



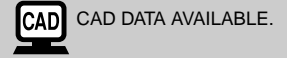
Individual wiring manifold

Sub base porting

Direct mount type/DIN rail mount type

M4GB1-2-3/M4GB1-2-3-D Series

• Applicable cylinder bore size: 20 to 100 mm



Manifold common specifications

Descriptions		
Manifold type		Integrated base
Installation method		Direct mount type/DIN rail mount type
Air supply/exhaust air method		Common supply/exhaust (check valve incorporated)
Pilot exhaust air method	Internal pilot	Main/pilot valves common exhaust (pilot exhaust check valve incorporated)
	External pilot	Main valve/pilot valve individual exhaust
Piping direction		Base lateral
Working fluid		Compressed air
Valve and solenoid type		Pilot operated soft spool valve
Min. working pressure	MPa	0.2 (2-position, 3-position)
Max. working pressure	MPa	0.7
Withstanding pressure	MPa	1.05
Ambient temperature	°C	-5 to 55
Fluid temperature	°C	5 to 55
Manual override		Non-locking/locking type
Lubrication	Note 1	Not required
Protection structure	Note 2	Dust proof
Vibration/impact	m/s ²	50 or less/300 or less
Working environment		Not to be subject to corrosive gas

Electrical specifications

Descriptions		
Rated voltage	DC	12, 24
	AC	100
Rated voltage fluctuation		±10%
Holding current	DC24V	0.023(0.025)
	DC12V	0.046(0.050)
	AC100V	0.010(0.012)
Power consumption	DC24V	0.55 (0.6)
	DC12V	0.55 (0.6)
Apparent power	AC100V	1.0 (1.2)
Heat proof class		B
Temperature rise		°C 50
Surge suppressor		Option
Indicator		(Option) indicator light

Note 3. For indicator light, refer to the value in ().

Please refer to Page 90 about JIS symbol.

Note 1. For lubrication, please use turbine oil Class 11SOVG32.

Too much lubrication, intermittent lubrication may cause unstable operation.

Note 2. Not to be subject to water drip, oil etc.

For DIN terminal box specifications, IP65 (jet-proof type). Applicable cable outer diameter and specified tightening torque conformable with regulations should be observed.

<Reference> Pressure unit is MPa. Conversion ratio is 1MPa=10.1972kgf/cm².

Individual specifications

Descriptions		M4GB1		M4GB2		M4GB3	
		Direct mount	DIN rail mount	Direct mount	DIN rail mount	Direct mount	DIN rail mount
Max. station number	Standard (internal pilot operated)	20 station	16 station	20 station	16 station	20 station	16 station
	External pilot	12 station	12 station				
Port size	Port A/B	Push in joint 4, 6 mm dia. M5		Push in joint 4, 6, 8 mm dia. Rc1/8		Push in joint 6, 8, 10 dia. Rc1/4	
	Port P/R1/R2	Rc1/8		Rc1/4		Rc3/8	
Manifold base	Standard	35n+61	36n+115	71n+106	73n+134	113n+170	115n+119
Mass formula (n: Station #) g	External pilot	35n+106	36n+114	76n+135	78n+166	118n+194	120n+223

Read cautions for how to install DIN rail" (Page 81) before starting selection.

When station number is more than 10 (for 4G3, 5 station), air should be supplied and exhausted from ports on both sides.

Manifold base mass is the value for thread specifications.

Descriptions			M4GB1		M4GB2		M4GB3		
			P → A/B	A/B → R1/R2	P → A/B	A/B → R1/R2	P → A/B	A/B → R1/R2	
Effective sectional area	Port size	Port A/B	Push in joint 6 dia.		Rc1/8		Rc1/4		
	mm ²	2-position		4.5	4.0	11	9.0	19	16
			3-position	All ports closed	4.5	4.5	10	10	17
		ABR connection		4.5	4.0	10	9.0	17	16
	PAB connection	5.5	4.5	13	10	20	17		

Effective sectional area of 2-position and ABR connection is the value when check valve incorporated.

M4GB1/2/3 Series

Individual wiring type manifold: Sub base porting

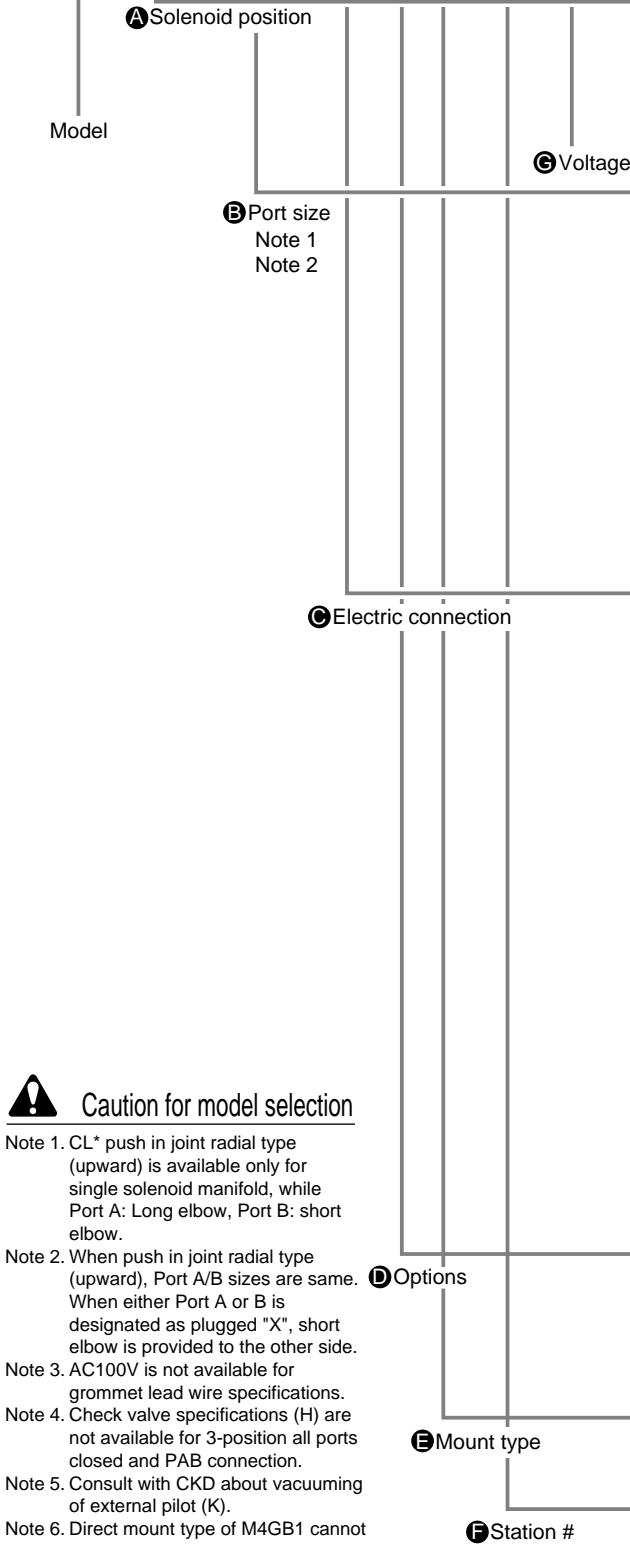
How to order

Manifold model No.

M4GB1 1 0 - C6 - E2 H D -

Discrete valve for base installation

4GB1 1 9 - 00 - E2 H



- Complete "manifold specification sheet" (Page 227 to 229).

