



Individual wiring manifold body piping
Pilot operated 3, 5-port pneumatic valve

M3KA1/M4KA1/2/3/4 Series

● Cylinder bore size: ø20 to ø160

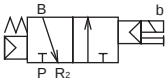


Refer to the Ending for details.



JIS symbol

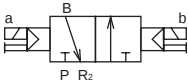
- 3-port valve
2-position NC single



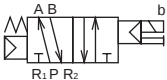
- 3-port valve
2-position NO single



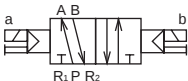
- 3-port valve
2-position NC double



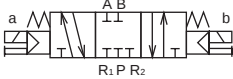
- 5-port valve
2-position single



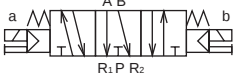
- 5-port valve
2-position double



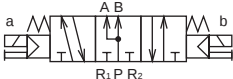
- 5-port valve
3-position all ports closed



- 5-port valve
3-position A/B/R connection



- 5-port valve
3-position P/A/B connection



Common specifications

Item	Description
Manifold method	Manifold integrated
Manifold	Common supply, common exhaust
Station No.	(*1): 2 to 20 stations
Valve and operation	Pilot operated soft spool valve
Working fluid	Compressed air
Max. working press. MPa	0.70 (≈100 psi, 7 bar)
Min. working press. MPa	Refer to Individual specifications listed below
Proof pressure. MPa	1.05 (≈150 psi, 10.5 bar)
Ambient temperature. °C	-5 (23°F) to 50 (122°F) (no freezing)
Fluid temperature. °C	5 (41°F) to 50 (122°F)
Lubrication	Not required
Degree of protection	Dust-proof
Vibration resistance. m/s ²	50 or less
Shock resistance. m/s ²	300 or less
Atmosphere	Cannot be used in corrosive gas environment.

*1: The max. station numbers for 4KA3/4 are 15 stations and 12 stations, respectively.

Electrical specifications

Item			3KA1, 4KA1/2		4KA3/4	
Rated voltage V	AC		100,200 (50 / 60 Hz)			
	DC		24			
Voltage fluctuation range			±10%			
Starting current	AC	100 V	0.056/0.044		0.046/0.042	
	A AC	200 V	0.028/0.022		0.023/0.021	
Holding current	AC	100 V	0.028/0.022		0.023/0.021	
	A AC	200 V	0.014/0.011		0.014/0.011	
	DC	24 V	0.075			
Power consumption W (): With indicator	AC	100 V	1.8 / 1.4 (1.8 / 1.5)		1.6 / 1.3 (1.8 / 1.5)	
	A AC	200 V	1.8 / 1.4 (1.8 / 1.5)		1.6 / 1.3 (1.8 / 1.5)	
	DC	24 V	1.8 (2.0)			
Thermal class			B (molded coil)			
Temperature rise °C			43		30	

Reference: 100 VAC 50/60 Hz can be used with a rated voltage of 110 VAC 60 Hz and 200 VAC 50/60 Hz can be used with 220 VAC 60 Hz.

Individual specifications

1 MPa ≈ 145.0 psi, 1 MPa = 10 bar

Item			3KA1	4KA1	4KA2	4KA3	4KA4
Min. working pressure	2-position	Single	0.15	0.15	0.15	0.15	0.15
		Double			0.10	0.10	0.10
	MPa 3-position		-	0.20	0.20	0.20	0.20
Port size	A/B Port		M5, M5N, M5G Push-in fitting ø4, ø6	M5, M5N, M5G Push-in fitting ø4, ø6	Rc1/8, NPT1/8, G1/8 Push-in fitting ø6, ø8	Rc1/4, NPT1/4, G1/4 Push-in fitting ø8, ø10	Rc3/8, NPT3/8, G3/8 Push-in fitting ø10, ø12
	P/R1/R2 port		Rc1/8, NPT1/8, G1/8	Rc1/8, NPT1/8, G1/8	Rc1/4, NPT1/4, G1/4	Rc3/8, NPT3/8, G3/8	Rc1/2, NPT1/2, G1/2

Performance/characteristics by model

Item			3KA1	4KA1	4KA2	4KA3	4KA4
Response time	2-position		30 or less	30 or less	30 or less	30 or less	30 or less
	(*2) ms	3-position	-	60 or less	60 or less	60 or less	60 or less

*2: The response time is the value at 0.5 MPa working pressure, with no lubrication, and with the power ON. It depends on the pressure and the lubricant quality.

Weight

Item			3KA1	4KA1	4KA2	4KA3	4KA4	
Weight (solenoid valve only)	g	2-position	Single	70	70	115	214	325
		Double	110	110	155	315	435	
	3-position		-	120	170	354	505	
Manifold base								
Weight calculation formula (n: station No.) g			60.5xn+58.5	60.5xn+58.5	62.5xn+65.0	105.5xn+97.0	194.5xn+185.5	

M3KA1/M4KA1 to 4 Series

Individual wiring manifold; body piping

Flow characteristics

Model No.	Solenoid position		C[dm ³ /(s·bar)]	b
3KA1	2-position		0.69	0.29
4KA1	2-position		0.69	0.29
	3-position	All ports closed	0.69	0.29
		A/B/R connection	0.97	0.31
		P/A/B connection	0.73	0.30
4KA2	2-position		2.6	0.25
	3-position	All ports closed	2.4	0.32
		A/B/R connection	3.0	0.16
		P/A/B connection	2.4	0.31
4KA3	2-position		5.6	0.39
	3-position	All ports closed	4.1	0.51
		A/B/R connection	5.9	0.37
		P/A/B connection	4.1	0.56
4KA4	2-position		9.7	0.29
	3-position	All ports closed	8.3	0.40
		A/B/R connection	11	0.30
		P/A/B connection	8.7	0.46

*1:Effective cross-sectional area S and sonic conductance C are converted as $S \approx 5.0 \times C$.

*2:Flow characteristics are values when the port size is M5 (3KA1, 4KA1), Rc1/8 (4KA2), Rc1/4 (4KA3), or Rc3/8 (4KA4).

Ozone-proof specifications

(Ending Page 5)

** - Voltage - **P11**

Copper and PTFE free specifications

● Copper- and PTFE-based materials are not used in the flow path.

** - Voltage - **P6**

CE marking specifications

** - Voltage - **ST**

• Standard voltage of 24 VDC or less is CE marking-compatible even if the model No. is not indicated with "ST".

4GA/B
M4GA/B
MN4GA/B
4GA/B (master)
4GB With sensor
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (master)
4F
4F (master)
PV5G
GMF
PV5
GMF
PV5S-0
3Q
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP
NVP
4G*0EJ
4F*0EX
4F*0E
HMV
HSV
2QV
3QV
SKH
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

M3KA1/M4KA1 to 4 Series

Individual wiring manifold; body piping

How to order

- Single solenoid valve for manifold

4KA1 **1** **9** - **06** - **M1** **B** **AC100V**

* Gasket/mounting screw attached (*5)

- Manifold

M **4KA2** **1** **0** - **06** - **M1** **B** **AC100V** - **2 2 0 0 0 1**

Indicate the valve model based quantity display position when using a mix manifold. Refer to the following page.

A Model No.

A Model No. **B** Solenoid position

C Port size

D Manual override

E Electrical connections
* Refer to page 1263 for the circuit diagram with surge suppressor/lamp.

[Table 1] Compact terminal box L/LS compatibility table

Code	Description	3KA1	4KA1	4KA2	4KA3	4KA4	Surge suppressor
L	Without lead wire	AC	●	●	●	●	
		DC			●	●	
	With surge suppressor/indicator lamp	AC					
		DC	●	●	●		Integrated
LS	Without lead wire	AC	●	●	●	●	Integrated
	With surge suppressor/indicator lamp	DC			●	●	Integrated

Precautions for model No. selection

- *1 : When the solenoid position is mixed (8), indicate the content of the combination at the end of the model No. Refer to the following page.
- *2 : The DC voltage models of the compact terminal box "L" of 3KA1, 4KA1, and 4KA2 are equipped with a surge suppressor.
- *3 : The surge suppressor for attachment is a suppression connector when the grommet lead wire is 24 VDC or less. (Refer to page 1262)
- *4 : The surge suppressor can only be selected when the grommet lead wire or compact terminal box "B" has been selected for the electrical connections.
- *5 : With regard to the printed model No., although the model No. when placing an order is "4KA□□9", the model No. listed on the product name plate will be "4KA□□0".

F Others Option

G Station No.

H Voltage

[Example of model No.]

M4KA210-06-M1B-2-AC100V

- A** Model : 4KA2
- B** Solenoid position : 2-position single
- C** Port size : Rc1/8
- D** Manual override : Locking manual override
- E** Electrical connections: Compact terminal box/without lead wire
- F** Other options : None
- G** Station No. : 2 stations
- H** Voltage : 100 VAC 50/60 Hz

Code	Description	3KA1	4KA1	4KA2	4KA3	4KA4
1	2-position single		●	●	●	●
2	2-position double	●	●	●	●	●
3	3-position all ports closed		●	●	●	●
4	3-position A/B/R connection		●	●	●	●
5	3-position P/A/B connection		●	●	●	●
11	2-position single normally closed	●				
11	2-position single normally open	●				
8	Mix manifold (*1) (when there are multiple solenoid positions)	●	●	●	●	●

Port	A/B port	R1/R2 port (1) = Rc1/8 (2) = Rc1/4 (3) = Rc3/8 (4) = Rc1/2			
M5	M5	(1)	(1)		
06	Rc1/8			(2)	
08	Rc1/4				(3)
10	Rc3/8				(4)
GS4	ø4 Push-in fitting	(1)	(1)		
GS6	ø6 Push-in fitting	(1)	(1)	(2)	
GS8	ø8 Push-in fitting			(2)	(3)
GS10	ø10 Push-in fitting				(3) (4)
GS12	ø12 Push-in fitting				(4)
Port	A/B port	R1/R2 port (5) = NPT1/8 (6) = NPT1/4 (7) = NPT3/8 (8) = NPT1/2			
M5N	M5	(5)	(5)		
06N	NPT1/8			(6)	
08N	NPT1/4				(7)
10N	NPT3/8				(8)
GS4N	ø4 Push-in fitting	(5)	(5)		
GS6N	ø6 Push-in fitting	(5)	(5)	(6)	
GS8N	ø8 Push-in fitting			(6)	(7)
GS10N	ø10 Push-in fitting				(7) (8)
GS12N	ø12 Push-in fitting				(8)
Port	A/B port	R1/R2 port (9) = G1/8 (10) = G1/4 (11) = G3/8 (12) = G1/2			
M5G	M5	(9)	(9)		
06G	G1/8			(10)	
08G	G1/4				(11)
10G	G3/8				(12)
GS4G	ø4 Push-in fitting	(9)	(9)		
GS6G	ø6 Push-in fitting	(9)	(9)	(10)	
GS8G	ø8 Push-in fitting			(10)	(11)
GS10G	ø10 Push-in fitting				(11) (12)
GS12G	ø12 Push-in fitting				(12)

D	Blank	Non-locking manual override	●	●	●	●	●
	M1	Locking manual override	●	●	●	●	●

E Refer to the electrical connections list on the next page.

F	Blank	No option	●	●	●	●	●
	S	Surge suppressor attached (*3) (*4)	●	●	●	●	●
	-A	Coolant supported (packing: FKM)	●	●	●	●	●

G	2 to 12	2 stations to 12 stations					●
	2 to 15	2 stations to 15 stations				●	
	2 to 20	2 stations to 20 stations	●	●	●		

Voltage	Option Standard	AC100V	100 VAC 50/60 Hz	●	●	●	●	●
		AC200V	200 VAC 50/60 Hz	●	●	●	●	●
		DC24V	24 VDC	●	●	●	●	●
		DC12V	12 VDC	●	●	●	●	●
		AC110V	110 VAC 50/60 Hz	●	●	●	●	●
		AC220V	220 VAC 50/60 Hz	●	●	●	●	●

* Other custom order products								
AC24V		●	●	●	●	●	●	●
AC115V		●	●	●	●	●	●	●
AC120V		●	●	●	●	●	●	●

M3KA1/M4KA1 to 4 Series

Individual wiring manifold; body piping

[Electrical connection list]

		A Model No.					
		3KA1	4KA1	4KA2	4KA3	4KA4	
Code	Description						
Electrical connections E	Grommet lead wire						
	Blank	Grommet lead wire (300 mm)		●	●	●	●
	Compact terminal box						
	B	Without lead wire		●	●	●	●
	L	Without lead wire		Refer to [Table 1] on the previous page for details (*2)			
	LS	Without lead wire, with surge suppressor/lamp					
	C-connector (lead wire lateral direction)						
	C	Lead wire length (300 mm)		●	●	●	●
	C00	Lead wire length (500 mm)		●	●	●	●
	C01	Lead wire length (1000 mm)		●	●	●	●
	C02	Lead wire length (2000 mm)		●	●	●	●
	C03	Lead wire length (3000 mm)		●	●	●	●
	C1	Without lead wire		●	●	●	●
	C2	Lead wire length (300 mm) with surge suppressor/lamp		●	●	●	●
	C20	Lead wire length (500 mm) with surge suppressor/lamp		●	●	●	●
	C21	Lead wire length (1000 mm) with surge suppressor/lamp		●	●	●	●
	C22	Lead wire length (2000 mm) with surge suppressor/lamp		●	●	●	●
	C23	Lead wire length (3000 mm) with surge suppressor/lamp		●	●	●	●
	C3	Without lead wire, with surge suppressor/lamp		●	●	●	●
	D-connector (lead wire upward direction)						
	D	Lead wire length (300 mm)		●	●	●	●
	D00	Lead wire length (500 mm)		●	●	●	●
	D01	Lead wire length (1000 mm)		●	●	●	●
	D02	Lead wire length (2000 mm)		●	●	●	●
	D03	Lead wire length (3000 mm)		●	●	●	●
	D1	Without lead wire		●	●	●	●
	D2	Lead wire length (300 mm) with surge suppressor/lamp		●	●	●	●
	D20	Lead wire length (500 mm) with surge suppressor/lamp		●	●	●	●
	D21	Lead wire length (1000 mm) with surge suppressor/lamp		●	●	●	●
	D22	Lead wire length (2000 mm) with surge suppressor/lamp		●	●	●	●
	D23	Lead wire length (3000 mm) with surge suppressor/lamp		●	●	●	●
	D3	Without lead wire, with surge suppressor/lamp		●	●	●	●

4GA/B
M4GA/B
MN4GA/B
4GA/B (master)
4GB
With sensor
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (master)
4F
4F (master)
PV5G
GMF
PV5
GMF
PV5S-0
3Q
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP
NVP
4G*0EJ
4F*0EX
4F*0E
HNV
HSV
2QV
3QV
SKH
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

M3KA1/M4KA1 to 4 Series

Individual wiring manifold; body piping

How to order masking plate kit

M 4KA180 - MP-KIT

* Gasket/mounting screw attached

A Model No.

A Model No.
4KA180
4KA280
4KA380
4KA480

How to order mix manifold

· 3-port valve

M 3KA1 8 0 - M5 - 4 - AC100V -

S10	S11	S20	MP
3	0	0	1

S10	S11	S20	MP
3	0	0	1

S10=1 to 3 MP=4

· 5-port valve

M 4KA3 8 0 - 06 - 7 - AC100V -

S1	S2	S3	S4	S5	MP
2	2	2	1	0	0

S1	S2	S3	S4	S5	MP
2	2	2	1	0	0

S1=1, 6 S2=2, 5 S3=3, 4 S4=7

Mix manifold "8"

* For How to order other items, refer to the previous page.

