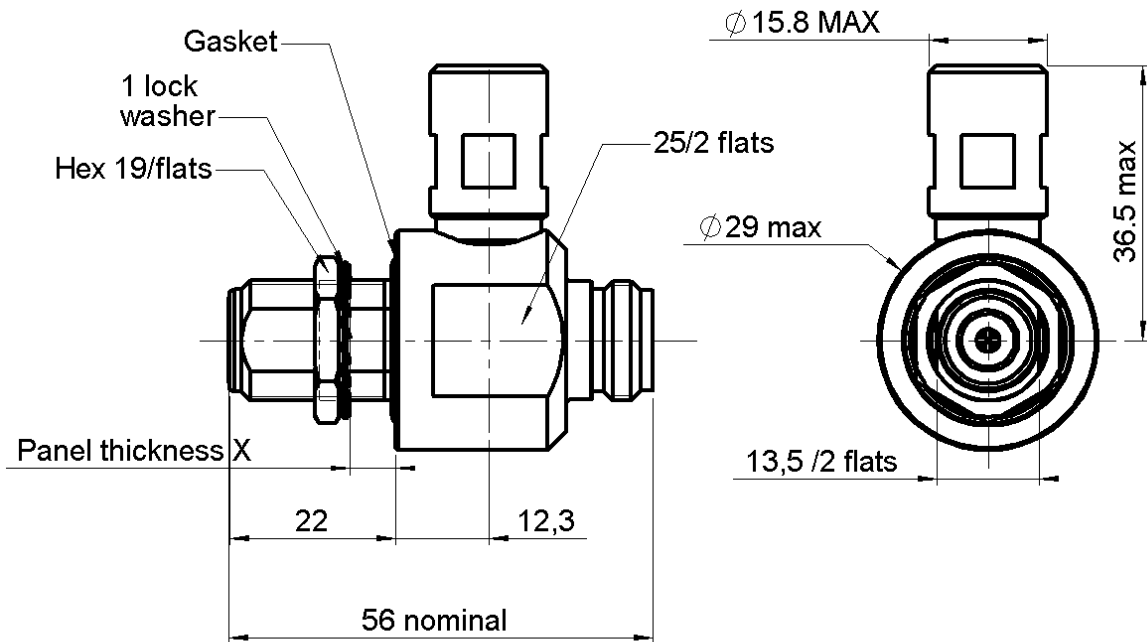


QUARTER WAVE STUB 1885-2200 MHZ

BULKHEAD N F TO N F

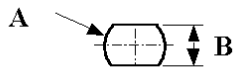
R445.Q00.003

Series : QWS



X mini=1.5
maxi=6

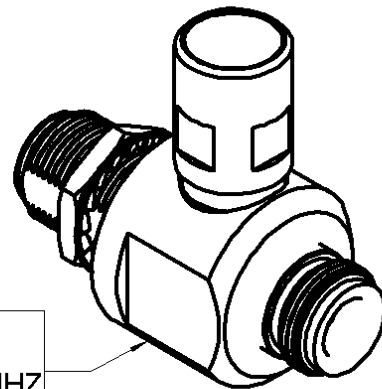
PANEL CUT OUT



	mm	
	Maxi	mini
A	16.1	16
B	13.7	13.6

Etiquette
LABEL

RADIAL
R445Q00003
QWS 1885-2200 MHZ
Lot: An Se



All dimensions are in mm.



COMPONENTS	MATERIALS	PLATINGS (μm)
BODY	BRASS	BBR-0.5 OVER SILVER 3
CENTER CONTACT	BERYLLIUM COPPER, BRASS	BBR 0.5 OVER SILVER 3
OUTER CONTACT	BRASS	BBR-0.5 OVER SILVER 3
INSULATOR	PTFE	
GASKET	SILICONE RUBBER	
OTHERS PARTS	BRASS	BBR 2
-	-	-
-	-	-

Issue : 0107 A

In the effort to improve our products, we reserve the right to make changes judged to be necessary.



QUARTER WAVE STUB 1885-2200 MHZ**BULKHEAD N F TO N F****R445.Q00.003**

Series : QWS

PACKAGING

Standard	Unit	Other
1	-	Contact us

SPECIFICATION**ELECTRICAL CHARACTERISTICS**

Impedance		50 Ω
First frequency band	1885 to 2200	MHz
VSWR		1.2 Maxi
Insertion loss		0.2 dB Maxi
Second frequency band	NA to NA	MHz
VSWR		NA Maxi
Insertion loss		NA dB Maxi
RF leakage	- (	100 - F(GHz)) dB Maxi
Residual Voltage	15 V at	2.5 kA (8/20 μ s test pulse waveform)
Intermodulation		-110 dBm (2x20W)

SURGE ARRESTER CAPSULE

(Not supplied)

Form	NA
Radiall part number :	NA
Recommended torque for nut	NA N.cm

OTHERS CHARACTERISTICS**MECHANICAL CHARACTERISTICS**

Protected connector	N - FEMALE
Unprotected connector	N - FEMALE
Center contact retention	
Axial force – Mating end	27 N mini
Axial force – Opposite end	27 N mini
Torque	NA N.cm mini
Recommended torque	
Mating (protected)	NA N.cm
Mating (unprotected)	NA N.cm
Panel nut	500 N.cm
Clamp nut	NA N.cm
A/F clamp nut	0.000 mm
Mating life	500 Cycles mini
Weight	166.324 g

ENVIRONMENTAL

Operating temperature	-40/+80 °C
Hermetic seal	NA Atm.cm3/s
Panel leakage	IP67

Issue : 0107 A

In the effort to improve our products, we reserve the right to make changes judged to be necessary.