		Model		
		M4GB1	M4GB2	M4GB3
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, 5 port pilot operated valve	Individual wiring manifold			

Symbol	Descriptions	M4GB1	M4GB2	M4GB3	
A Solenoid position					
1	2-position single	●	●	●	
2	2-position double	●	●	●	
3	3-position all ports closed	●	●	●	
4	3-position ABR connection	●	●	●	
5	3-position PAB connection	●	●	●	
8	Mix manifold	●	●	●	
B Port size					
Port	Port A/B	Port P/R1/R2 ②=Rc1/8 ③=Rc1/4 ④=Rc3/8			
C4	4 mm push in joint	②	③		
C6	6 mm push in joint	②	③	④	
C8	8 mm push in joint		③	④	
C10	10 mm push in joint			④	
CL4	4 mm push in joint radial type (upward)	②			
CL6	6 mm push in joint radial type (upward)	②	③		
CL8	8 mm push in joint radial type (upward)		③	④	
CL10	10 mm push in joint radial type (upward)			④	
CX	Push in mix joint	②	③	④	
M5	M5	②			
06	Rc1/8		③		
08	Rc1/4			④	
C Electric connection					
Blank	Grommet lead wire (300mm)	Note 3	●	●	●
B	DIN terminal box (Pg7) surge suppressor/light			●	●
E-connector (up/lateral common)					
E0	Lead wire (300mm)		●	●	●
E00	Lead wire (500mm)		●	●	●
E01	Lead wire (1000mm)		●	●	●
E02	Lead wire (2000mm)		●	●	●
E03	Lead wire (3000mm)		●	●	●
E2	Lead wire (300mm) surge suppressor/light		●	●	●
E20	Lead wire (500mm) surge suppressor/light		●	●	●
E21	Lead wire (1000mm) surge suppressor/light		●	●	●
E22	Lead wire (2000mm) surge suppressor/light		●	●	●
E23	Lead wire (3000mm) surge suppressor/light		●	●	●
E0N	No lead wire (no socket)		●	●	●
E2N	No lead wire (no socket) surge suppressor/light		●	●	●
E3	No lead wire (socket/terminal attached) surge suppressor/light		●	●	●
E1	No lead wire (socket/terminal attached)		●	●	●
EJ-connector (socket with cover, up/lateral common)					
E01J	Lead wire (1000mm)		●	●	●
E02J	Lead wire (2000mm)		●	●	●
E03J	Lead wire (3000mm)		●	●	●
E21J	Lead wire (1000mm) surge suppressor/light		●	●	●
E22J	Lead wire (2000mm) surge suppressor/light		●	●	●
E23J	Lead wire (3000mm) light		●	●	●
D Option					
Blank	Blank		●	●	●
H	Check valve (standard)	Note 4	●	●	●
K	External pilot	Note 5	●	●	●
A	Ozone/coolant proof		●	●	●
F	Filter incorporated in Port A/B (Port P: Provided as standard)		●	●	●
E Mount type					
Blank	Direct mount type	Note 6	●	●	●
D	DIN rail mount type		●	●	●
F Station #					
2	2 station				
to	to		●	●	●
20	Refer to Page 170 about maximum station number.				
G Voltage					
1	AC100V (rectified bridge incorporated)		●	●	●
3	DC24V		●	●	●
4	DC12V		●	●	●

is not available.



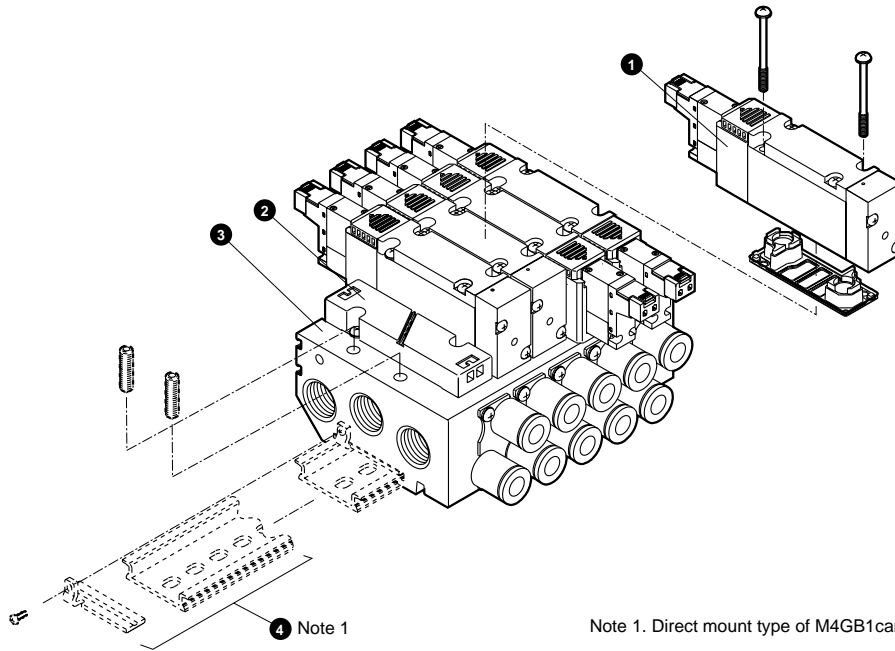
Caution for model selection

- Note 1. CL* push in joint radial type (upward) is available only for single solenoid manifold, while Port A: Long elbow, Port B: short elbow.
- Note 2. When push in joint radial type (upward), Port A/B sizes are same. When either Port A or B is designated as plugged "X", short elbow is provided to the other side.
- Note 3. AC100V is not available for grommet lead wire specifications.
- Note 4. Check valve specifications (H) are not available for 3-position all ports closed and PAB connection.
- Note 5. Consult with CKD about vacuuming of external pilot (K).
- Note 6. Direct mount type of M4GB1 cannot be changed to DIN rail mount type.

M4GB1/2/3 Series

Individual wiring type manifold: Sub base porting

Explanation of manifold components and parts list



Note 1. Direct mount type of M4GB1 cannot be changed to DIN rail mount type.

Main construction part list

No.	Construction parts name	Model No.	Description	Remarks
1	Discrete valve for base installation	4GB ** 9 - 00 - [Electric connection] - [Option] - [Voltage] └─ Solenoid position └─ Flow rate	Discrete valve Gasket Set screw 2 PR check valve 2	Details Page 171
2	Masking plate	4G1 4G1-MP 4G2 4G2-MP 4G3 4G3-MP	Masking plate Gasket Set screw 2 PR check valves 2	
3	Manifold base assembly	M4GB * -[Port size]-[Option]-[D]-[Station #] └─ Flow rate └─ Mount type	Manifold base	
4	DIN rail kit			Details Page 81


Repair parts and related part list

No.	Parts name	Model No.	No.	Parts name	Model No.
-	Coil assembly	4G-[power supply connection]- * -COIL-[Voltage] └─ Blank: Standard └─ A: Ozone proof └─ Blank: Grommet lead wire	-	Cartridge type quick connector and related parts	4 dia. straight type 4G1-JOINT-C4
		6 dia. straight type 4G1-JOINT-C6			
		4 dia. radial 4G1-JOINT-CL4, CLL4			
		6 dia. radial 4G1-JOINT-CL6, CLL6			
		Plug cartridge 4G1-JOINT-CPG			
		4 dia. straight type 4G2-JOINT-C4			
		6 dia. straight type 4G2-JOINT-C6			
		8 dia. straight type 4G2-JOINT-C8			
		6 dia. radial 4G2-JOINT-CL6, CLL6			
		8 dia. radial 4G2-JOINT-CL8, CLL8			
		Plug cartridge 4G2-JOINT-CPG			
		6 dia. straight type 4G3-JOINT-C6			
		8 dia. straight type 4G3-JOINT-C8			
		10 dia. straight type 4G3-JOINT-C10			
		8 dia. radial 4G3-JOINT-CL8, CLL8			
		10 dia. radial 4G3-JOINT-CL10, CLL10			
		Plug cartridge 4G3-JOINT-CPG			