How to fill in form for ordering a mix manifold

Manifold specifications sheet (page 1328)

(1) List the quantity for each function (solenoid position) at the end of How to order. The functions and codes are as shown below.

Example: 5-port valve 2-position single → S1

S1	S2	S3	S4	S5	MP
2	2	2	1	0	0

List the quantity

· 3-port valve

Code	Function (solenoid position)
S10	3-port valve 2-position single NC
S11	3-port valve 2-position single NO
S20	3-port valve 2-position double
MP	Masking plate

· 5-port valve

Code	Function (solenoid position)
S1	2-position single
S2	2-position double
S3	3-position all ports closed
S4	3-position A/B/R connection
S5	3-position P/A/B connection
MP	Masking plate

● With a mix manifold, when using 10 or more actuators of the same model No., specify using the codes in the table below.

Actuator quantity	10	11	12	13	14	15	16	17	18	19
Code	A	B	C	D	E	F	G	H	I	J

(2) List the function (solenoid position) and layout position in the field for remarks.

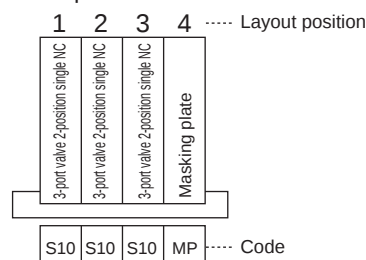
Solenoid position code = ○, ○th station (where the left side is the 1st station when the piping port is facing forward.)

Example: S10 = 1 to 3 (1st to 3rd stations are 3-port valve 2-position single NC)

Example: S1 = 1, 6 (1st, 6th stations are 5-port valve 2-position single)

[Example of model No. 1]

For 3-port valve 4 stations



3-port valve 2-position single (S10) : 3 units (1st to 3rd station)
Masking plate (MP) : 1 unit (4th station)

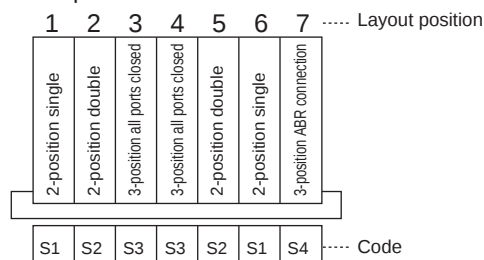
M3KA180-M5-4-AC100V -

S10	S11	S20	MP
3	0	0	1

S10=1 to 3 MP=4

[Example of model No. 2]

For 5-port valve 7 stations



2-position single (S1) : 2 units (1st station, 6th station)
2-position double (S2) : 2 units (2nd station, 5th station)
3-position all ports closed (S3) : 2 units (3rd station, 4th station)
3-position ABR connection (S4) : 1 unit (7th station)

M4KA380-06-7-AC100V -

S1	S2	S3	S4	S5	MP
2	2	2	1	0	0

S1=1, 6 S2=2, 5 S3=3, 4 S4=7

Individual wiring manifold; body piping

Main configuration parts list

Consumable parts list

No.	Part name	Model No.	Compatibility	No.	Part name	Model No.	Compatibility
-	Coil assembly	4K1L-  -COIL- 	3KA1	-	Piston assembly	4K9-  151	3KA11(1)0, 4KA110 3KA120, 4KA120
		 	4KA1			152	4KA130 4KA140 4KA150
		4K3-  -COIL- 	4KA3 4KA4				153
		 				154	
4K9-  110	3KA11(1)0, 4KA110	137	4KA310, 4KA320				
118	3KA120, 4KA120		138			4KA330 4KA340 4KA350	
111	4KA130	144				4KA410, 4KA420	
112	4KA140		145			4KA430 4KA440 4KA450	
113	4KA150						
150	4KA210						
126	4KA220						
127	4KA230						
128	4KA240						
129	4KA250						
133	4KA310, 4KA320						
134	4KA330						
135	4KA340						
136	4KA350						
140	4KA410, 4KA420						
141	4KA430						
142	4KA440						
143	4KA450						

M3KA1/M4KA1 Series

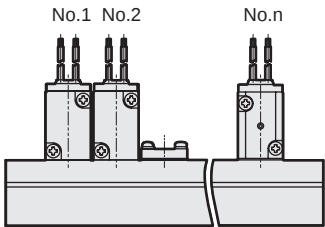
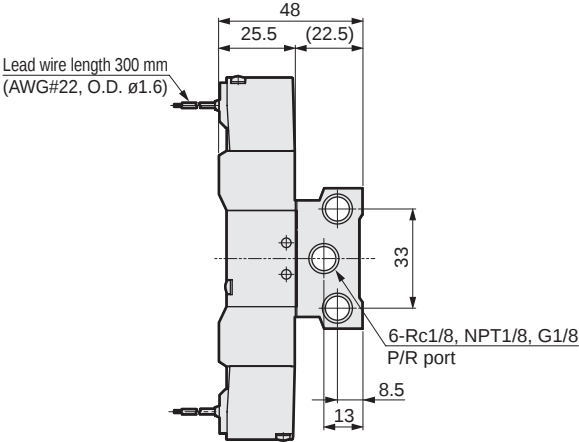
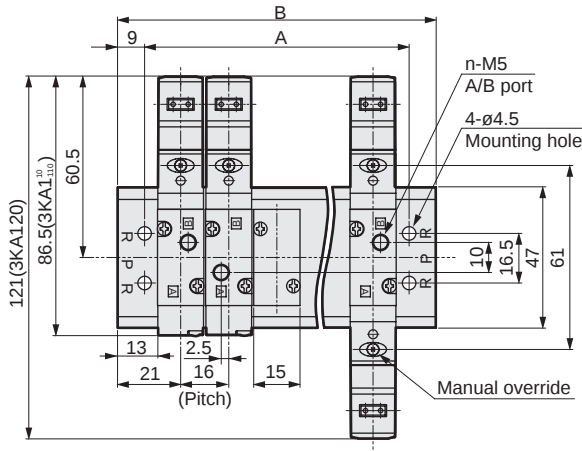
Individual wiring manifold; body piping

Dimensions



M3KA1-M5*

● 3-port valve / port size M5: grommet lead wire

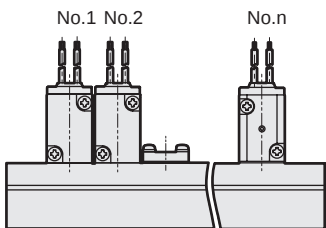
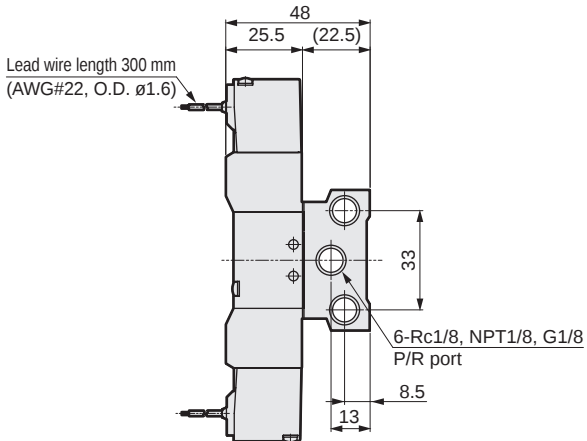
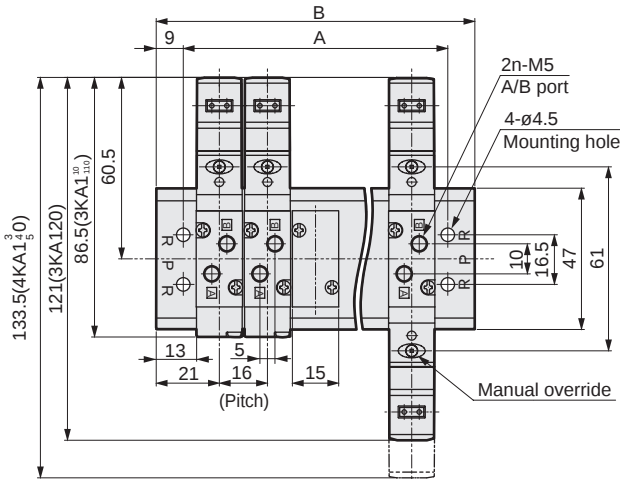


■ Single model No. for manifold
3KA1*9-M5-option-voltage

* : When using 3KA119-M5, the B port will be the connection port.
When using 3KA1119-M5, the A port will be the connection port.

M4KA1-M5*

● 5-port valve / port size M5: grommet lead wire



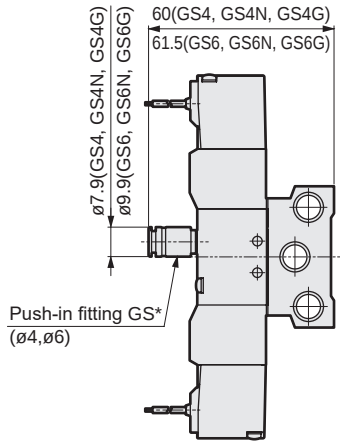
■ Single model No. for manifold
4KA1*9-M5-option-voltage

Station No.	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	40	56	72	88	104	120	136	152	168	184	200	216	232	248	264	280	296	312	328
B	58	74	90	106	122	138	154	170	186	202	218	234	250	266	282	298	314	330	346

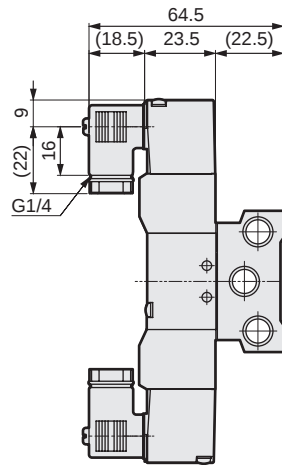
Dimensions

M3KA1 (3-port valve)

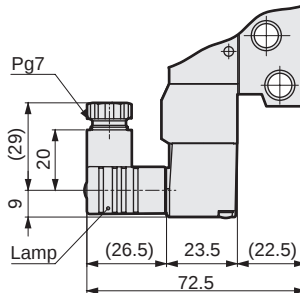
- $\varnothing 4/\varnothing 6$ push-in fitting (GS4*/GS6*)



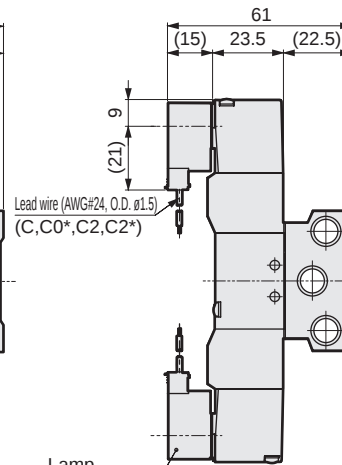
- Compact terminal box: (B/L/LS) Without indicator lamp



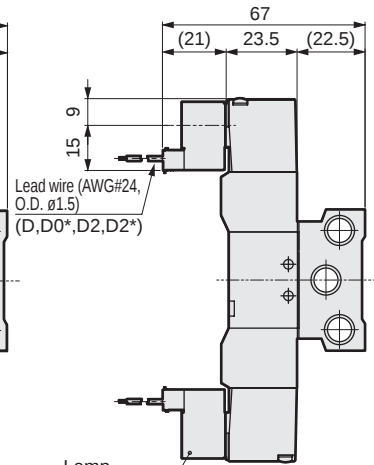
With indicator lamp



- C-connector: (C/C1/C0*/C2/C2*/C3)

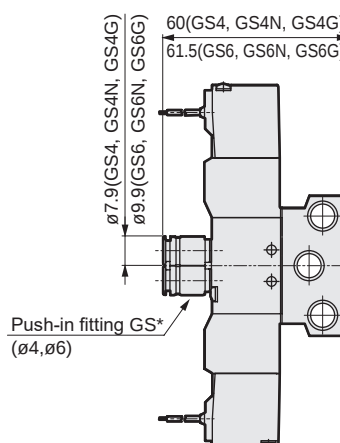


- D-connector: (D/D1/D0*/D2/D2*/D3)

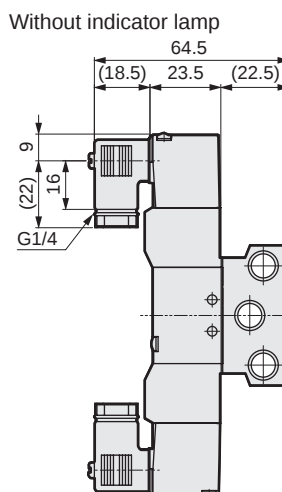


M4KA1 (5-port valve)

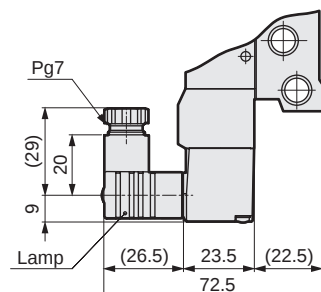
- $\varnothing 4/\varnothing 6$ push-in fitting (GS4*/GS6*)



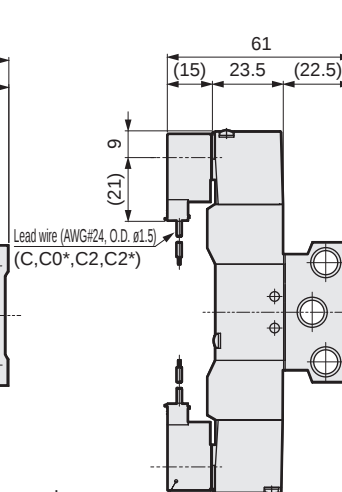
- Compact terminal box: (B/L/LS) Without indicator lamp



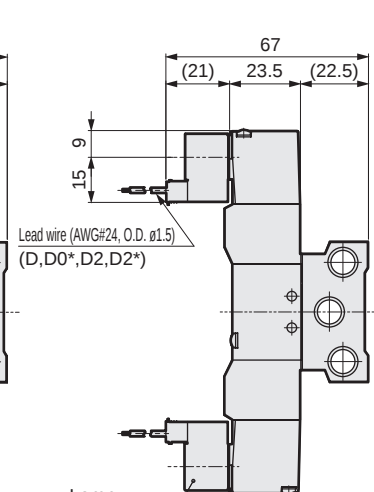
With indicator lamp



- C-connector: (C/C1/C0*/C2/C2*/C3)



- D-connector: (D/D1/D0*/D2/D2*/D3)



4GA/B
M4GA/B
MN4GA/B
4GA/B (master)
4GB With sensor
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (master)
4F
4F (master)
PV5G
GMF
PV5
GMF
PV5S-0
3Q
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP
NVP
4G*0EJ
4F*0EX
4F*0E
HMV
HSV
2QV
3QV
SKH
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

