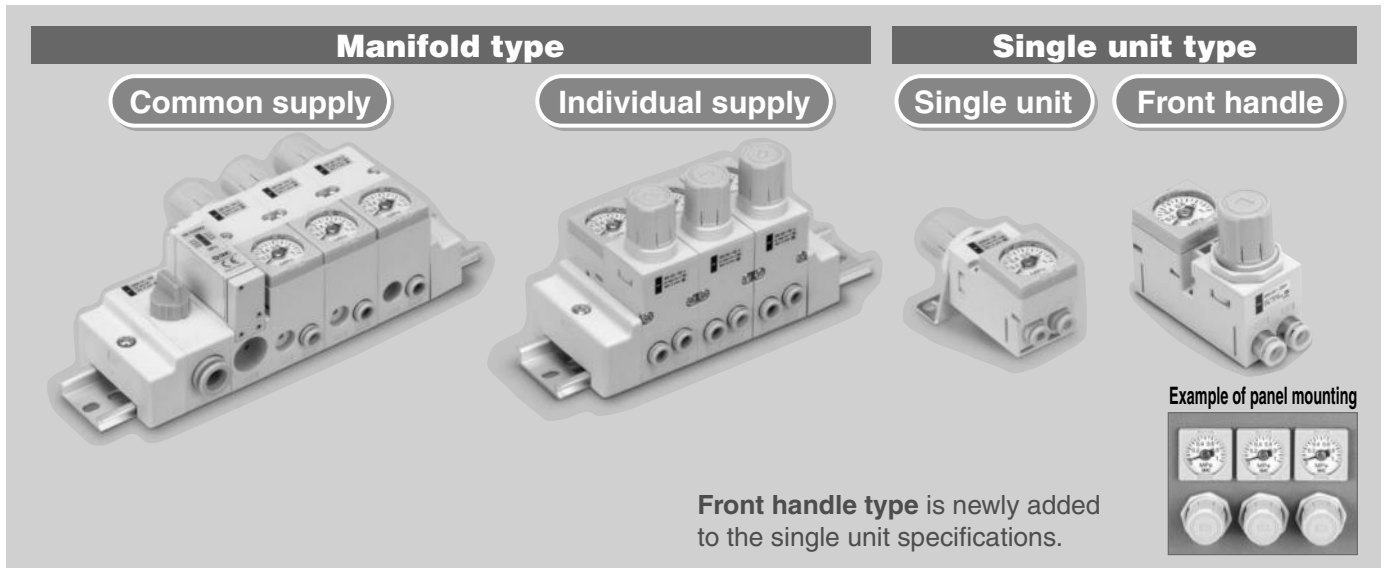
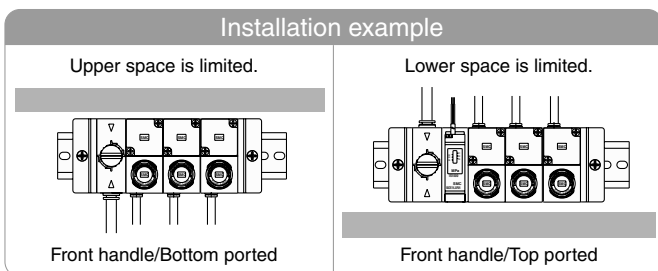


Compact Manifold Regulator Series **ARM10/11**

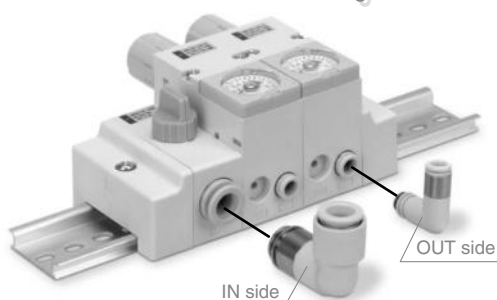


Allows high degree of freedom in selection according to the installation conditions.

- Handle position: Top, Front, Bottom
- Piping direction: Top ported, Bottom ported
- One-touch fitting types: Straight, Elbow



Types and sizes of the One-touch fittings can be changed.

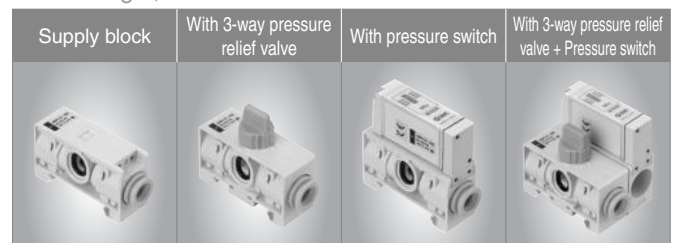


	Fitting type	Applicable tubing O.D. (mm)			
		4	6	8	10
IN side	Straight, Elbow		●	●	●
OUT side	Straight, Elbow	●	●		

Also available in inch sizes.

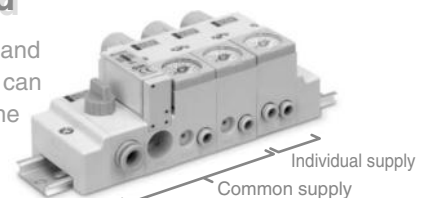
Four types of supply blocks (for common supply)

The mounting position of the supply block can be selected from the right, left and both sides of the manifold.



Mixed manifold

Common exhaust type and individual exhaust type can be mounted on the same manifold base.
(Available as Simple Specials)



Pressure gauge with limit indicator.

Opening and closing lens cover makes adjustment easy.

Reverse flow function is equipped as a standard.

Can control thrust of the actuator.

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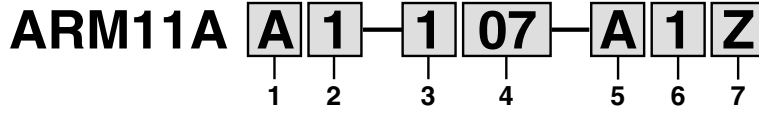
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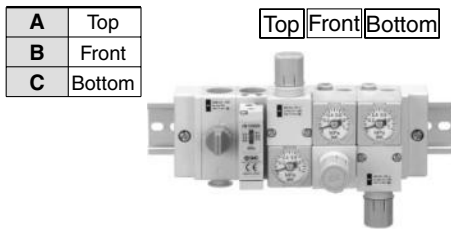
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Compact Manifold Regulator Common Supply Type Series **ARM11A**

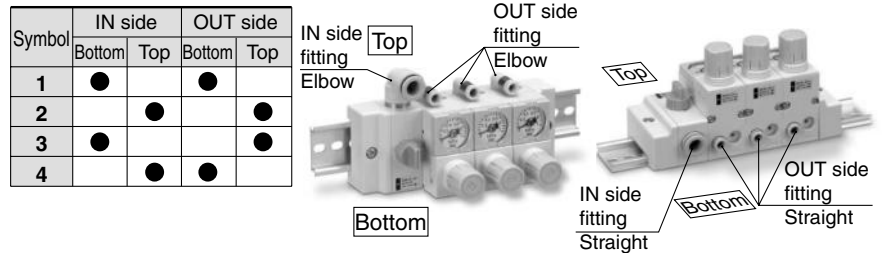
How to Order



1. Handle position



2. IN/OUT piping position



3. Regulator block stations

1	1 station
2	2 stations
3	3 stations
4	4 stations
5	5 stations
6	6 stations
7	7 stations
8	8 stations
9	9 stations
M	10 stations

4. IN/OUT fitting type (Refer to the figure below.)

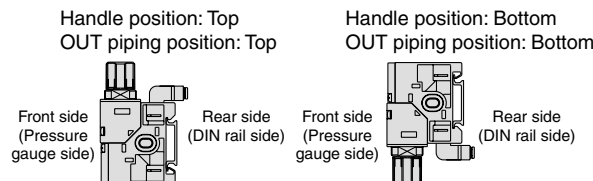
Metric size

Symbol	IN side						OUT side			
	Straight			Elbow			Straight		Elbow <small>Note)</small>	
	ø6	ø8	ø10	ø6	ø8	ø10	ø4	ø6	ø4	ø6
07	●						●			
08	●							●		
09		●					●			
10		●					●			
11			●				●			
12			●				●			
19				●				●		
20				●					●	
21					●			●		
22					●				●	
23						●		●		
24						●		●		
26	●							●		
27	●							●		
28		●						●		
29		●						●		
30			●					●		
31			●					●		
33				●				●		
34				●				●		
35					●			●		
36					●			●		
37						●	●			
38						●		●		

Inch size

Symbol	IN side						OUT side			
	Straight			Elbow			Straight		Elbow	
	ø1/4	ø5/16	ø3/8	ø1/4	ø5/16	ø3/8	ø5/32	ø1/4	ø5/32	ø1/4
57	●							●		
58	●								●	
59		●						●		
60		●						●		
61			●					●		
62			●					●		
69				●					●	
70				●					●	
71					●			●		
72					●				●	
73						●		●		
74						●		●		
76	●							●		
77	●							●		
78		●						●		
79		●						●		
80			●					●		
81			●					●		
83				●				●		
84				●				●		
85					●			●		
86					●			●		
87						●	●			
88						●		●		

Note) When the handle and the OUT piping are located on the same side, the elbow fitting is directed to the rear side (DIN rail side).



Compact Manifold Regulator Common Supply Type Series ARM11A

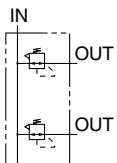
5. Accessory

Symbol	Pressure gauge		Supply block type				Supply block mounting position		
	None	With pressure gauge	Common supply block	Common supply block with pressure switch	3-way valve common supply block	3-way valve common supply block + Pressure switch block	L side (Left)	R side (Right)	B side (Both)
Nil	●		●				●		
A	●			●			●		
B	●				●		●		
C	●					●	●		
D	●		●						●
E	●			●					●
F	●				●				●
G	●					●			●
H	●		●						●
J		●	●				●		
K		●		●			●		
L		●			●		●		
M		●				●	●		
N		●	●						●
O		●		●					●
P		●			●				●
Q		●				●			●
R		●	●						●

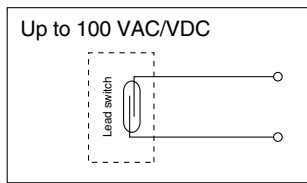
Note 1) Pressure gauges are not available with the copper-free specification.

Note 2) The oil-free specification is not available for pressure switches.

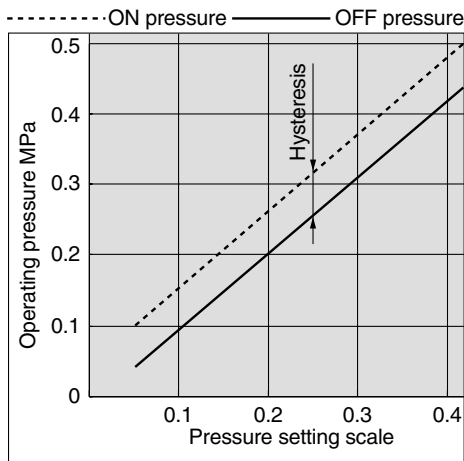
JIS Symbol



Electric Circuit



Set Pressure Range



6. Option

Symbol	None	0.35 MPa setting ^{Note 1)}	Non-relieving	^{Note 2)} Oil-free
Nil	●			
1		●		
2			●	
3				●
4		●	●	
5		●		●
6			●	●
7		●	●	●

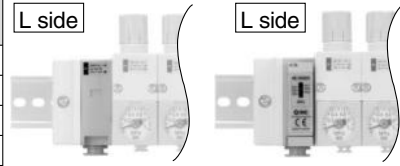
Note 1) A pressure gauge with a full span of 0.4 MPa is attached.
Note 2) The oil-free type has non-greased fluid contact areas.

7. Unit representation

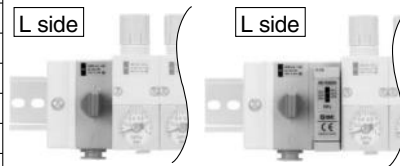
Symbol	Description
Nil	Display unit for product name plate and pressure gauge: MPa
Z ^{Note)}	Display unit for product name plate and pressure gauge: PSI

Note) This product is for overseas use only according to the new Measurement Law. (The SI unit type is provided for use in Japan.) The pressure switch offers dual unit representation in MPa and PSI.

Common supply block Common supply block with pressure switch



3-way valve common supply block 3-way valve common supply block + Pressure switch block



Specifications

Manifold (Regulator block, Common supply block, 3-way valve common supply block)

Regulator construction	Direct acting		
Working principal	Diaphragm regulator		
Relief mechanism	Standard	Relief type	
	Optional	Non-relieving type	
Backflow function	Within (Unbalance type)		
IN side tubing O.D.	ø6, ø8, ø10, ø1/4, ø5/16, ø3/8		
OUT side tubing O.D.	ø4, ø6, ø5/32, ø1/4		
Proof pressure	1.5 MPa		
Maximum operating pressure	1.0 MPa		
Set pressure range	Standard	0.05 to 0.7 MPa	
	Optional	0.05 to 0.35 MPa (Low pressure type)	
Fluid	Air		
Ambient and fluid temperature	5 to 60°C		

Note) When the regulator is used with backflow, operate at a set pressure of 0.1 MPa or above.

Pressure switch (Common supply block with pressure switch, 3-way valve common supply block + Pressure switch block)

Contact mechanism	Reed switch mechanism		
Contact structure	Reed switch mechanism		
Contact configuration	1a		
Reed switch operating mechanism	Piston mechanism (with magnet installed)		
Wiring specifications	Grommet type		
Wiring length	0.5 m		
Proof pressure	1.0 MPa		
Maximum operating pressure	0.7 MPa		
Set pressure range	0.1 to 0.6 MPa		
Hysteresis	0.08 MPa		
Repeatability	±0.05 MPa		
Fluid	Air		
Ambient and fluid temperature	-5 to 60°C		
Maximum switching capacity	AC 2 VA, DC 2 W		
Operating voltage AC/DC	24 V or less	48 V	100 V
Maximum operating current and range	50 mA	40 mA	20 mA
Impact resistance	30 G		

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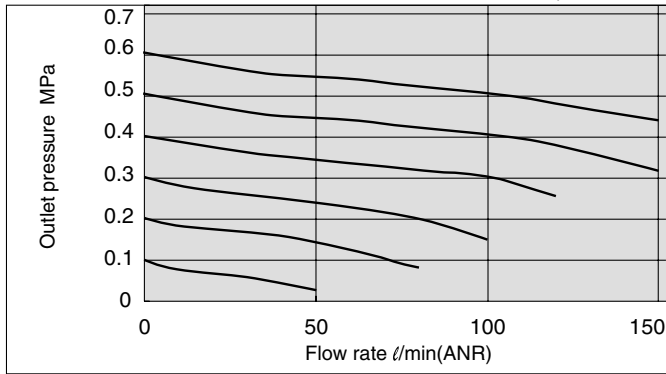
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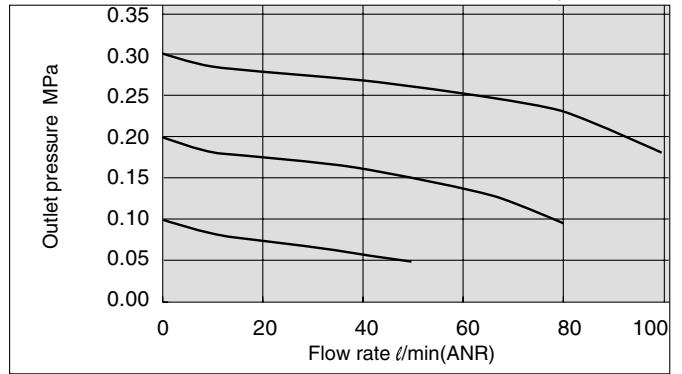
Series ARM11A

Flow Characteristics

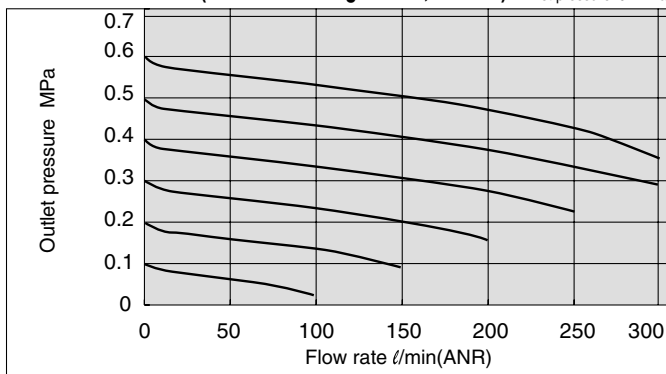
ARM11AA1-307 (One-touch fittings: IN ϕ 6, OUT ϕ 4) Condition: Inlet pressure 0.7MPa



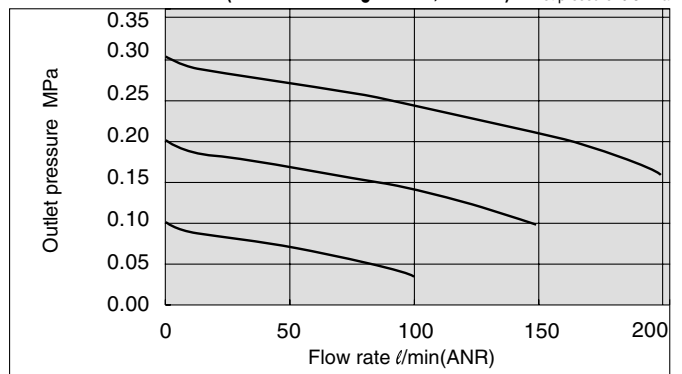
ARM11AA1-307-1 (One-touch fittings: IN ϕ 6, OUT ϕ 4) Condition: Inlet pressure 0.5MPa



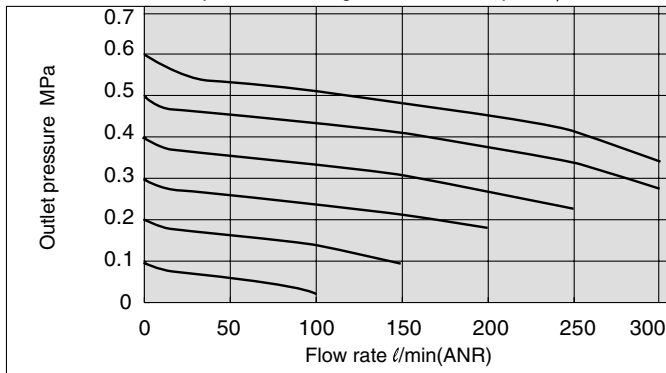
ARM11AA1-310 (One-touch fittings: IN ϕ 8, OUT ϕ 6) Condition: Inlet pressure 0.7MPa



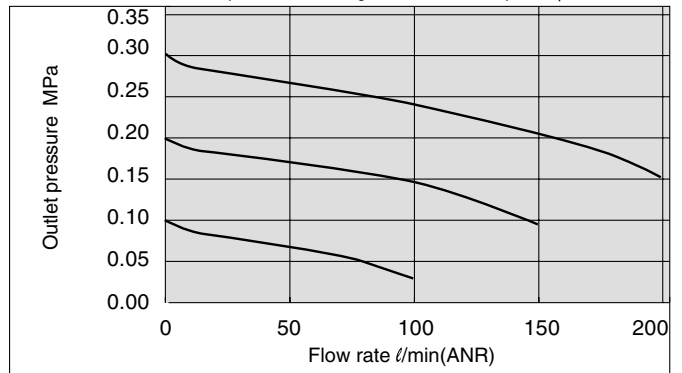
ARM11AA1-310-1 (One-touch fittings: IN ϕ 8, OUT ϕ 6) Condition: Inlet pressure 0.5MPa



ARM11AA1-312 (One-touch fittings: IN ϕ 10, OUT ϕ 6) Condition: Inlet pressure 0.7MPa



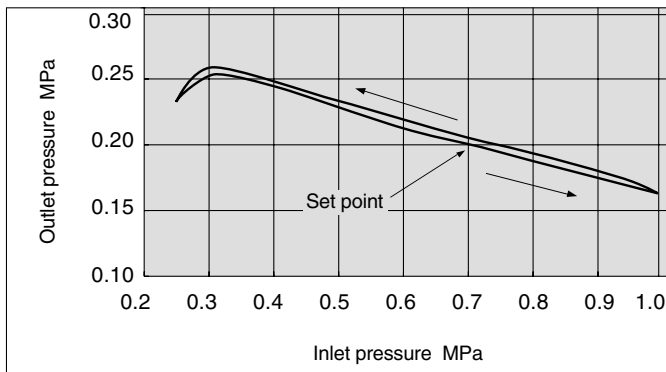
ARM11AA1-312-1 (One-touch fittings: IN ϕ 10, OUT ϕ 6) Condition: Inlet pressure 0.5MPa



Pressure Characteristics

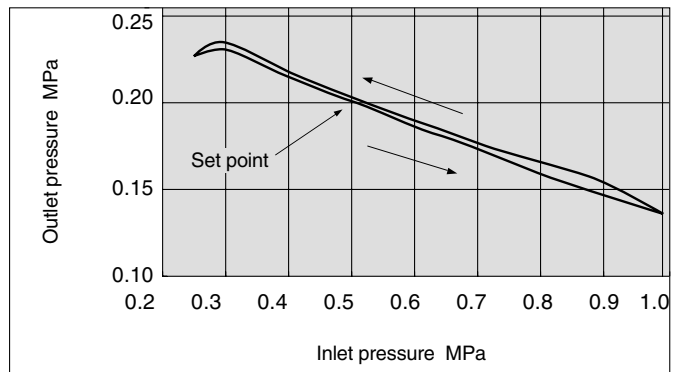
ARM11AA1-307

Conditions: Inlet pressure 0.7MPa
Outlet pressure 0.2MPa
Flow rate 20l/min (ANR)