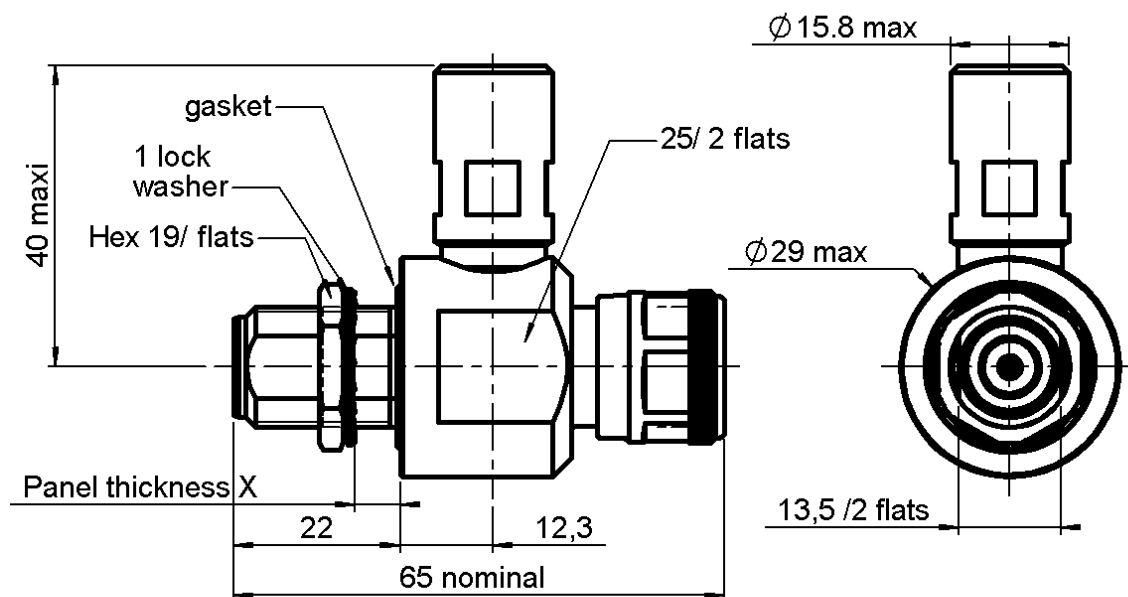


QUARTER WAVE STUB 1710-1990 MHZ

BULKHEAD N F TO N M

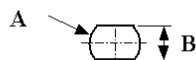
R445.Q00.100

Series : QWS



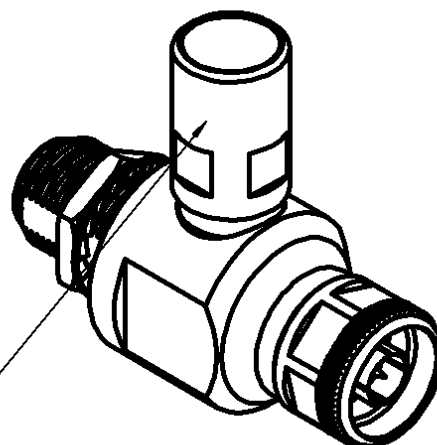
X mini = 1.5
maxi = 6

PANEL CUT OUT



	mm	
	Maxi	mini
A	16.1	16
B	13.7	13.6

Etiquette
LABEL
RADIALL
R445Q00100
QWS 1710-1990 MHz
Lot: An Se



All dimensions are in mm.



COMPONENTS	MATERIALS	PLATINGS (μm)
BODY	BRASS	BBR-0.5 OVER SILVER 3
CENTER CONTACT	BERYLLIUM COPPER, BRASS	BBR 0.5 OVER SILVER 3
OUTER CONTACT	BRASS	BBR-0.5 OVER SILVER 3
INSULATOR	PTFE	
GASKET	SILICONE RUBBER	
OTHERS PARTS	BRASS	BBR 2
-	-	-
-	-	-

Issue : 0103 A

In the effort to improve our products, we reserve the right to make changes judged to be necessary.



QUARTER WAVE STUB 1710-1990 MHZ**BULKHEAD N F TO N M****R445.Q00.100**

Series : QWS

PACKAGING

Standard	Unit	Other
1	-	Contact us

SPECIFICATION**ELECTRICAL CHARACTERISTICS**

Impedance		50 Ω
First frequency band	1710 to 1990	MHz
VSWR		1.2 Maxi
Insertion loss		0.2 dB Maxi
Second frequency band	NA to NA	MHz
VSWR		NA Maxi
Insertion loss		NA dB Maxi
RF leakage	- (	100 - F(GHz)) dB Maxi
Residual Voltage	15 V at	2.5 kA (8/20 μ s test pulse waveform)
Intermodulation		-110 dBm (2x20W)

SURGE ARRESTER CAPSULE

(Not supplied)

Form	NA
Radiall part number :	NA
Recommended torque for nut	NA N.cm

OTHERS CHARACTERISTICS**MECHANICAL CHARACTERISTICS**

Protected connector	N - FEMALE
Unprotected connector	N - MALE
Center contact retention	
Axial force – Mating end	27 N mini
Axial force – Opposite end	27 N mini
Torque	NA N.cm mini
Recommended torque	
Mating (protected)	NA N.cm
Mating (unprotected)	170 N.cm
Panel nut	500 N.cm
Clamp nut	NA N.cm
A/F clamp nut	0.000 mm
Mating life	500 Cycles mini
Weight	186.282 g

ENVIRONMENTAL

Operating temperature	-40/+80 °C
Hermetic seal	NA Atm.cm3/s
Panel leakage	IP67

Issue : 0103 A

In the effort to improve our products, we reserve the right to make changes judged to be necessary.