M4KA2/M4KA3 Series

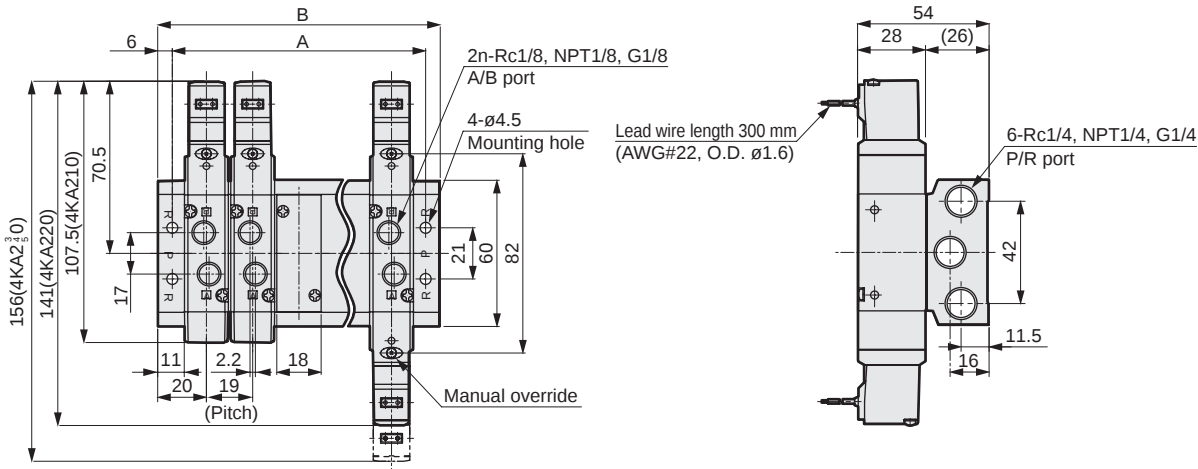
Individual wiring manifold; body piping

Dimensions

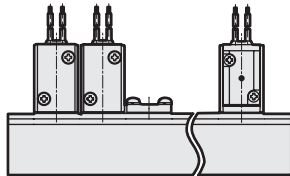


M4KA2-06, 06N, 06G

● Port size Rc1/8, NPT1/8, G1/8: grommet lead wire



Station No. No.1 No.2 No.3 ... No.n

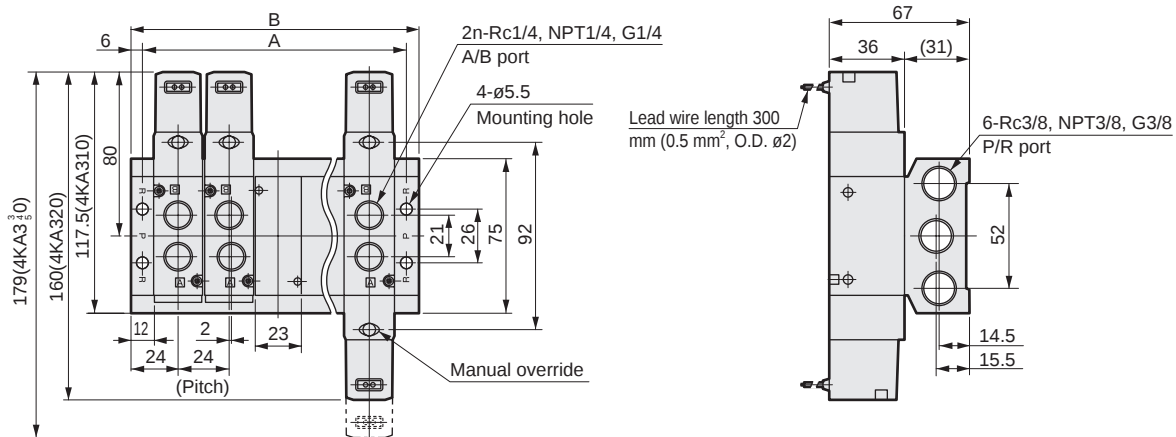


■ Single model No. for manifold
4KA2*9-06-option-voltage

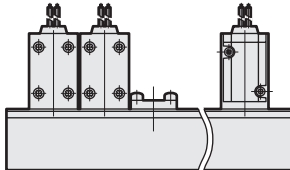
Station No.	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	47	66	85	104	123	142	161	180	199	218	237	256	275	294	313	332	351	370	389
B	59	78	97	116	135	154	173	192	211	230	249	268	287	306	325	344	363	382	401

M4KA3-08, 08N, 08G

● Port size Rc1/4, NPT1/4, G1/4: grommet lead wire



No.1 No.2 No.3.....No.n



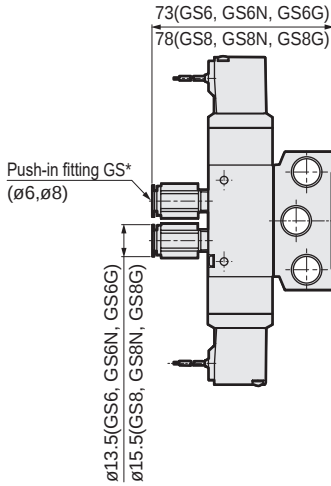
■ Single model No. for manifold
4KA3*9-08-option-voltage

Station No.	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	60	84	108	132	156	180	204	228	252	276	300	324	348	372
B	72	96	120	144	168	192	216	240	264	288	312	336	360	384

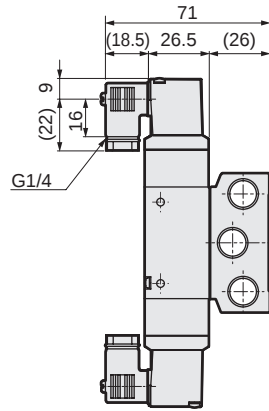
Dimensions

M4KA2

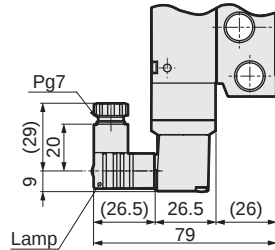
- $\phi 6/\phi 8$ push-in fitting: (GS6*/GS8*)



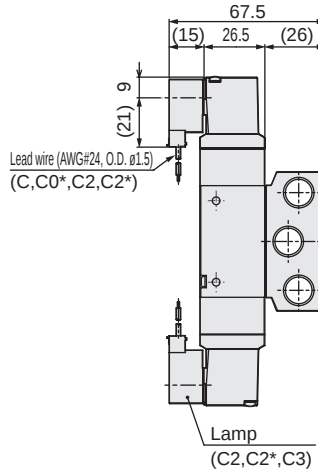
- Compact terminal box: (B/L/LS) Without indicator lamp



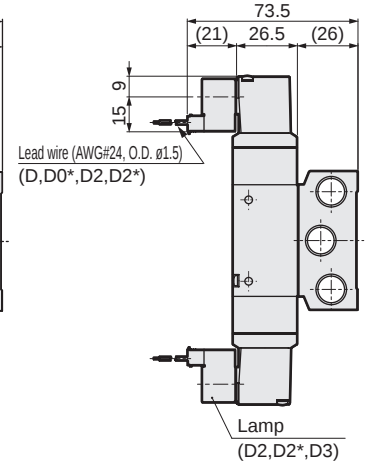
With indicator lamp



- C-connector: (C/C1/C0*/C2/C2*/C3)

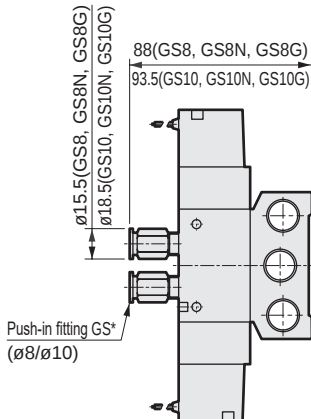


- D-connector: (D/D1/D0*/D2/D2*/D3)

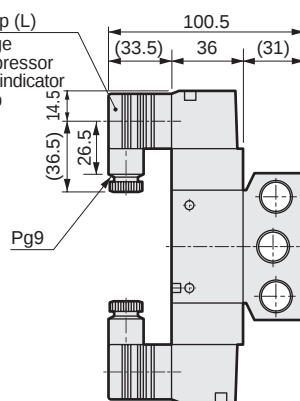


M4KA3

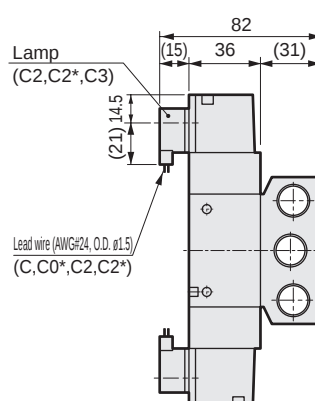
- $\phi 8/\phi 10$ push-in fitting: (GS8*/GS10*)



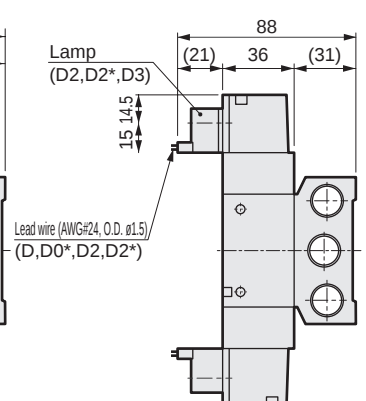
- Compact terminal box: (B/L/LS)



- C-connector: (C/C1/C0*/C2/C2*/C3)



- D-connector: (D/D1/D0*/D2/D2*/D3)



4GA/B
M4GA/B
MN4GA/B
4GA/B (master)
4GB With sensor
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (master)
4F
4F (master)
PV5G
GMF
PV5
GMF
PV5S-0
3Q
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP
NVP
4C*0EJ
4F*0EX
4F*0E
HMV
HSV
2QV
3QV
SKH
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

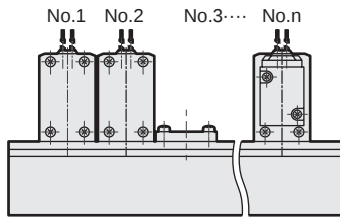
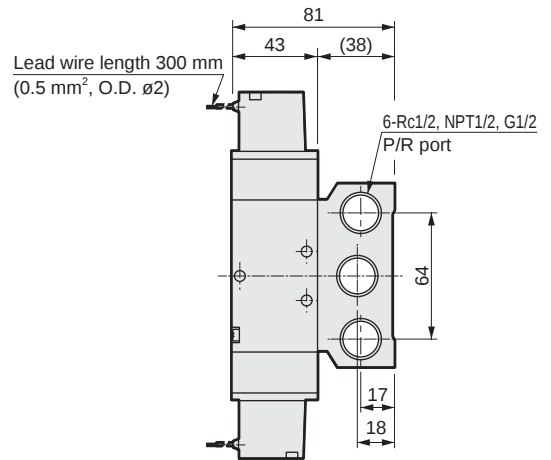
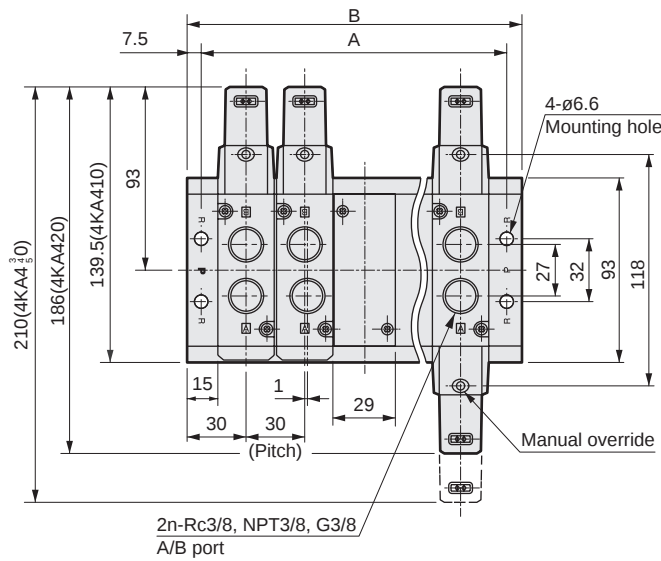
M4KA4 Series

Individual wiring manifold; body piping

Dimensions 

M4KA4-10, 10N, 10G

● Port size Rc3/8, NPT3/8, G3/8: grommet lead wire



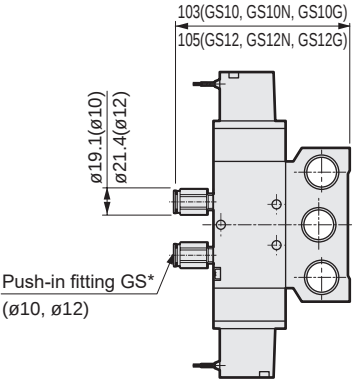
■ Single model No. for manifold
4KA4*9-10-option-voltage

Station No.	2	3	4	5	6	7	8	9	10	11	12
A	75	105	135	165	195	225	255	285	315	345	375
B	90	120	150	180	210	240	270	300	330	360	390

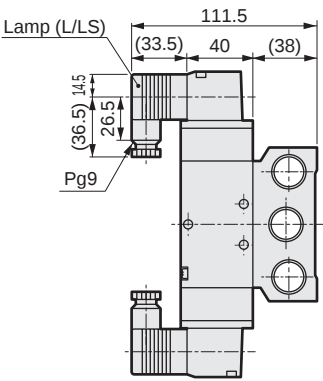
Dimensions

M4KA4

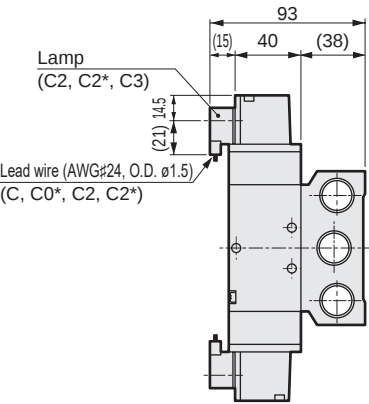
- $\varnothing 10/\varnothing 12$ push-in fitting:
(GS10*/GS12*)



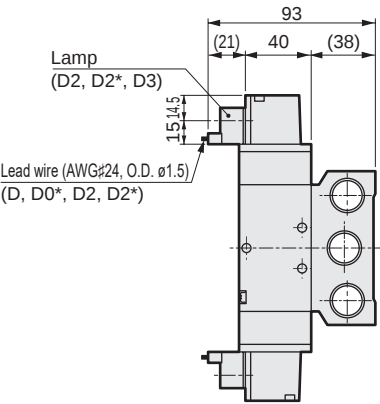
- Compact terminal box:
(B/L/LS)



- C-connector:
(C/C1/C0*/C2/C2*/C3)



- D-connector:
(D/D1/D0*/D2/D2*/D3)



4GA/B
M4GA/B
MN4GA/B
4GA/B (master)
4GB With sensor
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (master)
4F
4F (master)
PV5G
GMF
PV5
GMF
PV5S-0
3Q
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP
NVP
4G*0EJ
4F*0EX
4F*0E
HMV
HSV
2QV
3QV
SKH
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending



Individual wiring manifold sub-plate piping
Pilot operated 4, 5-port pneumatic valve

M4KB1/2/3/4 Series

● Cylinder bore size: ø20 to ø160



Refer to the Ending for details.



JIS symbol

- 5-port valve
2-position single
- 5-port valve
2-position double
- 5-port valve
3-position all ports closed
- 5-port valve
3-position A/B/R connection
- 5-port valve
3-position P/A/B connection
- External pilot

(2-position single)

Common specifications

Item	Description
Manifold method	Manifold integrated
Manifold	Common supply, common exhaust
Station No.	*1 2 to 20 stations
Valve and operation	Pilot operated soft spool valve
Working fluid	Compressed air
Max. working press. MPa	0.70 (≈100 psi, 7 bar)
Min. working press. MPa	Refer to Individual specifications listed below
Proof pressure. MPa	1.05 (≈150 psi, 10.5 bar)
Ambient temperature. °C	-5 (23°F) to 50 (122°F) (no freezing)
Fluid temperature. °C	5 (41°F) to 50 (122°F)
Lubrication	Not required
Degree of protection	Dust-proof
Vibration resistance. m/s ²	50 or less
Shock resistance. m/s ²	300 or less
Atmosphere	Cannot be used in corrosive gas environment.