M4GB1 Series

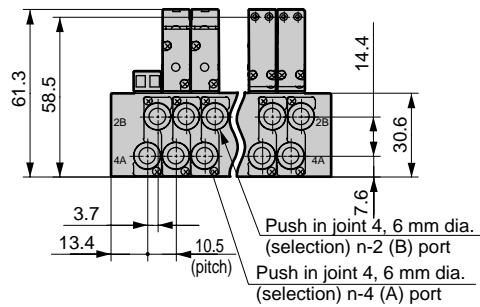
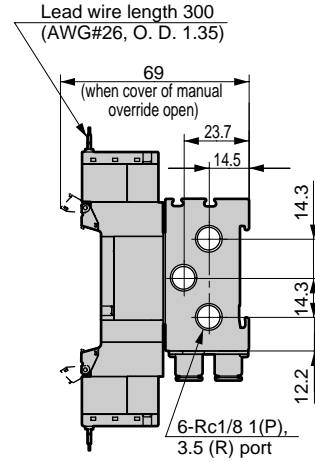
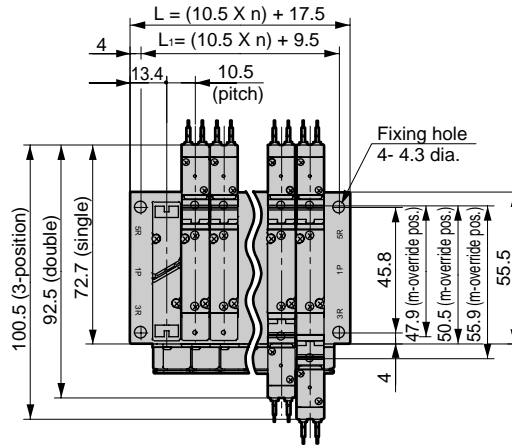
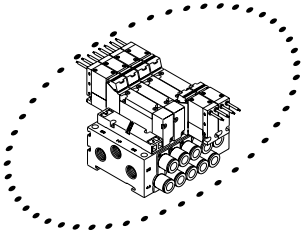
Individual wiring type manifold: Sub base porting

Dimensions

M4GB1  (File name: Page 240 or Ending 16)

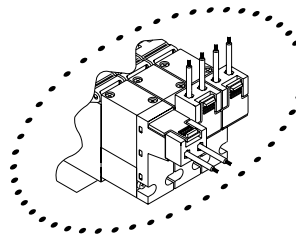
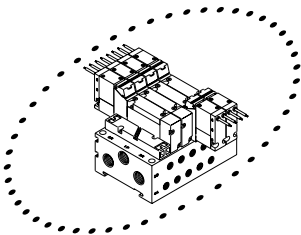
- Direct mount mounted
- Grommet lead wire(Blank)

Note. For direct mount.
Specifications change to DIN
rail is not available.

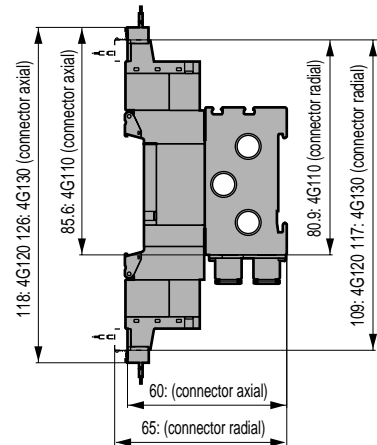
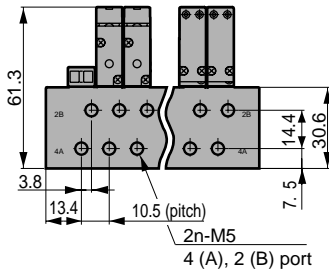


- M5 female thread type(M5)

- E-connector type(E)



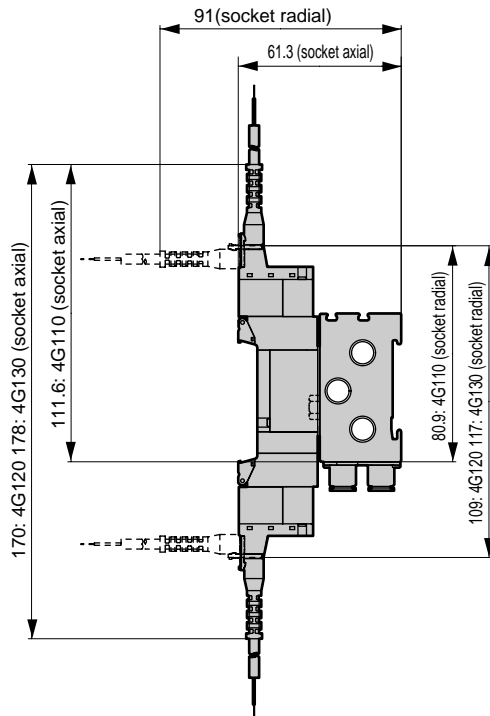
Note. Dimensions of DC
specifications are shown.
For AC100V, valve overall
length is single: 3.5mm
longer, while double/3-
position: 7mm longer.



Station #	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L	38.5	49	59.5	70	80.5	91	101.5	112	112.5	133	143.5	154	164.5	175	185.5	196	206.5	217	227.5
L ₁	30.5	41	51.5	62	72.5	83	93.5	104	114.5	125	135.5	146	156.5	167	177.5	188	198.5	209	219.5

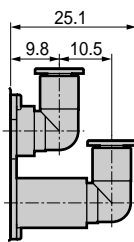
Dimensions

- EJ-connector type(E**J)

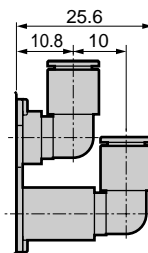


- Push in joint radial type (upward) type

- 4 dia.(CL4)



- 6 dia.(CL6)



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, 5 port pilot operated valve
Individual wiring manifold

M4GB1-D Series

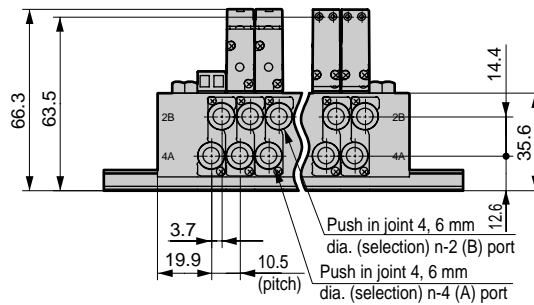
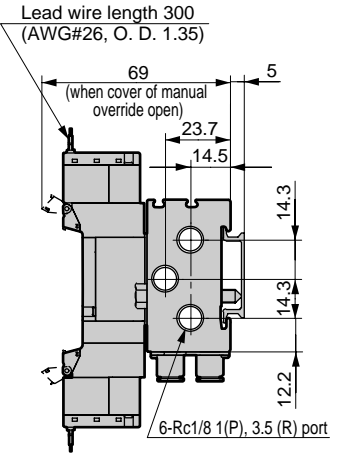
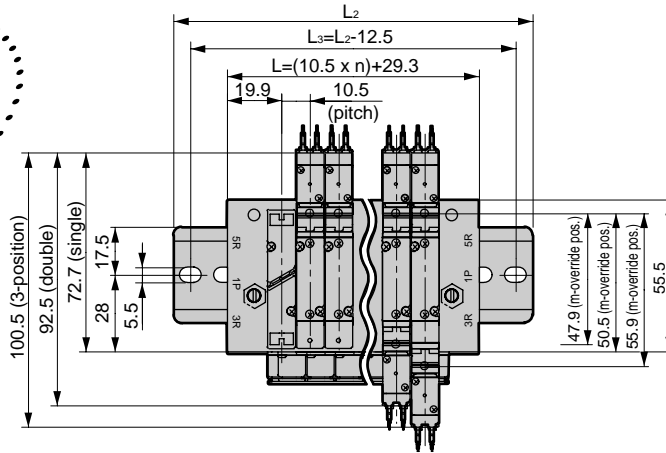
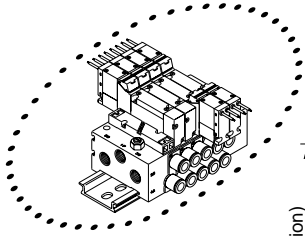
Individual wiring type manifold: Sub base porting