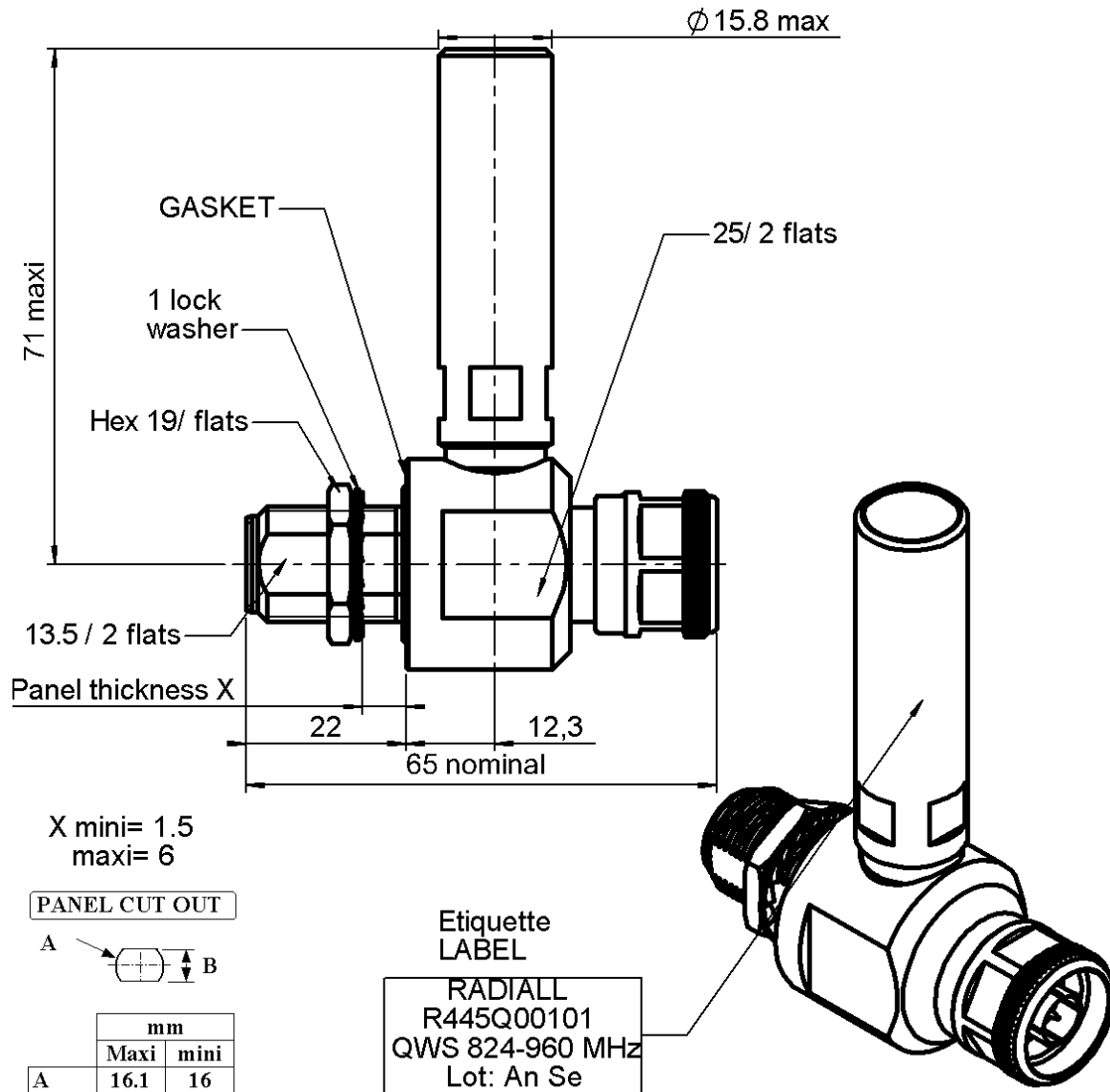


QUARTER WAVE STUB 824-960 MHZ

BULKHEAD N F TO N M

R445.Q00.101

Series : QWS



All dimensions are in mm.



COMPONENTS

MATERIALS

PLATINGS (μm)

BODY
CENTER CONTACT
OUTER CONTACT
INSULATOR
GASKET
OTHERS PARTS

BRASS
BERYLLIUM COPPER, BRASS
BRASS
PTFE
SILICONE RUBBER
BRASS

BBR-0.5 OVER SILVER 3
BBR 0.5 OVER SILVER 3
BBR-0.5 OVER SILVER 3

BBR 2

Issue : 0103 A

In the effort to improve our products, we reserve the right to make changes judged to be necessary.



QUARTER WAVE STUB 824-960 MHZ**BULKHEAD N F TO N M****R445.Q00.101**

Series : QWS

PACKAGING

Standard	Unit	Other
1	-	Contact us

SPECIFICATION**ELECTRICAL CHARACTERISTICS**

Impedance		50 Ω
First frequency band	824 to 960	MHz
VSWR		1.2 Maxi
Insertion loss		0.2 dB Maxi
Second frequency band	NA to NA	MHz
VSWR		NA Maxi
Insertion loss		NA dB Maxi
RF leakage	- (	100 - F(GHz)) dB Maxi
Residual Voltage	15 V at	2.5 kA (8/20 μ s test pulse waveform)
Intermodulation		-110 dBm (2x20W)

SURGE ARRESTER CAPSULE

(Not supplied)

Form	NA
Radiall part number :	NA
Recommended torque for nut	NA N.cm

OTHERS CHARACTERISTICS**MECHANICAL CHARACTERISTICS**

Protected connector	N - FEMALE
Unprotected connector	N - MALE
Center contact retention	
Axial force – Mating end	27 N mini
Axial force – Opposite end	27 N mini
Torque	NA N.cm mini
Recommended torque	
Mating (protected)	NA N.cm
Mating (unprotected)	170 N.cm
Panel nut	500 N.cm
Clamp nut	NA N.cm
A/F clamp nut	0.000 mm
Mating life	500 Cycles mini
Weight	222.659 g

ENVIRONMENTAL

Operating temperature	-40/+80 °C
Hermetic seal	NA Atm.cm3/s
Panel leakage	IP67

Issue : 0103 A

In the effort to improve our products, we reserve the right to make changes judged to be necessary.