*1: The max. station numbers for 4KB3/4 are 15 stations and 12 stations, respectively.
*2: The working pressure when the external pilot (option code: K) has been selected is 0 to 0.7 MPa. In addition, use the pilot with a pressure of 0.2 to 0.7 MPa.

Electrical specifications

Item		4KB1/2	4KB3/4
Rated voltage	AC	100,200 (50 / 60 Hz)	
	DC	24	
Voltage fluctuation range		±10%	
Starting current	AC 100 V	0.056/0.044	0.046/0.042
	A AC 200 V	0.028/0.022	0.023/0.021
Holding current	AC 100 V	0.028/0.022	0.023/0.021
	A AC 200 V	0.014/0.011	
	DC 24 V	0.075	
Power consumption	AC 100 V	1.8 / 1.4 (1.8 / 1.5)	1.6 / 1.3 (1.8 / 1.5)
	W AC 200 V	1.8 / 1.4 (1.8 / 1.5)	1.6 / 1.3 (1.8 / 1.5)
	(:) With indicator DC 24 V	1.8 (2.0)	
Thermal class		B (molded coil)	
Temperature rise. °C		43	30

Reference: 100 VAC 50/60 Hz can be used with a rated voltage of 110 VAC 60 Hz and 200 VAC 50/60 Hz can be used with 220 VAC 60 Hz.

Individual specifications

Item		4KB1	4KB2	4KB3	4KB4
Min. working pressure	2-position	Single Double	0.15	0.15	0.15
			0.10	0.10	0.10
	MPa 3-position	0.20	0.20	0.20	0.20
Port size	A/B port	M5, Rc1/8, NPT1/8, G1/8 Push-in fitting ø6	Rc1/8, NPT1/8, G1/8 Rc1/4, NPT1/4, G1/4 Push-in fitting ø6, ø8	Rc1/4, NPT1/4, G1/4 Rc3/8, NPT3/8, G3/8 Push-in fitting ø8, ø10	Rc3/8, NPT3/8, G3/8 Rc1/2, NPT1/2, G1/2 Push-in fitting ø10, ø12
	P/R1/R2 port	Rc1/8, NPT1/8, G1/8	Rc1/4, NPT1/4, G1/4	Rc3/8, NPT3/8, G3/8	Rc1/2, NPT1/2, G1/2

Performance/characteristics by model

Item		4KB1	4KB2	4KB3	4KB4
Response time	2-position	30 or less	30 or less	30 or less	30 or less
*1	ms 3-position	60 or less	60 or less	60 or less	60 or less

*1: The response time is the value at 0.5 MPa working pressure, with no lubrication, and with the power ON. It depends on the pressure and the lubricant quality.

Weight

Item			4KB1	4KB2	4KB3	4KB4	
Weight (solenoid valve only)	g	2-position	Single	70	115	214	325
			Double	110	155	315	435
		3-position	120	170	354	505	
Manifold base weight calculation formula (n: station No.)							
g			52.0xn+71.5	105.5xn+117	171.5xn+311	326.0xn+559.5	

Flow characteristics

Model No.	Solenoid position		C[dm ³ /(s·bar)]	b
4KB1	2-position		0.71	0.25
	3-position	All ports closed	0.60	0.23
		A/B/R connection	0.81	0.25
		P/A/B connection	0.67	0.32
4KB2	2-position		2.1	0.13
	3-position	All ports closed	1.8	0.11
		A/B/R connection	2.0	0.17
		P/A/B connection	1.8	0.23
4KB3	2-position		4.5	0.11
	3-position	All ports closed	4.4	0.21
		A/B/R connection	4.8	0.18
		P/A/B connection	4.3	0.20
4KB4	2-position		8.9	0.22
	3-position	All ports closed	8.9	0.24
		A/B/R connection	9.4	0.23
		P/A/B connection	8.6	0.20

*1: Effective cross-sectional area S and sonic conductance C are converted as $S \approx 5.0 \times C$.

Ozone-proof specifications

(Ending Page 5)

** - Voltage - **P11**

Copper and PTFE free specifications

● Copper- and PTFE-based materials are not used in the flow path.

** - Voltage - **P6**

CE marking specifications

** - Voltage - **ST**

• Standard voltage of 24 VDC or less is CE marking-compatible even if the model No. is not indicated with "ST".

4GA/B
M4GA/B
MN4GA/B
4GA/B (master)
4GB With sensor
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (master)
4F
4F (master)
PV5G
GMF
PV5
GMF
PV5S-0
3Q
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP
NVP
4G*0EJ
4F*0EX
4F*0E
HMV
HSV
2QV
3QV
SKH
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

M4KB1 to 4 Series

Individual wiring manifold: sub-plate piping

How to order

- Single solenoid valve for manifold

4KB1 **1** **9** - **00** - **M1** **B** **AC100V**

* Gasket/mounting screw included

- Manifold

M **4KB2** **1** **0** - **06** - **M1** **B** **AC100V** - **2** **2** **0** **0** **0** **1**

Indicate the valve model based quantity display position when using a mix manifold. Refer to the following page.

A Model No.

4KB1	4KB2	4KB3	4KB4
●	●	●	●
●	●	●	●
●	●	●	●
●	●	●	●
●	●	●	●

Code	Description
1	2-position single
2	2-position double
3	3-position all ports closed
4	3-position A/B/R connection
5	3-position P/A/B connection
8	Mix manifold (for multiple solenoid positions) (*1)

Port	Port A/B	Port P/R1/R2
M5	M5	(1)
06	Rc1/8	(1) (2)
08	Rc1/4	(2) (3)
10	Rc3/8	(3) (4)
15	Rc1/2	(4)
M5Y	M5 (rear)	(1)
06Y	Rc1/8 (rear)	(2)
08Y	Rc1/4 (rear)	(3)
10Y	Rc3/8 (rear)	(4)
H6	ø6 push-in fitting	(1) (2)
H8	ø8 push-in fitting	(2) (3)
H10	ø10 push-in fitting	(3) (4)
H12	ø12 push-in fitting	(4)
M5CE	M5 (*2)	(1)
06CE	Rc1/8 (*2)	(1)
H6CE	ø6 push-in fitting (*2)	(1)

Port	Port A/B	Port P/R1/R2
M5N	M5	(5)
06N	NPT1/8	(5) (6)
08N	NPT1/4	(6) (7)
10N	NPT3/8	(7) (8)
15N	NPT1/2	(8)
06YN	NPT1/8 (rear)	(6)
08YN	NPT1/4 (rear)	(7)
10YN	NPT3/8 (rear)	(8)
M5G	M5	(9)
06G	G1/8	(9) (10)
08G	G1/4	(10) (11)
10G	G3/8	(11) (12)
15G	G1/2	(12)
06YG	G1/8 (rear)	(10)
08YG	G1/4 (rear)	(11)
10YG	G3/8 (rear)	(12)

Blank	Non-locking manual override	●	●	●	●
M1	Locking manual override	●	●	●	●

Refer to the electrical connections list on the next page.

Blank	No option	●	●	●	●
K	External pilot (*3)	●	●	●	●
S	Surge suppressor included (*5) (*8)	●	●	●	●
-A	Coolant supported (packing: FKM)	●	●	●	●

2 to 12	2 to 12 stations	●	●	●	●
2 to 15	2 to 15 stations	●	●	●	●
2 to 20	2 to 20 stations	●	●	●	●

Voltage		AC100V	100 VAC 50/60 Hz	Option	Standard				
		AC200V	200 VAC 50/60 Hz						
		DC24V	24 VDC						
		DC12V	12 VDC						
		AC110V	110 VAC 50/60 Hz						
		AC220V	220 VAC 50/60 Hz						

* Other made-to-order products				
AC24V	●	●	●	●
AC115V	●	●	●	●
AC120V	●	●	●	●

[Table 1] Compact terminal box L/LS compatibility table

Code	Description	4KB1	4KB2	4KB3	4KB4	Surge suppressor
L	Without lead wire	●	●	●	●	
L	With indicator lamp	●	●	●	●	
L	With surge suppressor and indicator lamp	●	●	●	●	Integrated
LS	Without lead wire	●	●	●	●	Integrated
LS	With surge suppressor and indicator lamp	●	●	●	●	Integrated

Precautions for model No. selection

- *1: When the solenoid position is mixed (8), indicate the content of the combination at the end of the model No. Refer to the following page.
- *2: When the CE code is added, the model will have a pilot common exhaust. (The max. station number is 10.)
- *3: The max. station number for the external pilot (K) is 10. In addition, contact CKD for use with vacuum.
- *4: The DC voltage models of the compact terminal box "L" of 4KB1, 4KB2 are equipped with a surge suppressor.
- *5: The surge suppressor for attachment is a suppression connector when the grommet lead wire is 24 VDC or less. (Refer to page 1262.)
- *6: With a single solenoid valve for CE type manifolds, the port size will be "00CE".
- *7: With a discrete solenoid valve for 4KB1 rear piping manifolds, the port size will be "00Y".
- *8: The surge suppressor can only be selected when the grommet lead wire or compact terminal box "B" has been selected for the electrical connections.

[Example of model No.]

M4KB210-06-M1B-2-AC100V

- A Model : M4KB2
- B Solenoid position : 2-position single
- C Port size : Rc1/8
- D Manual override : Locking manual override
- E Electrical connections : Compact terminal box/without lead wire
- F Other options : None
- G Station No. : 2 stations
- H Voltage : 100 VAC 50/60 Hz

[Electrical connection list]

		A Model No.			
		4KB1	4KB2	4KB3	4KB4
Code	Description				
E	Grommet lead wire				
	Blank Grommet lead wire (300 mm)	●	●	●	●
	Compact terminal box				
	B Without lead wire	●	●	●	●
	L Without lead wire				
	LS Without lead wire, with surge suppressor/lamp	Refer to [Table 1] on the previous page for details (*4)			
	C-connector (lead wire lateral direction)				
	C Lead wire length (300 mm)	●	●	●	●
	C00 Lead wire length (500 mm)	●	●	●	●
	C01 Lead wire length (1000 mm)	●	●	●	●
	C02 Lead wire length (2000 mm)	●	●	●	●
	C03 Lead wire length (3000 mm)	●	●	●	●
	C1 Without lead wire	●	●	●	●
	C2 Lead wire length (300 mm) with surge suppressor/lamp	●	●	●	●
	C20 Lead wire length (500 mm) with surge suppressor/lamp	●	●	●	●
	C21 Lead wire length (1000 mm) with surge suppressor/lamp	●	●	●	●
	C22 Lead wire length (2000 mm) with surge suppressor/lamp	●	●	●	●
	C23 Lead wire length (3000 mm) with surge suppressor/lamp	●	●	●	●
	C3 Without lead wire, with surge suppressor/lamp	●	●	●	●
	D-connector (lead wire upward direction)				
	D Lead wire length (300 mm)	●	●	●	●
	D00 Lead wire length (500 mm)	●	●	●	●
	D01 Lead wire length (1000 mm)	●	●	●	●
	D02 Lead wire length (2000 mm)	●	●	●	●
	D03 Lead wire length (3000 mm)	●	●	●	●
	D1 Without lead wire	●	●	●	●
	D2 Lead wire length (300 mm) with surge suppressor/lamp	●	●	●	●
	D20 Lead wire length (500 mm) with surge suppressor/lamp	●	●	●	●
	D21 Lead wire length (1000 mm) with surge suppressor/lamp	●	●	●	●
	D22 Lead wire length (2000 mm) with surge suppressor/lamp	●	●	●	●
	D23 Lead wire length (3000 mm) with surge suppressor/lamp	●	●	●	●
	D3 Without lead wire, with surge suppressor/lamp	●	●	●	●

4GA/B
M4GA/B
MN4GA/B
4GA/B (master)
4GB With sensor
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (master)
4F
4F (master)
PV5G
GMF
PV5
GMF
PV5S-0
3Q
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP
NVP
4G*0EJ
4F*0EX
4F*0E
HMV
HSV
2QV
3QV
SKH
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

M4KB1 to 4 Series

Individual wiring manifold: sub-plate piping

How to order masking plate kit

M 4KB180 - MP-KIT

* Gasket/mounting screw attached

A Model No.

A Model No.

4KB180

4KB280

4KB380

4KB480

How to order mix manifold

· 5-port valve

M 4KB3 8 0 - 08 - 7 - AC100V -

S1	S2	S3	S4	S5	MP
2	2	2	1	0	0

Mix manifold "8"

* For How to order other items, refer to the previous page.

S1=1, 6 S2=2, 5 S3=3, 4 S4=7

How to fill in form for ordering a mix manifold [Manifold specifications sheet \(page 1328\)](#)

- (1) List the quantity for each function (solenoid position) at the end of How to order. The functions and codes are as shown below.

-

S1	S2	S3	S4	S5	MP
2	2	2	1	0	0

List the quantity

Example: 2-position single → S1

Code	Function (solenoid position)
S1	2-position single
S2	2-position double
S3	3-position all ports closed
S4	3-position A/B/R connection
S5	3-position P/A/B connection
MP	Masking plate

- With a mix manifold, when using 10 or more actuators of the same model No., specify using the codes in the table below.

Actuator quantity	10	11	12	13	14	15	16	17	18	19
Code	A	B	C	D	E	F	G	H	I	J

- (2) List the function (solenoid position) and layout position in the field for remarks.

Solenoid position code = ○, ○th station (where the left side is the 1st station when the piping port is facing forward.)

Example: S1 = 1, 6 (1st, 6th stations are 5 port valve 2-position single)

[Example of model No.]

For 7 stations

1 2 3 4 5 6 7 Layout position

2-position single	2-position double	3-position all ports closed	3-position all ports closed	2-position double	2-position single	3-position ABR connection
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S1 S2 S3 S3 S2 S1 S4 Code

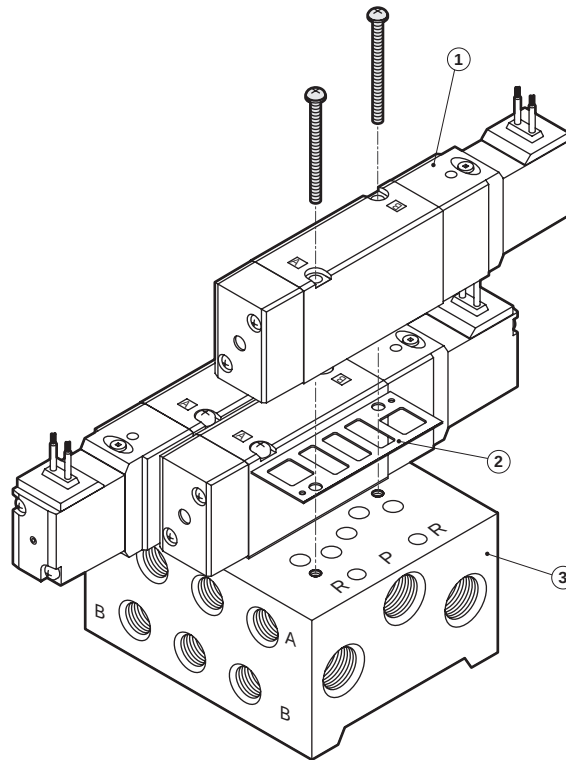
2-position single (S1) : 2 units (1st station, 6th station)
2-position double (S2) : 2 units (2nd station, 5th station)
3-position all ports closed (S3) : 2 units (3rd station, 4th station)
3-position ABR connection (S4) : 1 unit (7th station)

↓
M4KB380-08-7-AC100V -

S1	S2	S3	S4	S5	MP
2	2	2	1	0	0

S1=1, 6 S2=2, 5 S3=3, 4 S4=7

Manifold components explanation and parts list



Main parts list

No.	Component name	Model No. (example)	Content
1	Single solenoid valve	4KB□□9-00-□□□□□ □□□□□ □□□□□ □□□□□ □□□□□ □□□□□ □□□□□ □□□□□ □□□□□ □□□□□ □□□□□ □□□□□ □□□□□ □□□□□	Single solenoid valve Mounting screws x 2 Gasket
2	Gasket kit	M4KB□□0-GASKET-KIT	Gasket Mounting screws x 2
3	Manifold sub-plate kit	M4KB□10-□□□-SUB-BASE-KIT □□□□□ □□□□□ □□□□□	Manifold sub-plate Mounting screws x 2 x station No. Gasket x station No.