Dimensions

M4GB1  (File name: Page 240 or Ending 16)

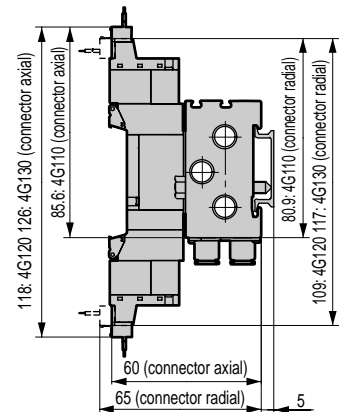
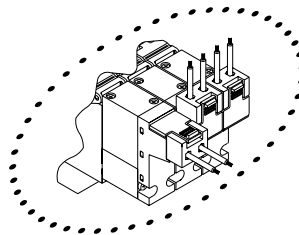
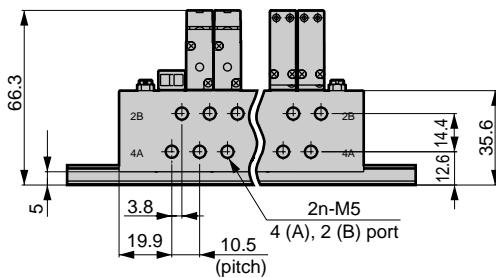
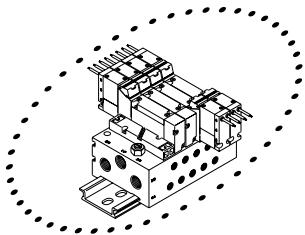
- DIN rail mount(D)
- Grommet lead wire(Blank)

Note. Possible to change to direct mount specifications.



- DIN rail mount(D)
- M5 female thread type(M5)

- DIN rail mount(D)
- E-connector type(E)

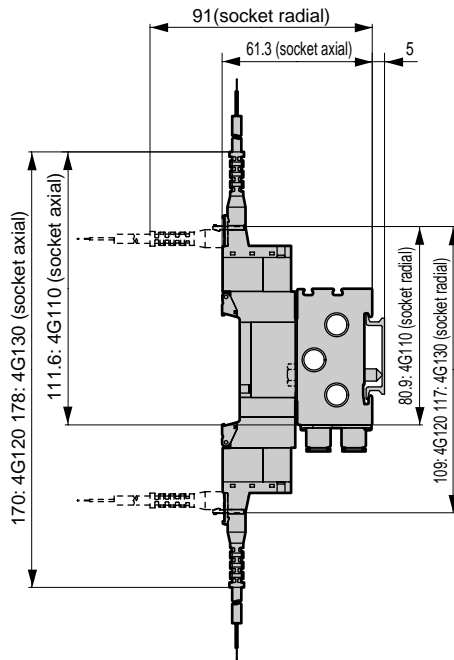


Note. Dimensions of DC specifications are shown. For AC100V, valve overall length is single: 3.5mm longer, while double/3-position: 7mm longer.

Station #	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L	50.3	60.8	71.3	81.8	92.3	102.8	113.3	123.8	134.3	144.8	155.3	165.8	176.3	186.8	197.3
L ₂	100.0	112.5	112.5	125.0	137.5	150.0	162.5	175.0	175.0	187.5	200.0	212.5	225.0	237.5	237.5
L ₃	87.5	100.0	100.0	112.5	125.0	137.5	150.0	162.5	162.5	175.0	187.5	200.0	212.5	225.0	225.0

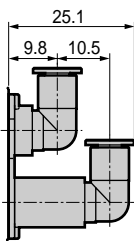
Dimensions

- EJ-connector type(E**J)

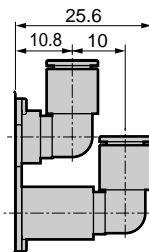


- Push in joint radial type (upward) type

- 4 dia. (CL4)



- 6 dia. (CL6)



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, 5 port pilot operated valve
Individual wiring manifold

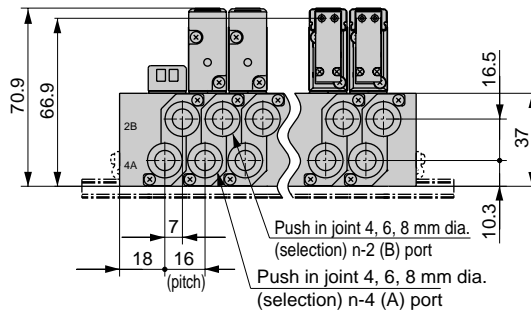
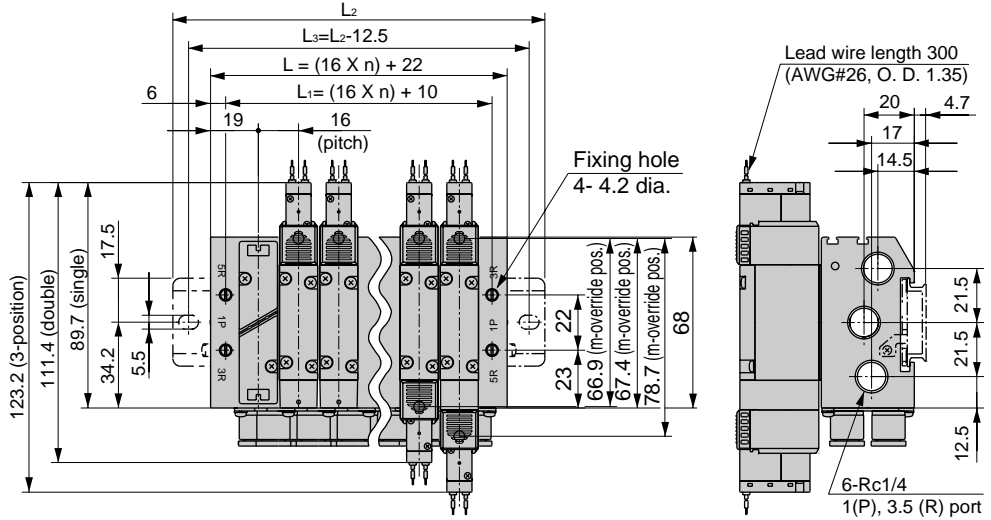
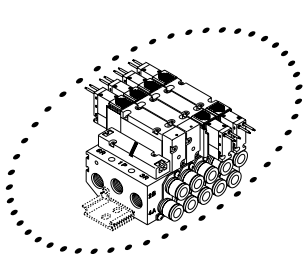
M4GB2 Series

Individual wiring type manifold: Sub base porting

Dimensions

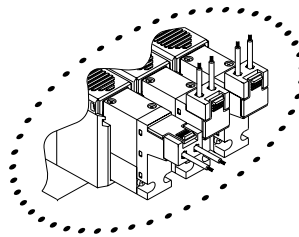
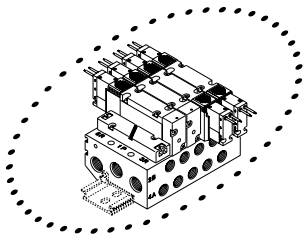
M4GB2  (File name: Page 240 or Ending 16)

- Grommet lead wire(Blank)

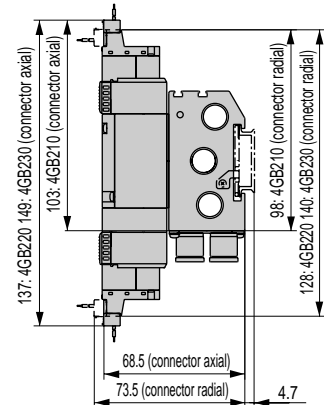
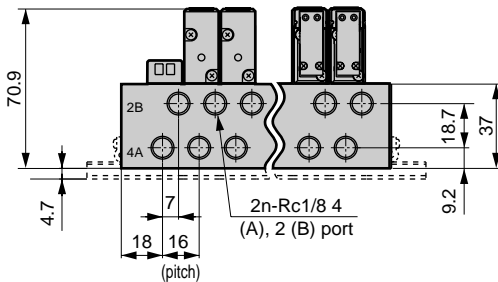


