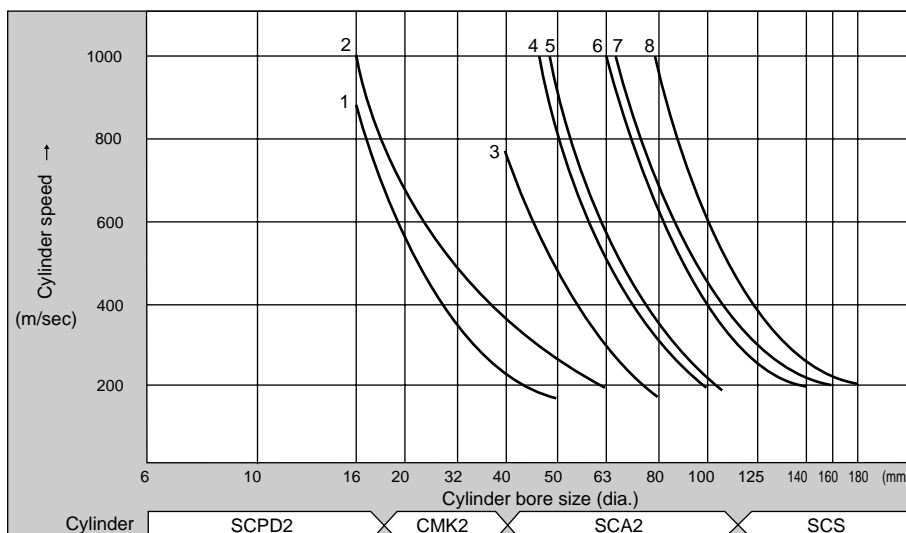


3KA/4KA/4KB Series

Technical data 1) Pneumatic components selection guide

Average speed of air cylinder is found according to combination of 4KAB series and piping system.

E.g: When operating SCA2-63 with 500mm/sec speed, select components in system "4". For clean air system, select components whose required air capacity is more than 520ℓ/min. in system "4".



Standard system table

System No.	Valve	Flow control valve	Silencer	Pipe (1m)	Composite effective sectional area (mm ²)	Required flow (ℓ/min)
1	4KA1 ¹ / ₂ 0-M5	SC-M5-S	SL-M5	4 dia. X 2.5 dia.	1.6	115
2	4KB1 ¹ / ₂ 0-06	SC1-6	SLW-6S	6 dia. X 4 dia.	3.2	215
3	4KA2 ¹ / ₂ 0-06	SC1-6	SLW-6S	6 dia. X 4 dia.	4.8	346
4	4KB2 ¹ / ₂ 0-08	SC1-8	SLW-8S	8 dia. X 5.7 dia.	8	581
5	4KA3 ¹ / ₂ 0-08	SC1-8	SLW-8S	8 dia. X 5.7 dia.	9.1	660
6	4KB3 ¹ / ₂ 0-10	SC1-10	SLW-10L	10 dia. X 7.2 dia.	16.5	1285
7	4KA4 ¹ / ₂ 0-10	SC1-10	SLW-10L	10 dia. X 7.2 dia.	19	1289
8	4KB4 ¹ / ₂ 0-15	SC1-15	SLW-15A	12 dia. X 8.9 dia.	25.8	1749

• Note: Required flow pressure is estimated when 0.5MPa.

Clean air system components

Parts name	Model No.	Port size	Max. flow rate ℓ/min (ANR)
F/R/L combination	C1000-6	Rc 1/8	450
	C1000-8	Rc 1/4	630
	C3000-8	Rc 1/4	1280
	C3000-10	Rc 3/8	1750
	C4000-8	Rc 1/4	1430
	C4000-10	Rc 3/8	2400
	C4000-15	Rc 1/2	3000
	C8000-20	Rc 3/4	7000
	C8000-25(-A32)	Rc1 (Rc1 1/4)	7500
F/R Unit	W1000-6	Rc 1/8	830
	W1000-8	Rc 1/4	1150
	W3000-8	Rc 1/4	2150
	W3000-10	Rc 3/8	2430
	W4000-8	Rc 1/4	2500
	W4000-10	Rc 3/8	4350
	W4000-15(-A20)	Rc 1/2, Rc 3/4	4750
	W8000-20	Rc 3/4	10000
Air filter (F)	F1000-6	Rc 1/8	460
	F1000-8	Rc 1/4	610
	F3000-8	Rc 1/4	1230
	F3000-10	Rc 3/8	1500
	F4000-8	Rc 1/4	1320
	F4000-10	Rc 3/8	2140
	F4000-15(-A20)	Rc 1/2 (Rc 3/4)	3000
	F8000-20	Rc 3/4	6400
	F8000-25(-A32)	Rc1 (Rc1 1/4)	6800

(Note)

Max. flow rate: For FRL, FR and R, at primary pressure 0.7MPa, set pressure 0.5MPa and pressure drop 0.1MPa. For F, at primary pressure 0.7MPa and pressure drop 0.02MPa. For L, at primary pressure 0.5MPa and pressure drop 0.03MPa.