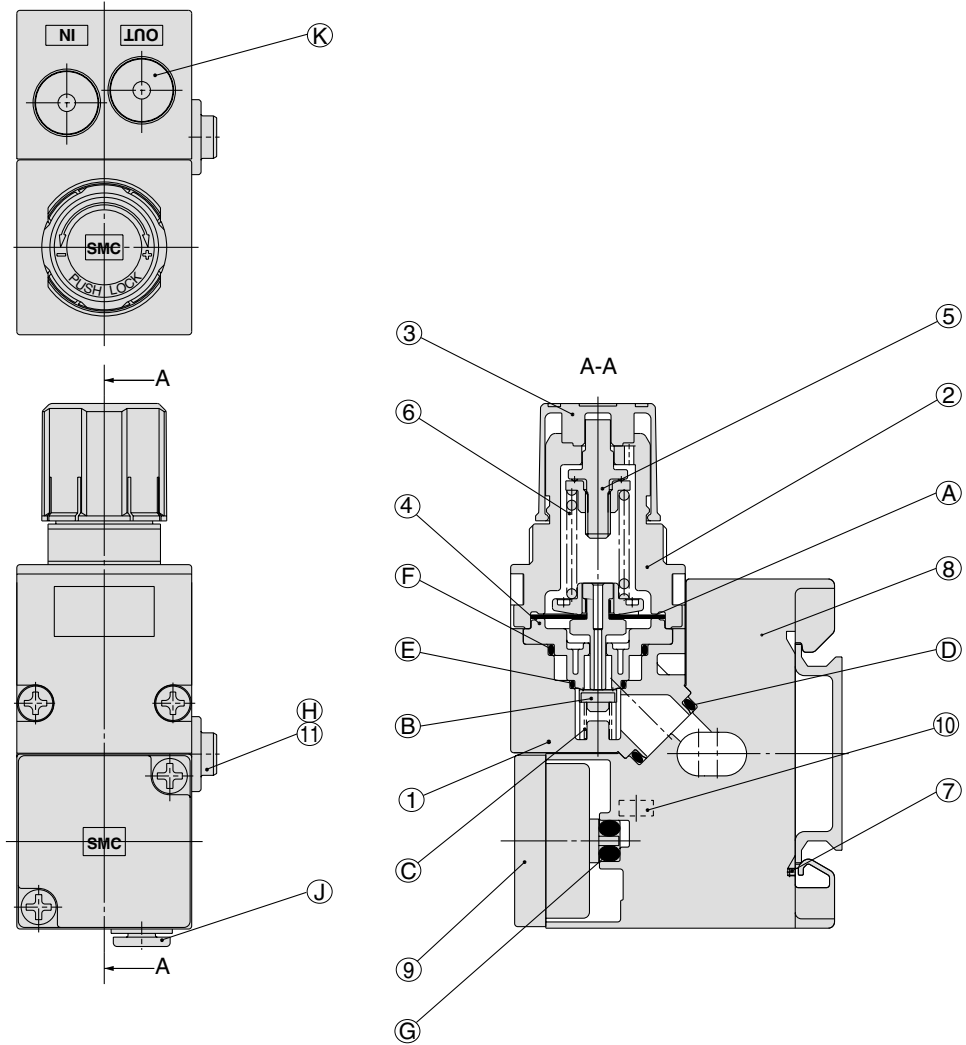
ARM11AA1-307-1

Conditions: Inlet pressure 0.5MPa
Outlet pressure 0.2MPa
Flow rate 20l/min (ANR)



Compact Manifold Regulator Common Supply Type Series ARM11A

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Component Parts

No.	Description	Material
①	Body for regulator block	PBT
②	Bonnet	PBT
③	Handle	POM
④	Valve seat	POM
⑤	Adjusting screw assembly	Reinforced steel
⑥	Adjustment spring	Steel wire
⑦	Regulator clip	Stainless steel
⑧	Manifold block	PBT
⑨	Blanking plate assembly	—
⑩	Square nut	Steel
⑪	Common exhaust bushing	POM

Replacement Parts

No.	Description	Material	Part no.
Ⓐ	Diaphragm assembly	Weatherproof NBR, POM	136126A
Ⓑ	Valve	HNBR, Aluminum alloy	136127-30
Ⓒ	Valve spring	Stainless steel	136131
Ⓓ	Gasket	HNBR	136137-30
Ⓔ	O-ring	NBR	136146
Ⓕ	O-ring	NBR	136147
Ⓖ	O-ring	NBR	136148
Ⓗ	O-ring	NBR	136149
Ⓙ	Fitting assembly	—	Refer to page 14-4-37.
Ⓚ	Port plug	PBT/HNBR	Refer to page 14-4-38.

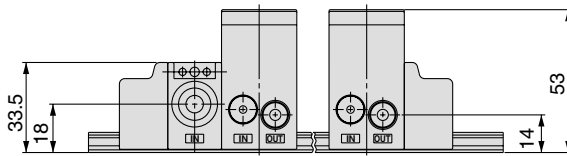
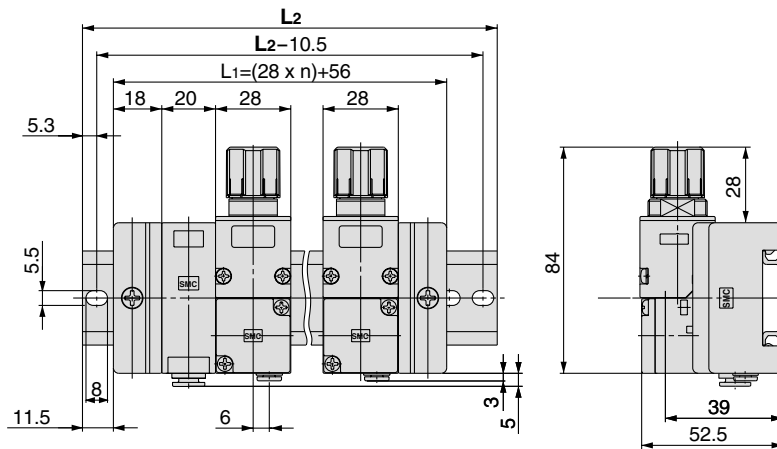
Series ARM11A

Dimensions

ARM11AA1-□12

Handle position: Top/Common supply block

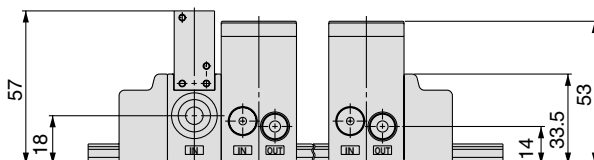
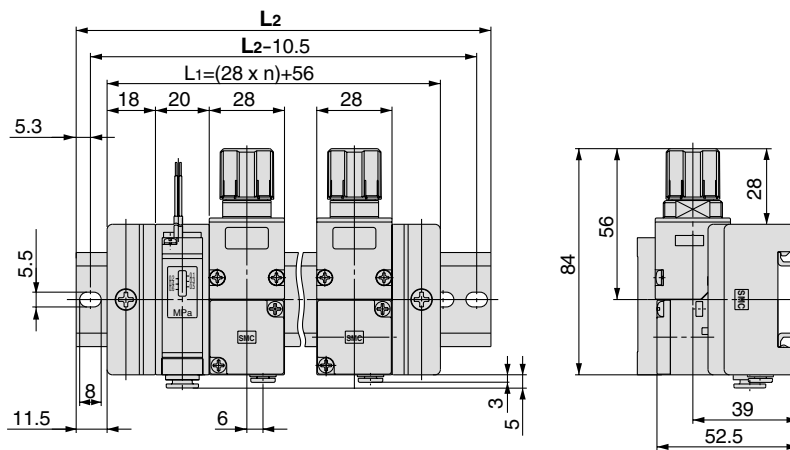
For the dimensions of One-touch fittings and manifold options, please refer to pages 14-4-34 to 14-4-38.



Stations	DIN rail part no. (for L and R sides)	L2 dimension
1	AXT100-DR-9	123
2	AXT100-DR-11	148
3	AXT100-DR-13	173
4	AXT100-DR-16	210.5
5	AXT100-DR-18	235.5
6	AXT100-DR-20	260.5
7	AXT100-DR-22	285.5
8	AXT100-DR-25	323
9	AXT100-DR-27	348
M	AXT100-DR-29	373

ARM11AA1-□12-A

Handle position: Top/Common supply block with pressure switch



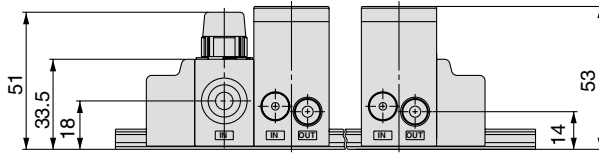
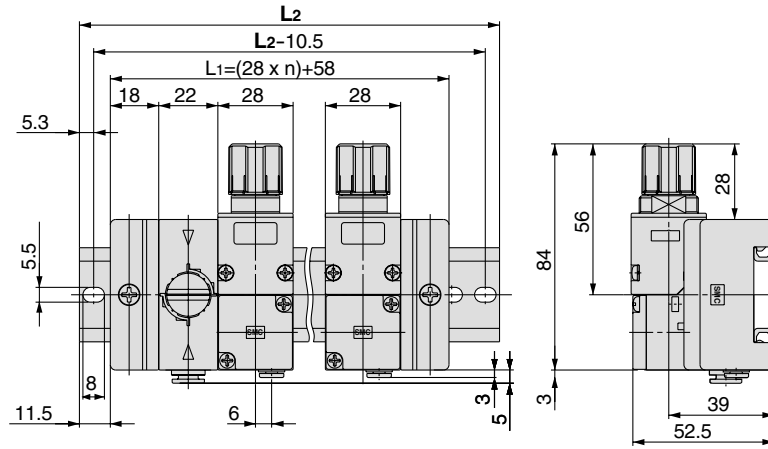
Stations	DIN rail part no. (for L and R sides)	L2 dimension
1	AXT100-DR-9	123
2	AXT100-DR-11	148
3	AXT100-DR-13	173
4	AXT100-DR-16	210.5
5	AXT100-DR-18	235.5
6	AXT100-DR-20	260.5
7	AXT100-DR-22	285.5
8	AXT100-DR-25	323
9	AXT100-DR-27	348
M	AXT100-DR-29	373

Compact Manifold Regulator Common Supply Type Series ARM11A

ARM11AA1-□12-B

Handle position: Top/3-way valve common supply block

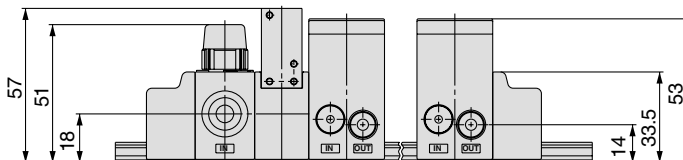
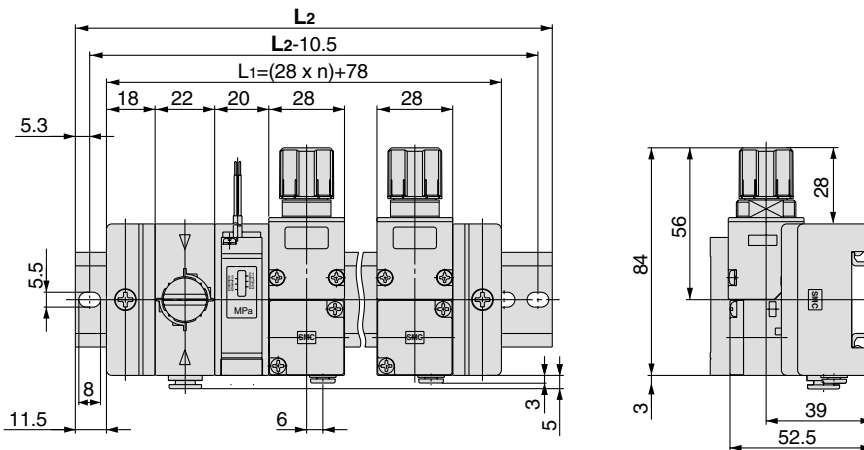
For the dimensions of One-touch fittings and manifold options, please refer to pages 14-4-34 to 14-4-38.



Stations	DIN rail part no. (for L and R sides)	L2 dimension
1	AXT100-DR-9	123
2	AXT100-DR-11	148
3	AXT100-DR-13	173
4	AXT100-DR-16	210.5
5	AXT100-DR-18	235.5
6	AXT100-DR-20	260.5
7	AXT100-DR-22	285.5
8	AXT100-DR-25	323
9	AXT100-DR-27	348
M	AXT100-DR-29	373

ARM11AA1-□12-C

Handle position: Top/3-way valve common supply block + Pressure switch block



Stations	DIN rail part no.	L2 dimension
1	AXT100-DR-11	148
2	AXT100-DR-13	173
3	AXT100-DR-15	198
4	AXT100-DR-17	223
5	AXT100-DR-19	248
6	AXT100-DR-22	285.5
7	AXT100-DR-24	310.5
8	AXT100-DR-26	335.5
9	AXT100-DR-28	360.5
M	AXT100-DR-31	398

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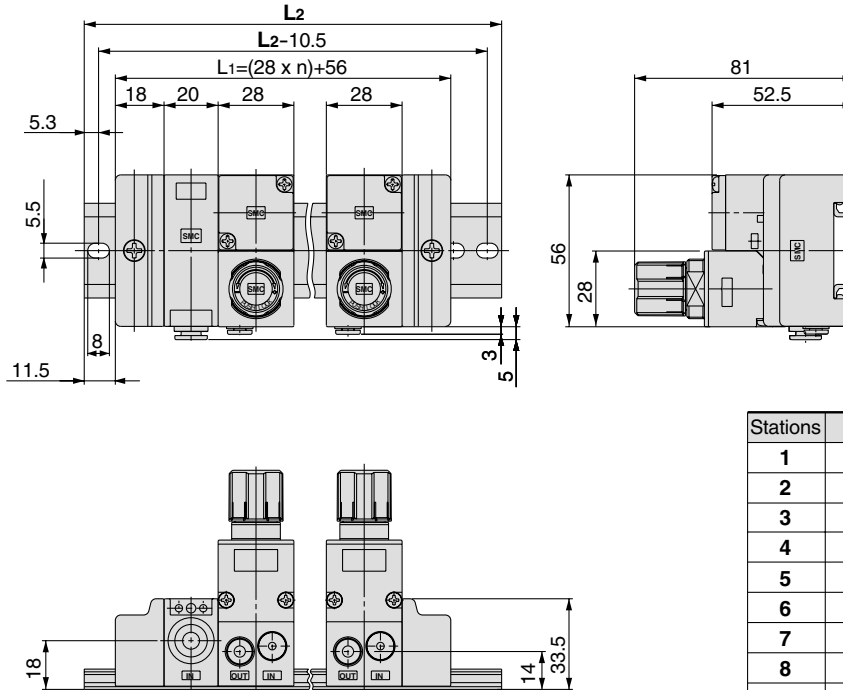
Series ARM11A

Dimensions

ARM11AB1-□12

Handle position: Front/Common supply block

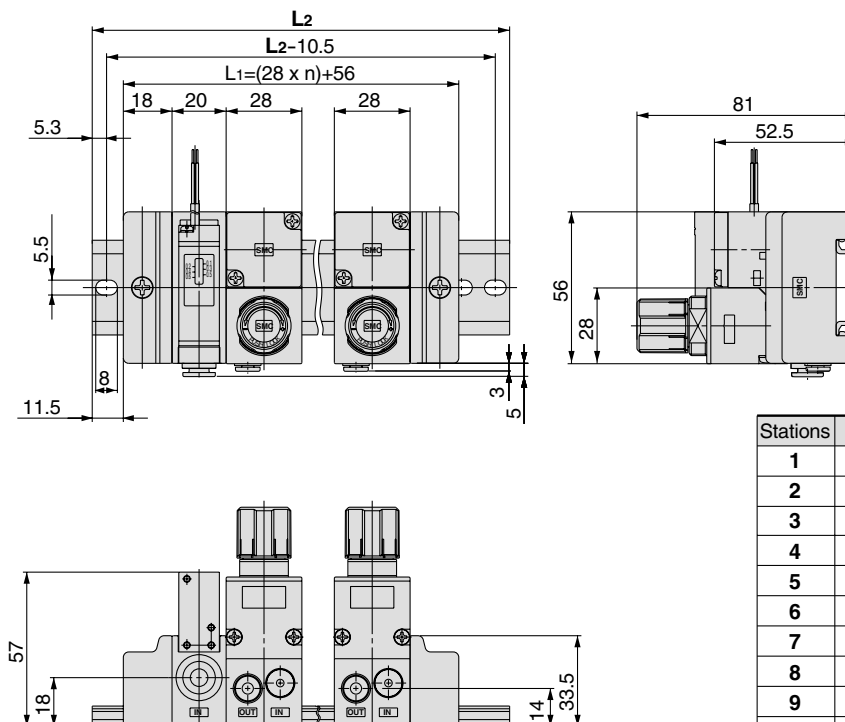
For the dimensions of One-touch fittings and manifold options, please refer to pages 14-4-34 to 14-4-38.



Stations	DIN rail part no.	L2 dimension
1	AXT100-DR-9	123
2	AXT100-DR-11	148
3	AXT100-DR-13	173
4	AXT100-DR-16	210.5
5	AXT100-DR-18	235.5
6	AXT100-DR-20	260.5
7	AXT100-DR-22	285.5
8	AXT100-DR-25	323
9	AXT100-DR-27	348
M	AXT100-DR-29	373

ARM11AB1-□12-A

Handle position: Front/Common supply block with pressure switch



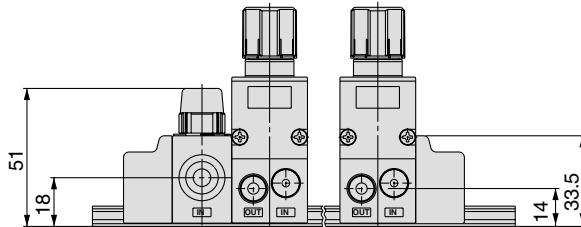
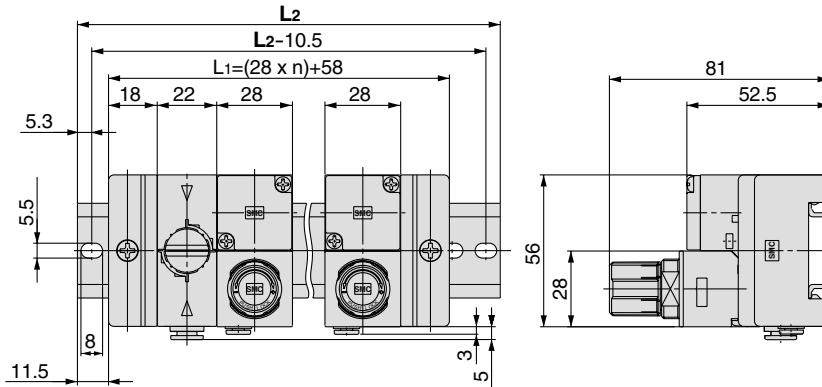
Stations	DIN rail part no.	L2 dimension
1	AXT100-DR-9	123
2	AXT100-DR-11	148
3	AXT100-DR-13	173
4	AXT100-DR-16	210.5
5	AXT100-DR-18	235.5
6	AXT100-DR-20	260.5
7	AXT100-DR-22	285.5
8	AXT100-DR-25	323
9	AXT100-DR-27	348
M	AXT100-DR-29	373

Compact Manifold Regulator Common Supply Type **Series ARM11A**

ARM11AB1-□12-B

Handle position: Front/3-way valve common supply block

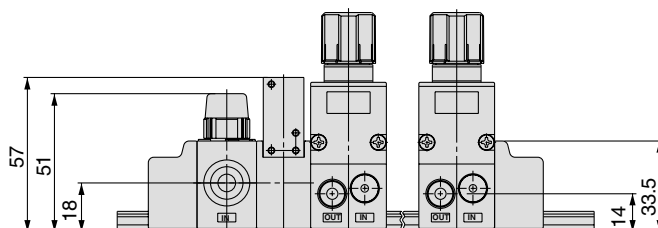
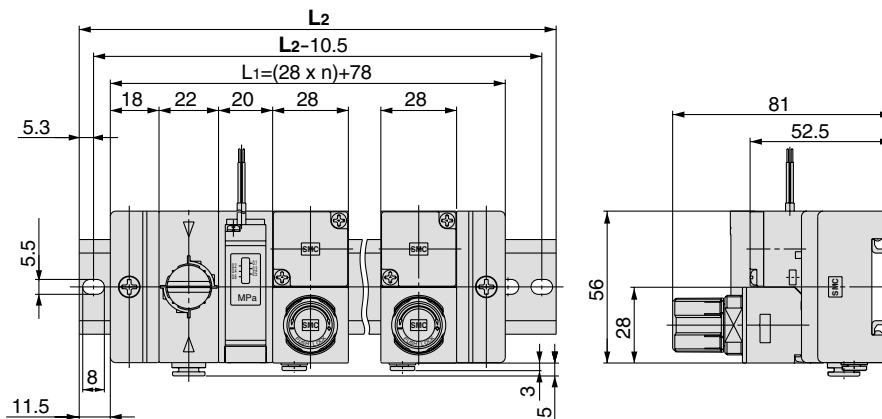
For the dimensions of One-touch fittings and manifold options, please refer to pages 14-4-34 to 14-4-38.



Stations	DIN rail part no.	L2 dimension
1	AXT100-DR-9	123
2	AXT100-DR-11	148
3	AXT100-DR-13	173
4	AXT100-DR-16	210.5
5	AXT100-DR-18	235.5
6	AXT100-DR-20	260.5
7	AXT100-DR-22	285.5
8	AXT100-DR-25	323
9	AXT100-DR-27	348
M	AXT100-DR-29	373

ARM11AB1-□12-C

Handle position: Front/3-way valve common supply block + Pressure switch block



Stations	DIN rail part no.	L2 dimension
1	AXT100-DR-11	148
2	AXT100-DR-13	173
3	AXT100-DR-15	198
4	AXT100-DR-17	223
5	AXT100-DR-19	248
6	AXT100-DR-22	285.5
7	AXT100-DR-24	310.5
8	AXT100-DR-26	335.5
9	AXT100-DR-28	360.5
M	AXT100-DR-31	398

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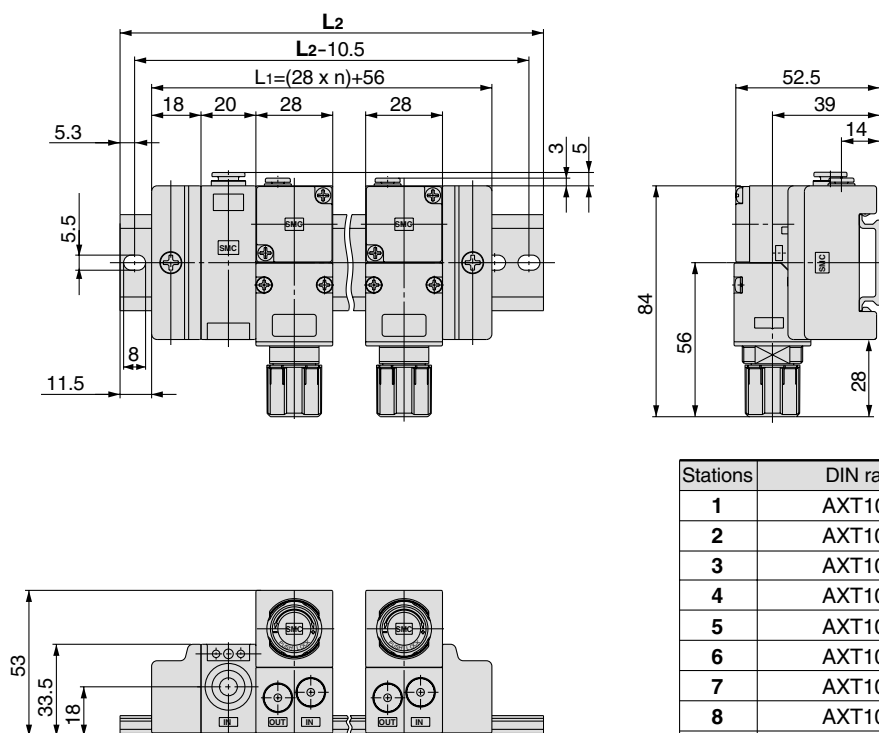
Series ARM11A

Dimensions

ARM11AC2-□12

Handle position: Bottom/Common supply block

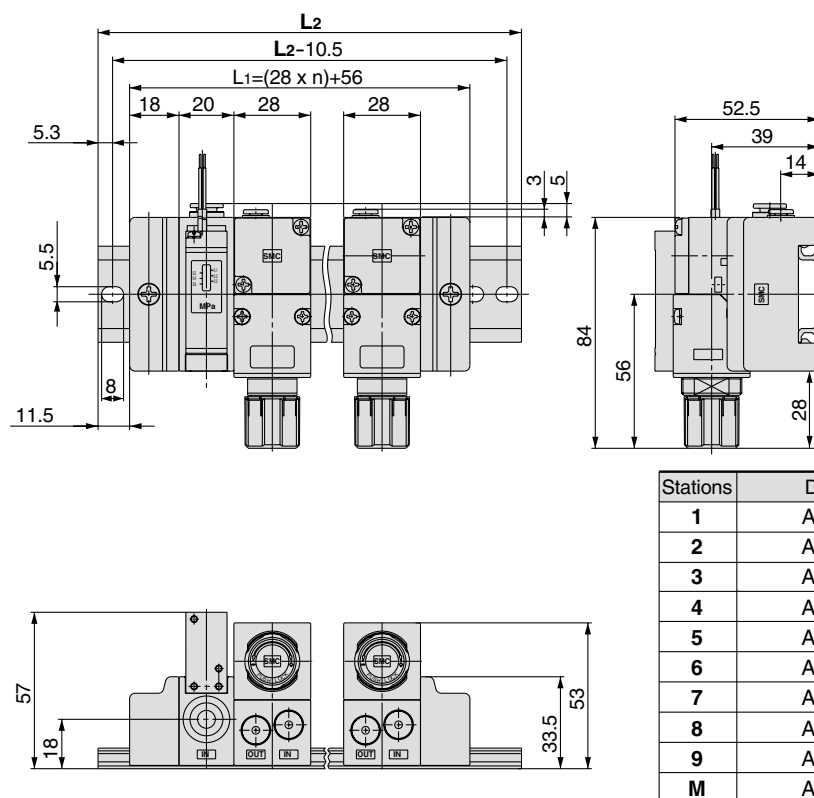
For the dimensions of One-touch fittings and manifold options, please refer to pages 14-4-34 to 14-4-38.



Stations	DIN rail part no.	L2 dimension
1	AXT100-DR-9	123
2	AXT100-DR-11	148
3	AXT100-DR-13	173
4	AXT100-DR-16	210.5
5	AXT100-DR-18	235.5
6	AXT100-DR-20	260.5
7	AXT100-DR-22	285.5
8	AXT100-DR-25	323
9	AXT100-DR-27	348
M	AXT100-DR-29	373

ARM11AC2-□12-A

Handle position: Bottom/Common supply block with pressure switch



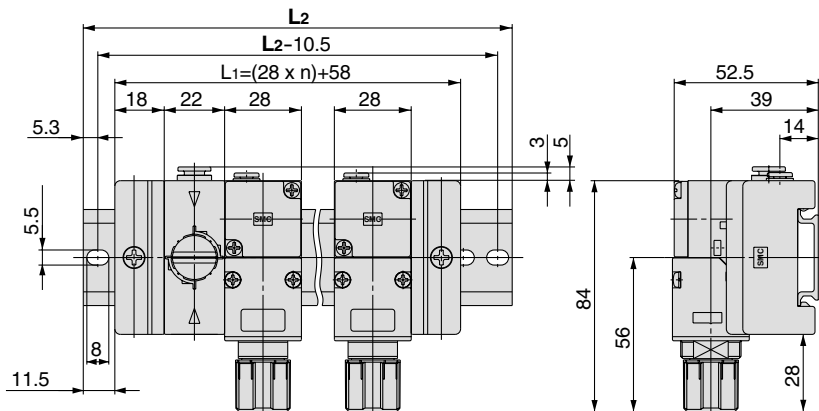
Stations	DIN rail part no.	L2 dimension
1	AXT100-DR-9	123
2	AXT100-DR-11	148
3	AXT100-DR-13	173
4	AXT100-DR-16	210.5
5	AXT100-DR-18	235.5
6	AXT100-DR-20	260.5
7	AXT100-DR-22	285.5
8	AXT100-DR-25	323
9	AXT100-DR-27	348
M	AXT100-DR-29	373

Compact Manifold Regulator Common Supply Type **Series ARM11A**

ARM11AC2-□12-B

Handle position: Bottom/3-way valve common supply block

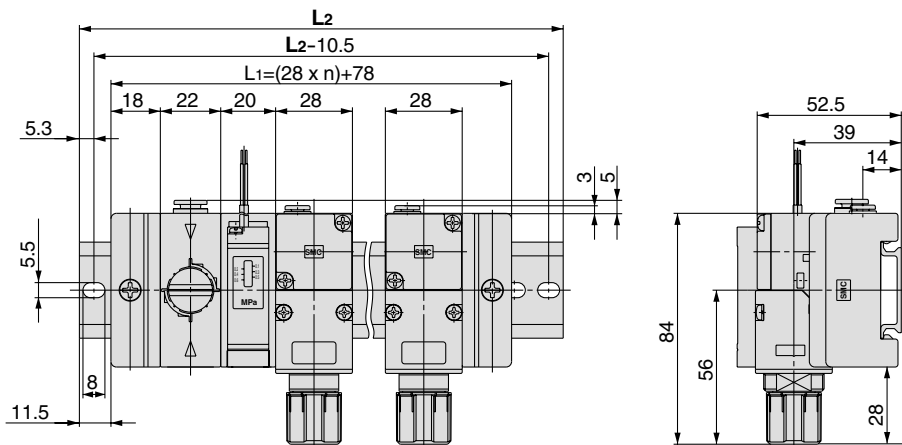
For the dimensions of One-touch fittings and manifold options, please refer to pages 14-4-34 to 14-4-38.



Stations	DIN rail part no.	L2 dimension
1	AXT100-DR-9	123
2	AXT100-DR-11	148
3	AXT100-DR-13	173
4	AXT100-DR-16	210.5
5	AXT100-DR-18	235.5
6	AXT100-DR-20	260.5
7	AXT100-DR-22	285.5
8	AXT100-DR-25	323
9	AXT100-DR-27	348
M	AXT100-DR-29	373

ARM11AC2-□12-C

Handle position: Bottom/3-way valve common supply block + Pressure switch block

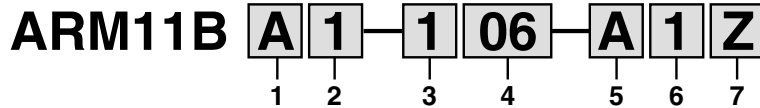


Stations	DIN rail part no.	L2 dimension
1	AXT100-DR-11	148
2	AXT100-DR-13	173
3	AXT100-DR-15	198
4	AXT100-DR-17	223
5	AXT100-DR-19	248
6	AXT100-DR-22	285.5
7	AXT100-DR-24	310.5
8	AXT100-DR-26	335.5
9	AXT100-DR-28	360.5
M	AXT100-DR-31	398

- F.R.L.
- AV
- AU
- AF
- AR**
- IR
- VEX
- AMR
- ITV
- IC
- VBA
- VE□
- VY1
- G
- PPA
- AL

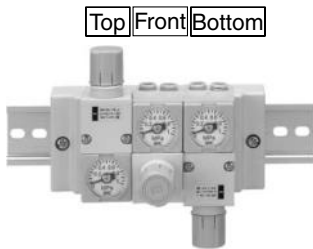
Compact Manifold Regulator Individual Supply Type Series **ARM11B**

How to Order



1. Handle position

A	Top
B	Front
C	Bottom



2. IN/OUT piping position

Symbol	IN side		OUT side	
	Bottom	Top	Bottom	Top
1	●		●	
2		●		●
3	●			●
4		●	●	

IN/OUT: Bottom

IN/OUT: Top

IN: Bottom
OUT: Top

OUT: Bottom
IN: Top



OUT IN



IN



OUT

3. Regulator block stations

1	1 station
2	2 stations
3	3 stations
4	4 stations
5	5 stations
6	6 stations
7	7 stations
8	8 stations
9	9 stations
M	10 stations

5. Accessory

Nil	Without pressure gauge
A	With pressure gauge

Note) Pressure gauges are not available with the copper-free specification.

6. Option

Symbol	None	0.35 MPa setting ^{Note 1)}	Non-relieving	Oil-free ^{Note 2)}
Nil	●			
1		●		
2			●	
3				●
4		●	●	
5		●		●
6			●	●
7		●	●	●

Note 1) A pressure gauge with a full span of 0.4 MPa is attached.
Note 2) The oil-free type has non-greased fluid contact areas.

7. Unit representation

Symbol	Description
Nil	Display unit for product name plate and pressure gauge: MPa
Z ^{Note)}	Display unit for product name plate and pressure gauge: PSI

Note) This product is for overseas use only according to the new Measurement Law. (The SI unit type is provided for use in Japan.)

4. IN/OUT fitting type

Metric size

Symbol	IN side				OUT side			
	Straight		Elbow		Straight		Elbow ^{Note)}	
	ø4	ø6	ø4	ø6	ø4	ø6	ø4	ø6
06	●				●			
07		●			●			
08		●				●		
18			●				●	
19				●			●	
20				●				●
25	●						●	
26		●					●	
27		●						●
32			●		●			
33				●	●			
34				●		●		

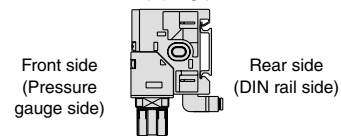
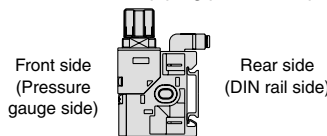
Inch size

Symbol	IN side				OUT side			
	Straight		Elbow		Straight		Elbow	
	ø5/32	ø1/4	ø5/32	ø1/4	ø5/32	ø1/4	ø5/32	ø1/4
56	●				●			
57		●			●			
58		●				●		
68			●				●	
69				●			●	
70				●				●
75	●						●	
76		●					●	
77		●						●
82			●		●			
83				●	●			
84				●		●		

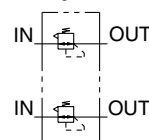
Note) When the handle and the OUT piping are located on the same side, the elbow fitting is directed to the rear side (DIN rail side).

Handle position: Top
OUT piping position: Top

Handle position: Bottom
OUT piping position: Bottom



JIS Symbol



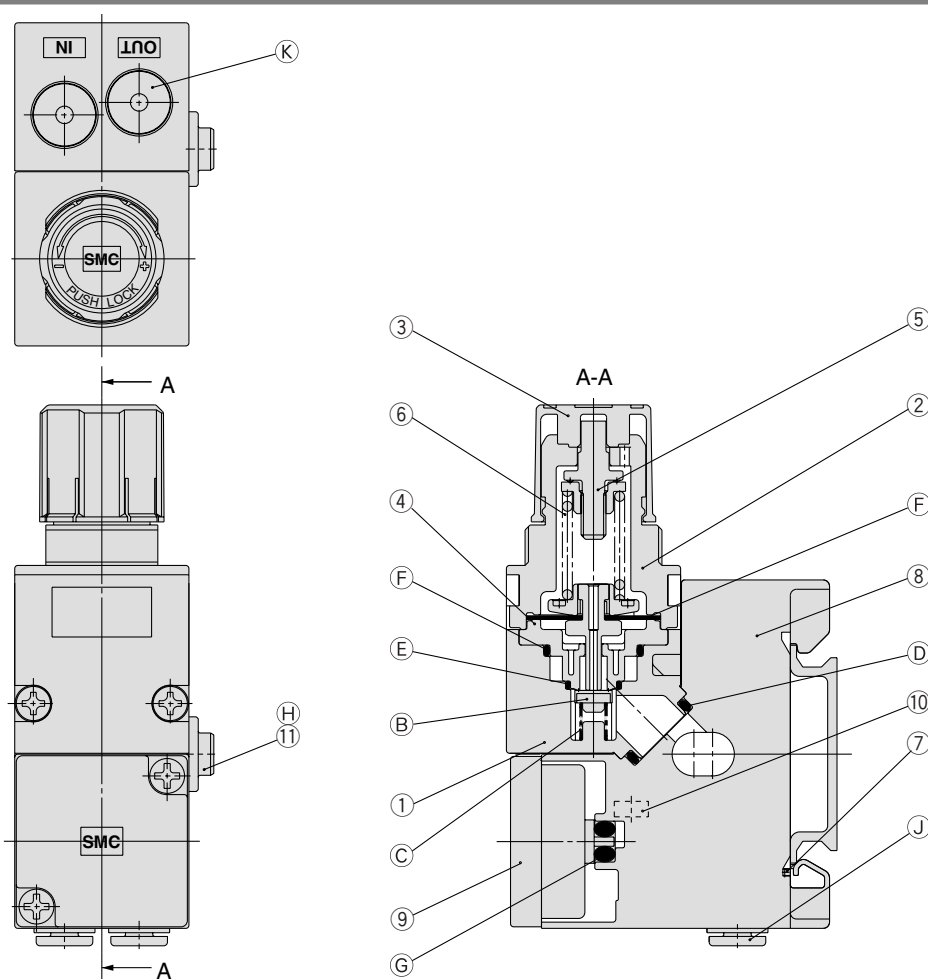
Compact Manifold Regulator Individual Supply Type Series ARM11B

Specifications

Regulator construction		Direct acting
Working principal		Diaphragm regulator
Relief mechanism	Standard	Relief type
	Optional	Non-relieving type
Backflow function		Within (Unbalance type)
IN side tubing O.D.		ø4, ø6, ø5/32, ø1/4
OUT side tubing O.D.		ø4, ø6, ø5/32, ø1/4
Proof pressure		1.5MPa
Maximum operating pressure		1.0MPa
Set pressure range	Standard	0.05 to 0.7MPa
	Optional	0.05 to 0.35MPa (Low pressure type)
Fluid		Air
Ambient and fluid temperature		5 to 60°C

Note) When the regulator is used with backflow, operate at a set pressure of 0.1 MPa or above.

Construction



Component Parts

No.	Description	Material
①	Body for regulator block	PBT
②	Bonnet	PBT
③	Handle	POM
④	Valve seat	POM
⑤	Adjusting screw assembly	Reinforced steel
⑥	Adjustment spring	Steel wire
⑦	Regulator clip	Stainless steel
⑧	Manifold block	PBT
⑨	Blanking plate assembly	—
⑩	Square nut	Steel
⑪	Individual supply bushing	POM

Replacement Parts

No.	Description	Material	Part no.
(A)	Diaphragm assembly	Weatherproof NBR, POM	136126A
(B)	Valve	HNBR, Aluminum alloy	136127-30
(C)	Valve spring	Stainless steel	136131
(D)	Gasket	HNBR	136137-30
(E)	O-ring	NBR	136146
(F)	O-ring	NBR	136147
(G)	O-ring	NBR	136148
(H)	O-ring	NBR	136149
(J)	Fitting assembly	—	Refer to page 14-4-37.
(K)	Port plug	PBT/HNBR	Refer to page 14-4-38.

F.R.L.

AV

AU

AF

AR

IR

VEX

AMR

ITV

IC

VBA

VE□

VY1

G

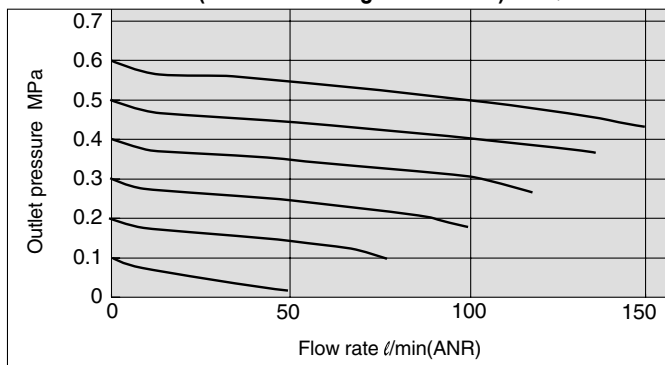
PPA

AL

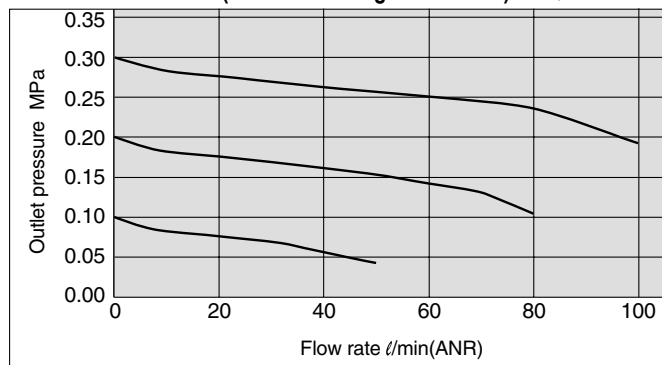
Series ARM11B

Flow Characteristics

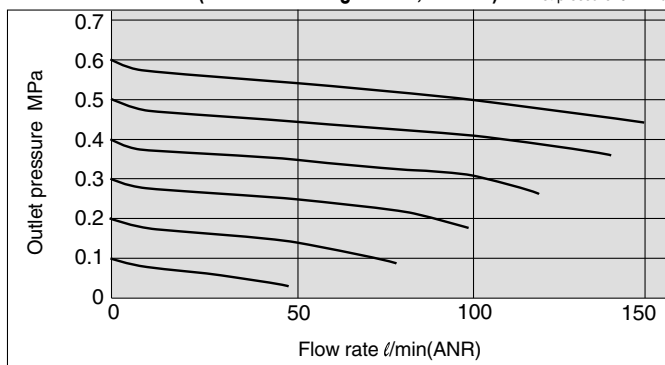
ARM11BA1-306 (One-touch fittings: IN/OUT $\phi 4$) Condition: Inlet pressure 0.7MPa



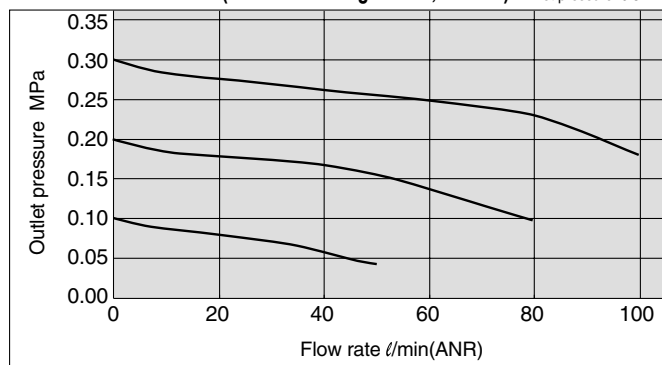
ARM11BA1-306-1 (One-touch fittings: IN/OUT $\phi 4$) Condition: Inlet pressure 0.5MPa



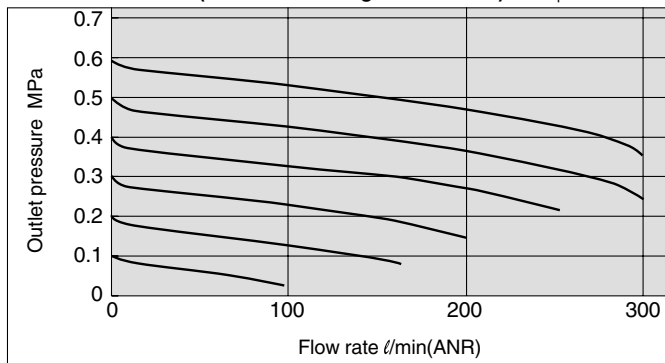
ARM11BA1-307 (One-touch fittings: IN $\phi 6$, OUT $\phi 4$) Condition: Inlet pressure 0.7MPa