- Rc1/8 female thread type(06)

- E-connector type(E)



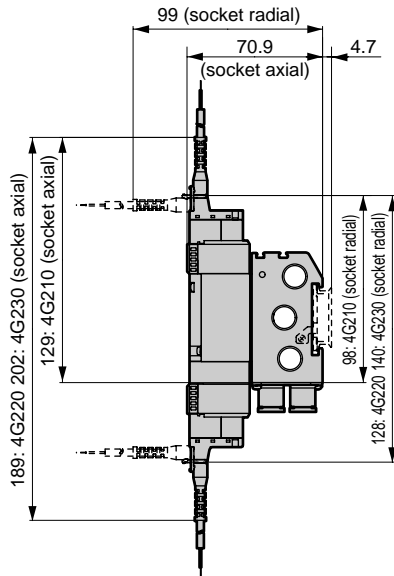
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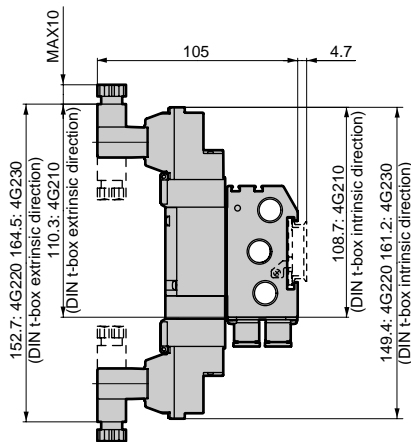
Station #	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L	54	70	86	102	118	134	150	166	182	198	214	230	246	262	278	294	310	326	342
L ₁	42	58	74	90	106	122	138	154	170	186	202	218	234	250	266	282	298	314	330
L ₂	100.0	112.5	137.5	150.0	162.5	175.0	200.0	212.5	225.0	250.0	262.5	275.0	287.5	312.5	325.0				
L ₃	87.5	100.0	125.0	137.5	150.0	162.5	187.5	200.0	212.5	237.5	250.0	262.5	275.0	300.0	312.5				

Dimensions

- EJ-connector type(E**J)

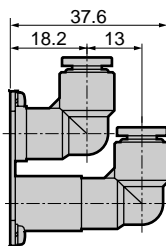


- DIN terminal box type(B)

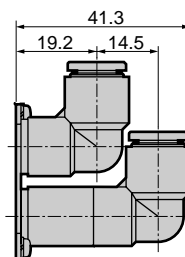


- Push in joint radial type (upward) type

- 6 dia. (CL6)



- 8 dia. (CL8)



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, 5 port pilot operated valve
Individual wiring manifold

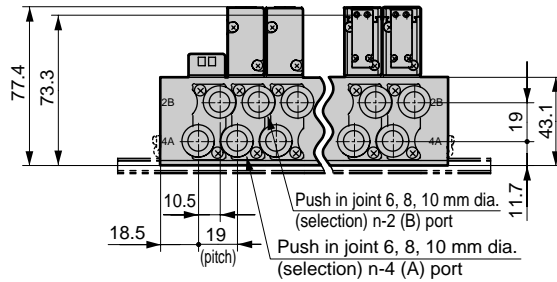
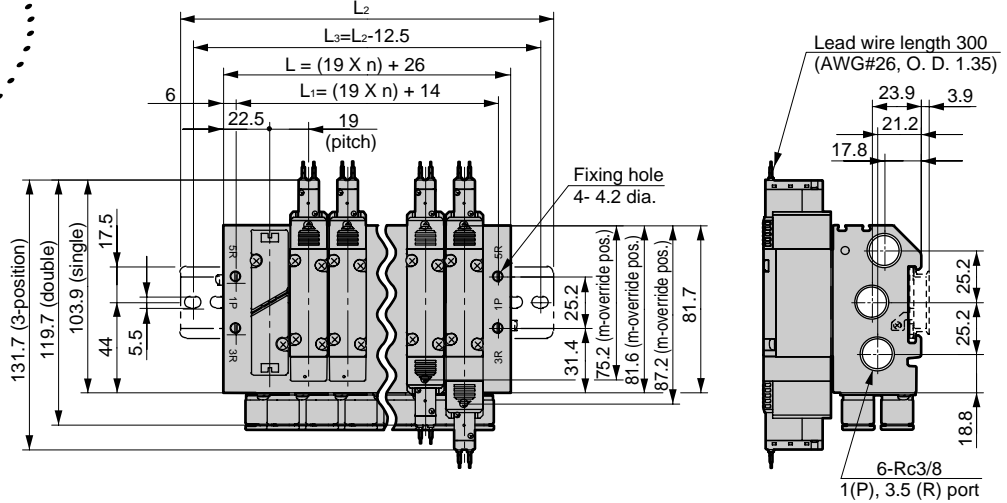
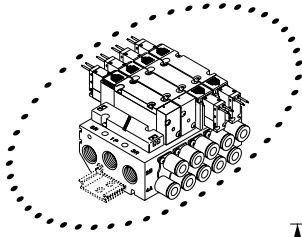
M4GB3 Series

Individual wiring type manifold: Sub base porting

Dimensions

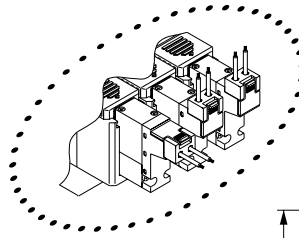
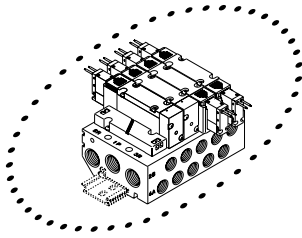
M4GB3  (File name: Page 240 or Ending 16)

- Grommet lead wire(Blank)

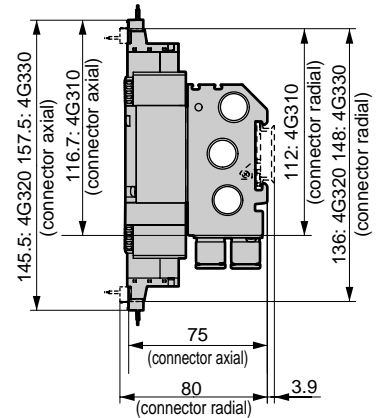
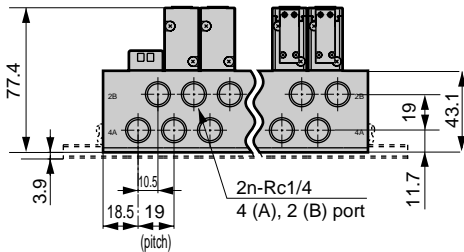


- Rc1/4 female thread type(08)

- E-connector type(E)



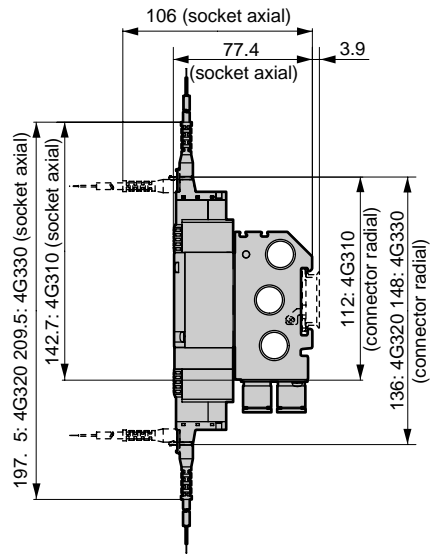
Note. Dimensions of DC specifications are shown. For AC100V, valve overall length is single: 3.5mm longer, while double/3-position: 7mm longer.