Repair parts list

No.	Part name	Model No.	Compatibility	No.	Part name	Model No.	Compatibility
-	Coil assembly	4K1L-□□-COIL-□□ □□□□□ □□□□□	4KB1 4KB2	-	Piston assembly	4K9-□□151	4KB110 4KB120
-	Coil assembly	4K3-□□-COIL-□□ □□□□□ □□□□□	4KB3 4KB4	-	Piston assembly	152	4KB130 4KB140 4KB150
-	Spool assembly	4K9-□□110	4KB110	-	Piston assembly	153	4KB210 4KB220
-	Spool assembly	118	4KB120	-	Piston assembly	154	4KB230 4KB240 4KB250
-	Spool assembly	111	4KB130	-	Piston assembly	137	4KB310, 4KB320
-	Spool assembly	112	4KB140	-	Piston assembly	138	4KB330 4KB340 4KB350
-	Spool assembly	113	4KB150	-	Piston assembly	144	4KB410, 4KB420
-	Spool assembly	150	4KB210	-	Piston assembly	145	4KB430 4KB440 4KB450
-	Spool assembly	126	4KB220	-	Piston assembly		
-	Spool assembly	127	4KB230	-	Piston assembly		
-	Spool assembly	128	4KB240	-	Piston assembly		
-	Spool assembly	129	4KB250	-	Piston assembly		
-	Spool assembly	133	4KB310, 4KB320	-	Piston assembly		
-	Spool assembly	134	4KB330	-	Piston assembly		
-	Spool assembly	135	4KB340	-	Piston assembly		
-	Spool assembly	136	4KB350	-	Piston assembly		
-	Spool assembly	140	4KB410, 4KB420	-	Piston assembly		
-	Spool assembly	141	4KB430	-	Piston assembly		
-	Spool assembly	142	4KB440	-	Piston assembly		
-	Spool assembly	143	4KB450	-	Piston assembly		

4GA/B
M4GA/B
MN4GA/B
4GA/B (master)
4GB
With sensor
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (master)
4F
4F (master)
PV5G
GMF
PV5
GMF
PV5S-0
3Q
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP
NVP
4G*0EJ
4F*0EX
4F*0E
HNV
HSV
2QV
3QV
SKH
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

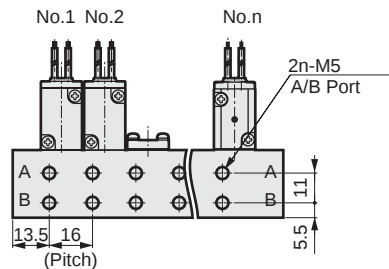
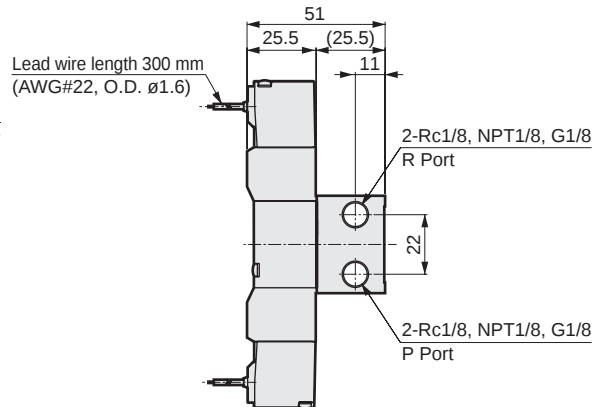
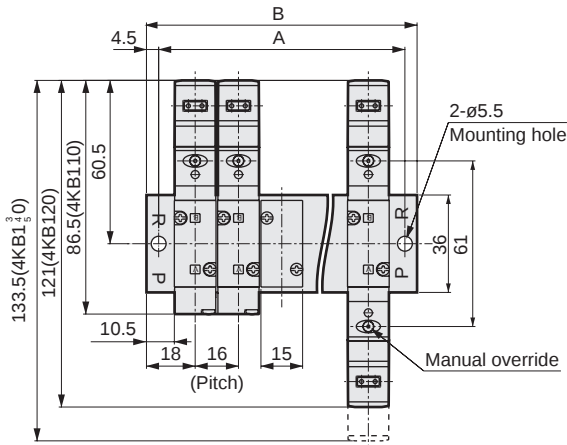
M4KB1-M5/06 Series

Individual wiring manifold: sub-plate piping

Dimensions

M4KB1-M5, M5N, M5G

● Port size M5: grommet lead wire

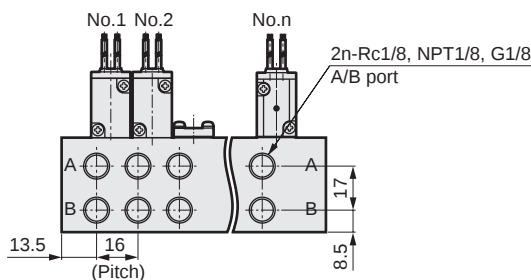
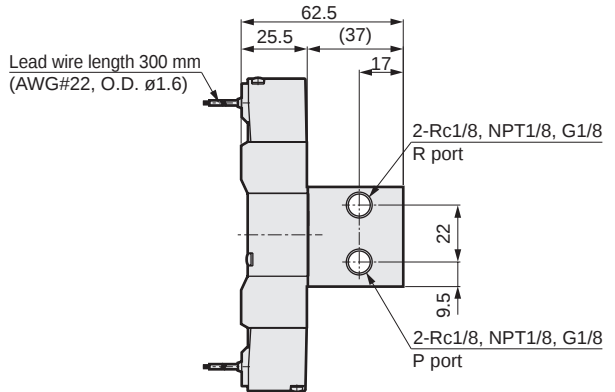
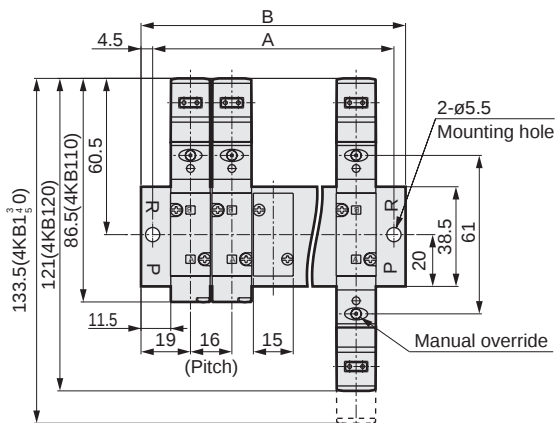


■ Single model No. for manifold
4KB1*9-00-option-voltage

Station No.	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	43	59	75	91	107	123	139	155	171	187	203	219	235	251	267	283	299	315	331
B	52	68	84	100	116	132	148	164	180	196	212	228	244	260	276	292	308	324	340

M4KB1-06, 06N, 06G

● Port size Rc1/8, NPT1/8, G1/8: grommet lead wire



■ Single model No. for manifold
4KB1*9-00-option-voltage

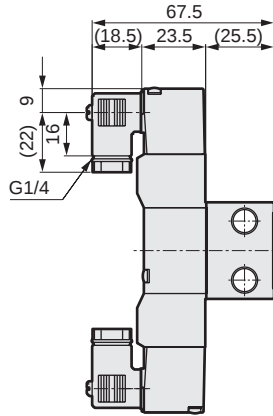
Station No.	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	45	61	77	93	109	125	141	157	173	189	205	221	237	253	269	285	301	317	333
B	54	70	86	102	118	134	150	166	182	198	214	230	246	262	278	294	310	326	342

Dimensions

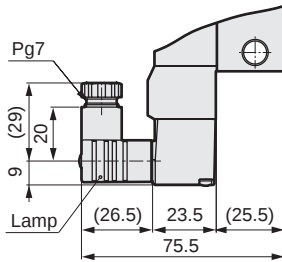
[For port size M5, M5N, M5G]

- Compact terminal box: (B/L/LS)

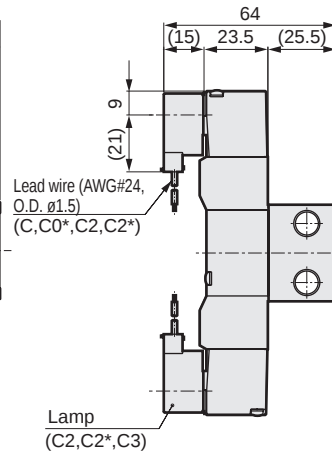
Without indicator lamp



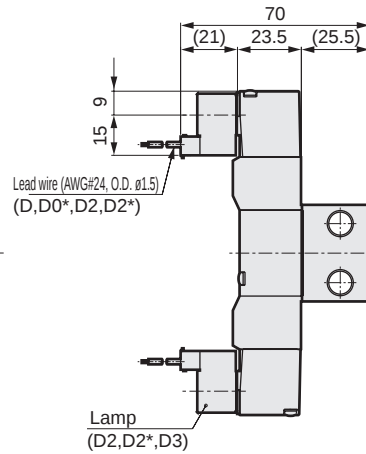
With indicator lamp



- C-connector: (C/C1/C0*/C2/C2*/C3)



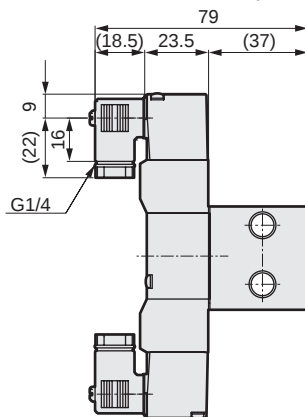
- D-connector: (D/D1/D0*/D2/D2*/D3)



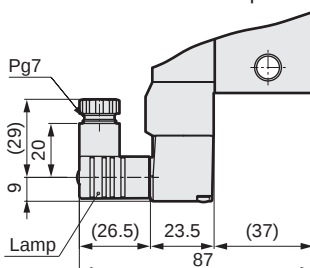
[For port size Rc1/8, NPT1/8, G1/8]

- Compact terminal box: (B/L/LS)

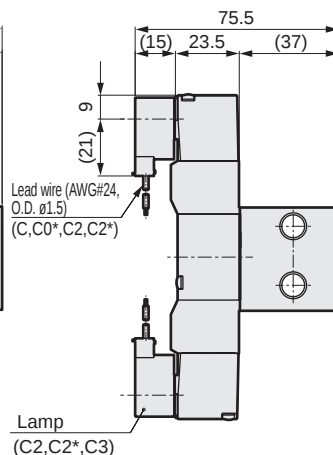
Without indicator lamp



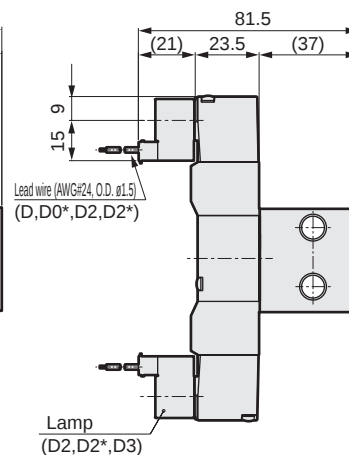
With indicator lamp



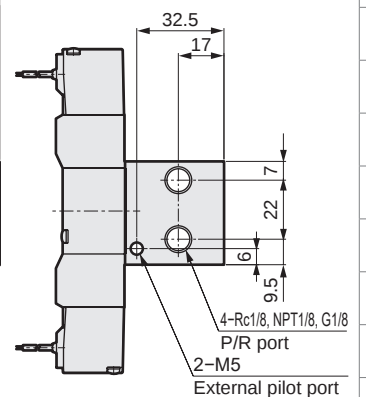
- C-connector: (C/C1/C0*/C2/C2*/C3)



- D-connector: (D/D1/D0*/D2/D2*/D3)



- External pilot: (K)
(Port size Rc1/8, NPT1/8, G1/8, station No. 10 stations or less)



4GA/B
M4GA/B
MN4GA/B
4GA/B (master)
4GB With sensor
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (master)
4F
4F (master)
PV5G
GMF
PV5
GMF
PV5S-0
3Q
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP
NVP
4G*0EJ
4F*0EX
4F*0E
HMV
HSV
2QV
3QV
SKH
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

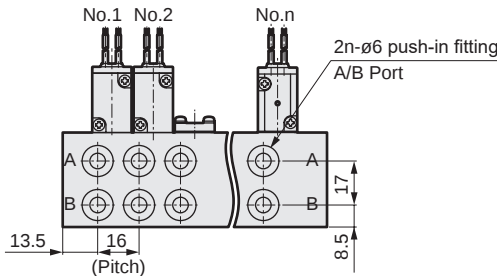
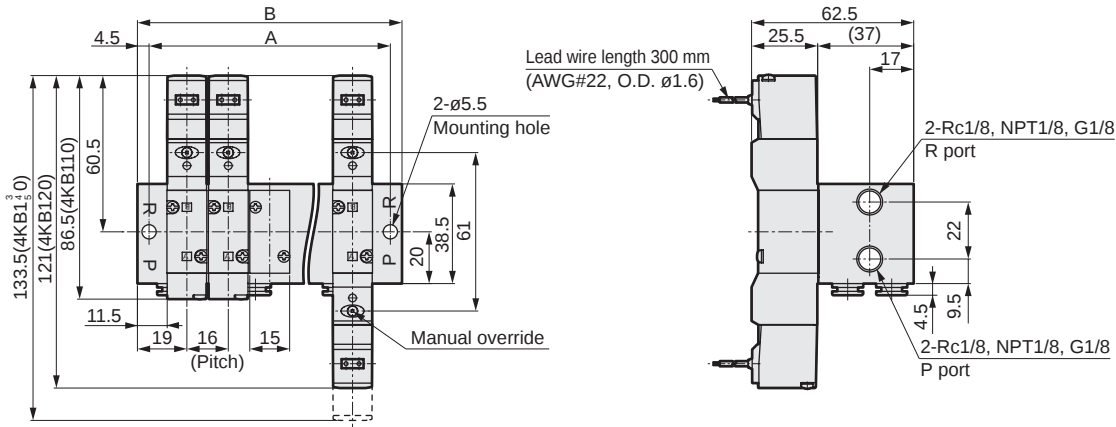
M4KB1-H6/M5Y Series