QUARTER WAVE STUB 1710-1990 MHZ

BULKHEAD 7-16 F TO 7-16 F

R445.Q02.000

Series : QWS

COPPER SEALING
GASKET

1 flat washer

HEX 36/flats

2 x 24/2 flats

30/2 flats

Panel thickness X

13,2

36,6

5

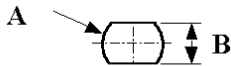
76,7

40 max

Ø 42max

X : mini = 2
maxi = 7

PANEL CUT OUT



	mm	
	Maxi	mini
A	32.4	32.2
B	30.5	30.3

Etiquette
LABEL

RADIALL
R445Q02000
QWS 1710-1990MHz
Lot: An Se

All dimensions are in mm.



COMPONENTS

MATERIALS

PLATINGS (µm)

BODY
CENTER CONTACT
OUTER CONTACT
INSULATOR
GASKET
OTHERS PARTS

BRASS
BERYLLIUM COPPER, BRASS
BRASS
PTFE
COPPER
BRASS

BBR-0.5 OVER SILVER 3
BBR 0.5 OVER SILVER 3
BBR-0.5 OVER SILVER 5

BBR 2

Issue : 0103 A

In the effort to improve our products, we reserve the right to make changes judged to be necessary.



QUARTER WAVE STUB 1710-1990 MHZ**BULKHEAD 7-16 F TO 7-16 F****R445.Q02.000**

Series : QWS

PACKAGING

Standard	Unit	Other
1	-	Contact us

SPECIFICATION**ELECTRICAL CHARACTERISTICS**

Impedance		50 Ω
First frequency band	1710 to 1990	MHz
VSWR		1.2 Maxi
Insertion loss		0.2 dB Maxi
Second frequency band	NA to NA	MHz
VSWR		NA Maxi
Insertion loss		NA dB Maxi
RF leakage	- (	100 - F(GHz)) dB Maxi
Residual Voltage	15 V at	2.5 kA (8/20 μ s test pulse waveform)
Intermodulation		-110 dBm (2x20W)

SURGE ARRESTER CAPSULE

(Not supplied)

Form	NA
Radiall part number :	NA
Recommended torque for nut	NA N.cm

OTHERS CHARACTERISTICS**MECHANICAL CHARACTERISTICS**

Protected connector	7-16 - FEMALE
Unprotected connector	7-16 - FEMALE
Center contact retention	
Axial force – Mating end	200 N mini
Axial force – Opposite end	100 N mini
Torque	NA N.cm mini
Recommended torque	
Mating (protected)	NA N.cm
Mating (unprotected)	NA N.cm
Panel nut	3500 N.cm
Clamp nut	NA N.cm
A/F clamp nut	0.000 mm
Mating life	500 Cycles mini
Weight	412.296 g

ENVIRONMENTAL

Operating temperature	-40/+80 °C
Hermetic seal	NA Atm.cm3/s
Panel leakage	IP67

Issue : 0103 A

In the effort to improve our products, we reserve the right to make changes judged to be necessary.