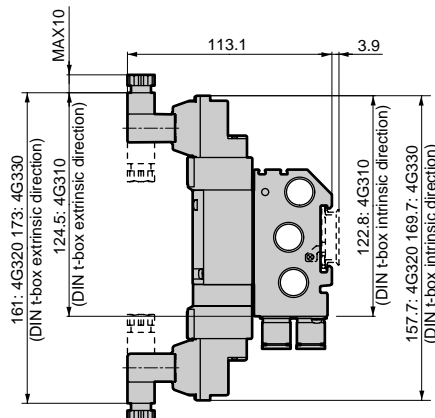
Station #	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L	64	83	102	121	140	159	178	197	216	235	254	273	292	311	330	349	368	387	406
L ₁	52	71	90	109	128	147	166	185	204	223	242	261	280	299	318	337	356	375	394
L ₂	112.5	125.0	150.0	162.5	187.5	200.0	225.0	237.5	262.5	275.0	300.0	325.0	337.5	362.5	375.0				
L ₃	100.0	112.5	137.5	150.0	175.0	187.5	212.5	225.0	250.0	262.5	287.5	312.5	325.0	350.0	362.5				

Dimensions

- EJ-connector type(E**J)

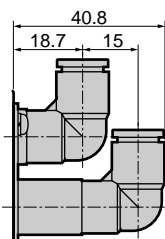


- DIN terminal box type(B)

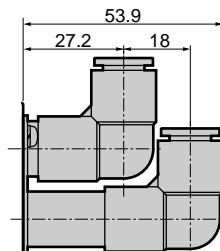


- Push in joint radial type (upward) type

- 8 dia. (CL8)



- 10 dia. (CL10)



4SA/B0

4SA/B1

4GA/B

MN4GA/B

4GA/B (master)

MN3S0/ MN4S0

4TB

4L2-4/ LMFO

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, 5 port pilot operated valve
Individual wiring manifold

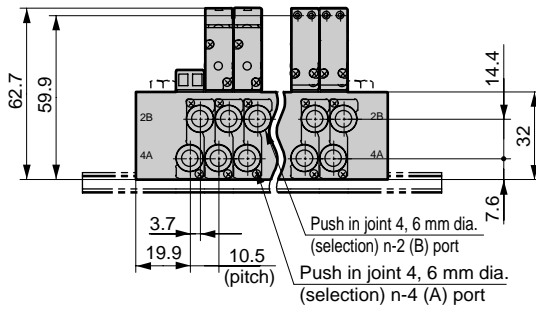
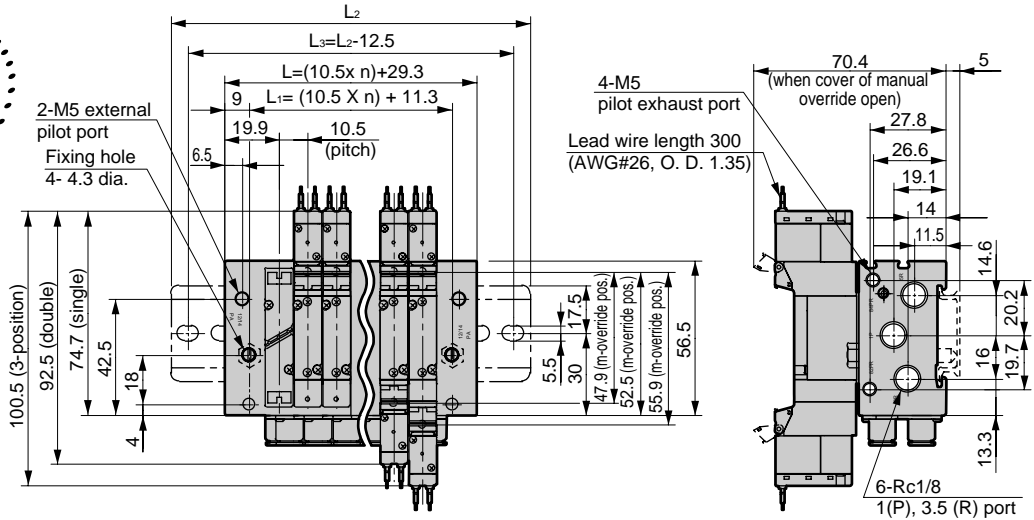
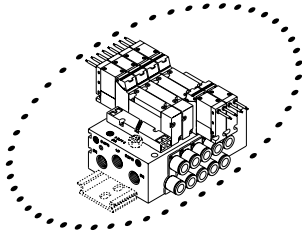
M4GB1 Series

Individual wiring type manifold: Sub base porting

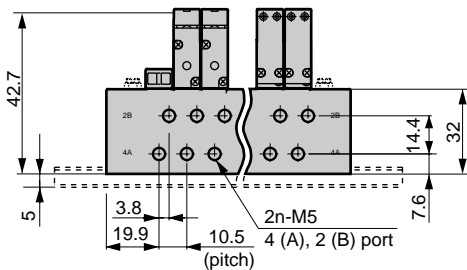
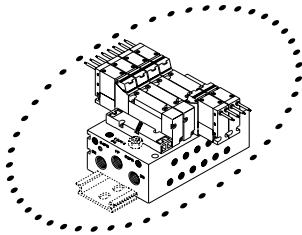
Dimensions

M4GB1  (File name: Page 240 or Ending 16)

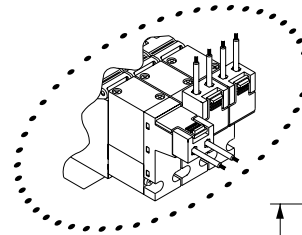
- External pilot (K)
- Grommet lead wire(Blank)



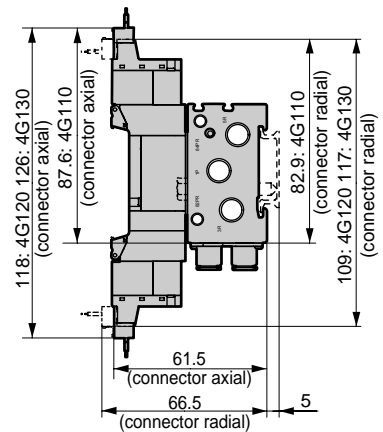
- External pilot (K)
- M5 female thread type(M5)



- External pilot (K)
- E-connector type(E)



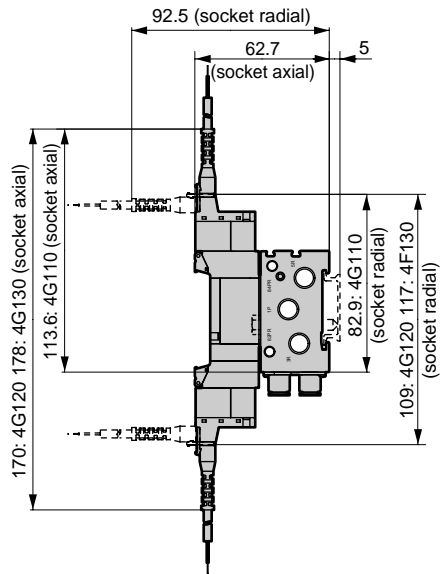
Note. Dimensions of DC specifications are shown. For AC100V, valve overall length is single: 3.5mm longer, while double/3-position: 7mm longer.