Individual wiring manifold: sub-plate piping

Dimensions

M4KB1-H6

● Port size $\phi 6$ push-in fitting: grommet lead wire

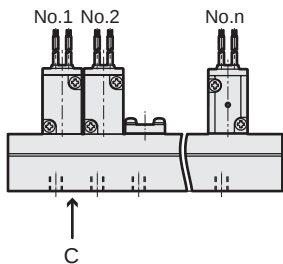
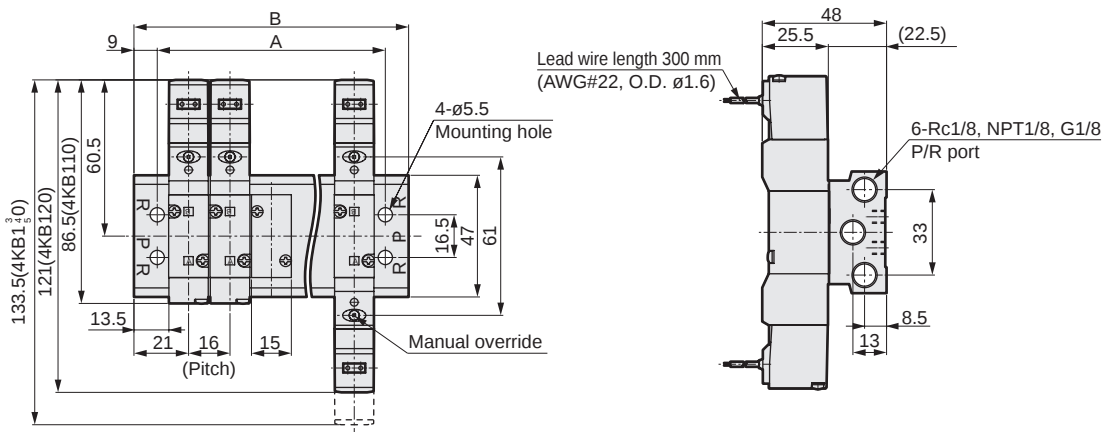


■ Single model No. for manifold
4KB1*9-00-option-voltage

Station No.	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	45	61	77	93	109	125	141	157	173	189	205	221	237	253	269	285	301	317	333
B	54	70	86	102	118	134	150	166	182	198	214	230	246	262	278	294	310	326	342

M4KB1-M5Y, M5YN, M5YG

● Port size M5 (rear piping): grommet lead wire



■ Single model No. for manifold
4KB1*9-00Y-option-voltage

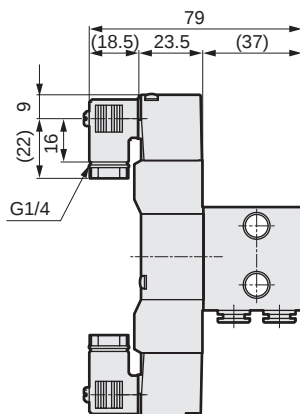
Station No.	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	40	56	72	88	104	120	136	152	168	184	200	216	232	248	264	280	296	312	328
B	58	74	90	106	122	138	154	170	186	202	218	234	250	266	282	298	314	330	346

Dimensions

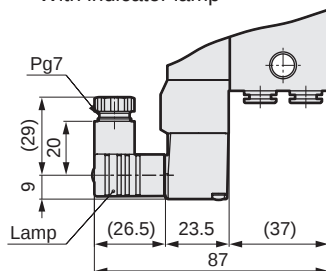
(With port size ø6 push-in fitting)

● Compact terminal box: (B/L/LS)

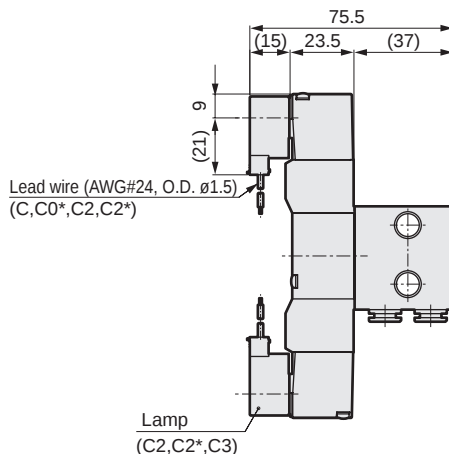
Without indicator lamp



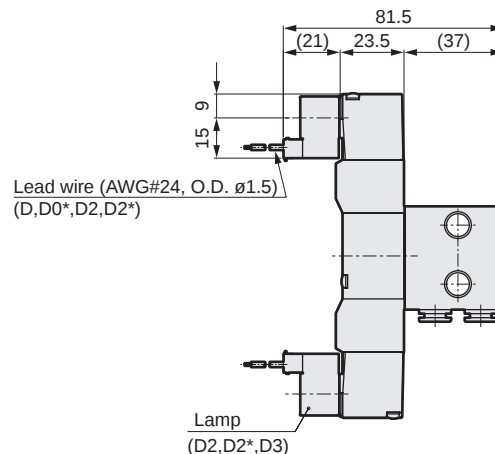
With indicator lamp



● C-connector:
(C/C1/C0*/C2/C2*/C3)



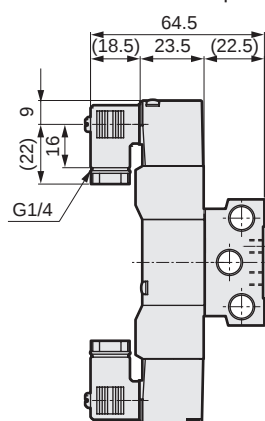
● D-connector:
(D/D1/D0*/D2/D2*/D3)



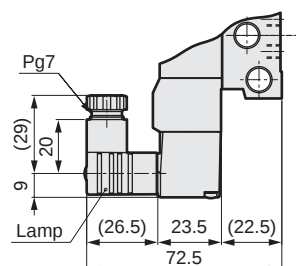
[When port size is M5 (rear piping)]

● Compact terminal box: (B/L/LS)

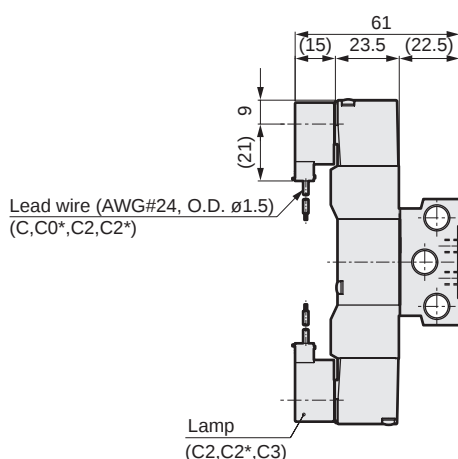
Without indicator lamp



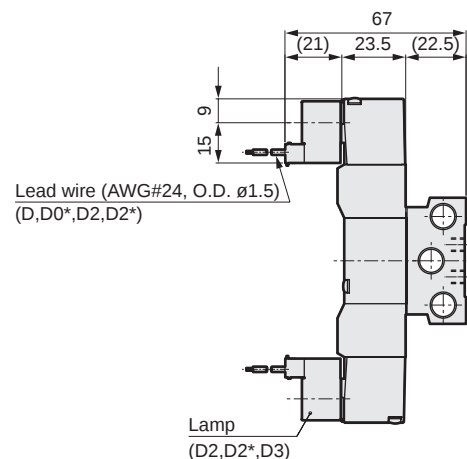
With indicator lamp



● C-connector:
(C/C1/C0*/C2/C2*/C3)



● D-connector:
(D/D1/D0*/D2/D2*/D3)



4GA/B
M4GA/B
MN4GA/B
4GA/B (master)
4GB With sensor
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (master)
4F
4F (master)
PV5G
GMF
PV5
GMF
PV5S-0
3Q
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP
NVP
4G*0EJ
4F*0EX
4F*0E
HMV
HSV
2QV
3QV
SKH
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

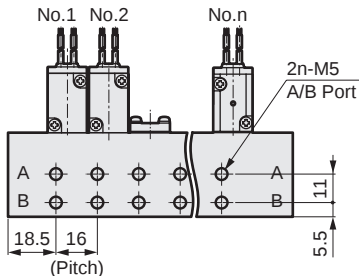
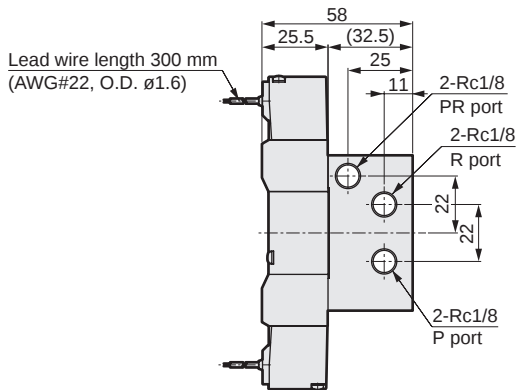
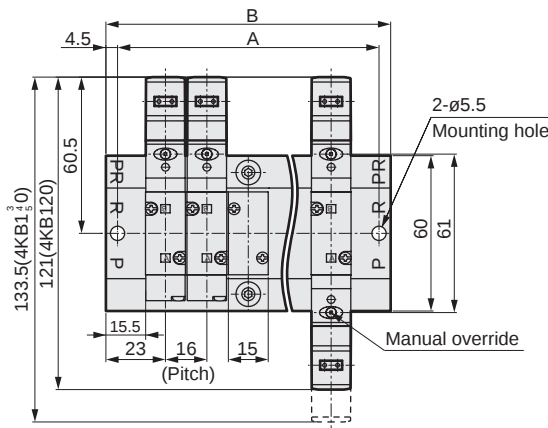
M4KB1-*CE Series

Individual wiring manifold: sub-plate piping (pilot common exhaust)

Dimensions

M4KB1-M5CE

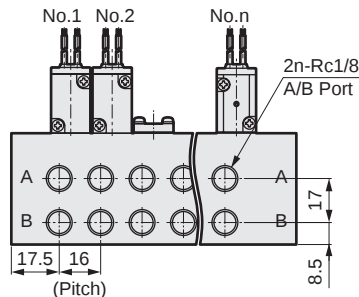
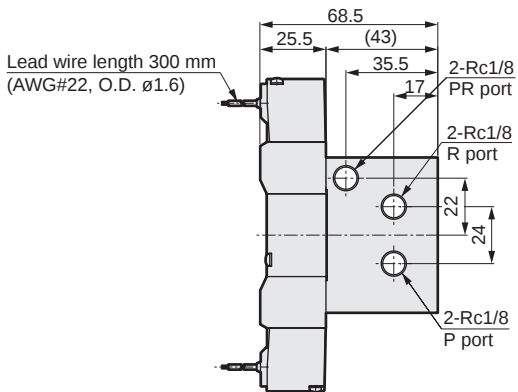
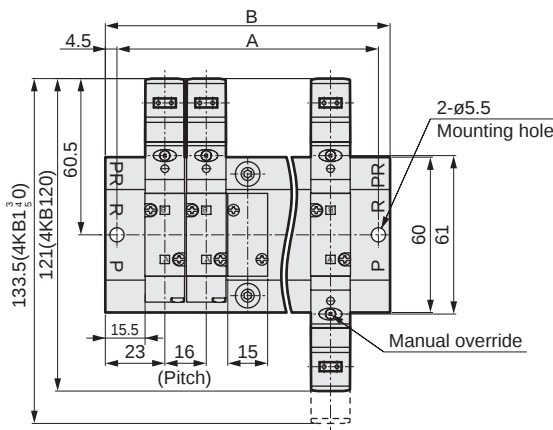
● Port size M5/pilot common exhaust: grommet lead wire



■ Single model No. for manifold
4KB1*9-00CE-option-voltage

M4KB1-06CE

● Port size Rc1/8, pilot common exhaust: grommet lead wire



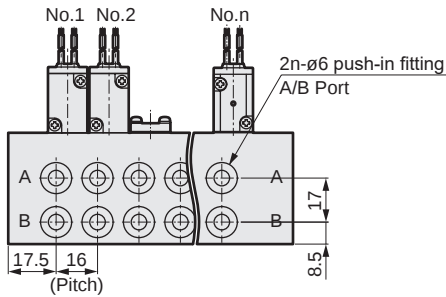
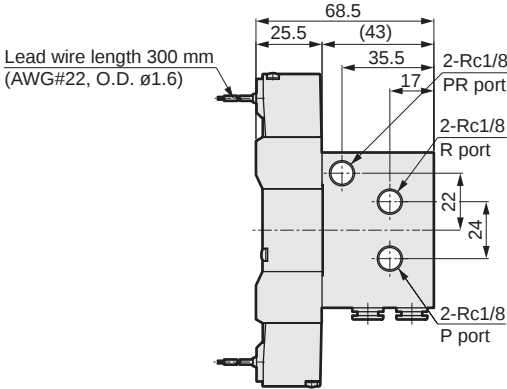
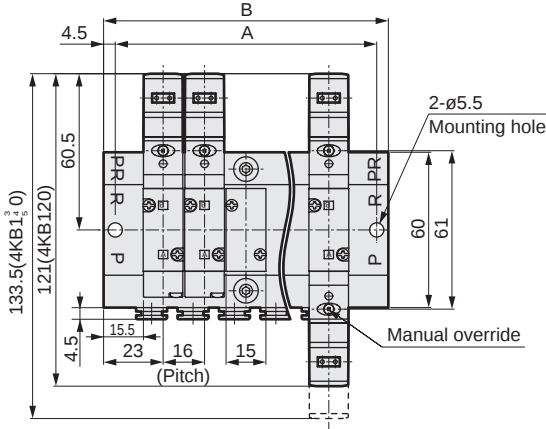
■ Single model No. for manifold
4KB1*9-00CE-option - voltage

Station No.	2	3	4	5	6	7	8	9	10
A	53	69	85	101	117	133	149	165	181
B	62	78	94	110	126	142	158	174	190

Dimensions

M4KB1-H6CE

● Port size ø6 push-in fitting/pilot common exhaust: grommet lead wire



■ Single model No. for manifold
4KB1*9-00CE-option - voltage

Station No.	2	3	4	5	6	7	8	9	10
A	53	69	85	101	117	133	149	165	181
B	62	78	94	110	126	142	158	174	190

4GA/B
M4GA/B
MN4GA/B
4GA/B (master)
4GB With sensor
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (master)
4F
4F (master)
PV5G
GMF
PV5
GMF
PV5S-0
3Q
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP
NVP
4G*0EJ
4F*0EX
4F*0E
HMV
HSV
2QV
3QV
SKH
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