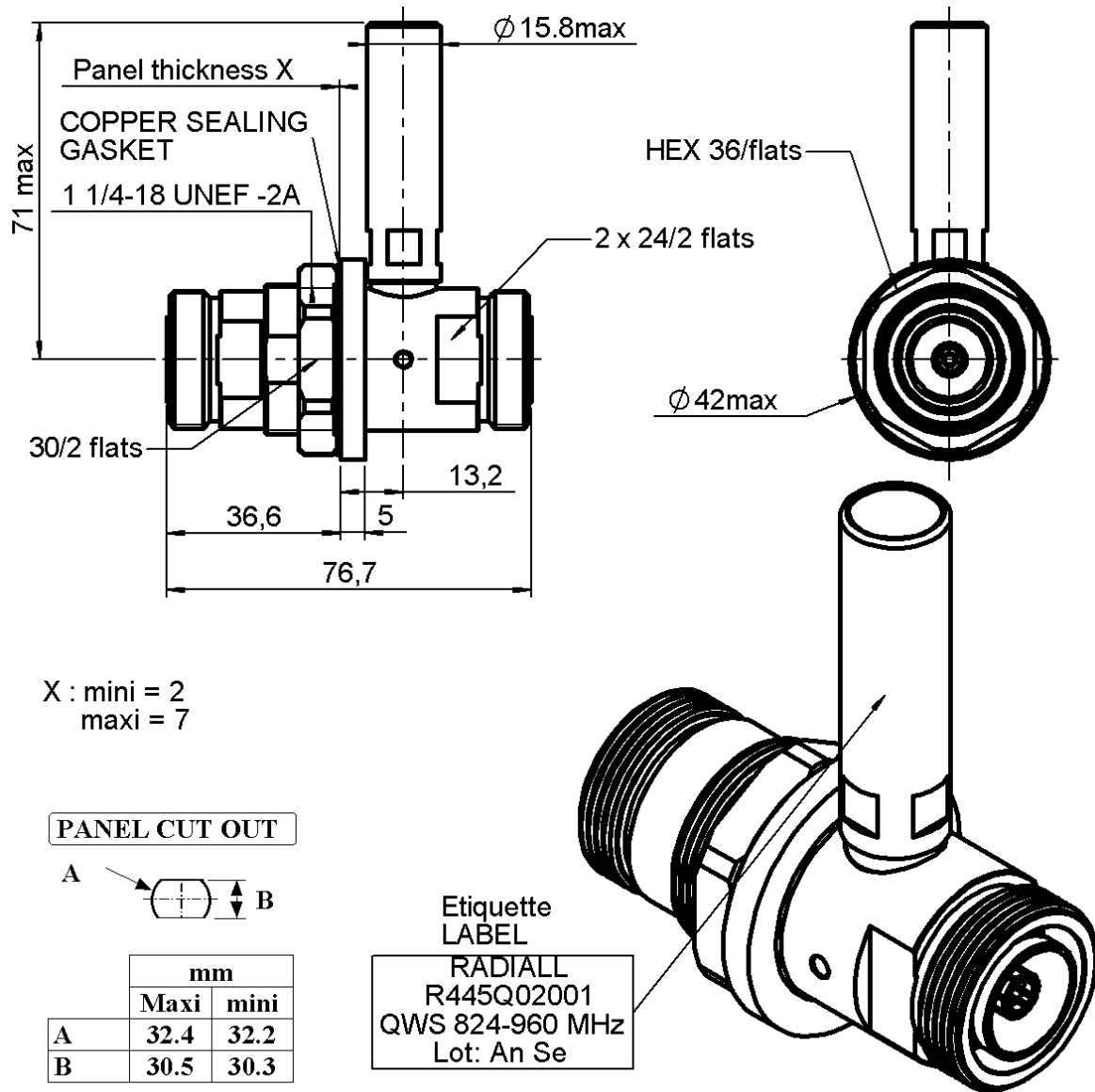


QUARTER WAVE STUB 824-960 MHZ

BULKHEAD 7-16 F TO 7-16 F

R445.Q02.001

Series : QWS



All dimensions are in mm.

COMPONENTS	MATERIALS	PLATINGS (µm)
BODY	BRASS	BBR-0.5 OVER SILVER 3
CENTER CONTACT	BERYLLIUM COPPER, BRASS	BBR 0.5 OVER SILVER 3
OUTER CONTACT	BRASS	BBR-0.5 OVER SILVER 3
INSULATOR	PTFE	
GASKET	COPPER	
OTHERS PARTS	BRASS	BBR 2
-	-	-
-	-	-

Issue : 0103 B

In the effort to improve our products, we reserve the right to make changes judged to be necessary.



QUARTER WAVE STUB 824-960 MHZ**BULKHEAD 7-16 F TO 7-16 F****R445.Q02.001**

Series : QWS

PACKAGING

Standard	Unit	Other
1	-	Contact us

SPECIFICATION**ELECTRICAL CHARACTERISTICS**

Impedance		50 Ω
First frequency band	824 to 960	MHz
VSWR		1.2 Maxi
Insertion loss		0.2 dB Maxi
Second frequency band	NA to NA	MHz
VSWR		NA Maxi
Insertion loss		NA dB Maxi
RF leakage	- (	100 - F(GHz)) dB Maxi
Residual Voltage	15 V at	2.5 kA (8/20 μ s test pulse waveform)
Intermodulation		-110 dBm (2x20W)

SURGE ARRESTER CAPSULE

(Not supplied)

Form	NA
Radiall part number :	NA
Recommended torque for nut	NA N.cm

OTHERS CHARACTERISTICS**MECHANICAL CHARACTERISTICS**

Protected connector	7-16 - FEMALE
Unprotected connector	7-16 - FEMALE
Center contact retention	
Axial force – Mating end	200 N mini
Axial force – Opposite end	100 N mini
Torque	NA N.cm mini
Recommended torque	
Mating (protected)	NA N.cm
Mating (unprotected)	NA N.cm
Panel nut	3500 N.cm
Clamp nut	NA N.cm
A/F clamp nut	0.000 mm
Mating life	500 Cycles mini
Weight	456.480 g

ENVIRONMENTAL

Operating temperature	-40/+80 °C
Hermetic seal	NA Atm.cm3/s
Panel leakage	IP67

Issue : 0103 B

In the effort to improve our products, we reserve the right to make changes judged to be necessary.