Station #	2	3	4	5	6	7	8	9	10	11	12
L	50.3	60.8	71.3	81.8	92.3	102.8	113.3	123.8	134.3	144.8	155.3
L ₁	32.3	42.8	53.3	63.8	74.3	84.8	95.3	105.8	116.3	126.8	137.3
L ₂	100.0	112.5	112.5	125.0	137.5	150.0	162.5	175.0	175.0	187.5	200.0
L ₃	87.5	100.0	100.0	112.5	125.0	137.5	150.0	162.5	162.5	175.0	187.5

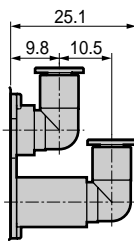
Dimensions

- External pilot (K)
EJ-connector type(E**J)

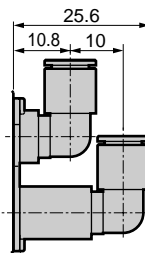


- Push in joint radial type (upward) type

• 4 dia. (CL4)



• 6 dia. (CL6)



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, 5 port pilot operated valve
Individual wiring manifold

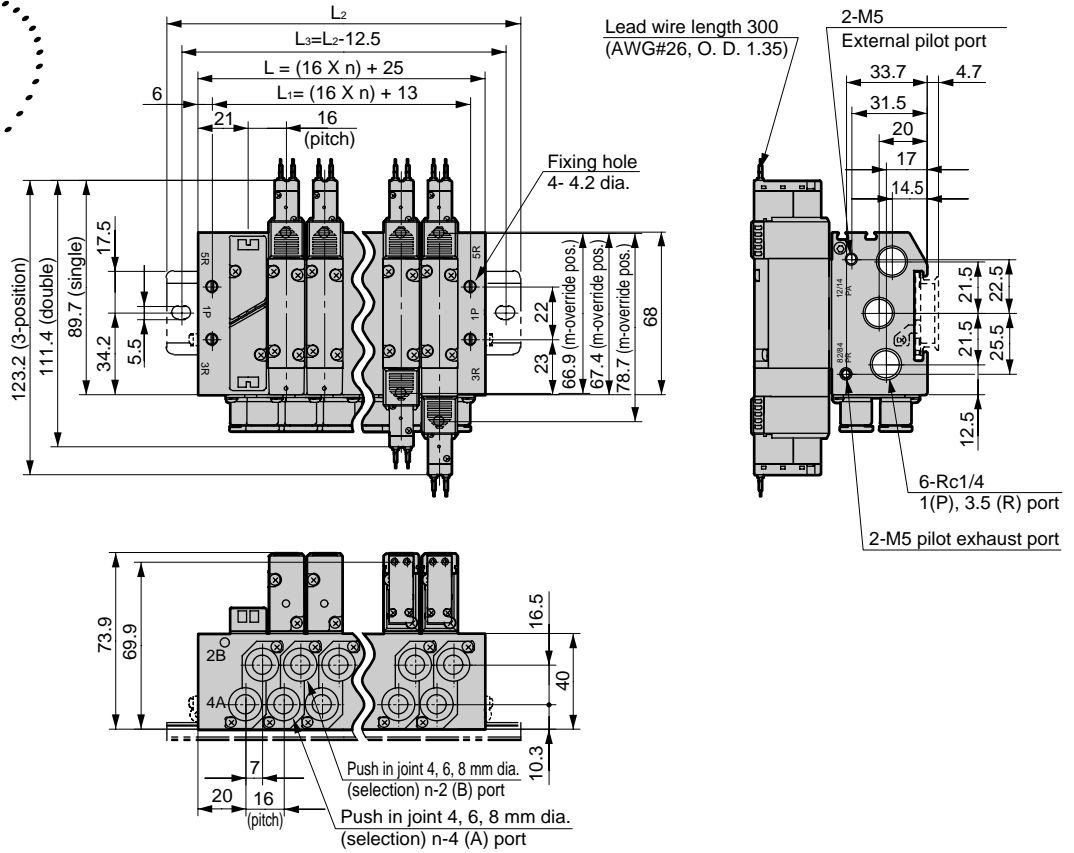
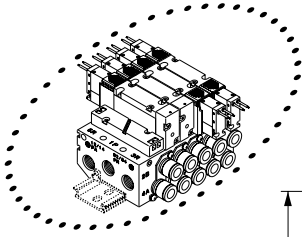
M4GB2 Series

Individual wiring type manifold: Sub base porting

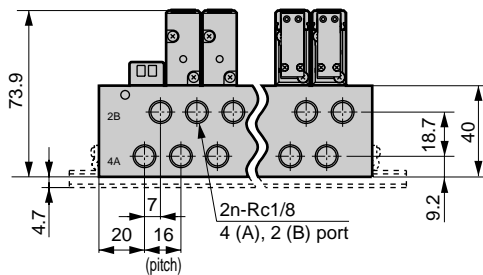
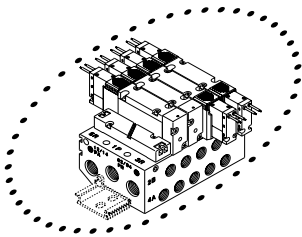
Dimensions

M4GB2  (File name: Page 240 or Ending 16)

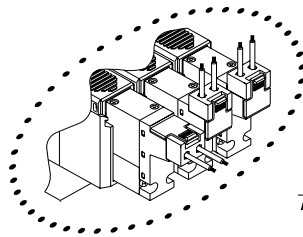
- External pilot (K)
- Grommet lead wire(Blank)



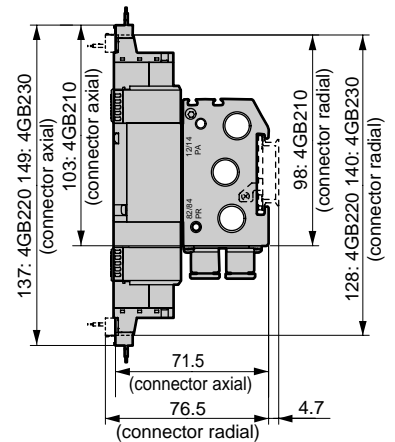
- External pilot (K)
- Rc1/8 female thread type(06)



- External pilot (K)
- E-connector type(E)



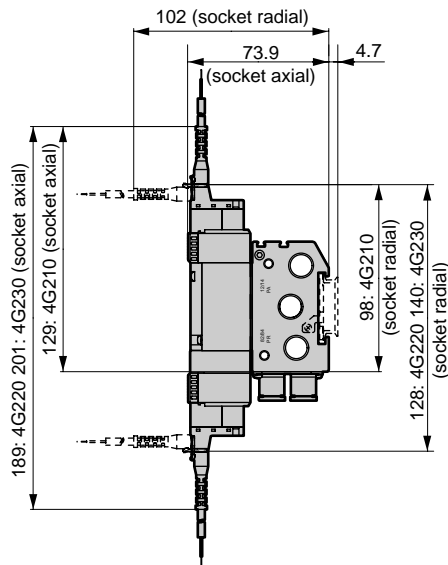
Note. Dimensions of DC specifications are shown. For AC100V, valve overall length is single: 3.5mm longer, while double/3-position: 7mm longer.



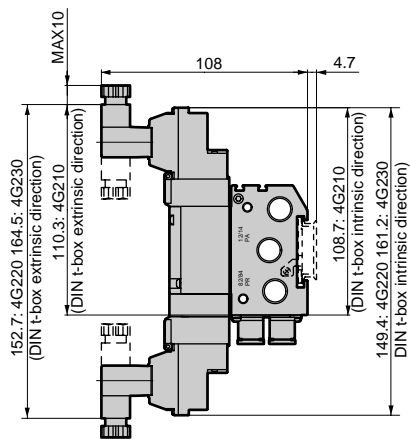
Station #	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L	57	73	89	105	121	137	153	169	185	201	217	233	249	265	281	297	313	329	345
L ₁	45	61	77	93	109	125	141	157	173	189	205	221	237	253	269	285	301	317	333
L ₂	100.0	125.0	137.5	150.0	162.5	187.5	200.0	212.5	225.0	250.0	262.5	275.0	300.0	312.5	325.0				
L ₃	87.5	112.5	125.0	137.5	150.0	175.0	187.5	200.0	212.5	237.5	250.0	262.5	287.5	300.0	312.5				

Dimensions

- External pilot (K)
EJ-connector type(E**J)

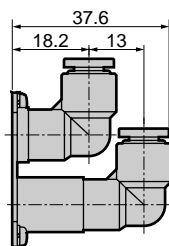


- External pilot (K)
DIN terminal box type(B)