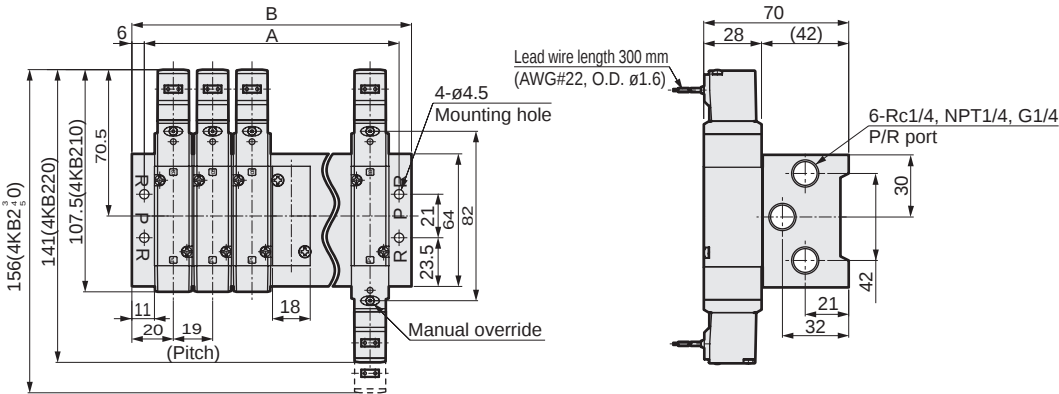
M4KB2 Series

Individual wiring manifold: sub-plate piping

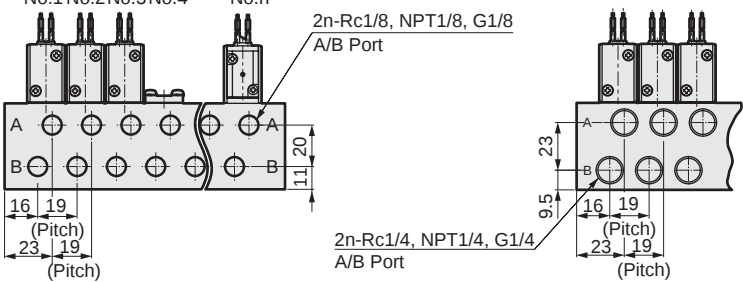
Dimensions

M4KB2-06/08, 06N/08N, 06N/06G

● Port size Rc1/8/Rc1/4, NPT1/8/NPT1/4, G1/8/G1/4: grommet lead wire



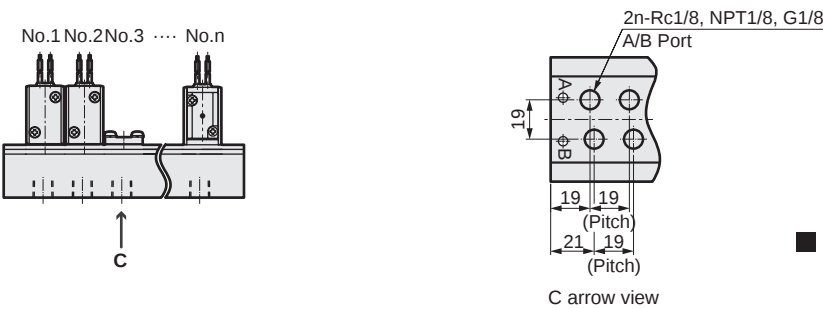
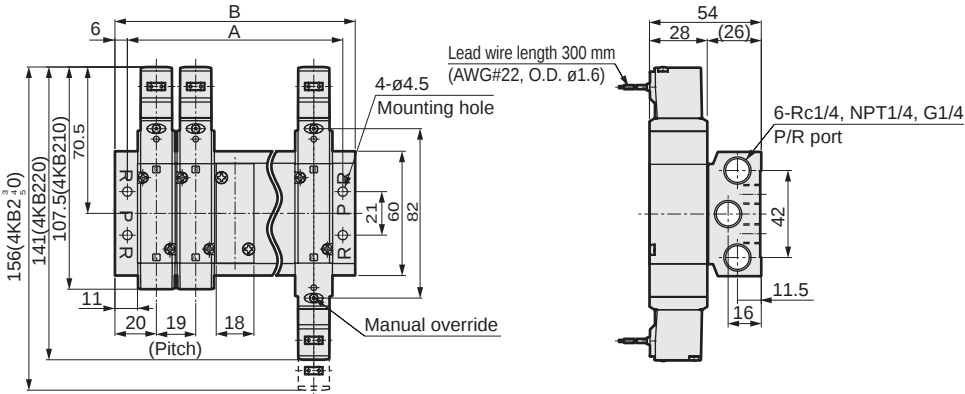
M4KB2-08, 08N, 08G



■ Single model No. for manifold
4KB2*9-00-option - voltage

M4KB2-06Y, 06YN, 06YG

● Port size Rc1/8, NPT1/8, G1/8 (rear piping): grommet lead wire

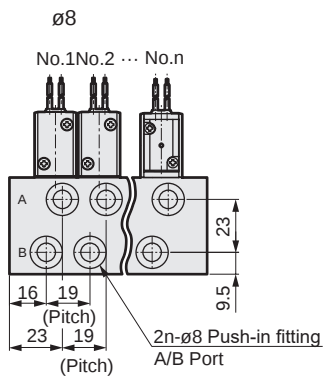
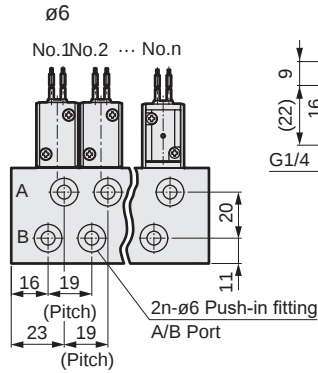


■ Single model No. for manifold
4KB2*9-00-option - voltage

Station No.	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	47	66	85	104	123	142	161	180	199	218	237	256	275	294	313	332	351	370	389
B	59	78	97	116	135	154	173	192	211	230	249	268	287	306	325	344	363	382	401

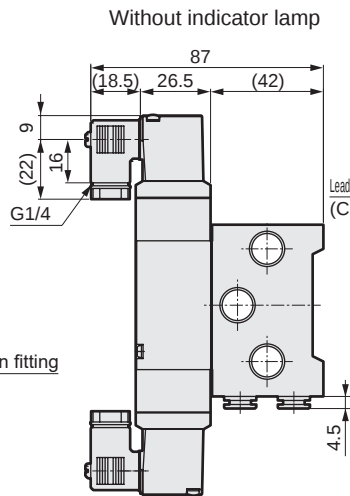
Dimensions

- $\phi 6/\phi 8$ push-in fitting:
(H6/H8)

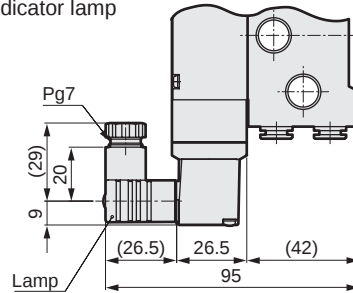


- Port size Rc1/8 (rear piping)

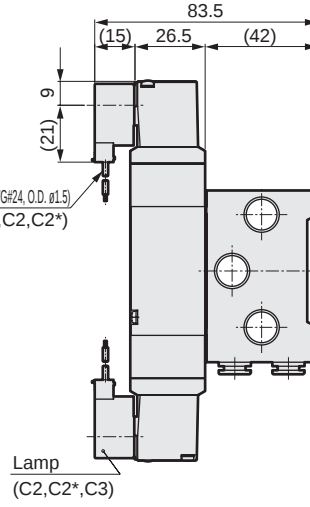
- Compact terminal box:
(B/L/LS)



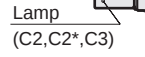
- With indicator lamp



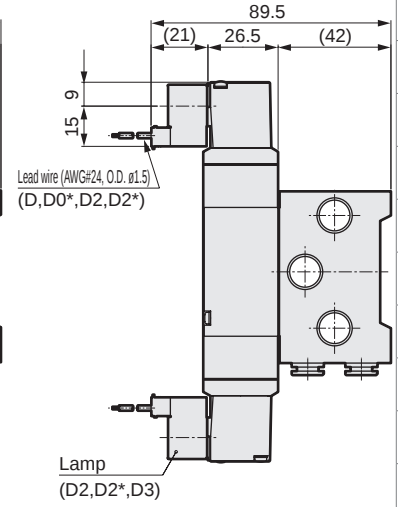
- C-connector:
(C/C1/C0*/C2/C2*/C3)



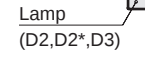
- With indicator lamp



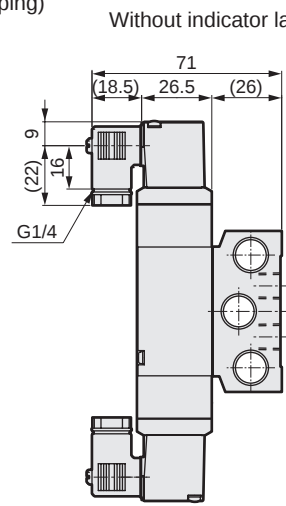
- D-connector:
(D/D1/D0*/D2/D2*/D3)



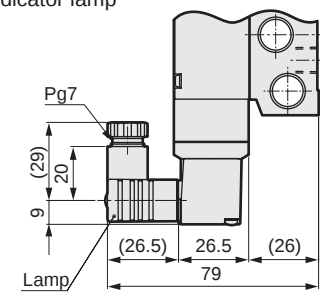
- With indicator lamp



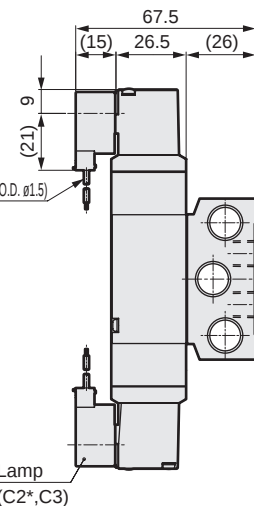
- Without indicator lamp



- With indicator lamp



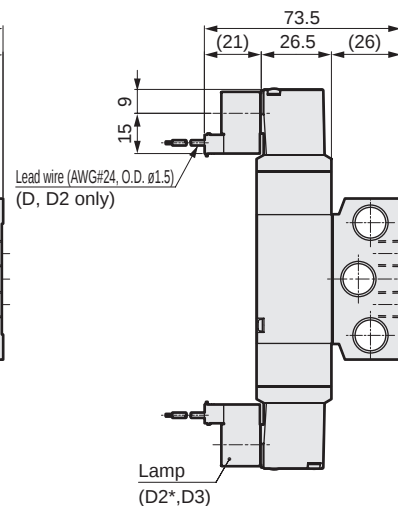
- Without indicator lamp



- With indicator lamp



- Without indicator lamp



- With indicator lamp



4GA/B
M4GA/B
MN4GA/B
4GA/B (master)
4GB With sensor
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (master)
4F
4F (master)
PV5G
GMF
PV5
GMF
PV5S-0
3Q
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP
NVP
4G*0EJ
4F*0EX
4F*0E
HMV
HSV
2QV
3QV
SKH
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

M4KB3 Series

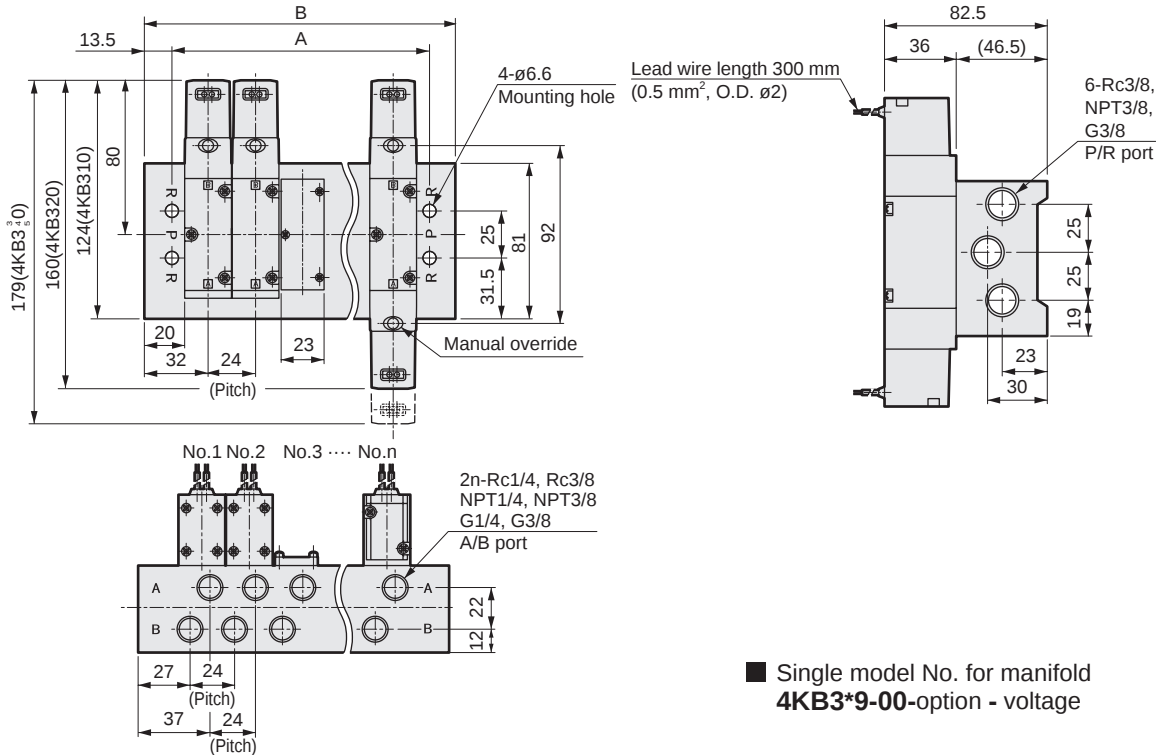
Individual wiring manifold: sub-plate piping

Dimensions



M4KB3-08/10, 08N/10N, 08G/10G

● Port size Rc1/4/Rc3/8, NPT1/4/NPT3/8, G1/4/G3/8: grommet lead wire

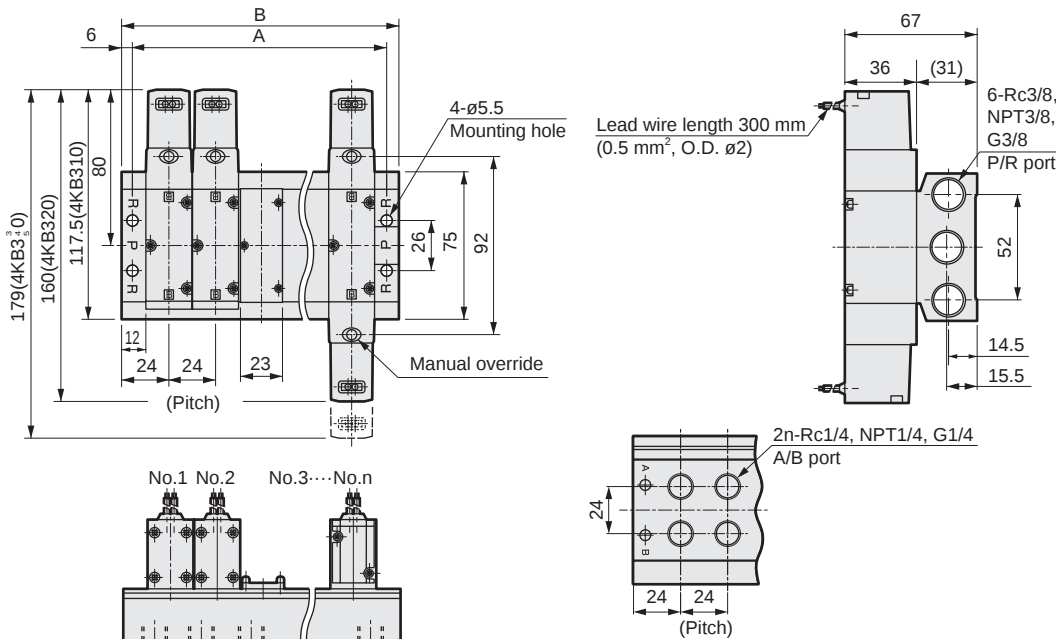


Single model No. for manifold
4KB3*9-00-option - voltage

Station No.	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	61	85	109	133	157	181	205	229	253	277	301	325	349	373
B	88	112	136	160	184	208	232	256	280	304	328	352	376	400