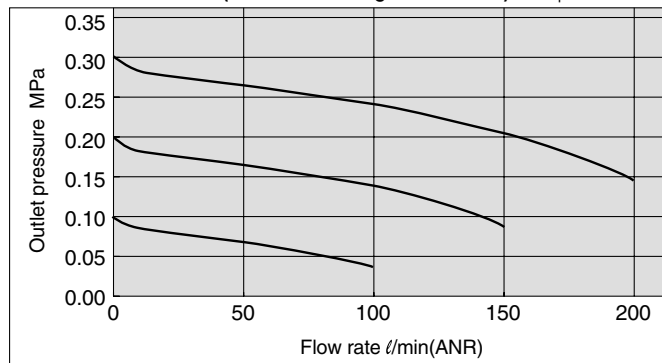
ARM11BA1-307-1 (One-touch fittings: IN $\phi 6$, OUT $\phi 4$) Condition: Inlet pressure 0.5MPa



ARM11BA1-308 (One-touch fittings: IN/OUT $\phi 6$) Condition: Inlet pressure 0.7MPa

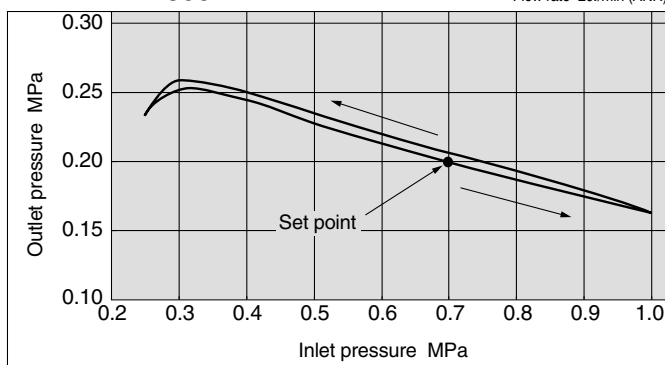


ARM11BA1-308-1 (One-touch fittings: IN/OUT $\phi 6$) Condition: Inlet pressure 0.5MPa

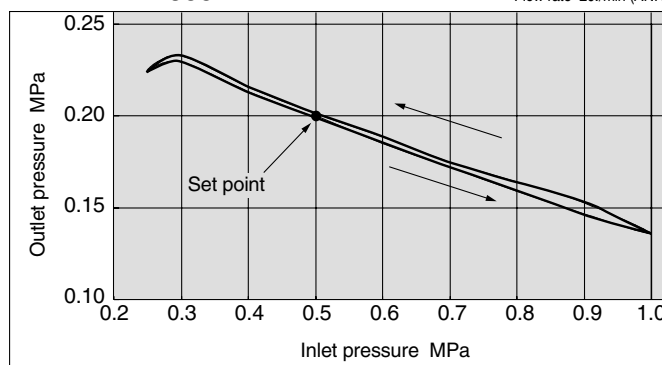


Pressure Characteristics

ARM11BA1-306 Conditions: Inlet pressure 0.7MPa
Outlet pressure 0.2MPa
Flow rate 20l/min (ANR)



ARM11BA1-306-1 Conditions: Inlet pressure 0.5MPa
Outlet pressure 0.2MPa
Flow rate 20l/min (ANR)

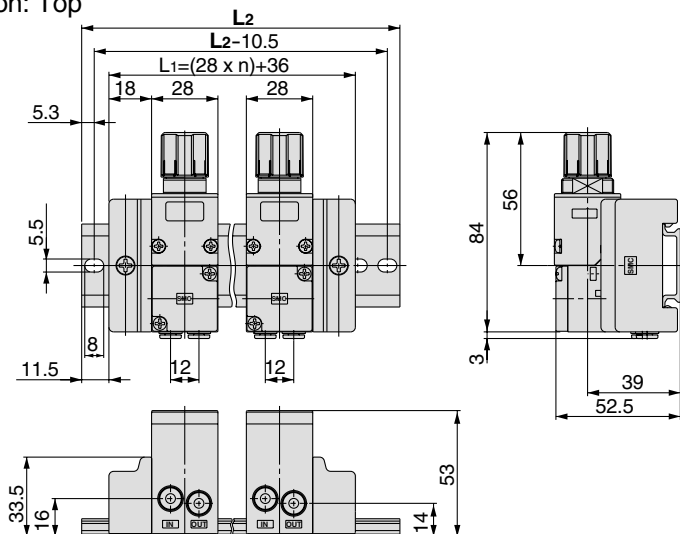


Compact Manifold Regulator Individual Supply Type Series ARM11B

Dimensions

ARM11BA1-□08

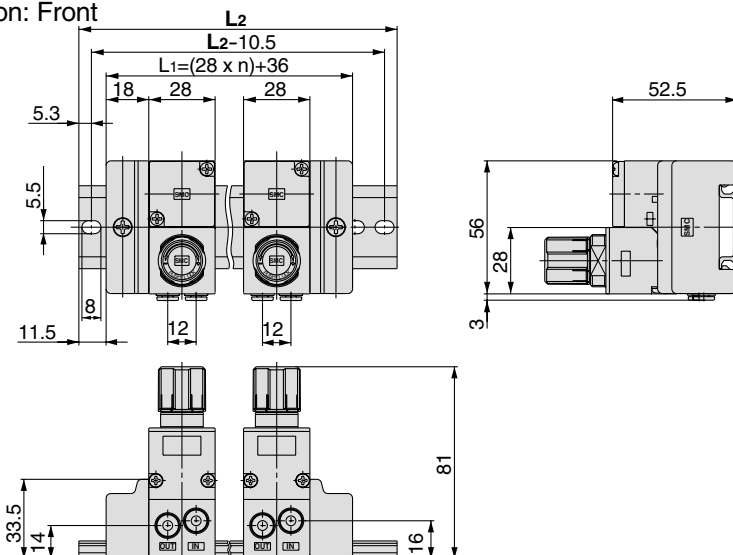
Handle position: Top



Stations	DIN rail part no.	L2 dimension
1	AXT100-DR-8	110.5
2	AXT100-DR-10	135.5
3	AXT100-DR-12	160.5
4	AXT100-DR-14	185.5
5	AXT100-DR-16	210.5
6	AXT100-DR-19	248
7	AXT100-DR-21	273
8	AXT100-DR-23	298
9	AXT100-DR-25	323
M	AXT100-DR-28	360.5

ARM11BB1-□08

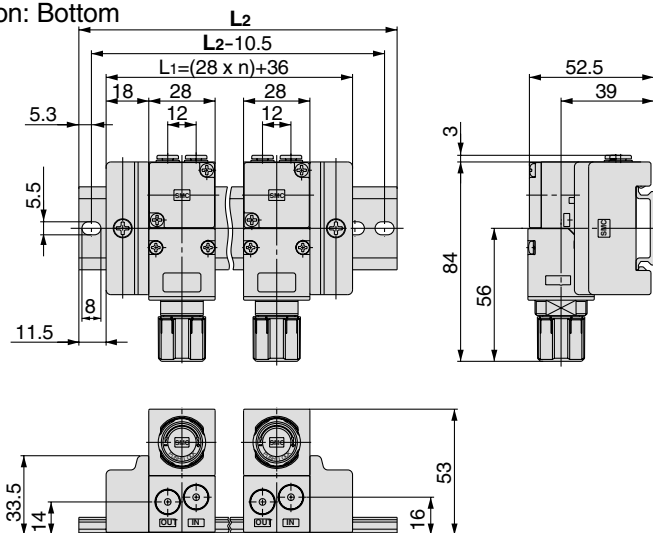
Handle position: Front



Stations	DIN rail part no.	L2 dimension
1	AXT100-DR-8	110.5
2	AXT100-DR-10	135.5
3	AXT100-DR-12	160.5
4	AXT100-DR-14	185.5
5	AXT100-DR-16	210.5
6	AXT100-DR-19	248
7	AXT100-DR-21	273
8	AXT100-DR-23	298
9	AXT100-DR-25	323
M	AXT100-DR-28	360.5

ARM11BC2-□08

Handle position: Bottom



Stations	DIN rail part no.	L2 dimension
1	AXT100-DR-8	110.5
2	AXT100-DR-10	135.5
3	AXT100-DR-12	160.5
4	AXT100-DR-14	185.5
5	AXT100-DR-16	210.5
6	AXT100-DR-19	248
7	AXT100-DR-21	273
8	AXT100-DR-23	298
9	AXT100-DR-25	323
M	AXT100-DR-28	360.5

F.R.L.

AV

AU

AF

AR

IR

VEX

AMR

ITV

IC

VBA

VE□

VY1

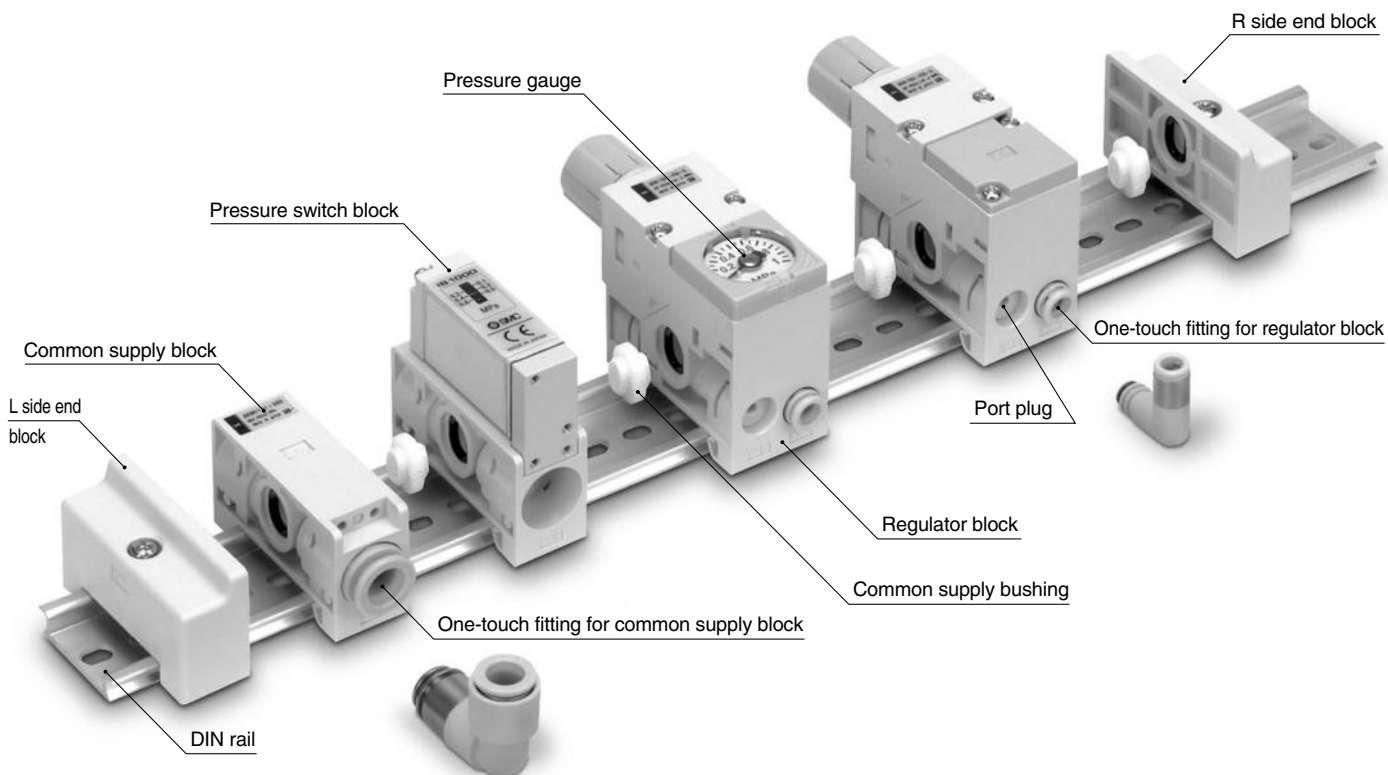
G

PPA

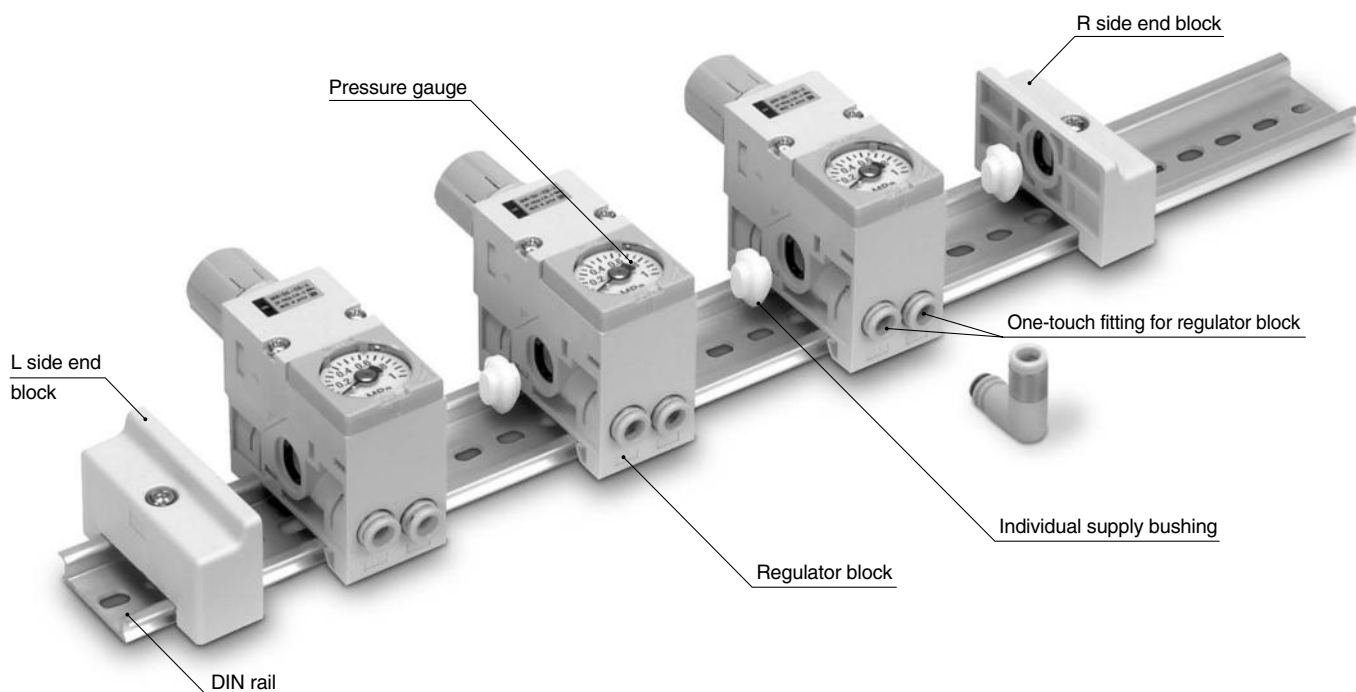
AL

Compact Manifold Regulator Option

Common Supply Type



Individual Supply Type



Compact Manifold Regulator Common/Individual Supply Type Series ARM11A/B

Regulator Block

Common supply type

ARM11A

A

1

R

04

A

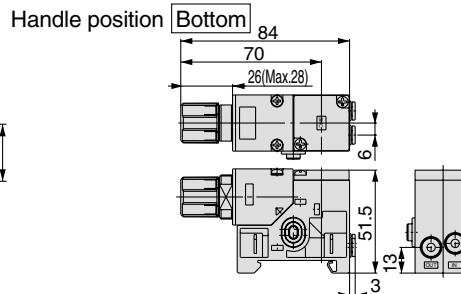
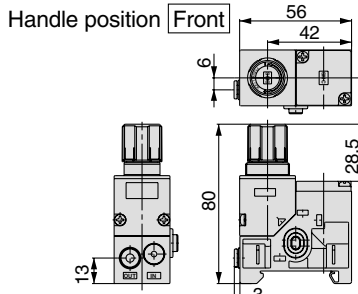
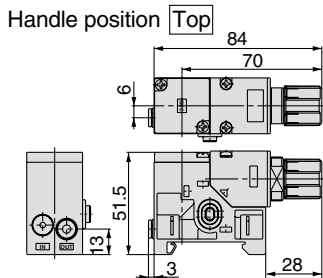
1

Z

1
2
3
4
5
6

1. Handle position

A	Top
B	Front
C	Bottom



2. OUT piping position

1	Bottom
2	Top

4. Accessory

Nil	Without pressure gauge
A	With pressure gauge

Note) Pressure gauges are not available with the copper-free specification.

5. Option

Symbol	None	0.35 MPa setting ^{Note 1)}	Non-relieving	Oil-free
Nil	●			
1		●		
2			●	
3				●
4		●	●	
5		●		●
6			●	●
7		●	●	●

Note 1) A pressure gauge with a full span of 0.4 MPa is attached.
Note 2) The oil-free type has non-greased fluid contact areas.

6. Unit representation

Symbol	Description
Nil	Display unit for product name plate and pressure gauge: MPa
Z	Display unit for product name plate and pressure gauge: PSI

3. OUT fitting type

Metric size

Symbol	Straight		Elbow	
	ø4	ø6	ø4	ø6
04	●			
05		●		
16			●	
17				●

Inch size

Symbol	Straight		Elbow	
	ø5/32	ø1/4	ø5/32	ø1/4
54	●			
55		●		
66			●	
67				●

Individual supply type

ARM11B

A

1

R

06

A

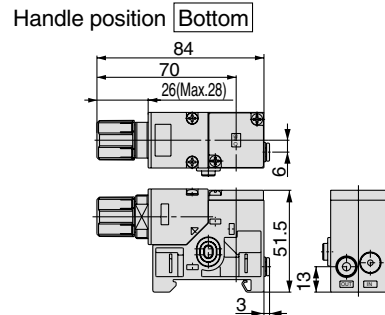
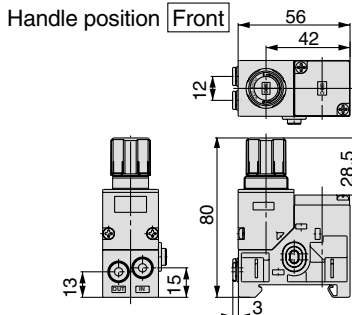
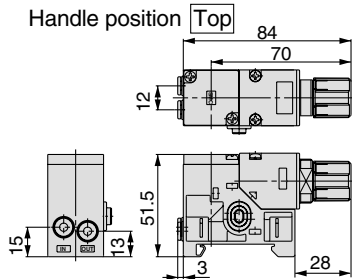
1

Z

1
2
3
4
5
6

1. Handle position

A	Top
B	Front
C	Bottom



2. IN/OUT piping position

Symbol	IN side		OUT side	
	Bottom	Top	Bottom	Top
1	●		●	
2		●		●
3	●			●
4		●	●	

3. IN/OUT fitting type

Metric size

Symbol	IN side			OUT side		
	Straight	Elbow	ø6	Straight	Elbow	ø6
06	●			●		
07		●			●	
08			●			●
18				●		
19					●	
20						●
25	●					●
26		●				●
27			●			●
32				●		
33					●	
34						●

Inch size

Symbol	IN side			OUT side		
	Straight	Elbow	ø1/4	Straight	Elbow	ø1/4
56	●			●		
57		●			●	
58			●			●
68				●		
69					●	
70						●
75	●					●
76		●				●
77			●			●
82				●		
83					●	
84						●

5. Option

Symbol	None	0.35 MPa setting ^{Note 1)}	Non-relieving	Oil-free
Nil	●			
1		●		
2			●	
3				●
4		●	●	
5		●		●
6			●	●
7		●	●	●

Note 1) A pressure gauge with a full span of 0.4 MPa is attached.
Note 2) The oil-free type has non-greased fluid contact areas.

4. Accessory

Nil	Without pressure gauge
A	With pressure gauge

Note) Pressure gauges are not available with the copper-free specification.

6. Unit representation

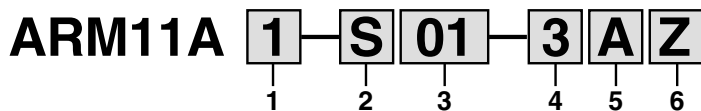
Symbol	Description
Nil	Display unit for product name plate and pressure gauge: MPa
Z ^{Note)}	Display unit for product name plate and pressure gauge: PSI

Note) This product is for overseas use only according to the new Measurement Law. (The SI unit type is provided for use in Japan.)

- F.R.L.
- AV
- AU
- AF
- AR
- IR
- VEX
- AMR
- ITV
- IC
- VBA
- VE□
- VY1
- G
- PPA
- AL

Series ARM11A/B

Common Supply Block



1. IN piping position

1	Bottom
2	Top

4. Option

Nil	None
3	Oil-free

Note) The oil-free type has non-greased fluid contact areas.

2. Common supply block type

S	Common supply block
P	Common supply block with pressure switch
V	3-way valve common supply block
W	3-way valve common supply block + Pressure switch block

Note) The oil-free specification is not available for P and W types of common supply blocks (types with pressure switch).

3. IN fitting type

Metric size

Symbol	Straight			Elbow		
	ø6	ø8	ø10	ø6	ø8	ø10
01	●					
02		●				
03			●			
13				●		
14					●	
15						●

Inch size

Symbol	Straight			Elbow		
	ø1/4	ø5/16	ø3/8	ø1/4	ø5/16	ø3/8
51	●					
52		●				
53			●			
63				●		
64					●	
65						●

5. Accessory

Nil	Pressure switch lead wire length: 0.5 m
A	Pressure switch lead wire length: 3.0 m

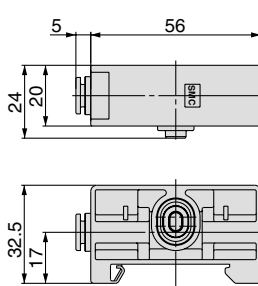
Note) Leave the field blank for types without pressure switch.

6. Unit representation

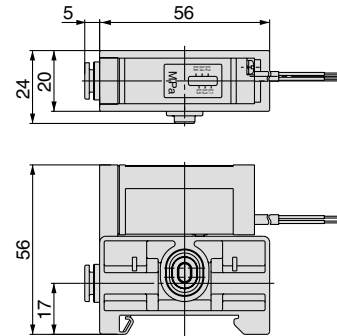
Symbol	Description
Nil	Display unit for product name plate: MPa
Z <small>Note)</small>	Display unit for product name plate: PSI

Note) This product is for overseas use only according to the new Measurement Law. (The SI unit type is provided for use in Japan.) The pressure switch offers dual unit representation in MPa and PSI.

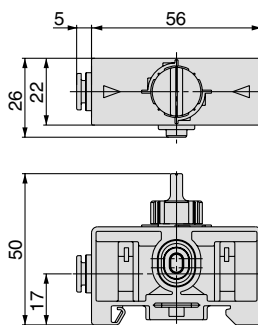
Common supply block (S)



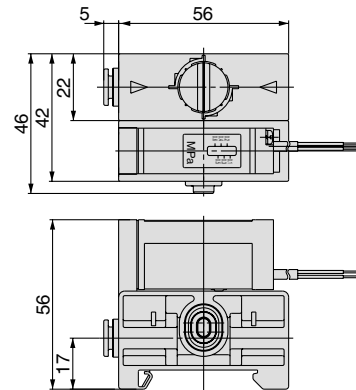
Common supply block with pressure switch (P)



3-way valve common supply block (V)



3-way valve common supply block + Pressure switch block (W)



Pressure Switch Block



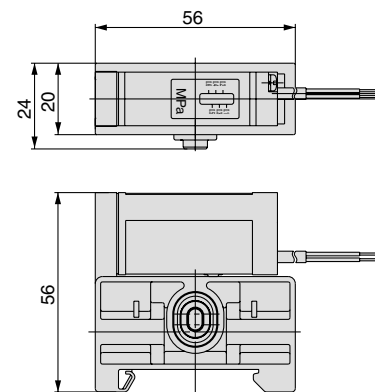
1. Accessory

Nil	Pressure switch lead wire length: 0.5 m
A	Pressure switch lead wire length: 3.0 m

2. Unit representation

Symbol	Description
Nil	Display unit for product name plate: MPa
Z <small>Note)</small>	Display unit for product name plate: PSI

Note) This product is for overseas use only according to the new Measurement Law. (The SI unit type is provided for use in Japan.) The pressure switch offers dual unit representation in MPa and PSI.



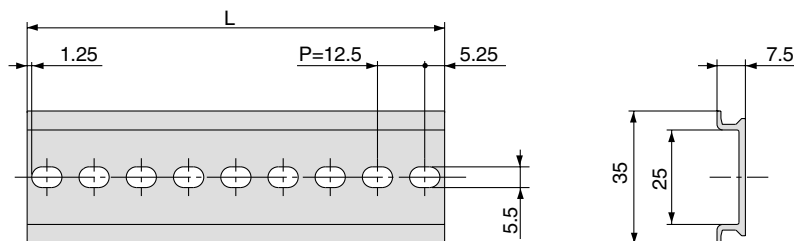
Compact Manifold Regulator Common/Individual Supply Type Series ARM11A/B

DIN Rail

• **When only DIN rail is required:**

DIN rail part no.

AXT100- DR - [n] Note) Put an appropriate No. from the table below in the place of "n." For the L dimension, please refer to "Dimensions."



L Dimension

$L=12.5 \times n+10.5$

NO.	1	2	3	4	5	6	7	8	9	10
L	23	35.5	48	60.5	73	85.5	98	110.5	123	135.5
NO.	11	12	13	14	15	16	17	18	19	20
L	148	160.5	173	185.5	198	210.5	223	235.5	248	260.5
NO.	21	22	23	24	25	26	27	28	29	30
L	273	285.5	298	310.5	323	335.5	348	360.5	373	385.5
NO.	31	32	33	34	35	36	37	38	39	40
L	398	410.5	423	435.5	448	460.5	473	485.5	498	510.5

One-touch Fittings for Regulator Block

VVQ1000 - 50A — **C4**

One-touch fittings for regulator block

Fitting type

Nil	Straight
L1	Elbow

Fitting size

C4	ø4
C6	ø6
N3	ø5/32
N7	ø1/4

Option

Nil	None
X17	Oil-free

One-touch Fittings for Common Supply Block

VVQ2000 - 51A — **C6**

One-touch fittings for regulator

Fitting type

Nil	Straight
L1	Elbow

Fitting size

C6	ø6
C8	ø8
C10	ø10
N7	ø1/4
N9	ø5/16
N11	ø3/8

Option

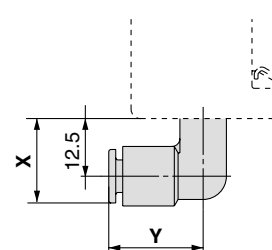
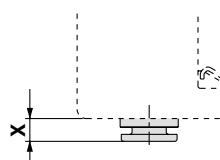
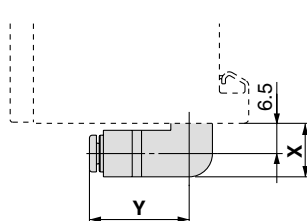
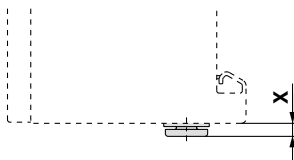
Nil	None
X17	Oil-free

Straight type

Elbow type

Straight type

Elbow type



Fitting size	X
ø4, ø5/32	3
ø6	3
ø1/4	7

Fitting size	X	Y
ø4, ø5/32	11.5	19
ø6	11.5	19.5
ø1/4	11.5	22

Fitting size	X
ø6	5
ø8, ø5/16	5
ø10, ø3/8	5.5
ø1/4	5

Fitting size	X	Y
ø6	19	20
ø8, ø5/16	20	23
ø10, ø3/8	22	26
ø1/4	19	20.5

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- AV
- AU
- AF
- AR
- IR
- VEX
- AMR
- ITV
- IC
- VBA
- VE□
- VY1
- G
- PPA
- AL

Series ARM11A/B

End Block

ARM11E L

End block

Option

End block type

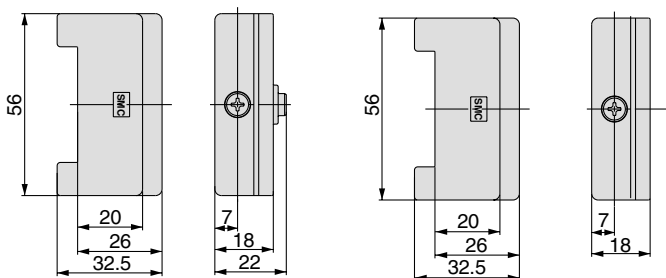
Symbol	Mounting position
L	Left side
R	Right side

Option	Description
Nil	None
3	Oil-free

Note 1) Since the L side end block is oil-free, leave the field blank for it.

L side end block

R side end block

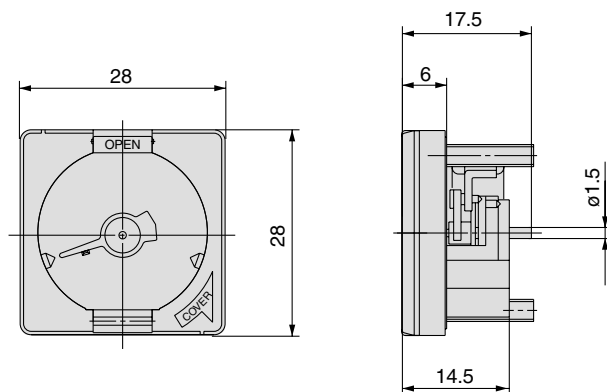


Pressure Gauge

Part no.	Pressure gauge indication range	Indication unit
GC3-4A-X2102	0 to 0.4 MPa	MPa
GC3-10A-X2102	0 to 1.0 MPa	
GC3-P4A-X2102	0 to 60 PSI	PSI
GC3-P10A-X2102	0 to 150 PSI	

Specifications

Fluid	Air
Ambient and fluid temperature	-5 to 60°C
Display accuracy	±3%F.S. (Full Span)
Calibration angle	230°
Limit indicator	With limit indicator



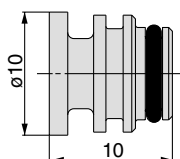
Port Plug

VVQ0000 - 58A

Single unit regulator /
Port plug for regulator block

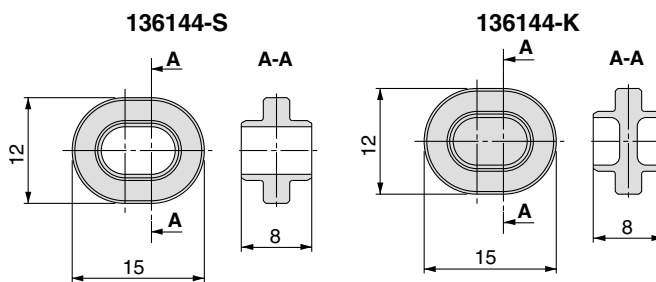
Option

Option	Description
Nil	None
X17	Oil-free



Bushing

Part no.	Description
136144-S	Common supply bushing
136144-K	Individual supply bushing



Regulator Single Unit Type Series **ARM10**

How to Order

ARM10 — **06** **B** — **1** **Z**

1 2 3 4

1. IN/OUT fitting type

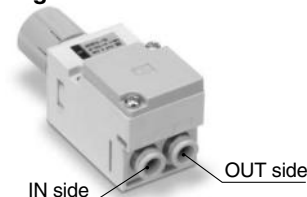
Metric size

Symbol	IN side				OUT side			
	Straight		Elbow		Straight		Elbow	
	ø4	ø6	ø4	ø6	ø4	ø6	ø4	ø6
06	●				●			
07		●			●			
08		●				●		
18			●				●	
19				●			●	
20				●				●
25	●						●	
26		●					●	
27		●						●
32			●		●			
33				●	●			
34				●	●			

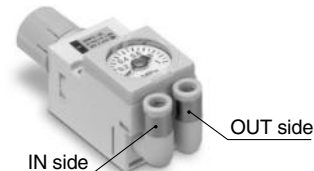
Inch size

Symbol	IN side				OUT side			
	Straight		Elbow		Straight		Elbow	
	ø5/32	ø1/4	ø5/32	ø1/4	ø5/32	ø1/4	ø5/32	ø1/4
56	●				●			
57		●			●			
58		●				●		
68			●				●	
69				●			●	
70				●				●
75	●						●	
76		●					●	
77		●						●
82			●		●			
83				●	●			
84				●	●			

Straight



Elbow

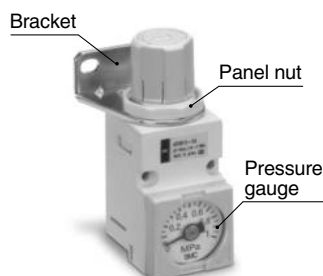


2. Accessory

Symbol	None	Note 1)	Note 2)	Panel nut
		Bracket	Pressure gauge	
Nil	●			
B		●		(●)
G			●	
P				●
BG		●	●	(●)
GP			●	●

Note 1) In case of a type with bracket, the panel nut is included.

Note 2) Pressure gauges are not available with the copper-free specification.



3. Option

Symbol	None	0.35 MPa	Non-	Note 2)
		setting ^{Note 1)}	relieving	Oil-free
Nil	●			
1		●		
2			●	
3				●
4		●	●	
5		●		●
6			●	●
7		●	●	●

Note 1) A pressure gauge with a full span of 0.4 MPa is attached.

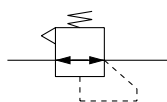
Note 2) The oil-free type has non-greased fluid contact areas.

4. Unit representation

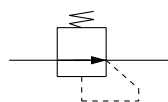
Symbol	Description
Nil	Display unit for product name plate and pressure gauge: MPa
Z ^{Note)}	Display unit for product name plate and pressure gauge: PSI

Note) This product is for overseas use only according to the new Measurement Law.
(The SI unit type is provided for use in Japan.)

JIS Symbol



Relief type



Non-relieving type

Specifications

Model	ARM10	
Regulator construction	Direct acting	
Working principal	Diaphragm regulator	
Relief mechanism	Standard	Relief type
	Optional	Non-relieving type
Backflow function	Within (Unbalance type)	
IN side tubing O.D.	ø4, ø6, ø5/32, ø1/4	
OUT side tubing O.D.	ø4, ø6, ø5/32, ø1/4	
Proof pressure	1.5MPa	
Maximum operating pressure	1.0MPa	
Regulating pressure range	Standard	0.05 to 0.7MPa
	Optional	0.05 to 0.35MPa (Low pressure type)
Fluid	Air	
Ambient and fluid temperature	5 to 60°C	
Weight	60g	

Note) When the regulator is used with backflow, operate at a set pressure of 0.1 MPa or above.

F.R.L.

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Series ARM10

How to Order

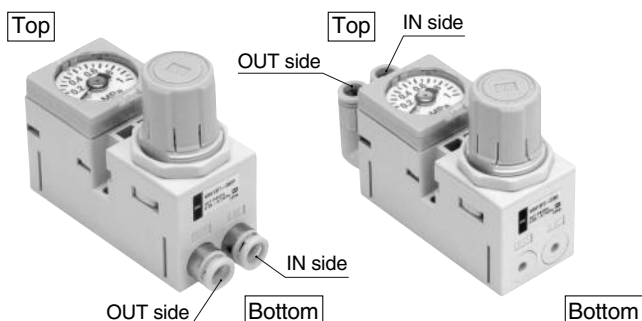
Front handle type

ARM10F **1** — **06** **B** — **1** **Z**

1 2 3 4 5

1. IN/OUT piping position

Symbol	IN side		OUT side	
	Bottom	Top	Bottom	Top
1	●		●	
2		●		●
3	●			●
4		●	●	



Example of panel mounting



2. IN/OUT fitting type

Metric size

Symbol	IN side				OUT side			
	Straight		Elbow		Straight		Elbow	
	ø4	ø6	ø4	ø6	ø4	ø6	ø4	ø6
06	●				●			
07		●						
08		●				●		
18			●				●	
19				●			●	
20				●				●
25	●						●	
26		●					●	
27		●						●
32			●		●			
33				●	●			
34				●		●		

Inch size

Symbol	IN side				OUT side			
	Straight		Elbow		Straight		Elbow	
	ø5/32	ø1/4	ø5/32	ø1/4	ø5/32	ø1/4	ø5/32	ø1/4
56	●				●			
57		●						
58		●				●		
68			●				●	
69				●			●	
70				●				●
75	●						●	
76		●					●	
77		●						●
82			●		●			
83				●	●			
84				●		●		

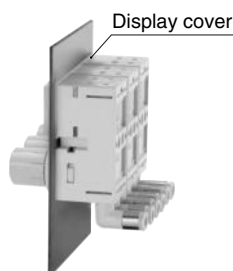
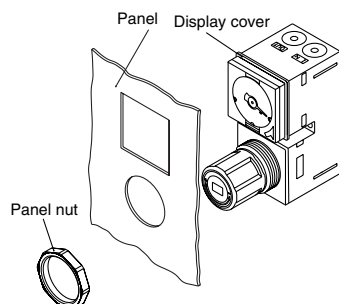
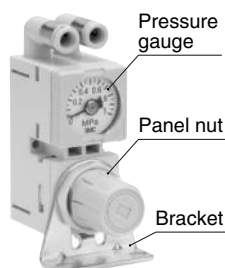
3. Accessory

Symbol	None	Note 1) Bracket	Note 2) Pressure gauge	Panel nut	Display cover
Nil	●				
B		●		●	
GP			●		
BG		●	●	●	
GP			●	●	
GPC ^{Note 3)}			●	●	●

Note 1) In case of a type with bracket, the panel nut is included.

Note 2) Pressure gauges are not available with the copper-free specification.

Note 3) Please note that the dimensions will be big when GPC is required.



Regulator Single Unit Type Series ARM10

4. Option

Symbol	None	0.35 MPa setting ^{Note 1)}	Non-relieving	^{Note 2)} Oil-free
Nil	●			
1		●		
2			●	
3				●
4		●	●	
5		●		●
6			●	●
7		●	●	●

Note 1) A pressure gauge with a full span of 0.4 MPa is attached.

Note 2) The oil-free type has non-greased fluid contact areas.

5. Unit representation

Symbol	Description
Nil	Display unit for product name plate and pressure gauge: MPa
Z ^{Note)}	Display unit for product name plate and pressure gauge: PSI

Note) This product is for overseas use only according to the new Measurement Law.
(The SI unit type is provided for use in Japan.)

Specifications

Model		ARM10F
Regulator construction		Direct acting
Working principal		Diaphragm regulator
Relief mechanism	Standard	Relief type
	Optional	Non-relieving type
Backflow function		Within (unbalance type)
IN side tubing O.D.		ø4, ø6, ø5/32, ø1/4
OUT side tubing O.D.		ø4, ø6, ø5/32, ø1/4
Proof pressure		1.5MPa
Maximum operating pressure		1.0MPa
Set pressure range	Standard	0.05 to 0.7MPa
	Optional	0.05 to 0.35MPa (Low pressure type)
Fluid		Air
Ambient and fluid temperature		5 to 60°C
Weight		72g

Note) When the regulator is used with backflow regulator, operate at a set pressure of 0.1 MPa or above.

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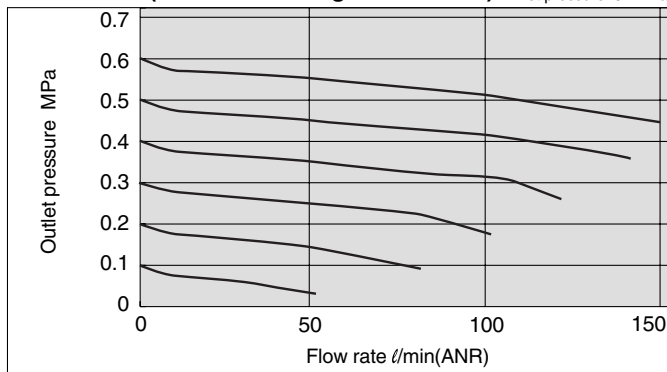
PPA

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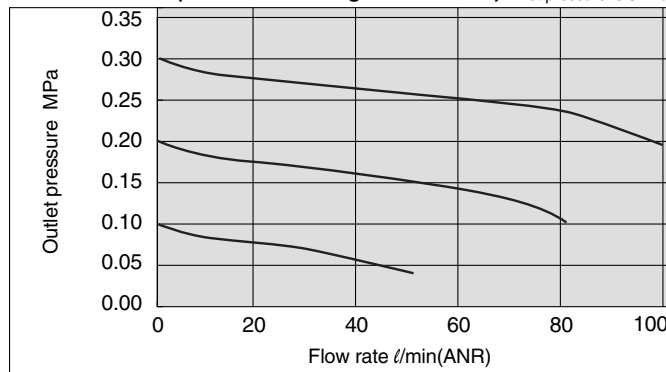
Series ARM10

Flow Characteristics

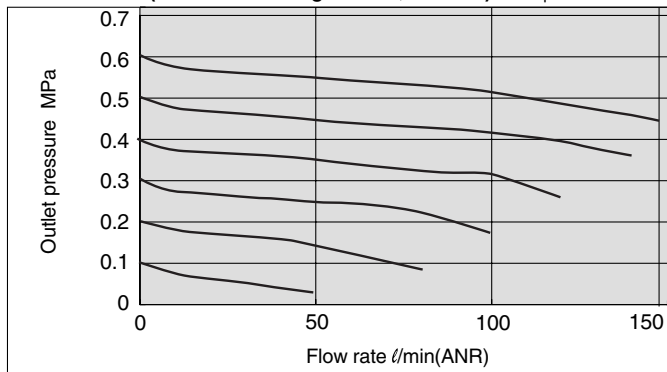
ARM10F□-06
ARM10-06 (One-touch fittings: IN/OUT ø4) Condition: Inlet pressure 0.7MPa



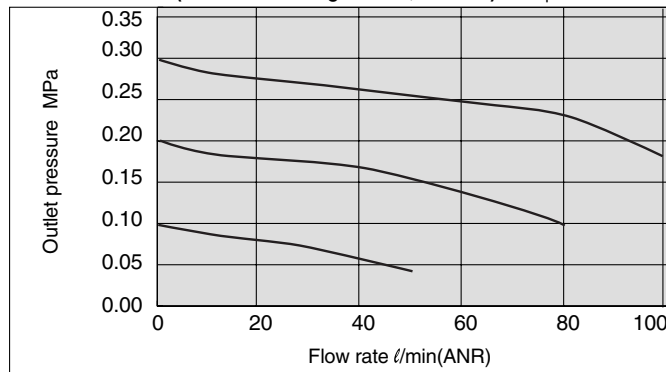
ARM10F□-06-1
ARM10-06-1 (One-touch fittings: IN/OUT ø4) Condition: Inlet pressure 0.5MPa



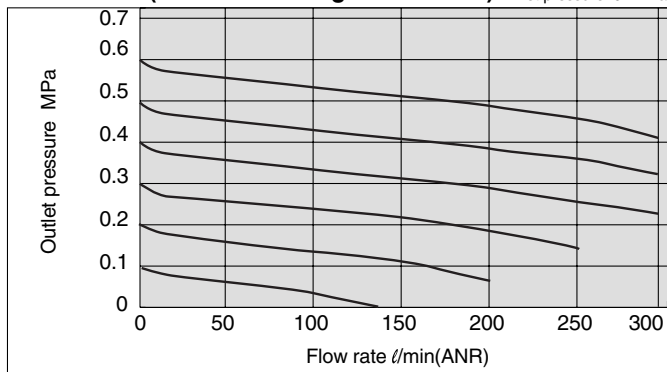
ARM10F□-07
ARM10-07 (One-touch fittings: IN ø6, OUT ø4) Condition: Inlet pressure 0.7MPa



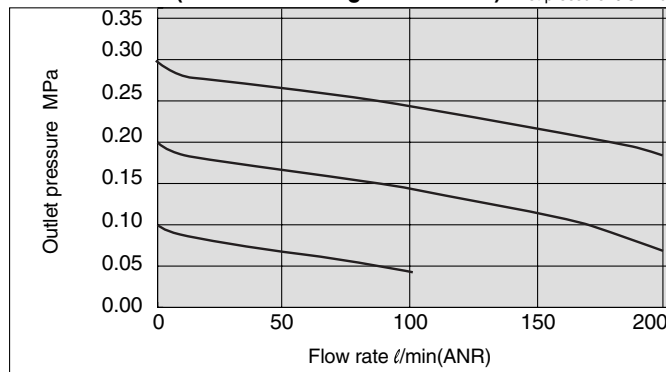
ARM10F□-07-1
ARM10-07-1 (One-touch fittings: IN ø6, OUT ø4) Condition: Inlet pressure 0.5MPa



ARM10F□-08
ARM10-08 (One-touch fittings: IN/OUT ø6) Condition: Inlet pressure 0.7MPa

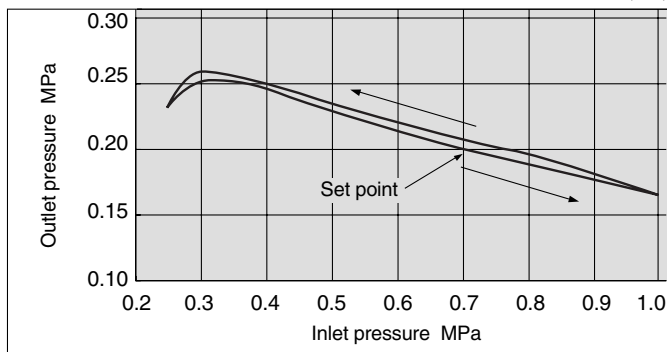


ARM10F□-08-1
ARM10-08-1 (One-touch fittings: IN/OUT ø6) Condition: Inlet pressure 0.5MPa

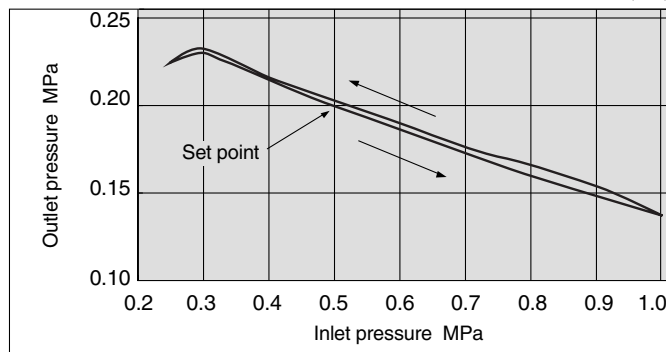


Pressure Characteristics

ARM10F□-06
ARM10-06 Conditions: Inlet pressure 0.7MPa, Outlet pressure 0.2MPa, Flow rate 20l/min (ANR)

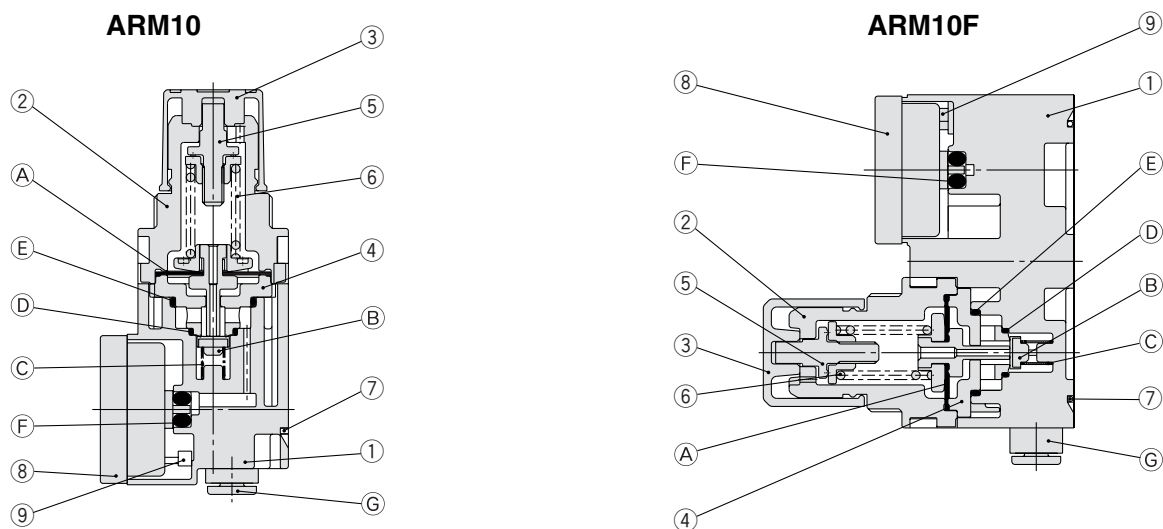


ARM10F□-06-1
ARM10-06-1 Conditions: Inlet pressure 0.5MPa, Outlet pressure 0.2MPa, Flow rate 20l/min (ANR)



Regulator Single Unit Type Series ARM10

Construction



Component Parts

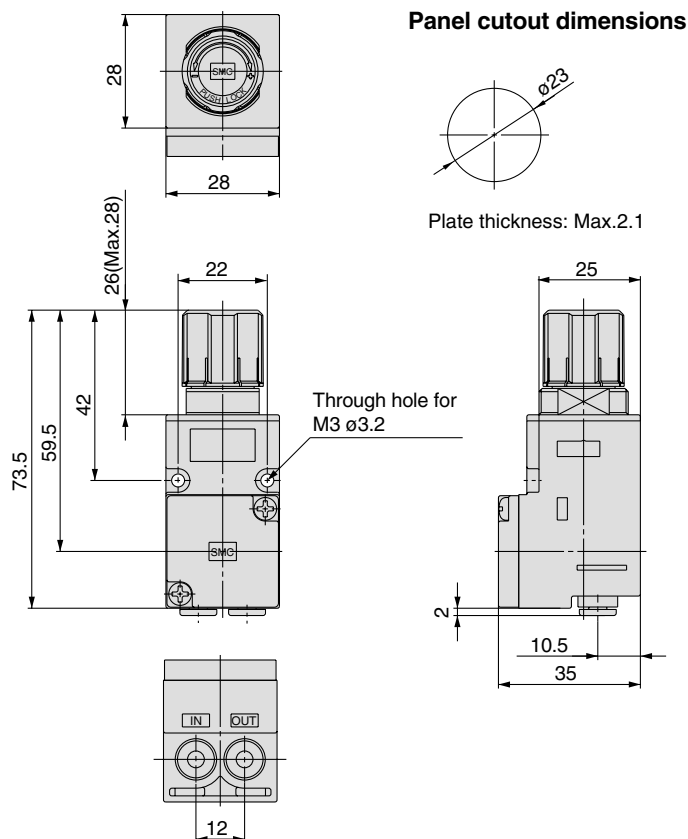
No.	Description	Material
①	Body	PBT
②	Bonnet	PBT
③	Handle	POM
④	Valve seat	POM
⑤	Adjusting screw assembly	Reinforced steel
⑥	Adjustment spring	Steel wire
⑦	Regulator clip	Stainless steel
⑧	Blanking plate assembly	—
⑨	Square nut	Steel

Replacement Parts

No.	Description	Material	Part no.
A	Diaphragm assembly	Weatherproof NBR, POM	136126A
B	Valve	HNBR, Aluminum alloy	136127-30
C	Valve spring	Stainless steel	136131
D	O-ring	NBR	136146
E	O-ring	NBR	136147
F	O-ring	NBR	136148
G	Fitting assembly	—	Refer to page 14-4-45.

Dimensions

ARM10-
06
08



For dimensions and accessories of One-touch fittings, please refer to page 14-4-45.

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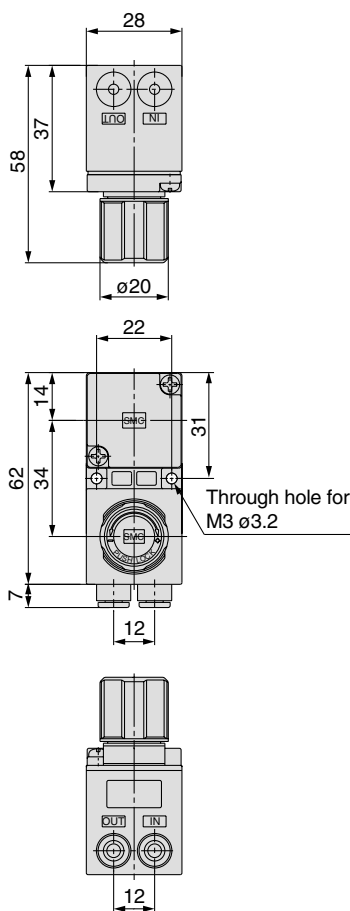
PPA

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Series ARM10

Dimensions

ARM10F1-06
08



Panel cutout dimensions

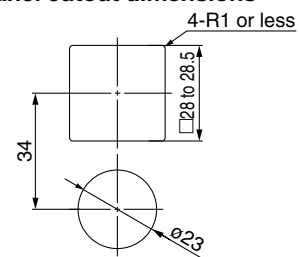
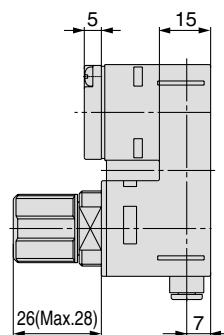
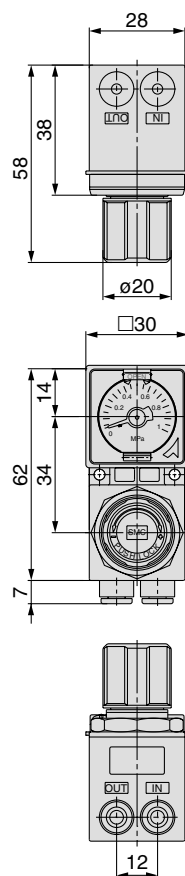


Plate thickness: Max.2.1



ARM10F1-06GPC
08GPC



Panel cutout dimensions

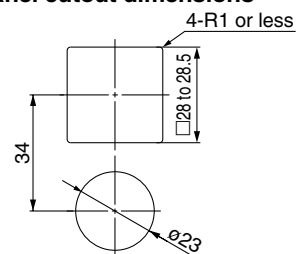
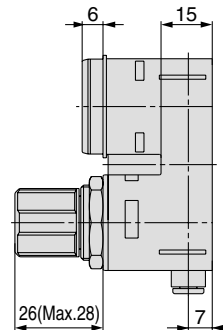


Plate thickness: Max.2.1



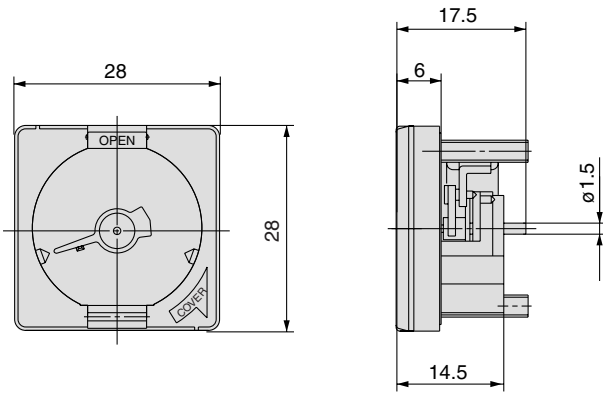
Regulator/Single Unit Type Option

Pressure Gauge

Part no.	Pressure gauge indication range	Indication unit
GC3-4A-X2101	0 to 0.4MPa	MPa
GC3-10A-X2101	0 to 1.0MPa	
GC3-P4A-X2101	0 to 60PSI	PSI
GC3-P10A-X2101	0 to 150PSI	

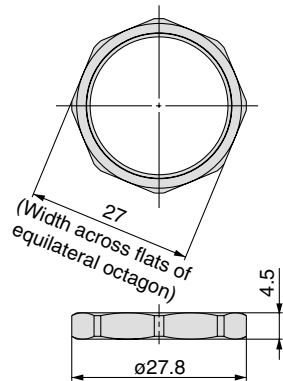
Specifications

Fluid	Air
Ambient and fluid temperature	-5 to 60°C
Display accuracy	±3%F.S. (Full Span)
Calibration angle	230°
Limit indicator	With limit indicator
Weight	17g



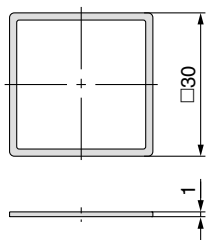
Panel Nut

Part no.	136133
Material	POM
Weight	1g

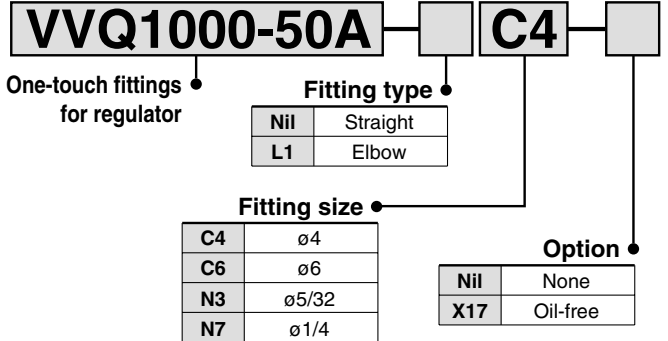


Display Cover

Part no.	136155
Material	PBT
Weight	0.5g

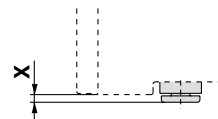


One-touch Fittings for Regulator



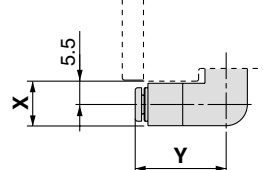
ARM10

Straight type



Fitting size	X
ø4, ø5/32	2
ø6	2
ø1/4	6

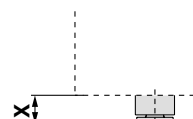
Elbow type



Fitting size	X	Y
ø4, ø5/32	10.5	21.5
ø6	10.5	22
ø1/4	10.5	24.5

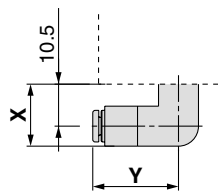
ARM10F

Straight type



Fitting size	X
ø4, ø5/32	7
ø6	7
ø1/4	11

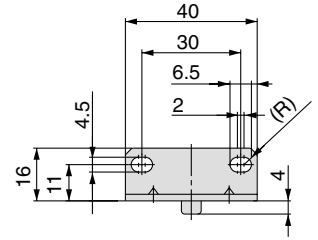
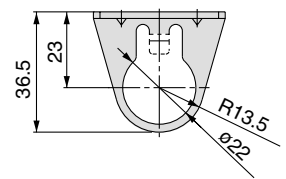
Elbow type



Fitting size	X	Y
ø4, ø5/32	15.5	21.5
ø6	15.5	22
ø1/4	15.5	24.5

Bracket

Part no.	136134
Material	Nickel plated steel
Weight	17g



F.R.L.

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Series ARM10F

Made to Order Specifications:

Please contact SMC regarding detailed specifications, dimensions and delivery.

Regulator single unit front handle type/ For manifold

Specifications

Regulator construction		Direct acting
Working principal		Diaphragm regulator
Relief mechanism	Standard	Relief type
	Optional	Non-relieving type
Backflow function		Within (Unbalance type)
IN/OUT air passage diameter		ø4
IN/OUT gasket sealing O.D.		ø7
Proof pressure		1.5MPa
Maximum operating pressure		1.0MPa
Set pressure range	Standard	0.05 to 0.7MPa
	Optional	0.05 to 0.35MPa (Low pressure type)
Fluid		Air
Ambient and fluid temperature		5 to 60°C
Weight		73g



Note 1) Mounting bolts and O-rings (2 of each) are attached.

Note 2) When the regulator is used with backflow, operate at a set pressure of 0.1 MPa or above.

How to Order

ARM10F — **A** **1** **Z** — **X201**
 1 2 3 • For manifold

1. Accessory

Nil	Without pressure gauge
A	With pressure gauge

2. Option

Symbol	None	0.35 MPa setting ^{Note 1)}	Non-relieving	Oil-free ^{Note 2)}
Nil	●			
1		●		
2			●	
3				●
4		●	●	
5		●		●
6			●	●
7		●	●	●

Note 1) A pressure gauge with a full span of 0.4 MPa is attached.

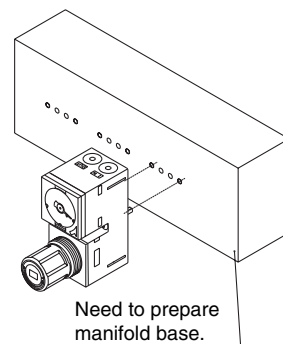
Note 2) The oil-free type has non-greased fluid contact areas.

3. Unit representation

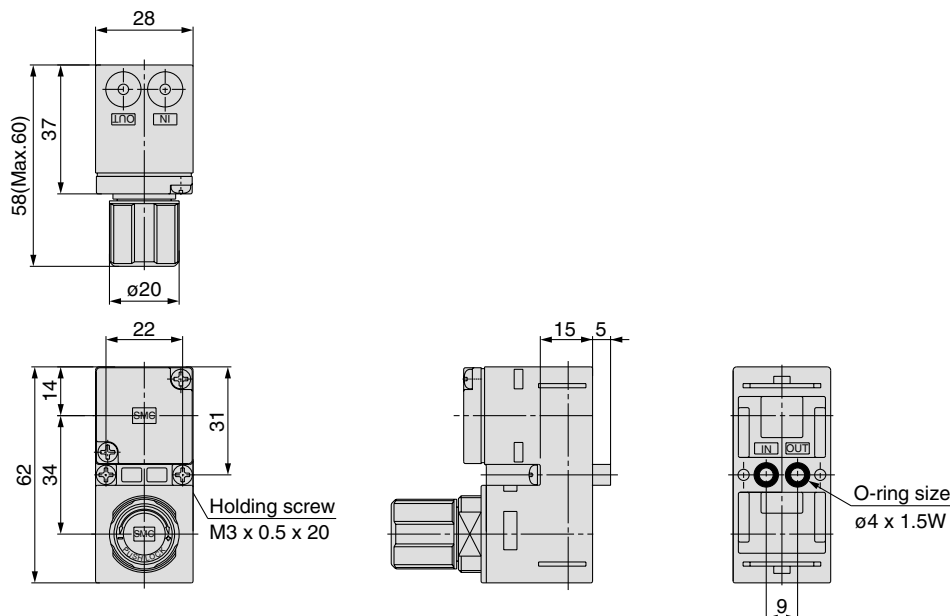
Symbol	Description
Nil	Display unit for product name plate and pressure gauge: MPa
Z ^{Note)}	Display unit for product name plate and pressure gauge: PSI

Note) This product is for overseas use only according to the new Measurement Law. (The SI unit type is provided for use in Japan.)

Example



Dimensions





Compact Manifold Regulator/*Series ARM10/11*

Specific Product Precautions 1

Be sure to read before handling.

Design & Selection

⚠ Warning

1. Confirm the specifications.

The products appearing in this catalog are designed for use only in compressed air systems.

Do not use outside the specified ranges of pressure, temperature, etc., as this may cause damage or faulty operation. Please consult with SMC if fluid other than compressed air is to be used.

2. Do not use the products in this catalog as “safety accessories” stipulated in Art. 1, paragraph 2.1.3 and Art. 3, paragraph 1.4 of Pressure Equipment Directive (97/23/EC).

The Pressure Equipment Directive defines a safety accessory as a device which is designed to prevent pressure equipment from exceeding the allowable limit values.

3. Confirm the regulating pressure range.

Be sure to install safety devices if output pressure above the set range can lead to damage or malfunction of equipment on the outlet side.

4. Residual pressure relief without inlet pressure.

In cases where the inlet pressure has been released while the outlet pressure is in a low-pressure setting state, it may not be possible to exhaust the outlet pressure (residual pressure relief). Provide a residual pressure relief circuit if reliable outlet pressure relief must be performed.

5. When used with a closed downstream circuit and balance circuit.

Please contact SMC as there are cases in which the product cannot be used.

Mounting

⚠ Warning

1. Read the instruction manual carefully.

The product should be mounted and operated with a good understanding of its contents. Also, keep the manual where it can be easily referred to at any time.

2. Ensure space for maintenance.

Ensure the necessary space for maintenance activities.

3. Strictly observe the tightening torque of the screw.

Tighten the screw at the recommended torque in installation.

Piping

⚠ Caution

Precautions in use of One-touch fittings

1) Tubing installation

1. Take a tubing with no flaws on its periphery and cut it off at a right angle. Use a TK-1, 2 or 3 tubing cutter to cut the tubing. Do not use pinchers, nippers or scissors, etc. The tubing might be cut diagonally or flattened, making installation impossible or causing problems such as disconnection and leakage. Also, ensure sufficient tubing length.
2. Hold the tubing and push it in slowly, inserting it securely all the way into the fitting.

Piping

⚠ Caution

3. After inserting the tubing, pull it lightly to confirm that it will not come out. If the tubing is not inserted to the end, air leakage or disconnection may occur.

4. When piping, increase the length of the tubing to allow for any possible warping, increased tension or moment load, etc. to the fittings and tubing.

2) Tubing removal

1. Push both the release bushing and flange.

2. Pull out the tubing while holding the release bushing so that it will not be locked again. Insufficient pressure on the release bushing will result in increased biting force that will impede the tubing removal.

3. When re-using a removable tubing, cut off the deformed part. If the deformed part of the tubing is used, it can cause air leakage or impede the tubing removal.

In cases where a tubing brand other than SMC is used, confirm that the tubing outside diameter accuracy satisfies the following specifications.

1. Nylon tubing ±0.1 mm or less
 2. Soft nylon tubing ±0.1 mm or less
 3. Polyurethane tubing +0.15 mm or less/−0.2 mm or less
- Do not use the tubing if it does not satisfy the outside diameter accuracy. Tubing connection may be impossible or air leakage or tubing disconnection may occur after connection.

Air Supply

⚠ Warning

1. Use clean air.

Do not use the regulator if the compressed air contains synthetic oil including chemicals or organic solvents, salt or corrosive gas. It may lead to damage or malfunction.

⚠ Caution

1. Install an air filter.

Install an air filter on the inlet side in close proximity with the regulator. Select a type with 5 μm or smaller filtration.

2. Install an after cooler, air dryer or mist separator (drain catch) to remove drainage.

Compressed air containing excessive drainage may cause malfunction of the regulator, pressure switch or other pneumatic equipment.

3. If an excessive amount of carbon powder is generated, install a mist separator as a measure.

If an excessive amount of carbon powder is generated from the compressor, it may adhere to the interior of the regulator and cause malfunction.

Refer to Best Pneumatics Vol. 14 for further details on compressed air quality.

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Compact Manifold Regulator/*Series ARM10/11*

Specific Product Precautions 2

Be sure to read before handling.

Operating Environment

⚠ Warning

1. Do not operate in locations having an atmosphere of corrosive gases, chemicals, sea water, fresh water or water vapor, or where there will be contact with the same.
2. In locations which receive direct sunlight, the sunlight should be blocked .
3. Do not operate in locations where vibration or impact occurs.
4. Do not operate in a location near a heat source or where radiated heat will be received.

Adjustment

⚠ Warning

Regulator

1. Set up the regulator while verifying the pressure that is indicated on the inlet side and outlet side pressure gauges. Turning the handle excessively could damage the internal parts.
2. The adjustment handle must be operated manually. Using a tool to turn the handle could lead to damage.

⚠ Caution

Regulator

1. Set up the regulator after carefully verifying the pressure that is indicated on the inlet side pressure gauge.
2. Set the outlet pressure in a range that is within 85% of the inlet pressure.
Also, it should not exceed the set pressure range.
3. Release the lock to adjust the pressure. After the adjustment, engage the lock. Failure to observe this procedure could damage the handle or cause the outlet pressure to fluctuate.
4. Turning the pressure adjustment handle clockwise increases the outlet pressure and turning it counter-clockwise decreases the pressure. (To achieve the final set pressure, gradually increase from low pressure until the desired pressure is reached.)

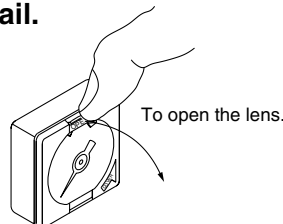
Adjustment

⚠ Caution

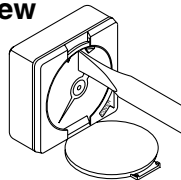
How to adjust indicator of the pressure gauge.

Make sure to follow the instruction when opening the lens cover to adjust the pressure gauge.

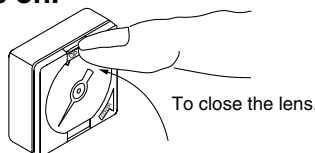
1. Open the lens cover to the arrow's direction with finger nail.



2. Adjust the gauge needle with for example, a flat head screw driver.



3. Close the lens cover to the arrow's direction until it snaps on.



Maintenance

⚠ Warning

1. Maintenance should be performed according to the procedure indicated in the instruction manual.

Improper handling can cause damage and malfunction of equipment and machinery.

2. Maintenance operations.

Improper handling of compressed air is dangerous. Therefore, in addition to observing the product specifications, replacement of elements and other maintenance activities should be performed by personnel having sufficient knowledge and experience pertaining to pneumatic equipment.

3. Pre-maintenance inspection.

When removing this product, turn off the electric power, and be certain to shut off the supply pressure and exhaust the compressed air in the system. Proceed only after confirming that all pressure has been released to the atmosphere.

4. Post maintenance inspection.

After installation or repair, reconnect compressed air and electricity and conduct appropriate inspections to confirm proper operation. If there is an audible air leakage, or if the equipment does not operate properly, stop operation and confirm that the equipment is installed correctly.

5. Modification prohibited.

Do not modify or reconstruct the unit.



Blocks/Series ARM10/11

Specific Product Precautions

Be sure to read before handling.

Handling

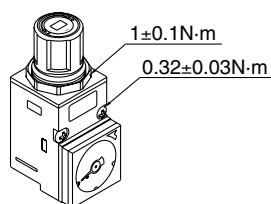
Warning

Observe the proper screw tightening torque in installation.

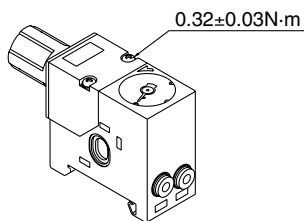
Tightening beyond the proper tightening torque may damage the mounting screws, blocks or switches.

If the force is below the tightening torque range, the threaded joint can come loose.

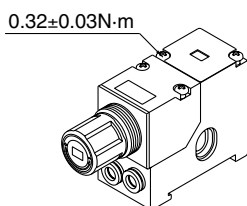
1. Tightening torque for fixing screws and panel nuts of a single unit regulator



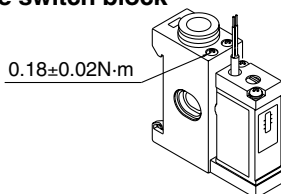
2. Tightening torque for regulator assembly fixing screws on regulator block



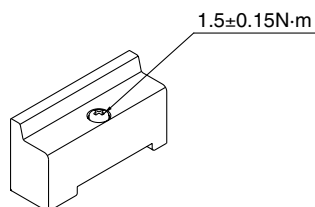
3. Tightening torque for blanking plates and pressure gauge fixing screws on regulator block



4. Tightening torque for pressure switch fixing screws on common supply block with pressure switch and pressure switch block



5. Tightening torque for DIN rail clamp screws on end block

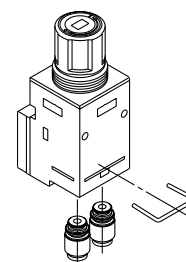


Caution

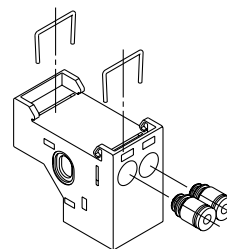
One-touch fitting replacement

For the ease of replacement, One-touch fittings are installed as the cassette type. One-touch fittings are retained with clips inserted from the directions illustrated below. Remove the clips with a flat head screw driver to replace the One-touch fittings. When installing, insert each One-touch fitting deeply to the end and reinsert the clip to the specified position.

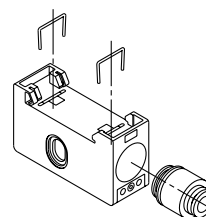
1. Single unit regulator



2. Regulator block



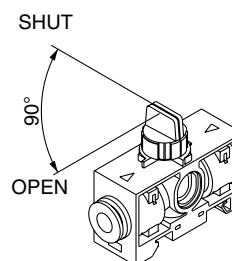
3. Various common supply blocks



Caution

Pressure supply of 3-way valve common supply block

Make sure that the handle is set at the OPEN or SHUT position in operation. The block cannot be used for the purpose of containing pressure because it allows a small amount of leakage.



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Pressure Switches/*Series ARM10/11*

Specific Product Precautions

Be sure to read before handling.

Design & Selection

Warning

1. Operate the switch only within the specified voltage.

Use of the switch outside the range of the specified voltage can cause malfunction and damage to the switch, it may also increase the risks of electrical shocks or fire.

2. Never apply a load above the maximum load capacity.

It can damage the switch or shorten the service life.

3. Be sure to observe the set pressure range and maximum operating pressure.

Use of the switch outside the set pressure range can cause failure and use beyond the maximum operating pressure can damage the switch.

Mounting

Warning

1. Do not use the switch unless the equipment operates normally.

After installation, repair or reform, connect air and electricity and conduct appropriate function and leakage tests to confirm proper installation.

2. Do not apply a tensile force to a cord.

Be sure to hold the body to handle the product. Applying a tensile force to a cord may cause damage to the product.

3. Do not drop or bump the product.

Dropping or bumping while handling may cause damage to the product.

Pressure Supply

Warning

1. Do not use the switch with corrosive gas or liquid.

Do not use the switch with corrosive gas or liquid. Such gas or fluid may cause damage to the switch.

2. Do not use the switch at a vacuum pressure.

If used in a vacuum pressure range, the switch will suction the outer air and become unable to operate.

Pressure Setting

Caution

1. The switching setting indication scale shows the set value for pressure decrease.

2. When the ON pressure signal is to be detected, the ON signal comes on at the pressure found by adding the hysteresis to the pressure set on the scale plate.

3. The pressure indication on the scale plate is provided as a guideline. Use a pressure gauge to measure the precise settings.

Wiring

Warning

1. Connect the load

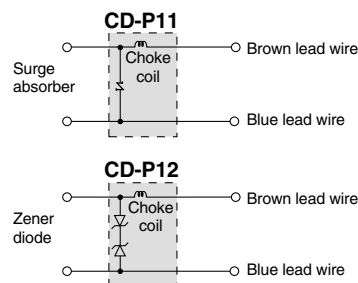
Be sure to connect the load to the pressure switch before connecting the power supply.

2. Use a contact protection box.

If the load driven by the pressure switch is an induction load or connected with a lead wire of 5 m or longer, use a contact protection box in the following table.

Contact protection box	Operating voltage	Lead wire length
CD-P11	100V AC	Switch connection side: 0.5 m
CD-P12	24V DC	Load connection side: 0.5 m

3. Contact protection box internal circuit



4. Contact protection box/Connection method

To connect the switch body and the contact protection box, connect the lead wire of the contact protection box on the side marked with "SWITCH" and the lead wire from the switch body. Connect the switch body and the contact protection box with a lead wire of 1 m or shorter and arrange them as close as possible.

5. Lead wire dimensions

Covering: $\phi 3.4$
 Insulator: $\phi 1.1$
 Conductor: $\phi 0.64$

Operating Environment

Warning

1. Never use in the presence of explosive gases.

These switches are not rated as explosion proof. Never use in the presence of an explosive gas as this may cause a serious explosion.

2. Do not use in an environment where a strong magnetic field is present.

The influence of the external magnetic field may cause the switch to malfunction.

3. Do not use in an environment where the switch is exposed to water or oil splashes.

Because the switch has an open type construction, ingress of water or oil can corrode the electric circuit, resulting in malfunction and damage.

4. Do not apply vibration to the switch.

If vibration is applied, malfunction or setting errors may result.

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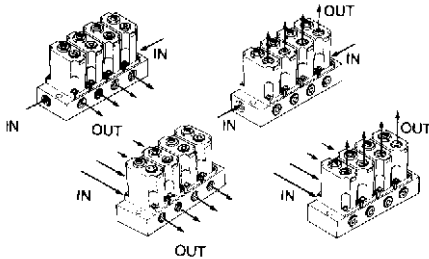
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Manifold Regulator

Series ARM1000/2000

4 connection methods



Small size pressure gauge ø15

Backflow function available on the standard model

Space-saving

Standard Specifications

Fluid	Air
Proof pressure	1.2 MPa
Maximum operating pressure	0.8 MPa
Regulating pressure range	0.05 to 0.7 MPa
	0.2 MPa setting 0.05 to 0.2 MPa
Ambient and fluid temperature	-5 to 60°C (No freezing)
Fluid	Air
Cracking pressure (Valve)	0.02 MPa
Construction	Relieving type

Port Size/Weight

Model	Piping	Port size		Weight (g)	
		IN side	OUT side	Total weight (n: stations)	Regulator (Except manifold)
ARM1000	Common IN	1/8	1/8	(80 x n) + 23	57
	Individual IN	1/8	1/8	(79 x n) + 25	
ARM2000	Common IN	1/4	1/8	(188 x n) + 43	136
	Individual IN	1/8	1/8	(187 x n) + 45	

How to Order

ARM 1000-5 A1-01 G-1

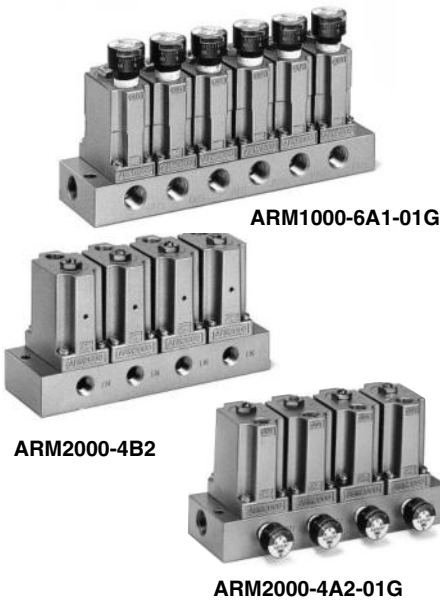
- Regulator for manifold**: ARM 1000
- Number of stations**: 5
- Body size**: A1
- Port size (OUT side)**: 01 (1/8)
- Thread type**: G (1/8)
- Option**: 1 (0.2 MPa setting)

Symbol	IN	OUT
A1	Common	Manifold side
A2		Body side
B1	Individual	Manifold side
B2		Body side

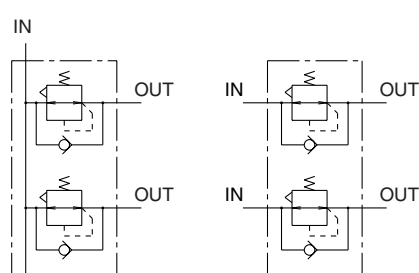
Note 1) In the case of A1 and B1, a pressure gauge or a plug is mounted on the body side, while in case of A2 and B2, on the manifold side.
 Note 2) When mounting a pressure gauge on the body side, its front faces the adjusting screw.

Description	ARM1000	ARM2000
Regulator main body	ARM1000A	ARM2000A
Manifold	Common IN	13612- * 13622- *
	Individual IN	13613- * 13623- *

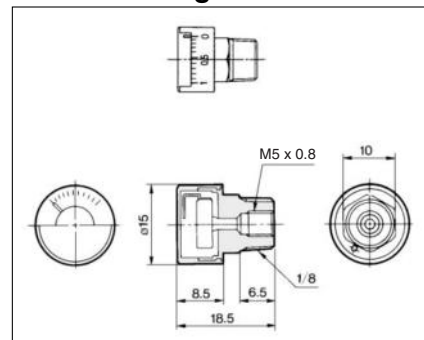
*" in manifold part no. represents the number of manifold stations of regulator.
 Note 4) When a regulator is not mounted on the manifold, use the following blank plate ass'y (with mounting screws and O-ring)
 For ARM1000: Part no. 136114A
 For ARM2000: Part no. 136214A



JIS Symbol



Option: Pressure Gauge: G15-10-01



● Precautions—When drain or oil, etc. gets into the gauge, an error may occur for pressure indication.

How to Order

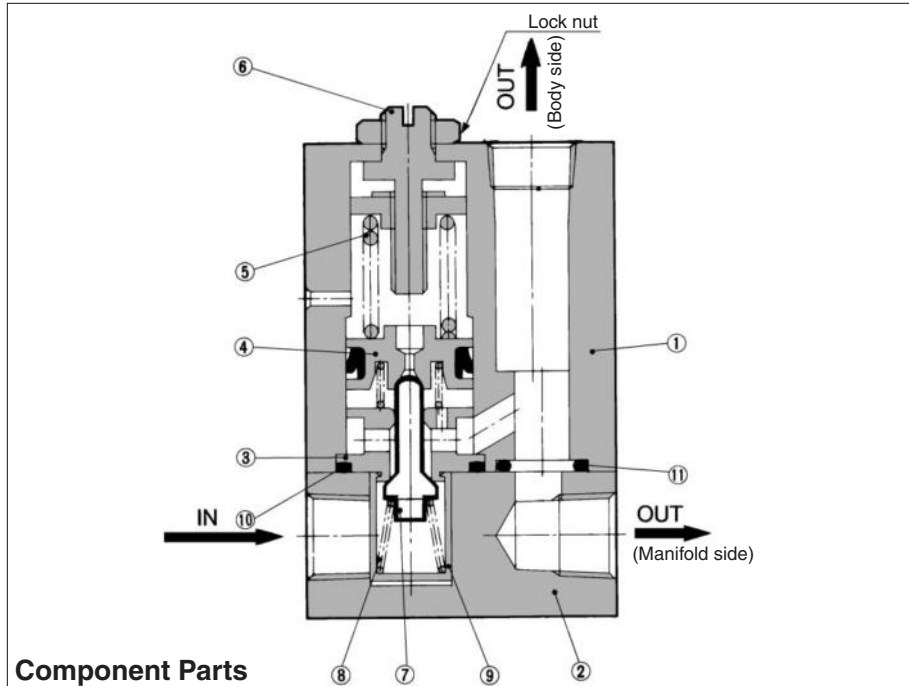
G15-10-01

- Max. display pressure**: 10 (1.0 MPa)
- Connecting thread**: 01 (1/8 male thread, M5 female thread)
- Thread type**: Nil (Rc), N (NPT)

* Not able to set the pressure exceeding 1.0 MPa.

Note 1) Use caution not to tighten excessively when mounting a pressure gauge, otherwise it may result in a breakdown. Tightening torque recommended (M5: 1.5 to 2 N·m, R1/8: 7 to 9 N·m) For sealing, use a pipe tape.

Construction (Individual IN)



Component Parts

No.	Description	Material	Note
①	Body	Aluminum die-casted	Chromate treated
②	Manifold	Aluminum alloy	Chromate treated
③	Valve guide	Brass	
④	Piston	Brass	
⑤	Adjusting spring	Steel wire	Zinc chromated
⑥	Adjusting screw	Steel	Electroless nickel plated

Replacement Parts

No.	Description	Material	Part no.	
			ARM1000	ARM2000
⑦	Valve	Brass, HNBR	134819-30	13626-30
⑧	Valve spring	Stainless steel	13615	13625
⑨	Valve guide	Polyacetal	13614	13624
⑩	O-ring	NBR	16.5 x 13.5 x 1.5	23 x 20 x 1.5
⑪	O-ring	NBR	JIS B 2401P7	JIS B 2401P8

Setting

1. Make sure to check the inlet pressure before setting the outlet pressure. Turning the pressure adjustment handle clockwise increases the outlet pressure and turning it counterclockwise decreases the pressure. (To set the pressure, do so in the direction of pressure increase.)
2. Set the outlet pressure to 85% or less of the inlet pressure.

⚠ Precautions

Be sure to read before handling. Refer to pages 14-21-3 to 14-21-4 for Safety Instructions and Common Precautions.

Mounting/Adjustment

⚠ Warning

1. In the case of the common IN style, supply pressure from the two IN ports from both ends. Failure to observe this procedure could result in an excessive pressure drop.

⚠ Caution

1. Release the lock to adjust the pressure. After the adjustment, engage the lock. Failure to observe this procedure could damage the handle or cause the outlet pressure to fluctuate. <Lock operating method> Loosen the lock nut to unlock it, and tighten it to lock it.
2. This product can be used as a regulator with a check valve by installing it between solenoid valve and actuator.

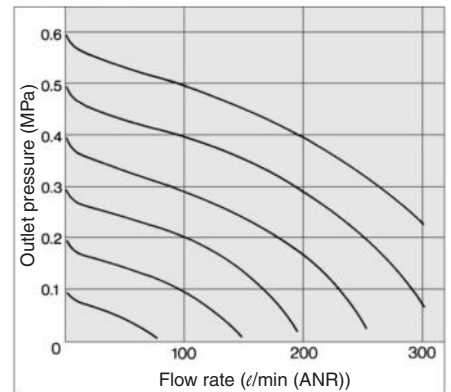
Maintenance

⚠ Warning

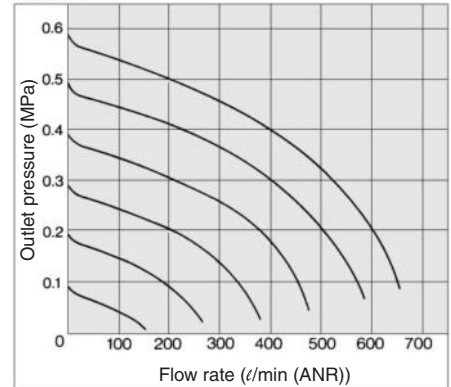
1. Make sure to perform a periodic inspection of the pressure gauge when it is used by installing it between solenoid valve and actuator, etc. Sudden pressure changes could happen and the durability of the product could be reduced. Using an electronic style pressure gauge is recommended, depending on the situation.

Flow Characteristics

ARM1000 Inlet pressure: 0.7 MPa



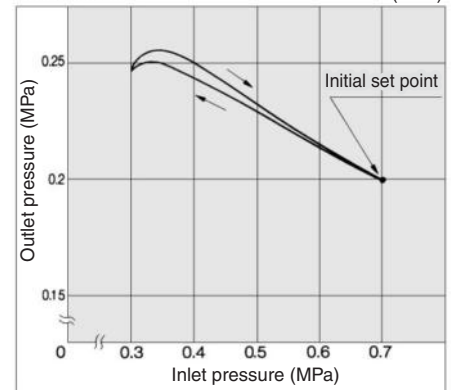
ARM2000



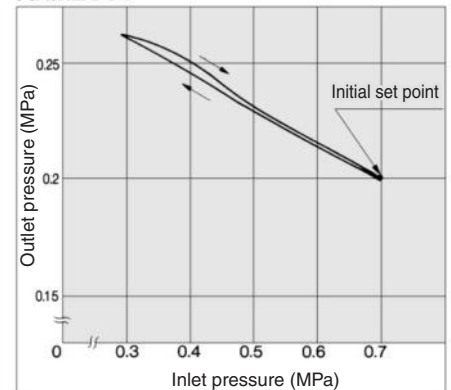
Pressure Characteristics

(Initial setting) Inlet pressure: 0.7 MPa
Outlet pressure: 0.2 MPa
Flow rate: 10 l/min (ANR)

ARM1000



ARM2000



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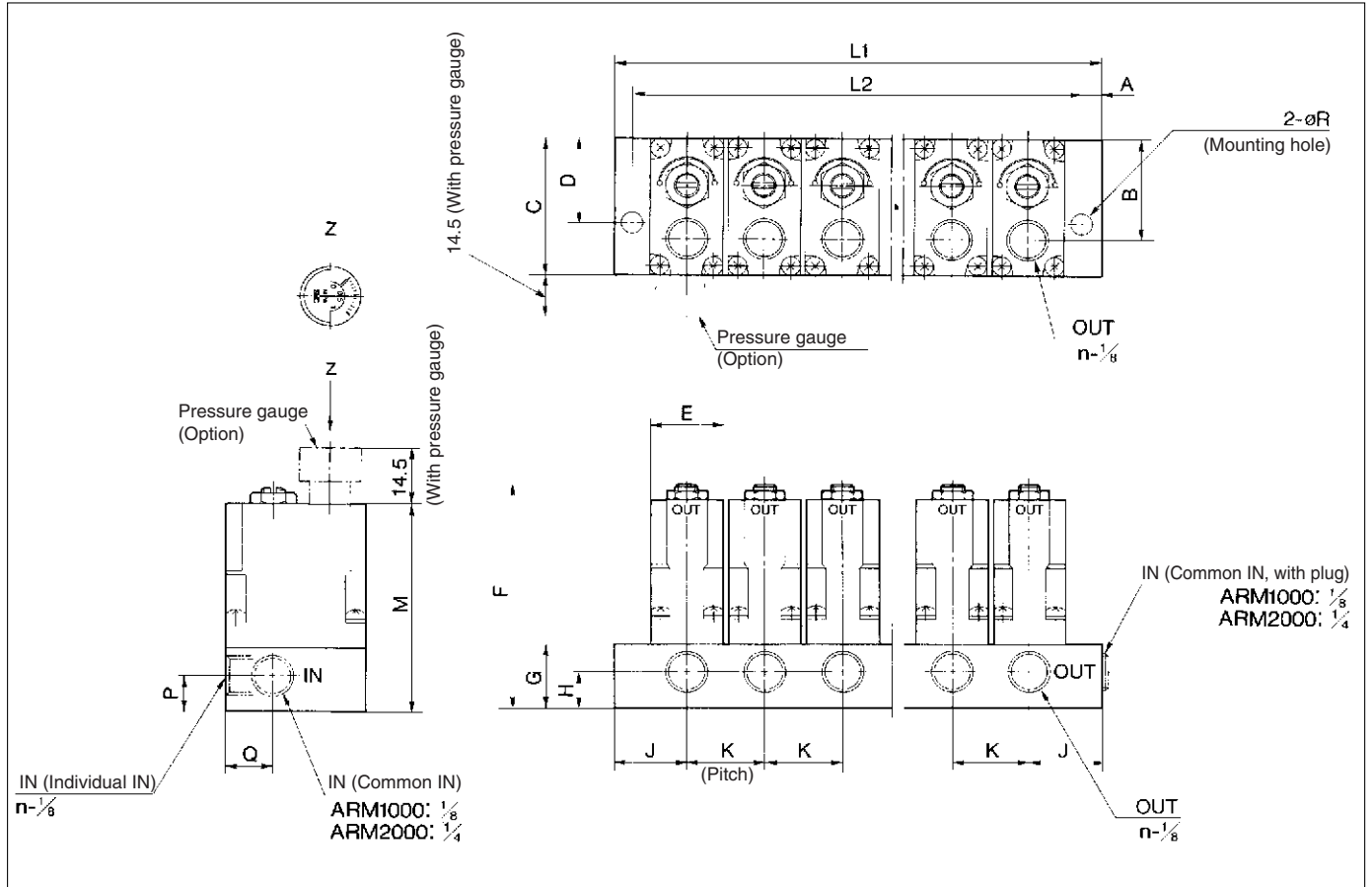
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Dimensions



Dimensions

Model	Symbol	A	B	C	D	E	F	G	H	J	K	M	P	Q	R
ARM1000		4.5	25	34	21	18	56	16	9	18	19	52	9	11.5	4.8
ARM2000		4.5	34.5	43	28	27	70	20	11.5	24	28	66	11.5	16.5	4.8

Dimensions by the Number of Stations

Model	Symbol	Manifold stations (n)									
		1	2	3	4	5	6	7	8	9	10
ARM1000	L1	36	55	74	93	112	131	150	169	188	207
	L2	27	46	65	84	103	122	141	160	179	198
ARM2000	L1	48	76	104	132	160	188	216	244	272	300
	L2	39	67	95	123	151	179	207	235	263	291

Manifold Regulator Modular Style

Series ARM2500/3000

- A modular type that can be freely mounted on a manifold station.
- Optimal for central pressure control.
- Easily set up using the new handle. Also has a One-touch lock system.



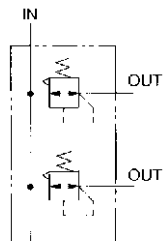
ARM3000



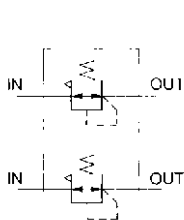
ARM2500

JIS Symbol

Common IN



Individual IN



How to Order

ARM 2500 05 A 02 G1

Regulator for manifold

Body size

2500
3000

Number of stations

02	2 stations
⋮	⋮
10	10 stations

Accessory

Nil	None (With plug)
G1	G33-10-□01
G2	GA33-10-□01

* Pressure gauges are shipped together (but not assembled).

Port size (OUT side)

Symbol	Port size	Applicable model
02	1/4	ARM2500
03	3/8	ARM3000

Thread type

Nil	Rc
N	NPT
F	G

Piping

Symbol	Type	IN
A	Common IN	From end plate
B	Individual IN	From OUT port or G port

Standard Specifications

Proof pressure	1.5 MPa
Maximum operating pressure	1.0 MPa
Regulating pressure range	0.05 to 0.85 MPa
Ambient and fluid temperature	-5 to 60°C (No freezing)
Fluid	Air
Construction	Relieving type

Port Size/Weight

Model	Piping	Port size			Pressure gauge port size	Weight (kg)	
		IN side		OUT side		Regulator	End plate
		Body	End plate				
ARM2500	Common IN	—	3/8	1/4	1/8	0.26	0.06
	Individual IN	1/4	—	1/4			
ARM3000	Common IN	—	1/2	3/8	1/8	0.47	0.11
	Individual IN	3/8	—	3/8			

Weight by the Number of Stations

Model	Stations	2	3	4	5	6	7	8	9	10
	ARM2500		0.68	0.96	1.23	1.51	1.78	2.06	2.33	2.61
ARM3000		1.25	1.75	2.25	2.75	3.26	3.76	4.26	4.76	5.26

F.R.L.

AV

AU

AF

AR

IR

VEX

AMR

ITV

IC

VBA

VE□

VY1

G

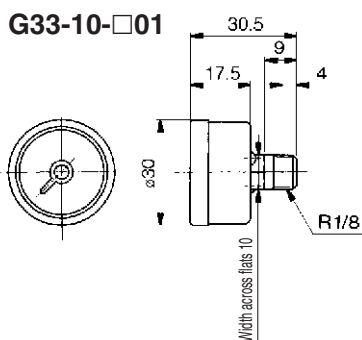
PPA

AL

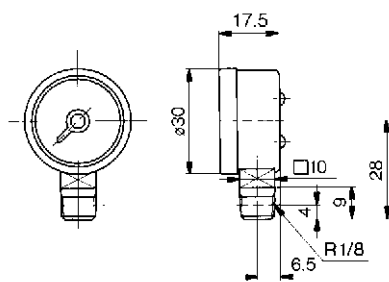
Series ARM2500/3000

Option: Pressure Gauge (Max. pressure indication: 1.0 MPa)

G33-10-□01



GA33-10-□01



Note 1) □ in the gauge part no. (e.g. G33-10-□01) indicates the type of threads used for connection. For Rc, leave the symbol blank, and for NPT, enter "N".

Please consult with SMC for the supply of a pressure gauge with NPT port threads.

Note 2) Use caution not to tighten excessively when mounting a pressure gauge, otherwise it will may result in a breakdown. For sealing, use a pipe tape. Torque recommended: (R 1/8: 7 to 14 N·m).

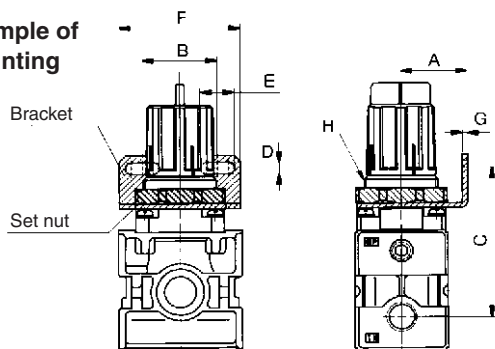
Option: Mounting Bolt Assembly

Model	Part no.	Dimensions	Qty.	Note
ARM2500	136313	Hexagon socket head cap screw (M5 x 70)	4	With flat washer
ARM3000	136413	Hexagon socket head cap screw (M6 x 85)	4	With flat washer

Option: Bracket Assembly

Individual IN type can be used as a single unit regulator.

Example of mounting



Model	Part no.	Composition of assembly	A	B	C	D	E	F	G	H
ARM2500	136314	Set nut (1349172)	30	34	70	5.4	15.4	55	2.3	M33 x 1.5
		Bracket (B220)								
ARM3000	136414	Set nut (131532)	41	40	75.5	6.5	8	53	2.3	M42 x 1.5
		Bracket (B320)								

Note) Tighten the set nut securely and fix it.

Recommended torque for set nut

ARM2500: 17.5 ± 3.5 N·m

ARM3000: 22.5 ± 4.5 N·m

⚠ Precautions

Be sure to read before handling. Refer to pages 14-21-3 to 14-21-4 for Safety Instructions and Common Precautions.

Mounting/Adjustment

⚠ Caution

1. Release the lock to adjust the pressure. After the adjustment, engage the lock. Failure to observe this procedure could damage the handle or cause the secondary pressure to fluctuate.

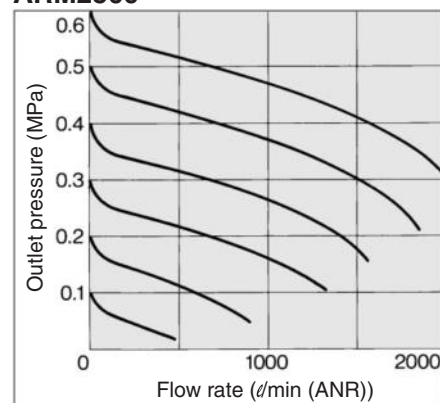
- 1) On the ARM2500 type, pull the adjustment handle to release the lock and push the adjustment handle to engage the lock. If it does not lock easily, turn the handle slightly clockwise or counterclockwise before pushing it.
- 2) On the ARM3000 type, pull the adjustment handle to release the lock. (An orange colored line is provided at the bottom of the adjustment handle for visual checking.)

Push the adjustment handle to engage the lock. If it does not lock easily, turn the handle slightly clockwise or counterclockwise; then, push it until the orange colored line is no longer visible.

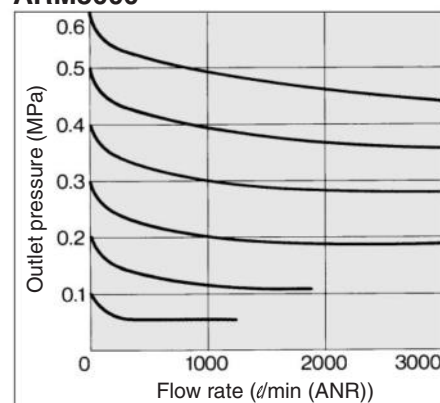
2. Make sure to check the inlet pressure before setting the pressure. The outlet pressure must be set to 85% or less of the inlet pressure. Failure to observe this procedure could cause the outlet pressure to fluctuate.
3. In the case of the common IN type, supply pressure from the two IN ports from both ends. Failure to observe this procedure could lead to an excessive pressure drop.

Flow Characteristics Inlet pressure: = 0.7 MPa

ARM2500



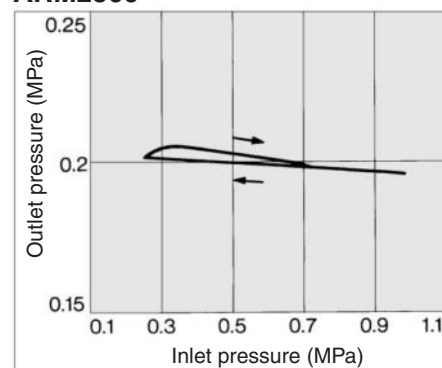
ARM3000



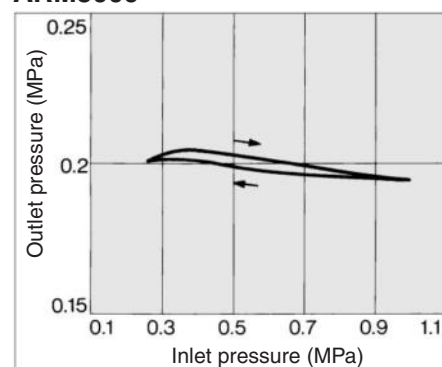
Pressure Characteristics

Initial setting
P1 = 0.7 MPa P2 = 0.2 MPa
Q = 20 l/min (ANR)

ARM2500

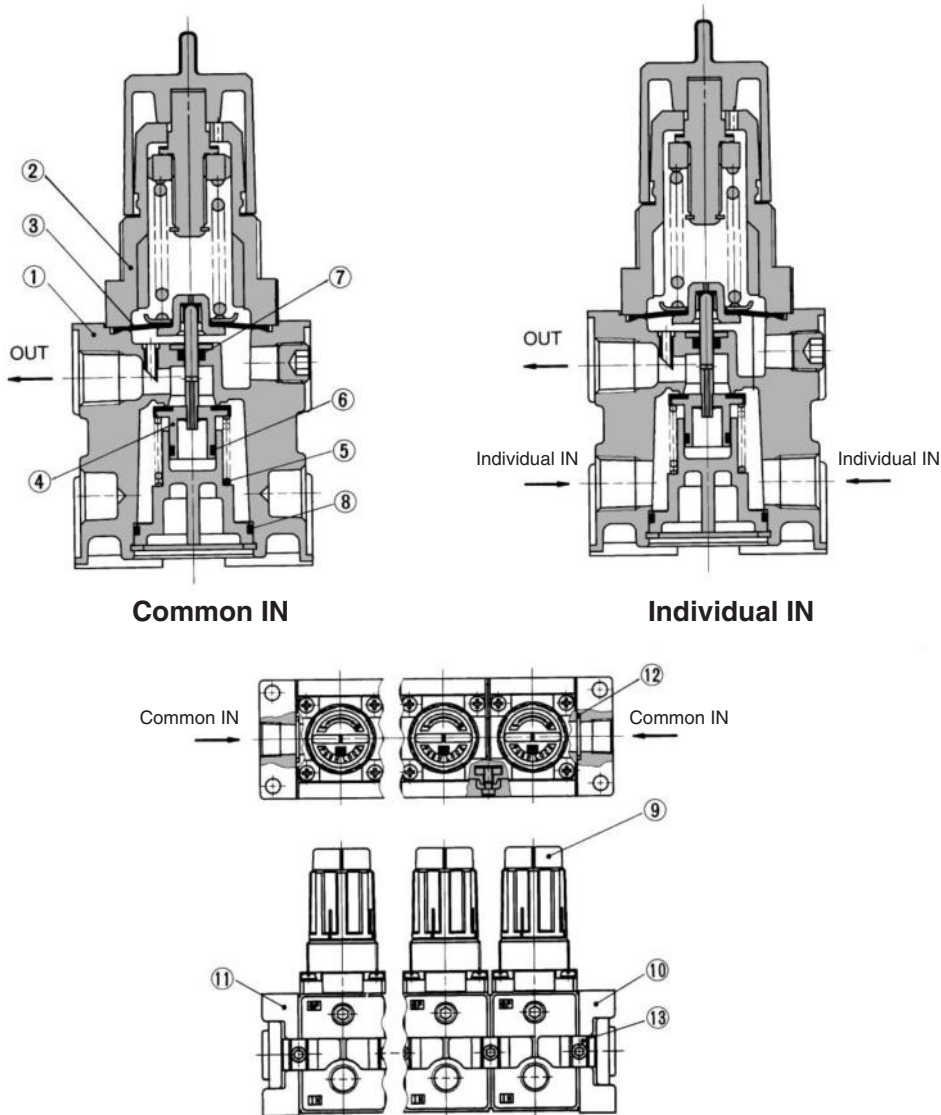


ARM3000



Manifold Regulator Modular Style **Series ARM2500/3000**

Construction



- F.R.L.
- AV
- AU
- AF
- AR**
- IR
- VEX
- AMR
- ITV
- IC
- VBA
- VE□
- VY1
- G
- PPA
- AL

Component Parts

No.	Description	Material	Note
①	Body	Aluminum die-casted	Chromate treated/ Platinum silver painted
②	Bonnet	Polyacetal	

Replacement Parts

No.	Description	Material	Part no.	
			ARM2500	ARM3000
③	Diaphragm assembly	Weather resistant NBR	1349161A	131515A
④	Valve assembly	Brass, HNBR	13639A	13649A
⑤	Valve spring	Stainless steel	136310	136410
⑥	Valve O-ring	NBR	11.5 x 8.5 x 1.5	14.5 x 10.5 x 2
⑦	O-ring	NBR	JIS B 2401 P3	JIS B 2401 P5
⑧	O-ring	NBR	28 x 25 x 1.5	35 x 31 x 2

Component Parts

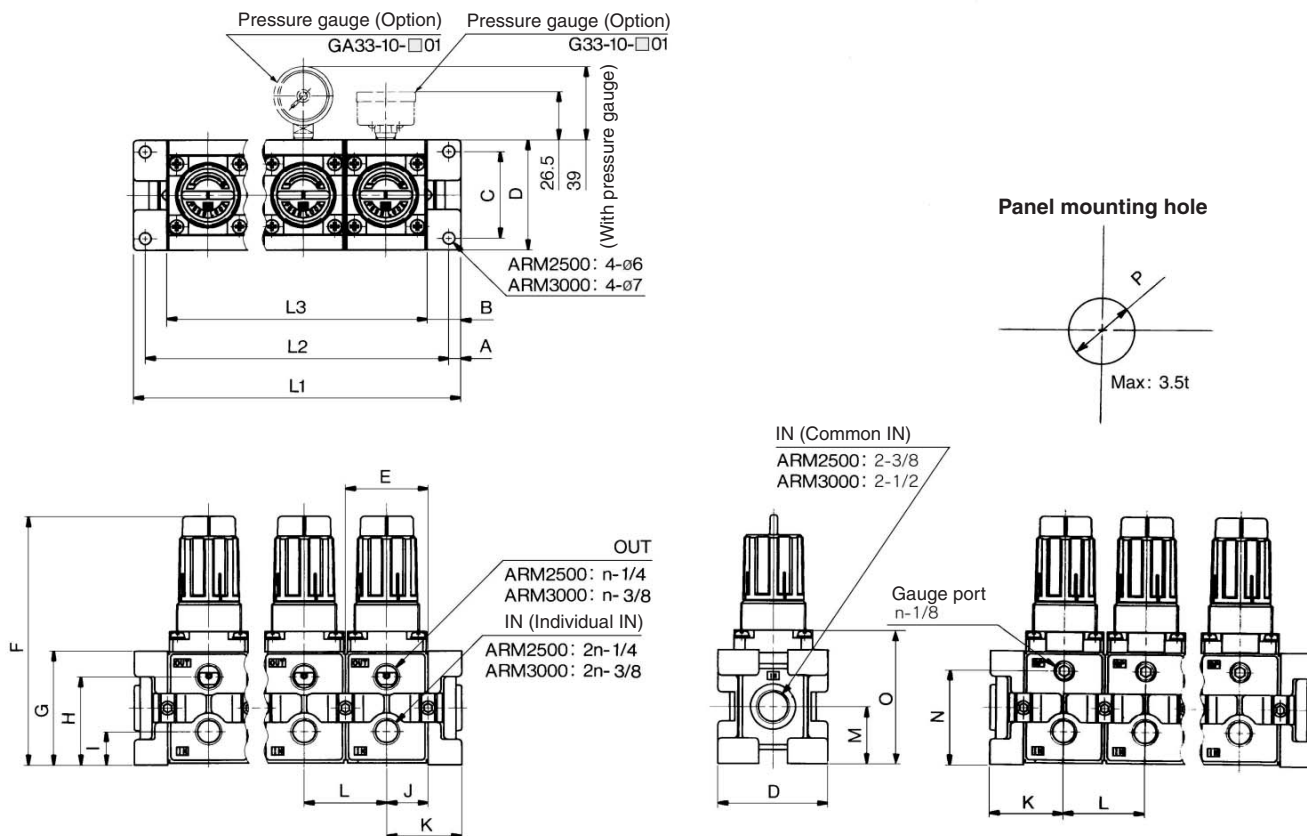
Description	No.	Assembly		Part no.			
		Component	Qty.	ARM2500		ARM3000	
				Common IN	Individual IN	Common IN	Individual IN
Regulator	⑨	Regulator	1	ARM2500 -A-02	ARM2500 -B-02	ARM3000 -A-03	ARM3000 -B-03
End plate assembly	⑩	End plate R	1	13636A	13636B (Except O-ring)	13646A	13646B (Except O-ring)
	⑪	End plate L	1				
	⑫	O-ring	1				
	⑬	Bracket A	2				
Bracket B		1					
Hex. socket head cap screw		set/2					
Bracket assembly	⑫	O-ring	1	136312		136412	
	⑬	Bracket A	2				
		Bracket B	1				
		Hex. socket head cap screw	set/2				

How to order

- (1) When adding n stations to ARM²⁵⁰⁰/₃₀₀₀ - ** A_B
 - Regulator n pcs.
 - Bracket assembly n pcs.
- (2) When regulators, end plate assembly and bracket assembly are assembled to make the manifold of n stations.
 - Regulator n pcs.
 - Bracket assembly n pcs.
 - End plate assembly 1 pc.

Series ARM2500/3000

Dimensions



Dimensions

* For products with pressure gauge, pressure gauges are shipped together with product.

Model	Symbol	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
ARM2500		6	17	44	56	42	126.5	58	45	17	21	38	42	29	48	68	33.5
ARM3000		7	21	54	68	55	153.5	70	53	23.5	27.5	48.5	55	35	59	85.5	42.5

Dimensions by the Number of Stations

Model	Symbol	Manifold stations								
		2	3	4	5	6	7	8	9	10
ARM2500	L1	118	160	202	244	286	328	370	412	454
	L2	106	148	190	232	274	316	358	400	442
	L3	84	126	168	210	252	294	336	378	420
ARM3000	L1	152	207	262	317	372	427	482	537	592
	L2	138	193	248	303	358	413	468	523	578
	L3	110	165	220	275	330	385	440	495	550