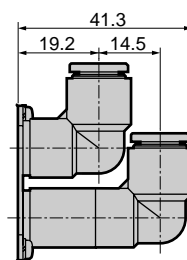


- Push in joint radial type (upward) type

• 6 dia. (CL6)



• 8 dia. (CL8)



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

3.5 port pilot operated valve
Individual wiring manifold

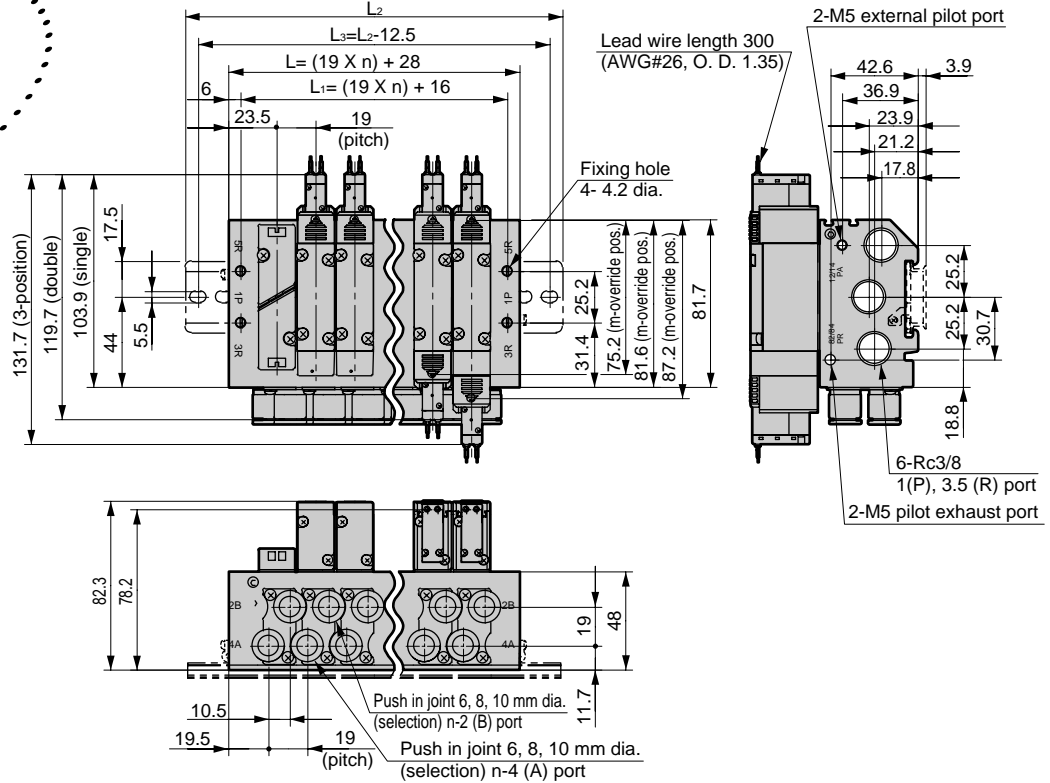
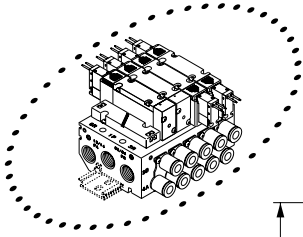
M4GB3 Series

Individual wiring type manifold: Sub base porting

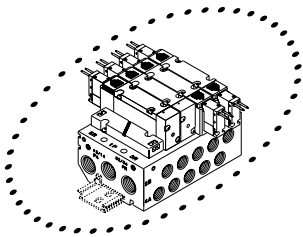
Dimensions

M4GB3  (File name: Page 240 or Ending 16)

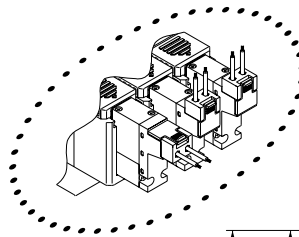
- External pilot (K)
- Grommet lead wire(Blank)



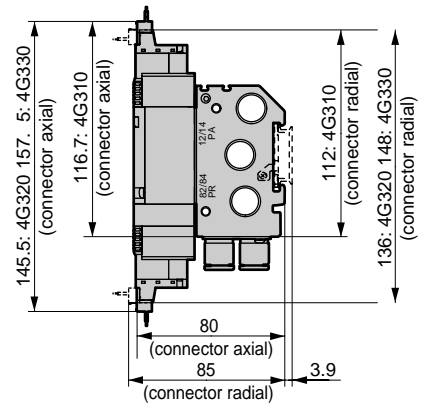
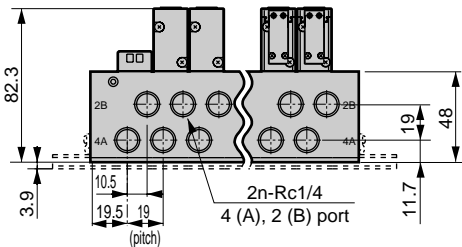
- External pilot (K)
- Rc1/4 female thread type(08)



- DIN rail mount(D)/external pilot (K)
- E-connector type(E)



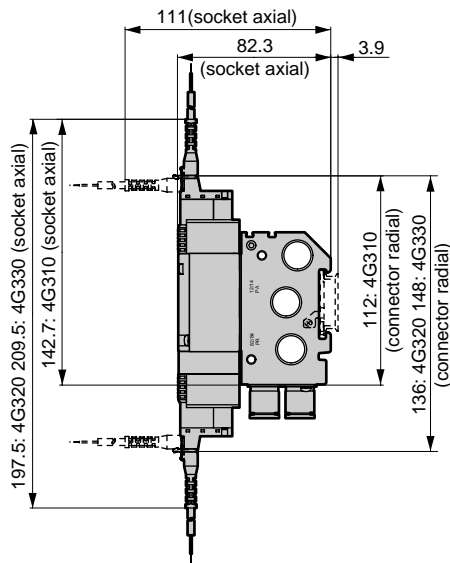
Note. Dimensions of DC specifications are shown. For AC100V, valve overall length is single: 3.5mm longer, while double/3-position: 7mm longer.



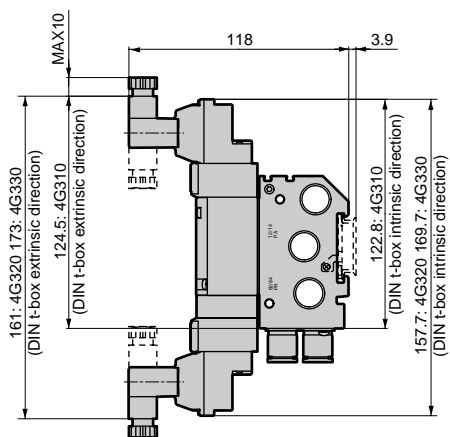
Station #	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L	66	85	104	123	142	161	180	199	218	237	256	275	294	313	332	351	370	389	408
L ₁	54	73	92	111	130	149	168	187	206	225	244	263	282	301	320	339	358	377	396
L ₂	112.5	125.0	150.0	175.0	187.5	212.5	225.0	250.0	262.5	287.5	300.0	325.0	337.5	362.5	375.0				
L ₃	100.0	112.5	137.5	162.5	175.0	200.0	212.5	237.5	250.0	275.0	287.5	312.5	325.0	350.0	362.5				

Dimensions

- External pilot (K)
EJ-connector type(E**J)

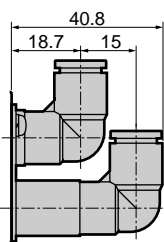


- DIN terminal box type(B)

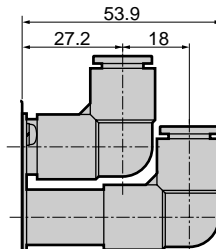


- Push in joint radial type (upward) type

- 8 dia. (CL8)



- 10 dia. (CL10)



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, 5 port pilot operated valve
Individual wiring manifold