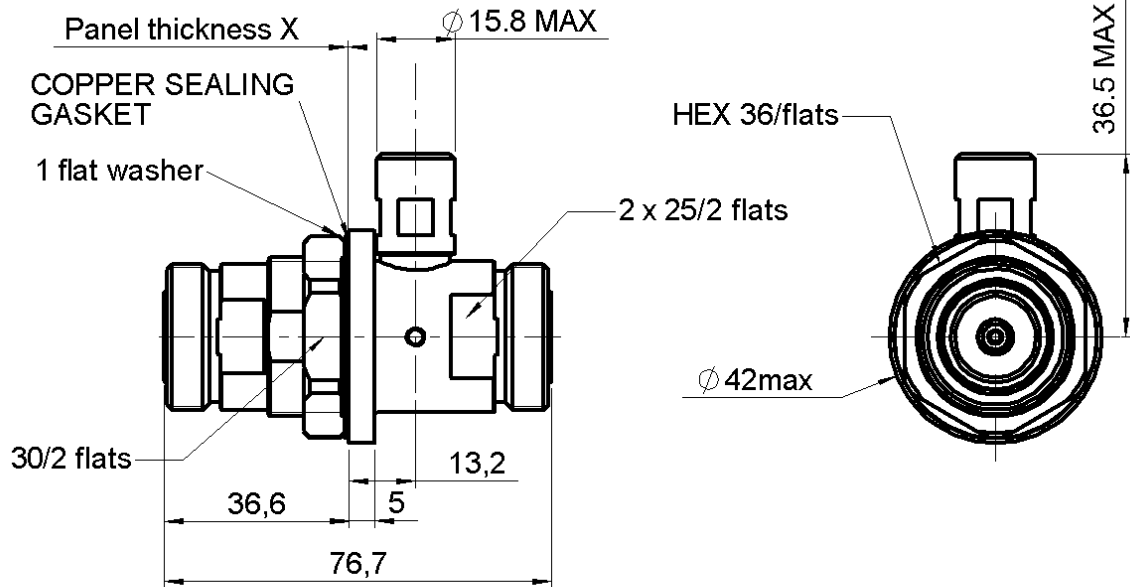


QUARTER WAVE STUB 1885-2200 MHZ

BULKHEAD 7-16 F TO 7-16 F

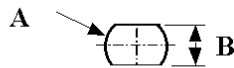
R445.Q02.002

Series : QWS



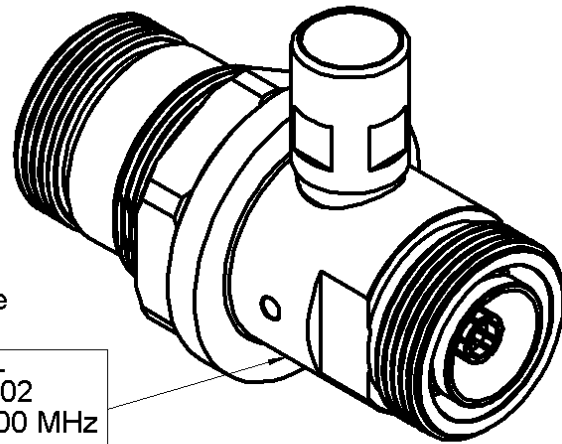
X : mini = 2
maxi = 7

PANEL CUT OUT



	mm	
	Maxi	mini
A	32.4	32.2
B	30.5	30.3

Etiquette
LABEL
RADIAL
R445Q02002
QWS 1885-2200 MHz
Lot: An Se



All dimensions are in mm.



COMPONENTS	MATERIALS	PLATINGS (μm)
BODY	BRASS	BBR-0.5 OVER SILVER 3
CENTER CONTACT	BERYLLIUM COPPER, BRASS	BBR 0.5 OVER SILVER 3
OUTER CONTACT	BRASS	BBR-0.5 OVER SILVER 5
INSULATOR	PTFE	
GASKET	COPPER	
OTHERS PARTS	BRASS	BBR 2
-	-	-
-	-	-

Issue : 0107 A

In the effort to improve our products, we reserve the right to make changes judged to be necessary.



QUARTER WAVE STUB 1885-2200 MHZ**BULKHEAD 7-16 F TO 7-16 F****R445.Q02.002**

Series : QWS

PACKAGING

Standard	Unit	Other
1	-	Contact us

SPECIFICATION**ELECTRICAL CHARACTERISTICS**

Impedance		50 Ω
First frequency band	1885 to 2200	MHz
VSWR		1.2 Maxi
Insertion loss		0.2 dB Maxi
Second frequency band	NA to NA	MHz
VSWR		NA Maxi
Insertion loss		NA dB Maxi
RF leakage	- (	100 - F(GHz)) dB Maxi
Residual Voltage	15 V at	2.5 kA (8/20 μ s test pulse waveform)
Intermodulation		-110 dBm (2x20W)

SURGE ARRESTER CAPSULE

(Not supplied)

Form	NA
Radiall part number :	NA
Recommended torque for nut	NA N.cm

OTHERS CHARACTERISTICS**MECHANICAL CHARACTERISTICS**

Protected connector	7-16 - FEMALE
Unprotected connector	7-16 - FEMALE
Center contact retention	
Axial force – Mating end	200 N mini
Axial force – Opposite end	100 N mini
Torque	NA N.cm mini
Recommended torque	
Mating (protected)	NA N.cm
Mating (unprotected)	NA N.cm
Panel nut	3500 N.cm
Clamp nut	NA N.cm
A/F clamp nut	0.000 mm
Mating life	500 Cycles mini
Weight	410.556 g

ENVIRONMENTAL

Operating temperature	-40/+80 °C
Hermetic seal	NA Atm.cm3/s
Panel leakage	IP67

Issue : 0107 A

In the effort to improve our products, we reserve the right to make changes judged to be necessary.



QUARTER WAVE STUB 1710-1990 MHZ

BULKHEAD 7-16 F TO 7-16 M

R445.Q02.100

Series : QWS

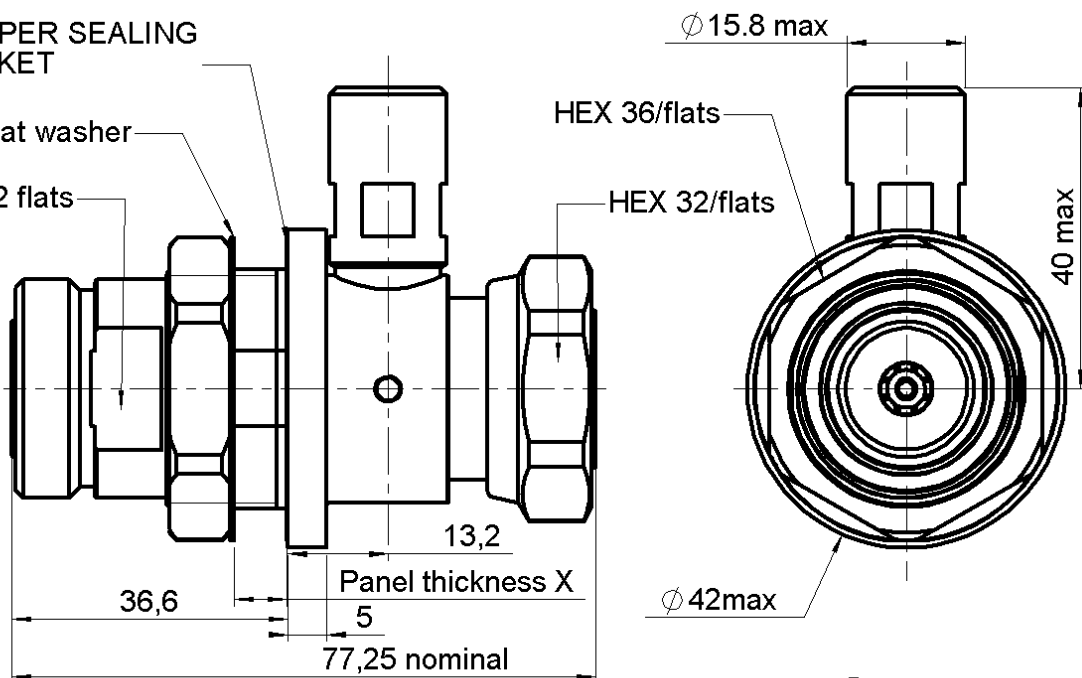
COPPER SEALING
GASKET

1 flat washer

24/2 flats

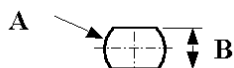
HEX 36/flats

HEX 32/flats



X : mini = 2
maxi = 7

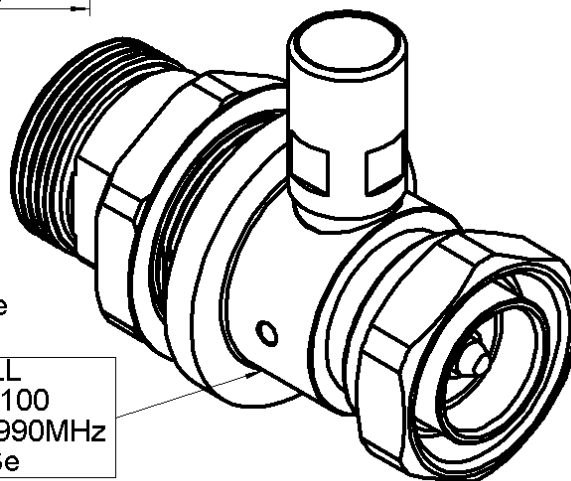
PANEL CUT OUT



	mm	
	Maxi	mini
A	32.4	32.2
B	30.5	30.3

Etiquette
LABEL

RADIALL
R445Q02100
QWS 1710-1990MHz
Lot: An Se



All dimensions are in mm.

COMPONENTS	MATERIALS	PLATINGS (μm)
BODY	BRASS	BBR-0.5 OVER SILVER 3
CENTER CONTACT	BERYLLIUM COPPER, BRASS	BBR 0.5 OVER SILVER 3
OUTER CONTACT	BRASS	BBR-0.5 OVER SILVER 5
INSULATOR	PTFE	
GASKET	COPPER	
OTHERS PARTS	BRASS	BBR 2
-	-	-
-	-	-

Issue : 0103 A

In the effort to improve our products, we reserve the right to make changes judged to be necessary.



QUARTER WAVE STUB 1710-1990 MHZ**BULKHEAD 7-16 F TO 7-16 M****R445.Q02.100**

Series : QWS

PACKAGING

Standard	Unit	Other
1	-	Contact us

SPECIFICATION**ELECTRICAL CHARACTERISTICS**

Impedance		50 Ω
First frequency band	1710 to 1990	MHz
VSWR		1.2 Maxi
Insertion loss		0.2 dB Maxi
Second frequency band	NA to NA	MHz
VSWR		NA Maxi
Insertion loss		NA dB Maxi
RF leakage	- (	100 - F(GHz)) dB Maxi
Residual Voltage	15 V at	2.5 kA (8/20 μ s test pulse waveform)
Intermodulation		-110 dBm (2x20W)

SURGE ARRESTER CAPSULE

(Not supplied)

Form	NA
Radiall part number :	NA
Recommended torque for nut	NA N.cm

OTHERS CHARACTERISTICS**MECHANICAL CHARACTERISTICS**

Protected connector	7-16 - FEMALE
Unprotected connector	7-16 - MALE
Center contact retention	
Axial force – Mating end	200 N mini
Axial force – Opposite end	100 N mini
Torque	NA N.cm mini
Recommended torque	
Mating (protected)	NA N.cm
Mating (unprotected)	3500 N.cm
Panel nut	3500 N.cm
Clamp nut	NA N.cm
A/F clamp nut	0.000 mm
Mating life	500 Cycles mini
Weight	424.068 g

ENVIRONMENTAL

Operating temperature	-40/+80 °C
Hermetic seal	NA Atm.cm3/s
Panel leakage	IP67

Issue : 0103 A

In the effort to improve our products, we reserve the right to make changes judged to be necessary.

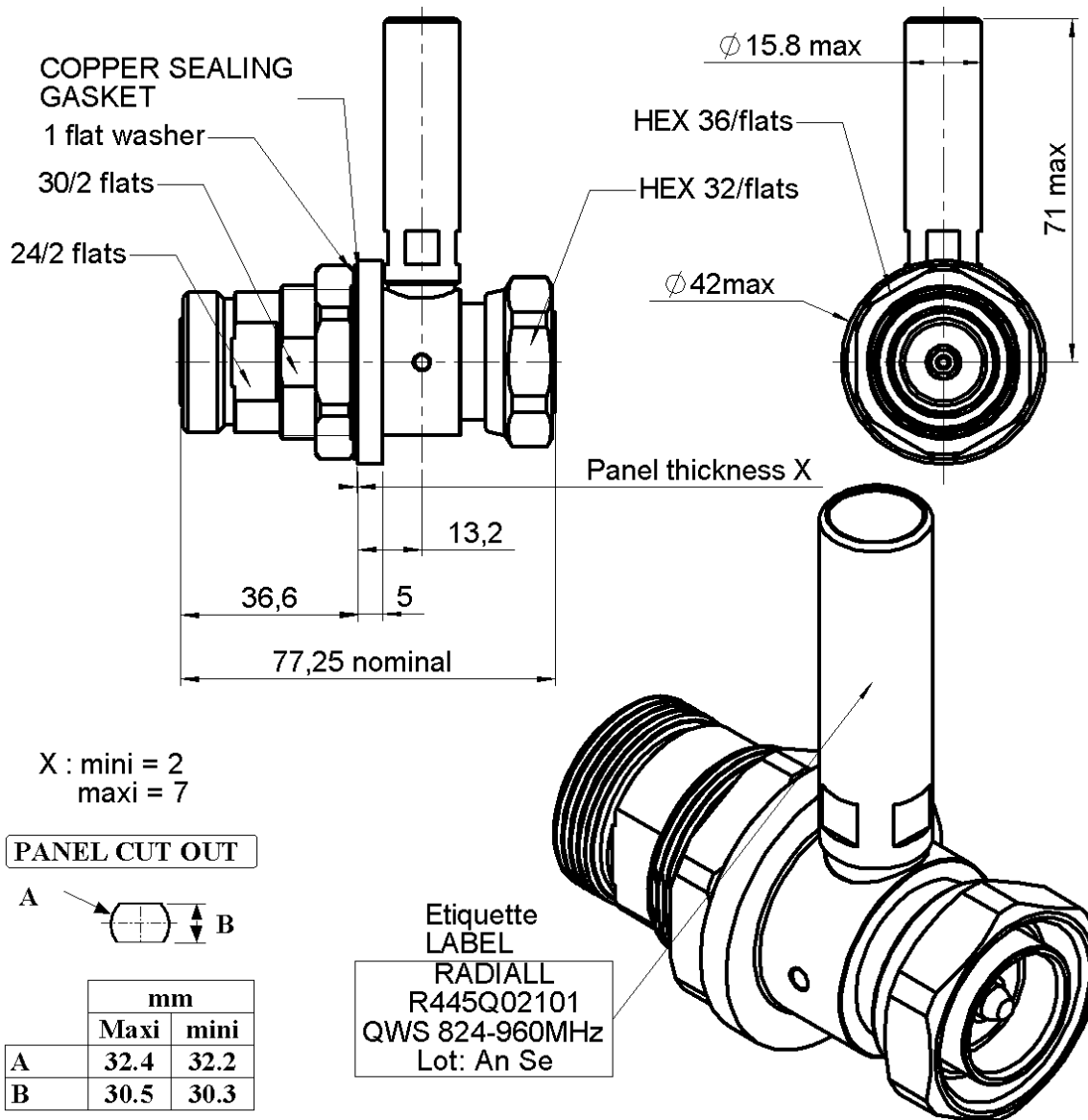


QUARTER WAVE STUB 824-960 MHZ

BULKHEAD 7-16 F TO 7-16 M

R445.Q02.101

Series : QWS



All dimensions are in mm.

COMPONENTS	MATERIALS	PLATINGS (µm)
BODY	BRASS	BBR-0.5 OVER SILVER 3
CENTER CONTACT	BERYLLIUM COPPER,BRASS	BBR 0.5 OVER SILVER 3
OUTER CONTACT	BRASS	BBR-0.5 OVER SILVER 5
INSULATOR	PTFE	
GASKET	COPPER	
OTHERS PARTS	BRASS	BBR 2
-	-	-
-	-	-

Issue : 0103 A

In the effort to improve our products, we reserve the right to make changes judged to be necessary.



QUARTER WAVE STUB 824-960 MHZ**BULKHEAD 7-16 F TO 7-16 M****R445.Q02.101**

Series : QWS

PACKAGING

Standard	Unit	Other
1	-	Contact us

SPECIFICATION**ELECTRICAL CHARACTERISTICS**

Impedance		50 Ω
First frequency band	824 to 960	MHz
VSWR		1.2 Maxi
Insertion loss		0.2 dB Maxi
Second frequency band	NA to NA	MHz
VSWR		NA Maxi
Insertion loss		NA dB Maxi
RF leakage	- (	100 - F(GHz)) dB Maxi
Residual Voltage	15 V at	2.5 kA (8/20 μ s test pulse waveform)
Intermodulation		-110 dBm (2x20W)

SURGE ARRESTER CAPSULE

(Not supplied)

Form	NA
Radiall part number :	NA
Recommended torque for nut	NA N.cm

OTHERS CHARACTERISTICS**MECHANICAL CHARACTERISTICS**

Protected connector	7-16 - FEMALE
Unprotected connector	7-16 - MALE
Center contact retention	
Axial force – Mating end	200 N mini
Axial force – Opposite end	100 N mini
Torque	NA N.cm mini
Recommended torque	
Mating (protected)	NA N.cm
Mating (unprotected)	3500 N.cm
Panel nut	3500 N.cm
Clamp nut	NA N.cm
A/F clamp nut	0.000 mm
Mating life	500 Cycles mini
Weight	460.523 g

ENVIRONMENTAL

Operating temperature	-40/+80 °C
Hermetic seal	NA Atm.cm ³ /s
Panel leakage	IP67

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