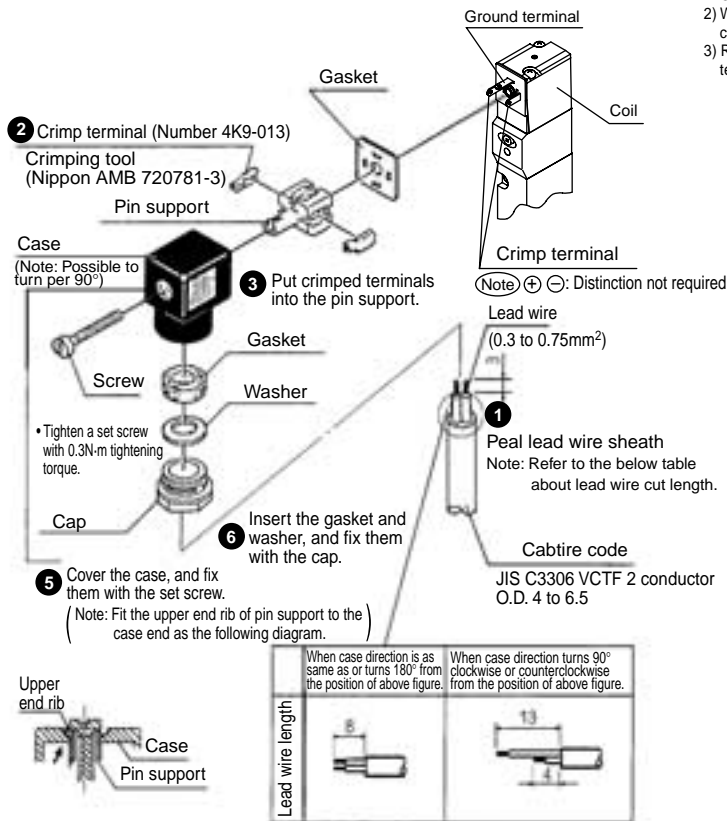
Parts name	Model No.	Port size	Max. flow rate ℓ/min (ANR)
Regulator (R)	R1000-6	Rc 1/8	770
	R1000-8	Rc 1/4	1350
	R3000-8	Rc 1/4	2000
	R3000-10	Rc 3/8	2600
	R4000-8	Rc 1/4	2500
	R4000-10	Rc 3/8	4400
	R4000-15	Rc 1/2 (Rc 3/4)	5000
	R8000-20	Rc 3/4	14000
	R8000-25(-A32)	Rc1 (Rc1 1/4)	11000
Lubricator (L)	L1000-6	Rc 1/8	550
	L1000-8	Rc 1/4	700
	L3000-8	Rc 1/4	1100
	L3000-10	Rc 3/8	2250
	L4000-8	Rc 1/4	1000
	L4000-10	Rc 3/8	1700
	L4000-15(-A20)	Rc 1/2 (Rc 3/4)	2700
	L8000-20	Rc 3/4	6300
	L8000-25(-A32)	Rc1 (Rc1 1/4)	10000

Refer to the figure below to wire small terminal box and C, D-connector.

How to wire small terminal box (applicable model 3KA1/4KAB1/4KAB2)

When wiring, follow the procedures from 1 to 6.

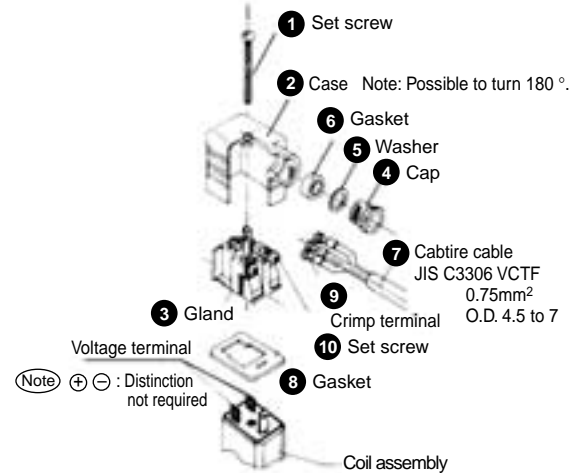
4 Insert the gasket and the pin support into the coil terminal.



How to wire terminal box (applicable model 4KAB3/4KAB4)

For terminal box, refer to the following diagram and follow the procedures of 1) to 3).

- 1) Put Cap 4, Washer 5 and Gasket 6 through Cable cable 7 in term, and insert them into Case 2.
- 2) When using crimp terminal, arrange Cable cable 7 as the diagram with the proper length, and crimp the crimp terminal at the end of cable.
- 3) Remove Set screw 10 from Gland 9, put the cable through Crimp terminal 9 (when Y shaped terminal, loosen the terminal and pinch the cable), then tighten Set screw 10 again.
(Note) Tightening torque should be within 5kgf-cm ±15%.



- Remarks: A bared wire can be wired. In this case, loosen Set screw 10, put the lead wire in the bracket, then tighten the set screw again.
- Pull the gland from the case, turn the gland 180° then push the gland into the case again to change the direction of lead wire outlet.
 - Use Crimp terminal listed on the below table.

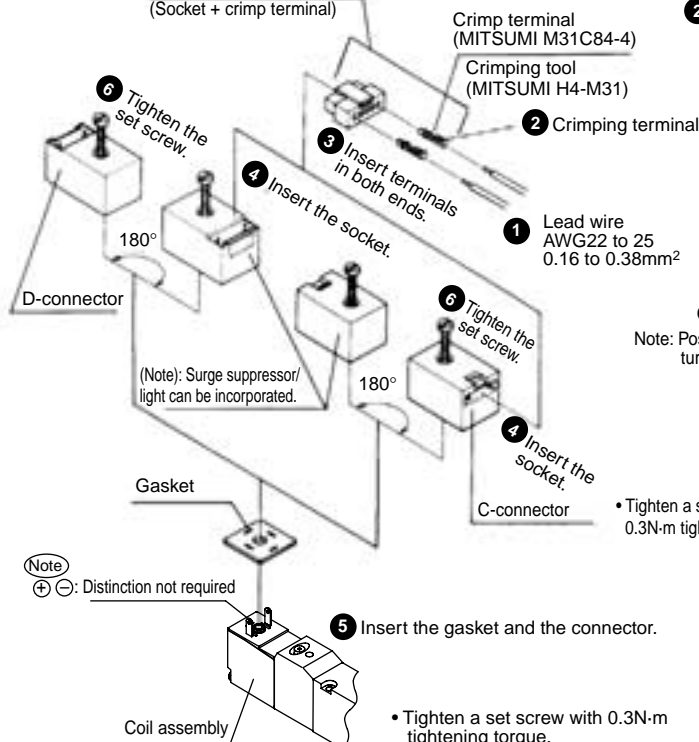
NICHIFU		FUJII TERMINAL INDUSTRY CO. LTD.		JST MFG CO. LTD.	
O terminal	Y terminal	O terminal	Y terminal	O terminal	Y terminal
0.3-3	0.3-3	1.25-3	1.25-YAS3	0.5-3	0.25-B3A
1.25-3	1.25Y-3	1.25-3	1.25-YAS3.5	1.25-3	1.25-C3A
1.25-3S	1.25Y-3.5				

When using other makers' product, an equivalent one should be used.

How to wire C, D-connector (applicable model 3KA1/4KAB series)

Follow the procedures from 1 to 6.

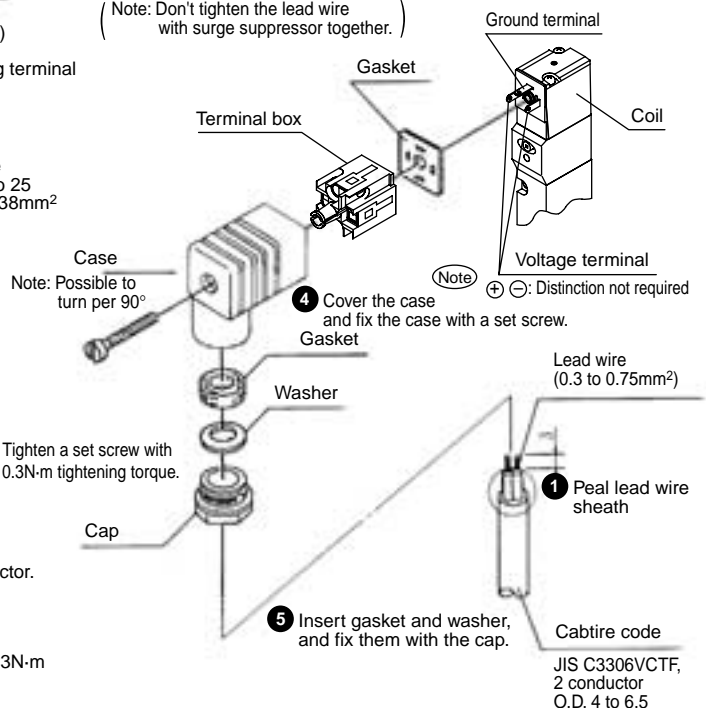
Socket assembly F4-605240
(Socket + crimp terminal)



How to wire small terminal box with light (applicable model 3KA1/4KAB1/4KAB2)

Follow the procedures from 1 to 5.

- 2 A small minus headed screw driver is required to fix lead wire with set screw.
(Note: Don't tighten the lead wire with surge suppressor together.)
- 3 Insert the gasket and the terminal block into the crimp terminal/ground terminal.



4SA/B0

4SA/B1

4GA/B

MN4GA/B

4GA/B (master)

MN3S0/

MN4S0

4TB

4L2-4/

LMF0

4KA/B

4F

PV5/

CMF

3MA/B0

3PA/B

P/M/B

NP/NAP/

NVP

4F**0E

HMV/

HSV

Uniwire

system

SKH

PCD/

FS/FD

3, 4, 5 port pilot operated valve