M4KB3-08Y, 08YN, 08YG

● Port size Rc1/4, NPT1/4, G1/4 (rear piping): grommet lead wire



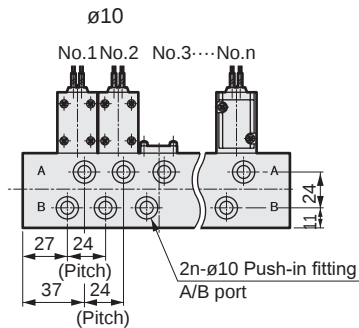
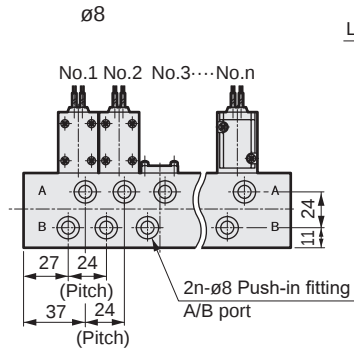
C arrow view

Single model No. for manifold
4KB3*9-00-option - voltage

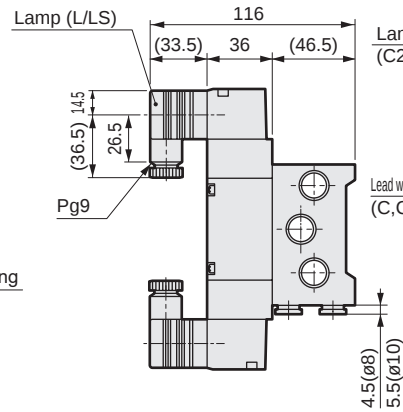
Station No.	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	60	84	108	132	156	180	204	228	252	276	300	324	348	372
B	72	96	120	144	168	192	216	240	264	288	312	336	360	384

Dimensions

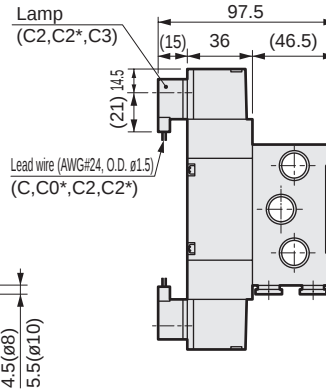
- $\varnothing 8/\varnothing 10$ push-in fitting: (H8/H10)



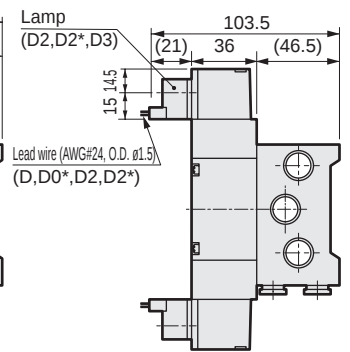
- Terminal box: (B/L/LS)



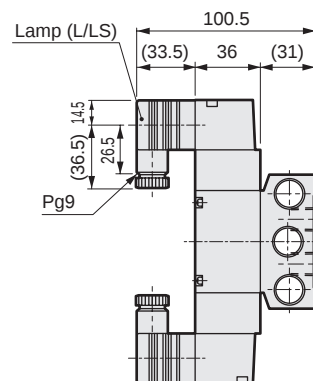
- C-connector: (C/C1/C0*/C2/C2*/C3)



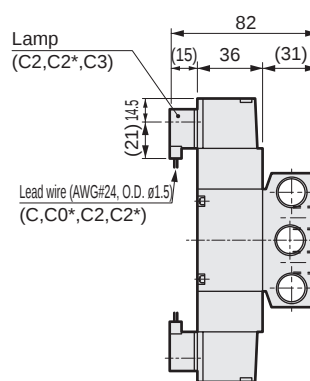
- D-connector: (D/D1/D0*/D2/D2*/D3)



- Port size Rc1/4 (rear piping)

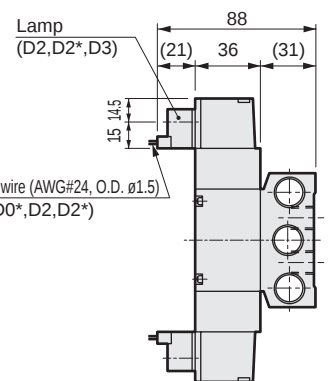


- Terminal box: (B/L/LS)



- C-connector: (C/C1/C0*/C2/C2*/C3)

- D-connector: (D/D1/D0*/D2/D2*/D3)



4GA/B
M4GA/B
MN4GA/B
4GA/B (master)
4GB With sensor
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (master)
4F
4F (master)
PV5G
GMF
PV5
GMF
PV5S-0
3Q
MV3QR
3MA/B0
3PA/B
P/M/B
NP/INP
NVP
4G*0EJ
4F*0EX
4F*0E
HMV
HSV
2QV
3QV
SKH
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

M4KB4 Series

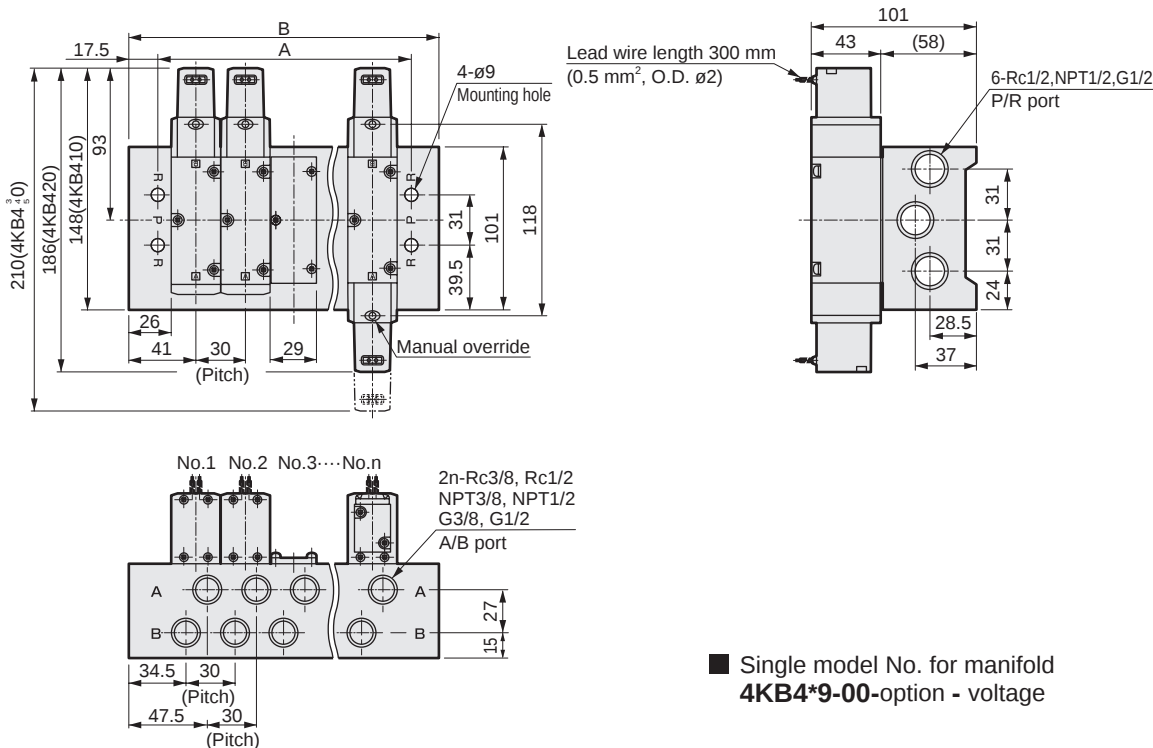
Individual wiring manifold: sub-plate piping

Dimensions



M4KB4-10/15, 10N/15N, 10G/15G

● Port size Rc3/8/Rc1/2, NPT3/8/NPT1/2, G3/8/G1/2: grommet lead wire

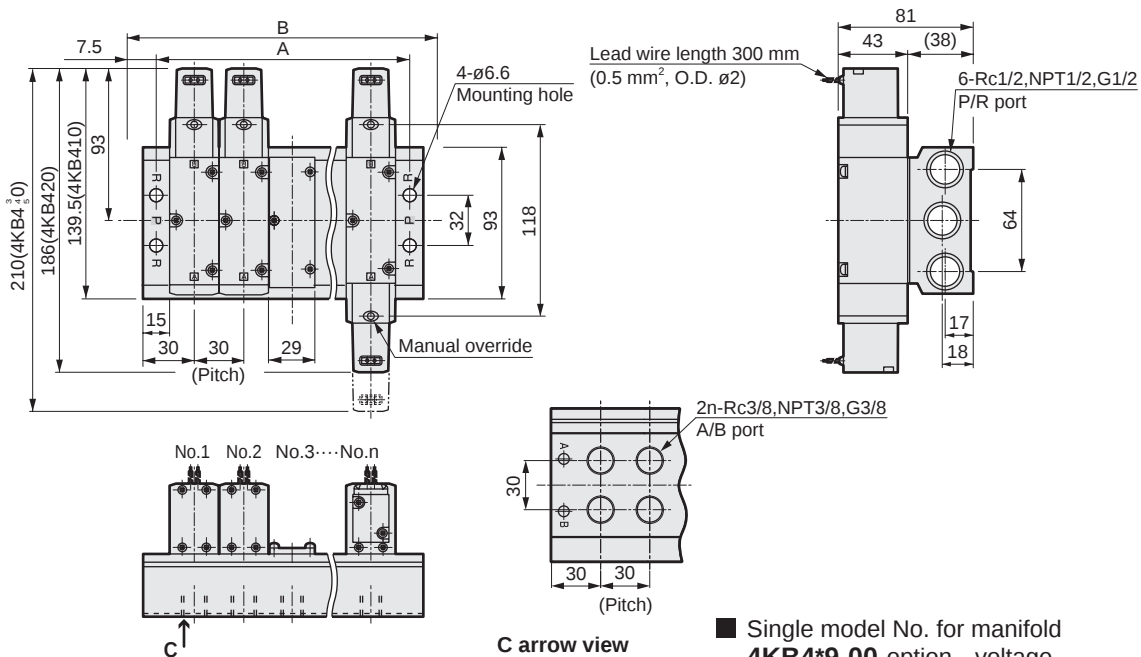


■ Single model No. for manifold
4KB4*9-00-option - voltage

Station No.	2	3	4	5	6	7	8	9	10	11	12
A	77	107	137	167	197	227	257	287	317	347	377
B	112	142	172	202	232	262	292	322	352	382	412

M4KB4-10Y, 10YN, 10YG

● Port size Rc3/8, NPT3/8, G3/8 (rear piping): grommet lead wire

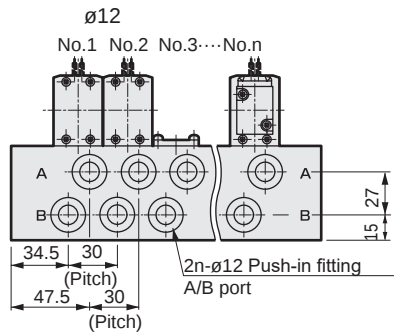
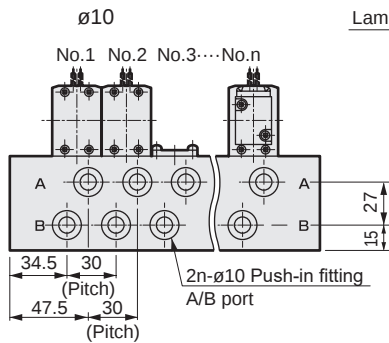


■ Single model No. for manifold
4KB4*9-00-option - voltage

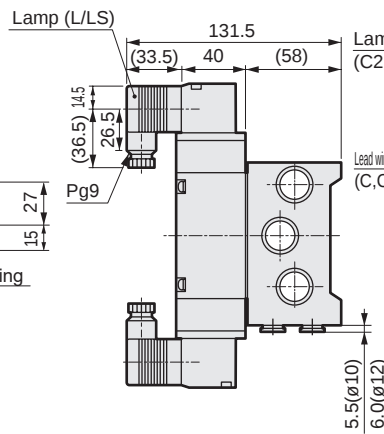
Station No.	2	3	4	5	6	7	8	9	10	11	12
A	75	105	135	165	195	225	255	285	315	345	375
B	90	120	150	180	210	240	270	300	330	360	390

Dimensions

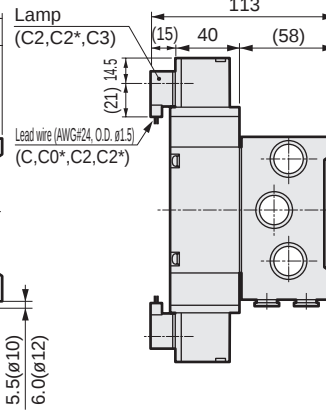
- $\varnothing 10/\varnothing 12$ push-in fitting:
(H10/H12)



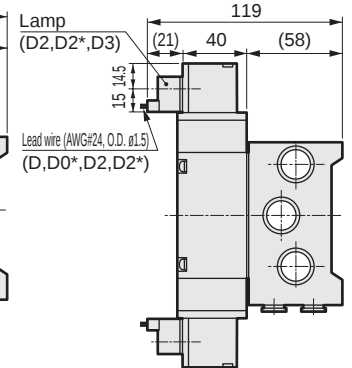
- Terminal box:
(B/L/LS)



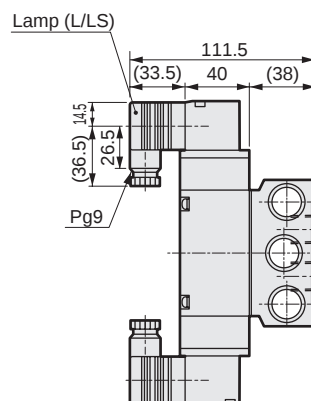
- C-connector:
(C/C1/C0*/C2/C2*/C3)



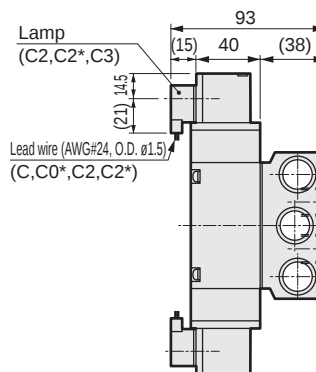
- D-connector:
(D/D1/D0*/D2/D2*/D3)



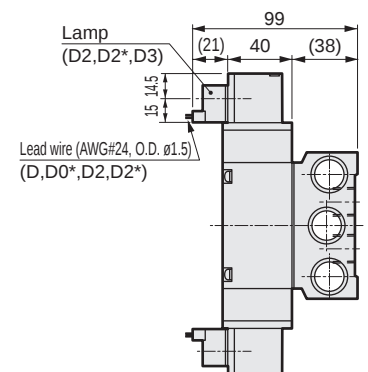
- Port size Rc3/8 (rear piping)



- C-connector:
(C/C1/C0*/C2/C2*/C3)



- D-connector:
(D/D1/D0*/D2/D2*/D3)



4GA/B
M4GA/B
MN4GA/B
4GA/B (master)
4GB With sensor
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (master)
4F
4F (master)
PV5G
GMF
PV5
GMF
PV5S-0
3Q
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP
NVP
4G*0EJ
4F*0EX
4F*0E
HMV
HSV
2QV
3QV
SKH
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending