



# Compact Manifold Regulator

**Manifold Type**

Common supply

Individual supply

**Single Unit Type**

Single unit

Front handle

Example of panel mounting

Series *ARM10/11*

Front handle type is available for the single unit specification.

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

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

**Installation example**

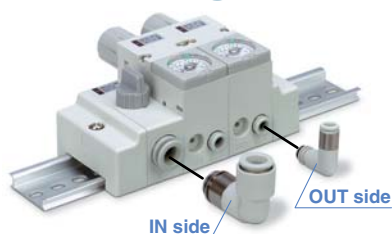
Upper space is limited.

Front handle/Bottom ported

Lower space is limited.

Front handle/Top ported

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.

Reverse flow function is equipped as a standard.

Can control thrust of an actuator.

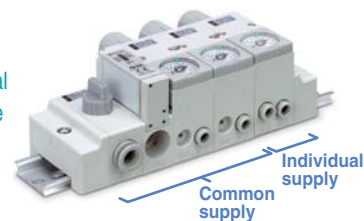
Four types of supply blocks (for common supply)

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

Supply block	With 3-way pressure relief valve	With pressure switch	With 3-way pressure relief valve + Pressure switch

Mixed manifold

Common supply type and individual supply 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.

Digital pressure switch compliant

Individual lines can be controlled with electric signals.

New

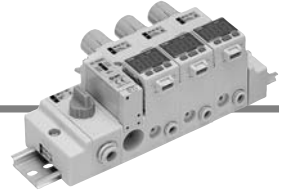


# Compact Manifold Regulator Common Supply Type Series **ARM11A**

## How to Order

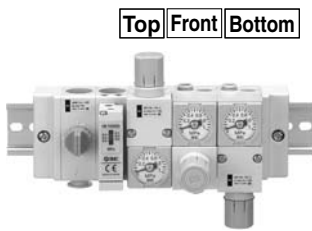
ARM11A **A** **1** — **3** **07** — **M** **Z** — **N**

① ② ③ ④ ⑤ ⑥ ⑦ ⑧



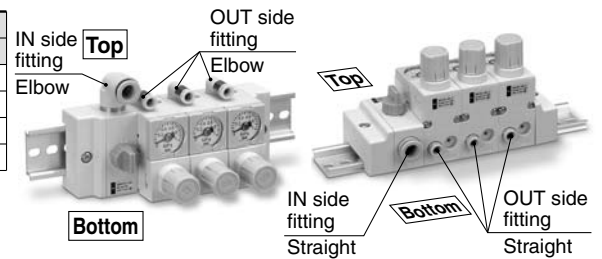
### 1. Handle Position

Symbol	Position
<b>A</b>	Top
<b>B</b>	Front
<b>C</b>	Bottom



### 2. IN/OUT Piping Position

Position Symbol	IN side			OUT side		
	Bottom	Top	Bottom	Top	Bottom	Top
<b>1</b>	●			●		
<b>2</b>		●			●	
<b>3</b>	●					●
<b>4</b>			●		●	



### 3. Regulator Block Stations

Symbol	Stations
<b>1</b>	1 station
<b>2</b>	2 stations
<b>3</b>	3 stations
<b>4</b>	4 stations
<b>5</b>	5 stations
<b>6</b>	6 stations
<b>7</b>	7 stations
<b>8</b>	8 stations
<b>9</b>	9 stations
<b>M</b>	10 stations

### 4. IN/OUT Fitting Type (Refer to the figure below.)

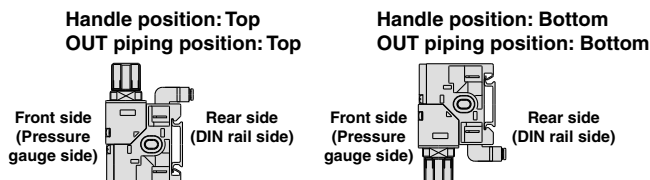
#### Metric size

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

#### Inch size

Mounting position Fitting type Symbol	IN side						OUT side			
	Straight			Elbow			Straight		Elbow <sup>Note)</sup>	
	ø1/4	ø5/16	ø3/8	ø1/4	ø5/16	ø3/8	ø5/32	ø1/4	ø5/32	ø1/4
<b>57</b>	●							●		
<b>58</b>	●								●	
<b>59</b>		●					●			
<b>60</b>		●						●		
<b>61</b>			●				●			
<b>62</b>			●					●		
<b>69</b>				●					●	
<b>70</b>				●						●
<b>71</b>					●			●		
<b>72</b>					●				●	
<b>73</b>						●		●		
<b>74</b>						●			●	
<b>76</b>	●							●		
<b>77</b>	●								●	
<b>78</b>		●						●		
<b>79</b>		●							●	
<b>80</b>			●					●		
<b>81</b>			●						●	
<b>83</b>				●			●			
<b>84</b>				●				●		
<b>85</b>					●		●			
<b>86</b>					●			●		
<b>87</b>						●	●			
<b>88</b>						●		●		

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). Use caution to ensure the connector is not disturbed, depending on piping direction, when choosing to attach a digital pressure switch.



### 5. Accessories

Symbol	Pressure display <sup>Note 1, 2)</sup>		Supply block type <sup>Note 3)</sup>				Supply block mounting position		
	Without pressure display	With pressure display	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)
-	●						●		
A	●			●			●		
B	●				●		●		
C	●					●	●		
D	●		●					●	
E	●			●				●	
F	●				●			●	
G	●					●		●	
H	●		●						●
J		●	●				●		
K		●		●			●		
L		●			●		●		
M		●				●		●	
N		●	●					●	
O		●		●				●	
P		●			●			●	
Q		●				●		●	
R		●	●						●

Note 1) Pressure display means either a pressure gauge or a digital pressure switch is attached.  
**When choosing to attach a digital pressure switch as an attachment, be sure to enter the symbol, referring to table 8, "Digital Pressure Switch Output Specifications". Otherwise, a pressure gauge will come with the regulator.**

Note 2) Pressure gauges are not available with a copper-free specification.  
 Note 3) Pressure switches are not available with a copper-free specification.

### 6. Options

Symbol	None	0.35 MPa setting <sup>Note 1)</sup>	Non-relieving	Oil-free <sup>Note 2)</sup>
-	●			
1		●		
2			●	
3				●
4		●	●	
5		●		●
6			●	●
7		●	●	●

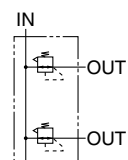
Note 1) A pressure gauge with a full span of 0.4 MPa is attached.  
 Note 2) The oil-free specification is grease-free in the fluid contact area.

### 7. Unit Representation

Symbol	Description
-	Display unit for product name plate and pressure gauge: MPa
Z <sup>Note 1, 2)</sup>	Display unit for product name plate and pressure gauge: PSI
ZA <sup>Note 1, 3)</sup>	Digital pressure switch: with unit switching (MPa is initially set.)

Note 1) This option is available for use outside Japan only. (The SI unit has to be used in Japan.) Additionally, the pressure switch offers dual unit presentation in MPa and PSI.  
 Note 2) The digital pressure switch is equipped with unit switching and initially set to PSI.  
 Note 3) This option is available with the digital pressure switch.

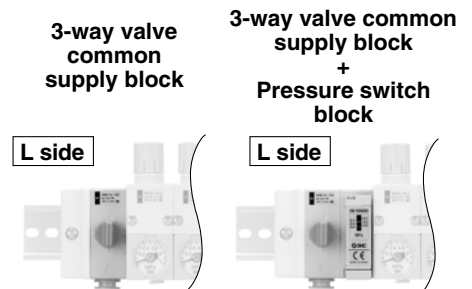
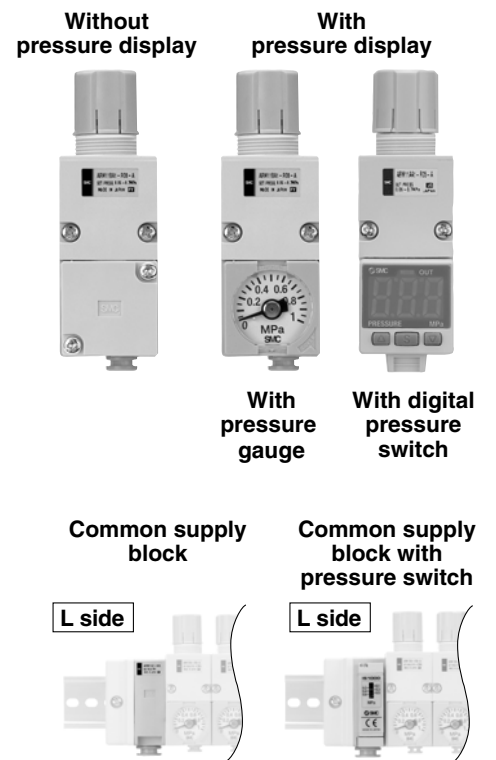
#### Symbol



### 8. Digital Pressure Switch Output Specifications <sup>Note)</sup>

Symbol	Details
-	None
N	NPN open collector
P	PNP open collector

Note) When a digital pressure switch is attached, the "pressure display" in table 5 "Accessories" will be equipped. The electrical entry is positioned on the side opposite the handle.



## Specifications

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

<b>Regulator construction</b>	Direct acting
<b>Working principal</b>	Diaphragm regulator
<b>Relief mechanism</b>	Standard: Relief type Optional: Non-relieving type
<b>Backflow function</b> <sup>Note 1)</sup>	Within (Unbalance type)
<b>IN side tubing O.D.</b>	ø6, ø8, ø10, ø1/4, ø5/16, ø3/8
<b>OUT side tubing O.D.</b>	ø4, ø6, ø5/32, ø1/4
<b>Proof pressure</b>	1.5 MPa
<b>Maximum operating pressure</b>	1.0 MPa
<b>Set pressure range</b>	Standard: 0.05 to 0.7 MPa Optional: 0.05 to 0.35 MPa (Low pressure type)
<b>Fluid</b>	Air
<b>Ambient and operating fluid temperature</b> <sup>Note 2)</sup>	5 to 60°C

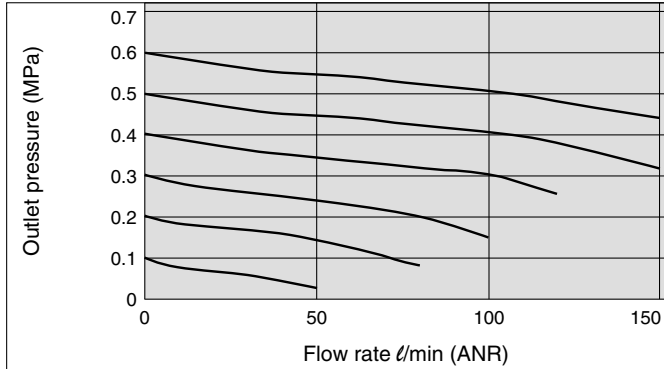
Note 1) 0.1 MPa or greater set pressure is required when used in the reverse flow.  
 Note 2) 5 to 50°C when the digital pressure switch is used.

Refer to page 19, 21 for the digital pressure switch and pressure switch specifications.

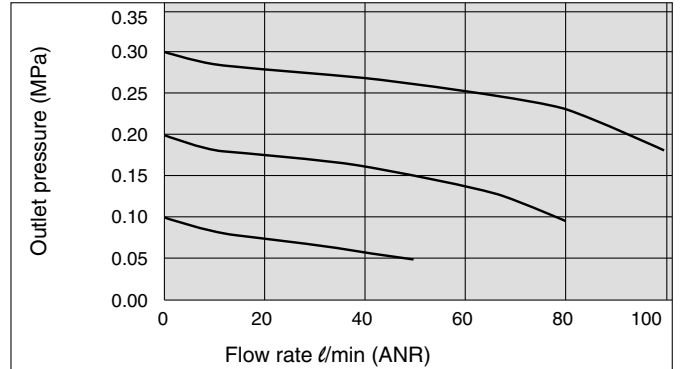
# Series ARM11A

## Flow Characteristics

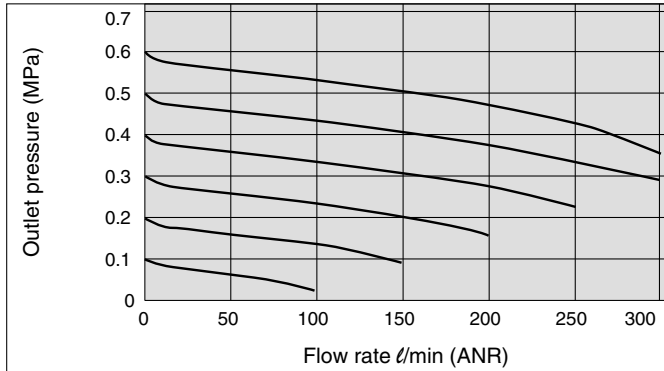
**ARM11AA1-307 (One-touch fittings: IN  $\phi 6$ , OUT  $\phi 4$ )** Condition: Inlet pressure 0.7 MPa



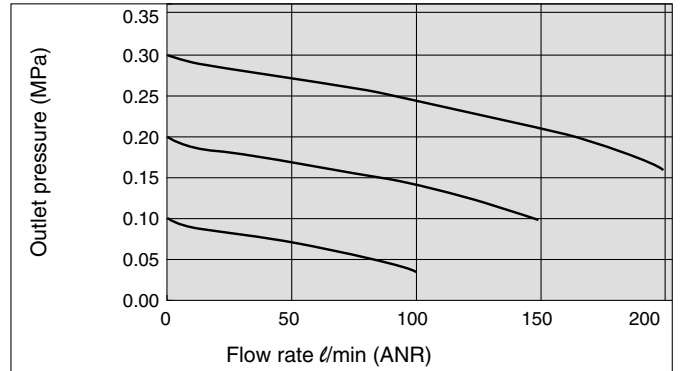
**ARM11AA1-307-1 (One-touch fittings: IN  $\phi 6$ , OUT  $\phi 4$ )** Condition: Inlet pressure 0.5 MPa



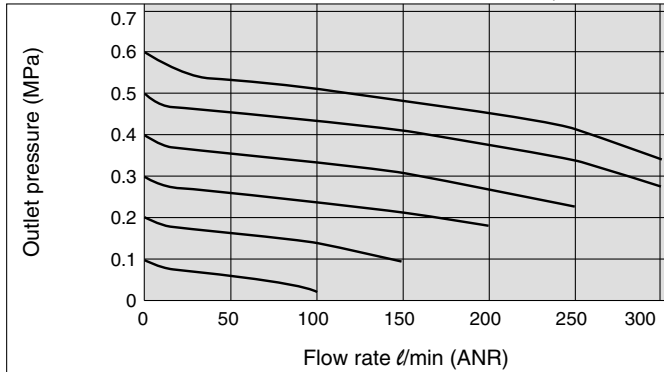
**ARM11AA1-310 (One-touch fittings: IN  $\phi 8$ , OUT  $\phi 6$ )** Condition: Inlet pressure 0.7 MPa



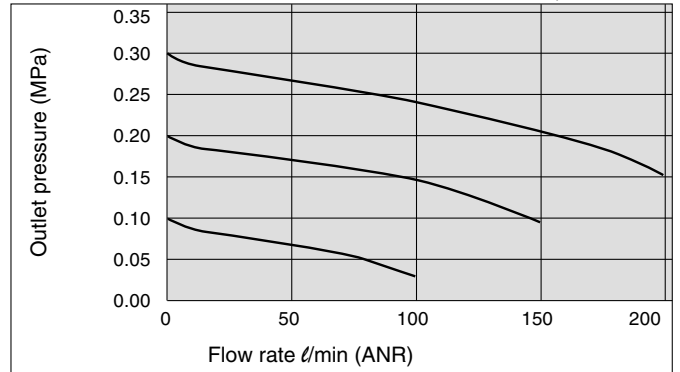
**ARM11AA1-310-1 (One-touch fittings: IN  $\phi 8$ , OUT  $\phi 6$ )** Condition: Inlet pressure 0.5 MPa



**ARM11AA1-312 (One-touch fittings: IN  $\phi 10$ , OUT  $\phi 6$ )** Condition: Inlet pressure 0.7 MPa

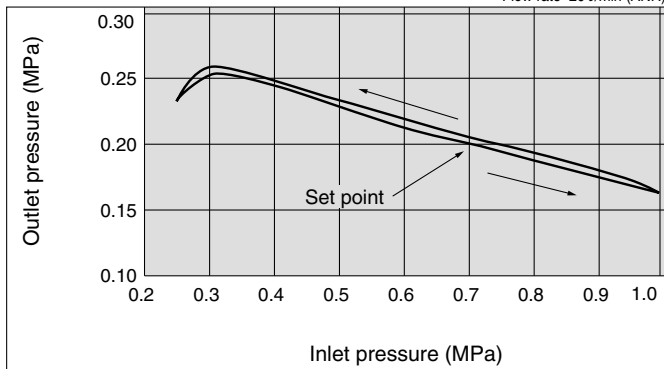


**ARM11AA1-312-1 (One-touch fittings: IN  $\phi 10$ , OUT  $\phi 6$ )** Condition: Inlet pressure 0.5 MPa

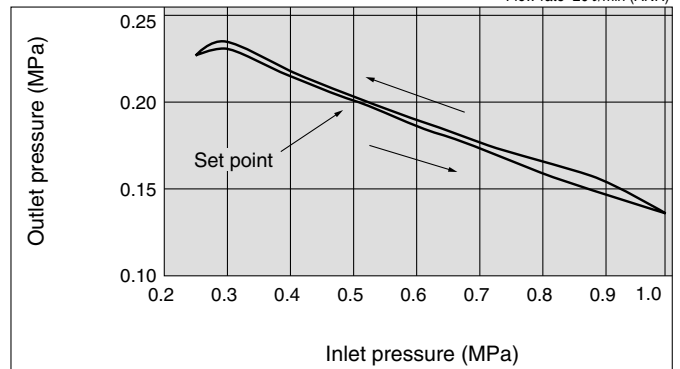


## Pressure Characteristics

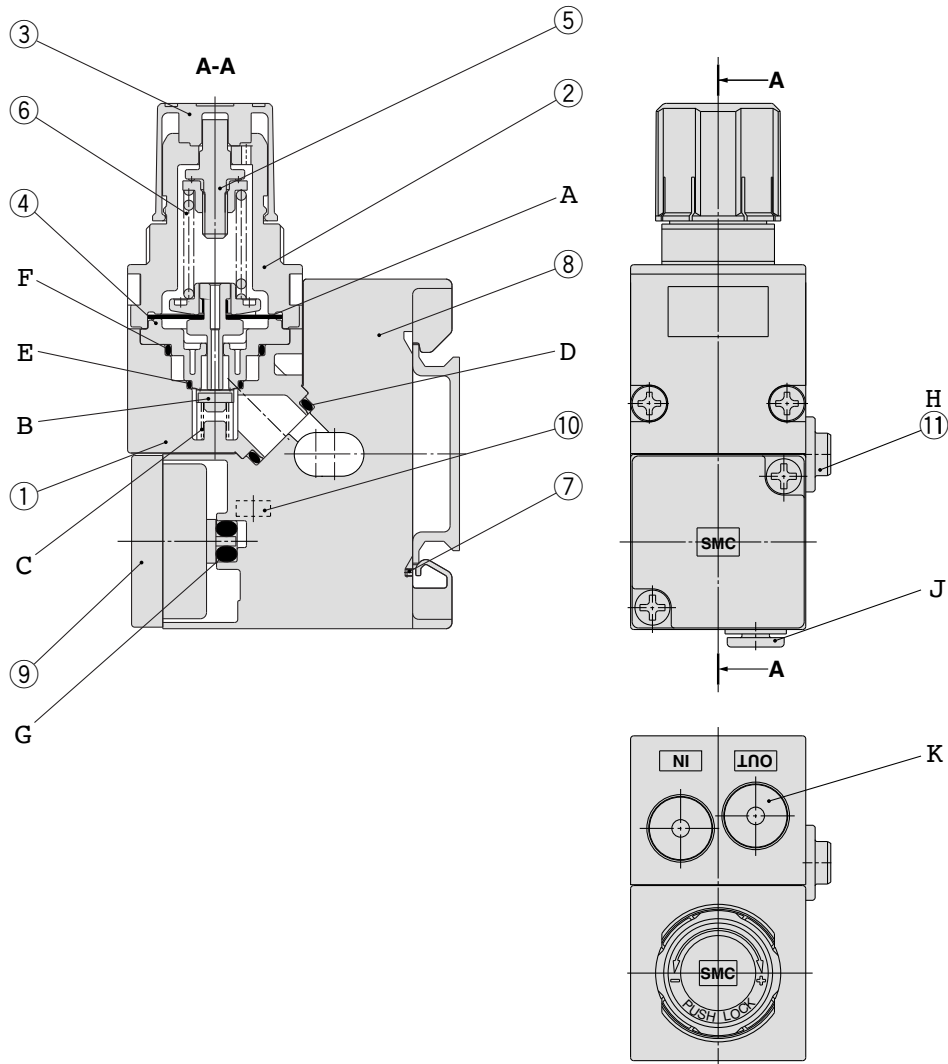
**ARM11AA1-307** Conditions: Inlet pressure 0.7 MPa  
Outlet pressure 0.2 MPa  
Flow rate 20  $\ell/\text{min}$  (ANR)



**ARM11AA1-307-1** Conditions: Inlet pressure 0.5 MPa  
Outlet pressure 0.2 MPa  
Flow rate 20  $\ell/\text{min}$  (ANR)



## 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	Common exhaust bushing	POM

### Replacement Parts

No.	Description	Material	Part no.	Note
A	Diaphragm assembly	Weatherproof NBR, POM	136126A	Relieving type
			136126-1A	Non-relieving type
B	Valve	HNBR, Aluminum alloy	136127-30#1	
C	Valve spring	Stainless steel	136131	
D	Gasket	HNBR	136137-30	
E	O-ring	NBR	136146	Standard model
		HNBR	136146-30	Oil-free specification
F	O-ring	NBR	136147	Standard model
		HNBR	136147-30	Oil-free specification
G	O-ring	NBR	136148	Standard model
		HNBR	136148-30	Oil-free specification
		NBR	KA01731	Standard model for digital pressure switch
		HNBR	KA01613	Oil-free spec. for digital pressure switch
H	O-ring	NBR	136149	Standard model
		HNBR	136149-30	Oil-free specification
J	Fitting assembly	—	Refer to page 22.	
K	Port plug	PBT/HNBR	Refer to page 23.	

# Series ARM11A

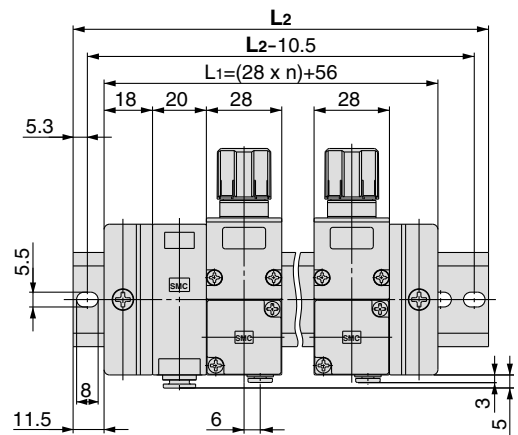
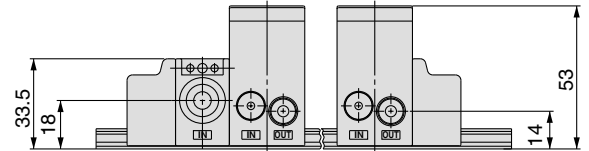
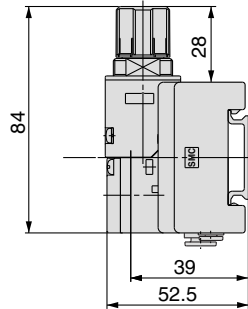
## Dimensions

### ARM11AA1-□12

Handle position: Top / Common supply block

For One-touch fitting parts and manifold option dimensions, refer to page 16 through to 23.

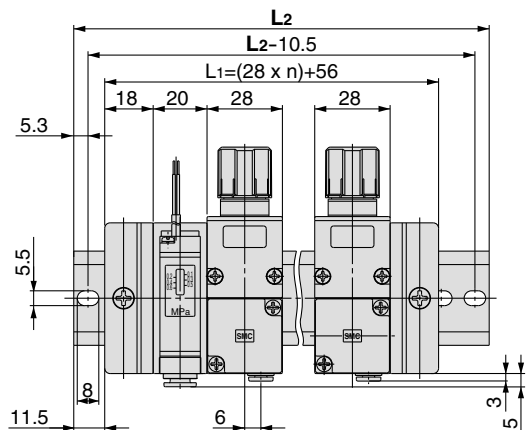
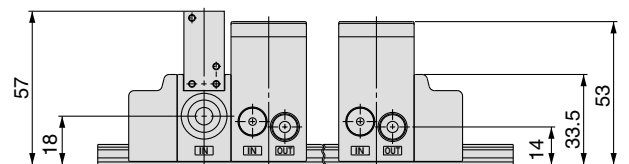
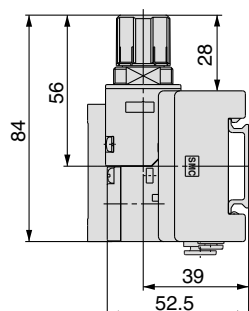
Stations	DIN rail part no. (for L and R sides)	L2 dimension
1	AXT100-DR-9	123
2	AXT100-DR-11	148
3	AXT100-DR-13	173
4	AXT100-DR-16	210.5
5	AXT100-DR-18	235.5
6	AXT100-DR-20	260.5
7	AXT100-DR-22	285.5
8	AXT100-DR-25	323
9	AXT100-DR-27	348
M	AXT100-DR-29	373



### 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



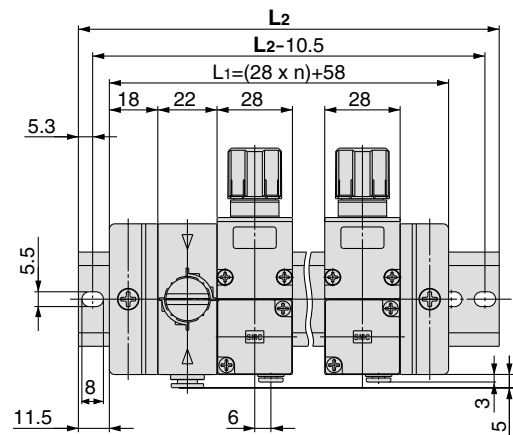
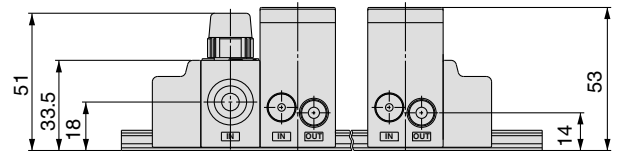
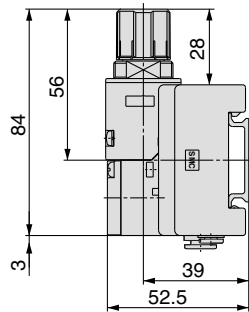
## Dimensions

### ARM11AA1-□12-B

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

For One-touch fitting parts and manifold option dimensions, refer to page 16 through to 23.

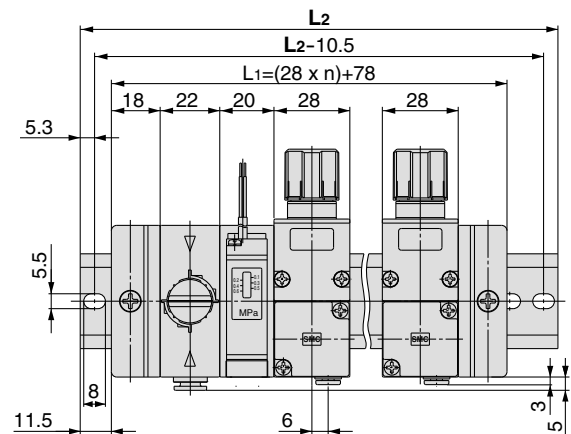
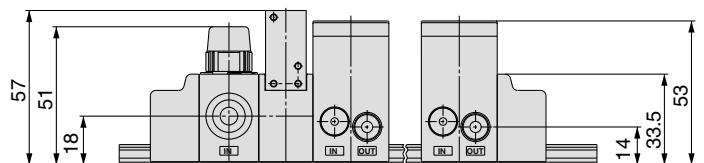
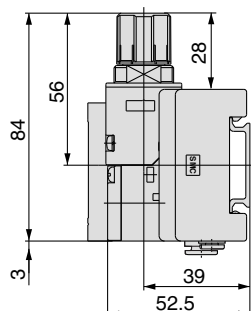
Stations	DIN rail part no. (for L and R sides)	L2 dimension
1	AXT100-DR-9	123
2	AXT100-DR-11	148
3	AXT100-DR-13	173
4	AXT100-DR-16	210.5
5	AXT100-DR-18	235.5
6	AXT100-DR-20	260.5
7	AXT100-DR-22	285.5
8	AXT100-DR-25	323
9	AXT100-DR-27	348
M	AXT100-DR-29	373



### 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



# Series ARM11A

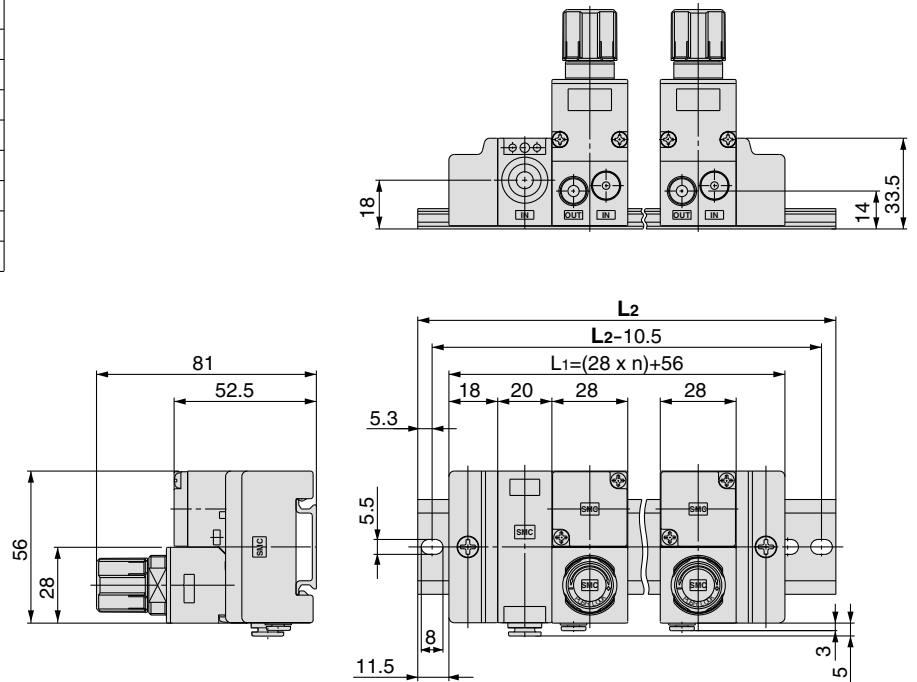
## Dimensions

### ARM11AB1-□12

Handle position: Front / Common supply block

For One-touch fitting parts and manifold option dimensions, refer to page 16 through to 23.

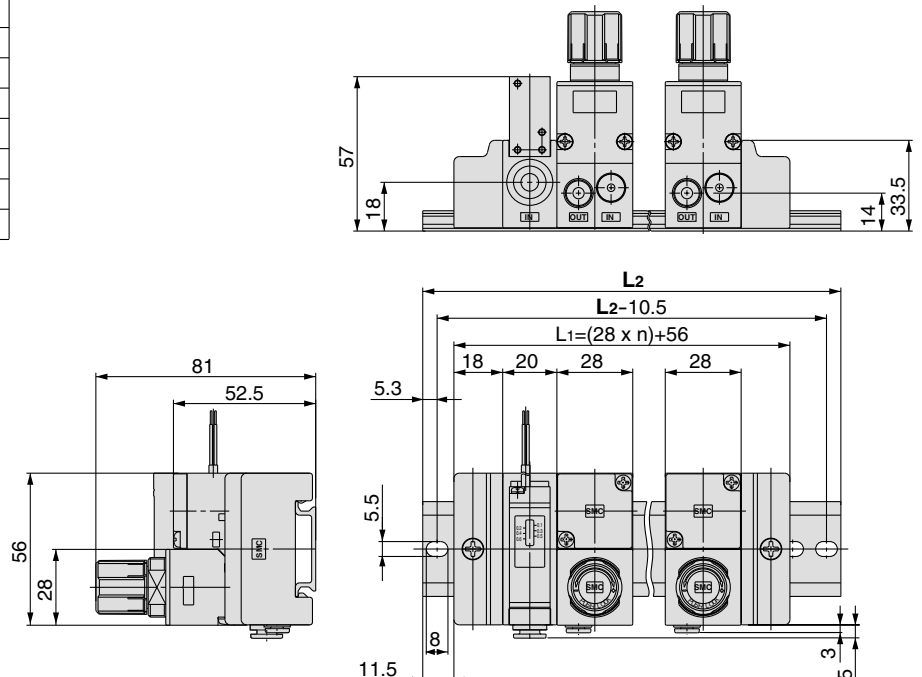
Stations	DIN rail part no.	L2 dimension
1	AXT100-DR-9	123
2	AXT100-DR-11	148
3	AXT100-DR-13	173
4	AXT100-DR-16	210.5
5	AXT100-DR-18	235.5
6	AXT100-DR-20	260.5
7	AXT100-DR-22	285.5
8	AXT100-DR-25	323
9	AXT100-DR-27	348
M	AXT100-DR-29	373



### 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





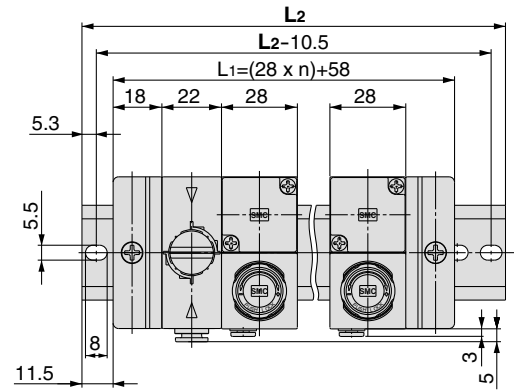
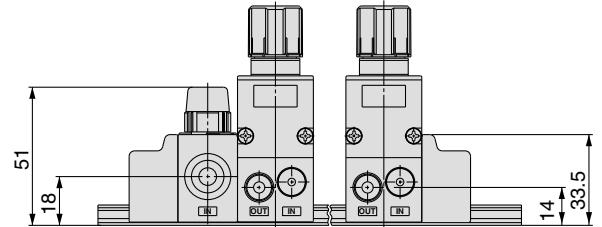
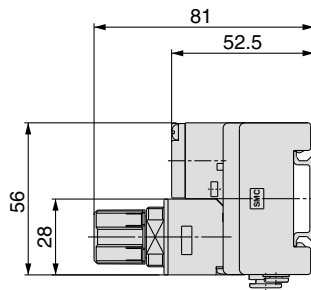
## Dimensions

### ARM11AB1-□12-B

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

For One-touch fitting parts and manifold option dimensions, refer to page 16 through to 23.

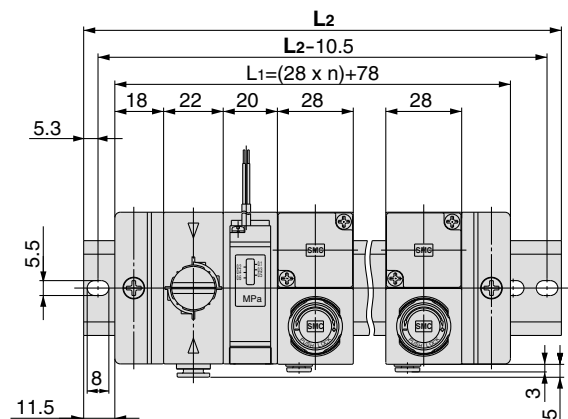
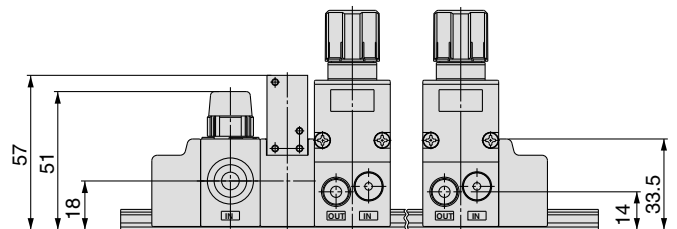
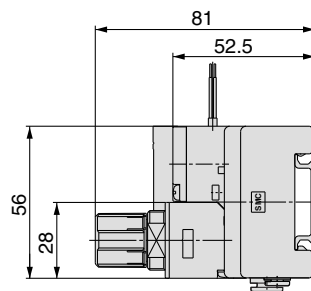
Stations	DIN rail part no.	L2 dimension
1	AXT100-DR-9	123
2	AXT100-DR-11	148
3	AXT100-DR-13	173
4	AXT100-DR-16	210.5
5	AXT100-DR-18	235.5
6	AXT100-DR-20	260.5
7	AXT100-DR-22	285.5
8	AXT100-DR-25	323
9	AXT100-DR-27	348
M	AXT100-DR-29	373



### 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



# Series ARM11A

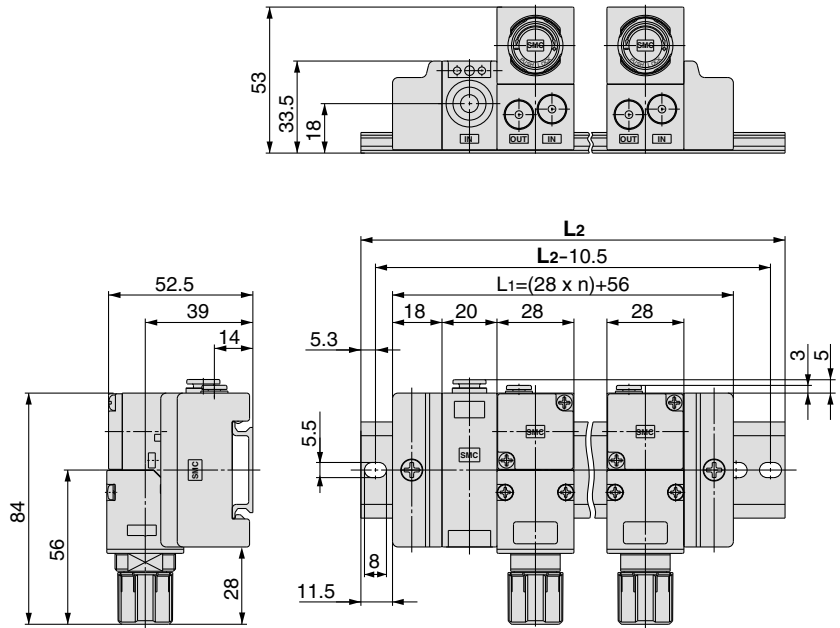
## Dimensions

### ARM11AC2-□12

Handle position: Bottom / Common supply block

For One-touch fitting parts and manifold option dimensions, refer to page 16 through to 23.

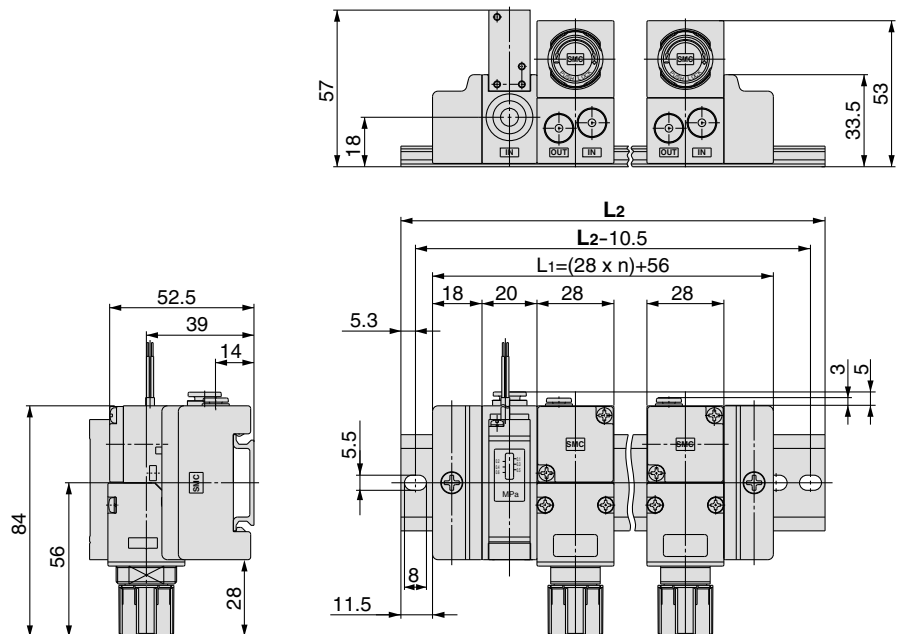
Stations	DIN rail part no.	L2 dimension
1	AXT100-DR-9	123
2	AXT100-DR-11	148
3	AXT100-DR-13	173
4	AXT100-DR-16	210.5
5	AXT100-DR-18	235.5
6	AXT100-DR-20	260.5
7	AXT100-DR-22	285.5
8	AXT100-DR-25	323
9	AXT100-DR-27	348
M	AXT100-DR-29	373



### 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



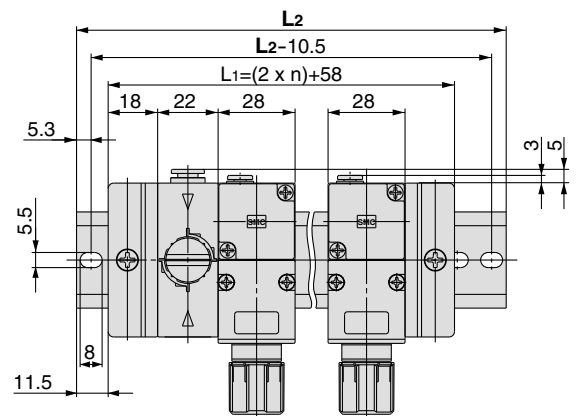
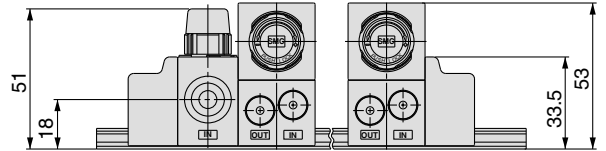
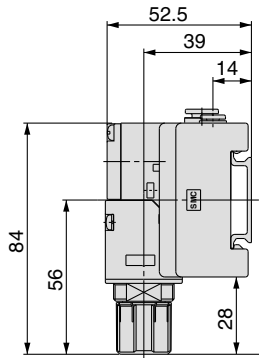
## Dimensions

### ARM11AC2-□12-B

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

For One-touch fitting parts and manifold option dimensions, refer to page 16 through to 23.

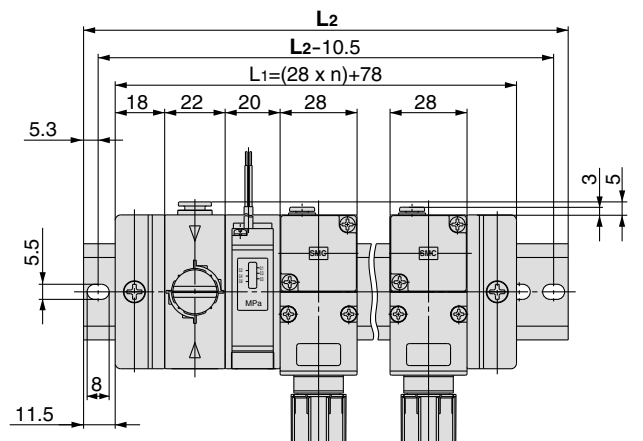
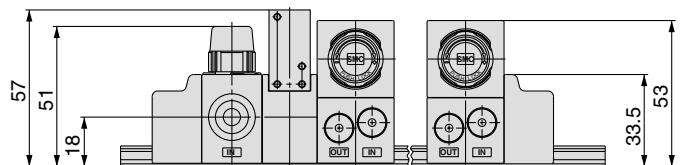
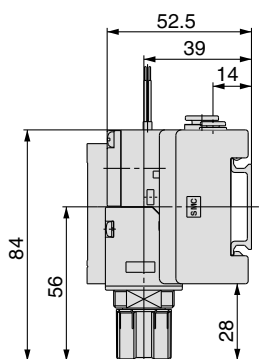
Stations	DIN rail part no.	L2 dimension
1	AXT100-DR-9	123
2	AXT100-DR-11	148
3	AXT100-DR-13	173
4	AXT100-DR-16	210.5
5	AXT100-DR-18	235.5
6	AXT100-DR-20	260.5
7	AXT100-DR-22	285.5
8	AXT100-DR-25	323
9	AXT100-DR-27	348
M	AXT100-DR-29	373



### 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

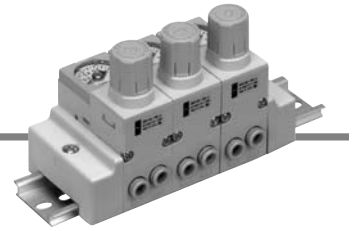


# Compact Manifold Regulator Individual Supply Type Series **ARM11B**

## How to Order

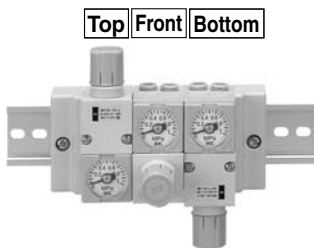
**ARM11B** **B** **1** **3** **06** **A** **Z** **N**

①    ②    ③    ④    ⑤    ⑥    ⑦    ⑧



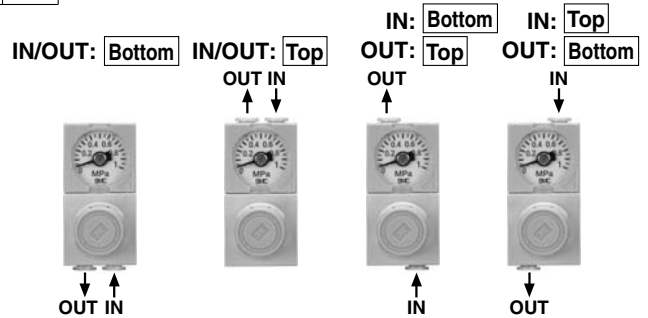
### 1. Handle Position

Symbol	Position
<b>A</b>	Top
<b>B</b>	Front
<b>C</b>	Bottom



### 2. IN/OUT Piping Position

Position Symbol	IN side		OUT side	
	Bottom	Top	Bottom	Top
<b>1</b>	●		●	
<b>2</b>		●		●
<b>3</b>	●			●
<b>4</b>		●	●	



### 3. Regulator Block Stations

Symbol	Stations
<b>1</b>	1 station
<b>2</b>	2 stations
<b>3</b>	3 stations
<b>4</b>	4 stations
<b>5</b>	5 stations
<b>6</b>	6 stations
<b>7</b>	7 stations
<b>8</b>	8 stations
<b>9</b>	9 stations
<b>M</b>	10 stations

### 4. IN/OUT Fitting Type (Refer to the figure below.)

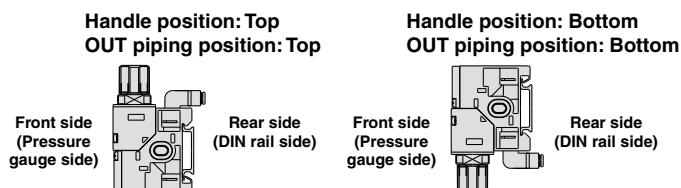
#### Metric size

Mounting position Fitting type Symbol	IN side				OUT side			
	Straight		Elbow <small>(Note)</small>		Straight		Elbow <small>(Note)</small>	
Symbol	ø4	ø6	ø4	ø6	ø4	ø6	ø4	ø6
<b>06</b>	●				●			
<b>07</b>		●			●			
<b>08</b>		●				●		
<b>18</b>			●				●	
<b>19</b>				●				●
<b>20</b>				●				●
<b>25</b>	●						●	
<b>26</b>		●					●	
<b>27</b>		●					●	
<b>32</b>			●		●			
<b>33</b>				●	●			
<b>34</b>				●		●		

#### Inch size

Mounting position Fitting type Symbol	IN side				OUT side			
	Straight		Elbow <small>(Note)</small>		Straight		Elbow <small>(Note)</small>	
Symbol	ø5/32	ø1/4	ø5/32	ø1/4	ø5/32	ø1/4	ø5/32	ø1/4
<b>56</b>	●				●			
<b>57</b>		●			●			
<b>58</b>		●				●		
<b>68</b>			●				●	
<b>69</b>				●				●
<b>70</b>				●				●
<b>75</b>	●						●	
<b>76</b>		●					●	
<b>77</b>		●					●	
<b>82</b>			●		●			
<b>83</b>				●	●			
<b>84</b>				●		●		

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). Use caution to ensure the connector is not disturbed, depending on piping direction, when choosing to attach a digital pressure switch.



### 5. Accessory (Pressure Display)

Symbol	Accessory
-	Without pressure display
<b>A</b> <small>Note 1, 2)</small>	With pressure display

Note 1) Pressure display means a pressure gauge or a digital pressure switch is attached.

**When choosing to attach a digital pressure switch as an attachment, be sure to enter the symbol, referring to table 8, "Digital Pressure Switch Output Specifications". Otherwise, a pressure gauge will come with the regulator.**

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

Without pressure display      With pressure display



With pressure gauge      With digital pressure switch

### 6. Options

Symbol	None	0.35 MPa setting <small>Note 1)</small>	Non-relieving	<small>Note 2)</small> Oil-free
-	●			
<b>1</b>		●		
<b>2</b>			●	
<b>3</b>				●
<b>4</b>		●	●	
<b>5</b>		●		●
<b>6</b>			●	●
<b>7</b>		●	●	●

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

Note 2) The oil-free specification is grease-free in the fluid contact area.

### 7. Unit Representation

Symbol	Description
-	Display unit for product name plate and pressure gauge: MPa
<b>Z</b> <small>Note 1, 2)</small>	Display unit for product name plate and pressure gauge: PSI
<b>ZA</b> <small>Note 1, 3)</small>	Digital pressure switch: with unit switching (MPa is initially set.)

Note 1) This option is available for use outside Japan only. (The SI unit has to be used in Japan.)

Note 2) The digital pressure switch is equipped with unit switching and initially set to PSI.

Note 3) This option is available with the digital pressure switch.

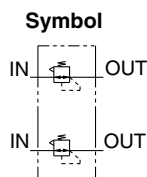
### 8. Digital Pressure Switch Output Specifications Note)

Symbol	Details
-	None
<b>N</b>	NPN open collector
<b>P</b>	PNP open collector

Note) **When a digital pressure switch is attached, the "pressure display" in table 5 "Accessory" will be equipped.**

The electrical entry is positioned on the side opposite the handle.

## Specifications



Regulator construction		Direct acting
Working principal		Diaphragm regulator
Relief mechanism	Standard	Relief type
	Optional	Non-relieving type
Backflow function <small>Note 1)</small>		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		1.5 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 operating fluid temperature <small>Note 2)</small>		5 to 60°C

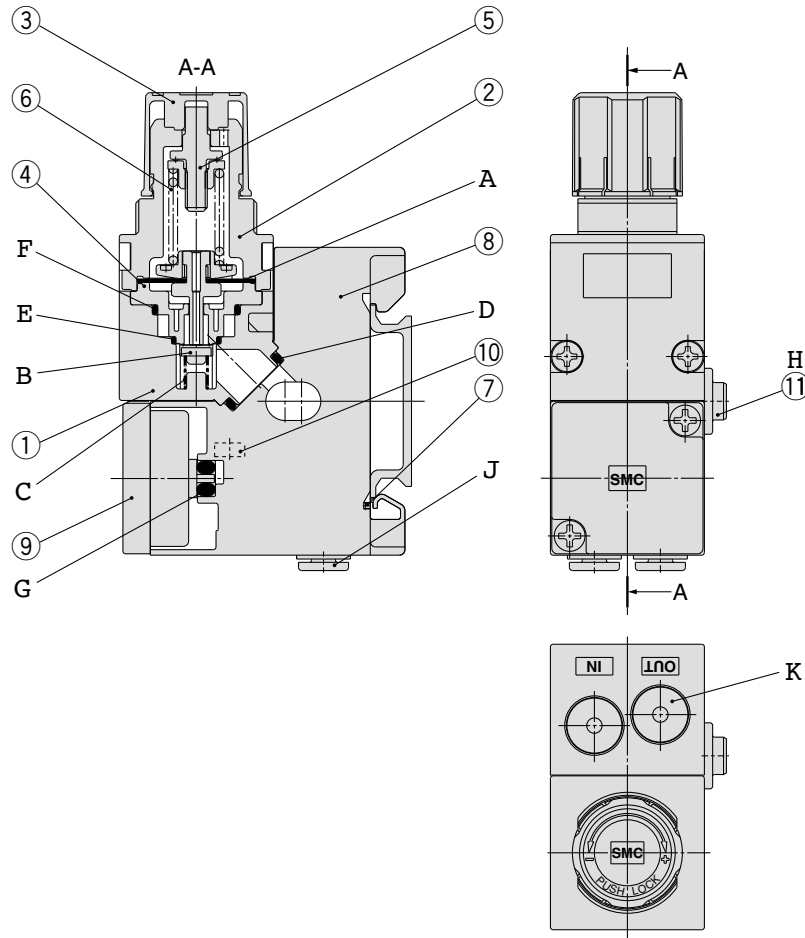
Note 1) 0.1 MPa or greater set pressure is required when used in the reverse flow.

Note 2) 5 to 50°C when the digital pressure switch is used.

Refer to page 19 for the digital pressure switch specifications.

# Series ARM11B

## Construction



### Component Parts

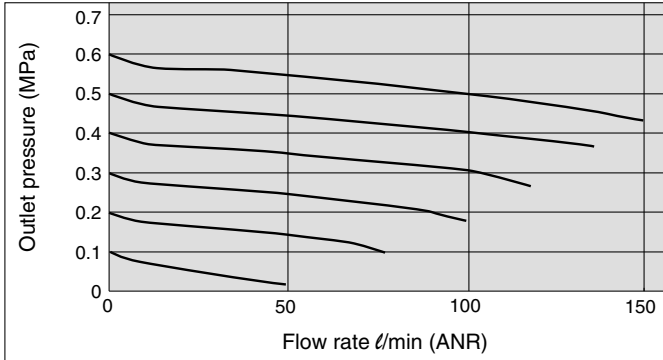
No.	Description	Material
1	Body for regulator block	PBT
2	Bonnet	PBT
3	Handle	POM
4	Valve seat	POM
5	Adjusting screw assembly	Reinforced steel
6	Adjustment spring	Steel wire
7	Regulator clip	Stainless steel
8	Manifold block	PBT
9	Blanking plate assembly	—
10	Square nut	Steel
11	Individual supply bushing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

### Replacement Parts

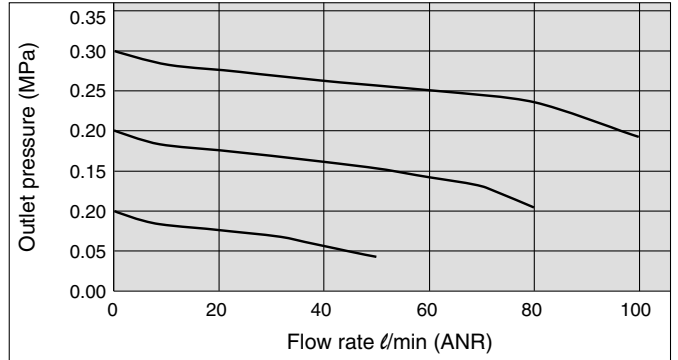
No.	Description	Material	Part no.	Note
A	Diaphragm assembly	Weatherproof NBR, POM	136126A	Relieving type
			136126-1A	Non-relieving type
B	Valve	HNBR, Aluminum alloy	136127-30#1	
C	Valve spring	Stainless steel	136131	
D	Gasket	HNBR	136137-30	
E	O-ring	NBR	136146	Standard model
		HNBR	136146-30	Oil-free specification
F	O-ring	NBR	136147	Standard model
		HNBR	136147-30	Oil-free specification
G	O-ring	NBR	136148	Standard model
		HNBR	136148-30	Oil-free specification
		NBR	KA01731	Standard model for digital pressure switch
		HNBR	KA01613	Oil-free spec. for digital pressure switch
H	O-ring	NBR	136149	Standard model
		HNBR	136149-30	Oil-free specification
J	Fitting assembly	—	Refer to page 22.	
K	Port plug	PBT/HNBR	Refer to page 23.	

## Flow Characteristics

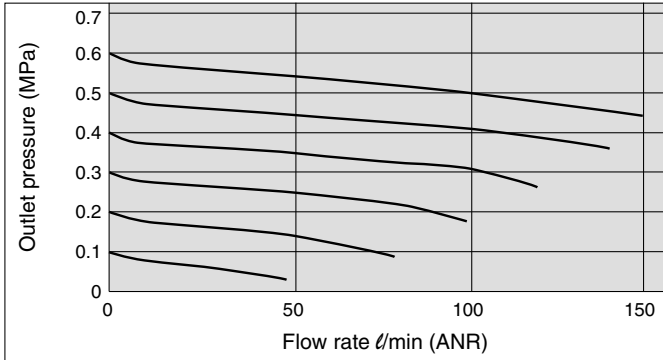
**ARM11BA1-306 (One-touch fittings: IN/OUT  $\phi 4$ )** Condition: Inlet pressure 0.7 MPa



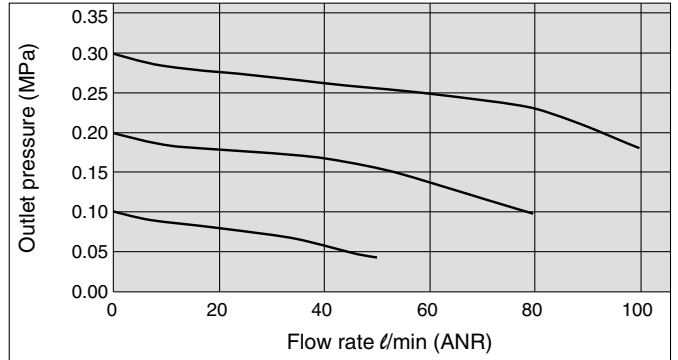
**ARM11BA1-306-1 (One-touch fittings: IN/OUT  $\phi 4$ )** Condition: Inlet pressure 0.5 MPa



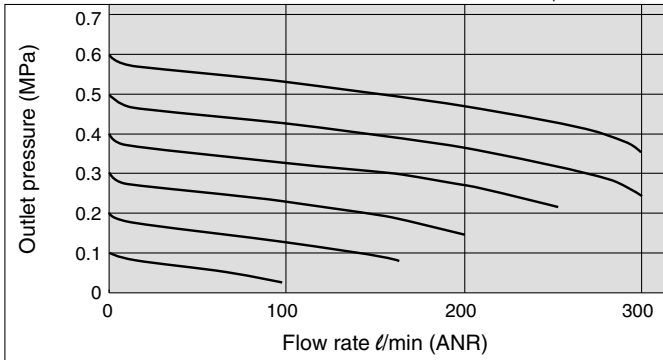
**ARM11BA1-307 (One-touch fittings: IN  $\phi 6$ , OUT  $\phi 4$ )** Condition: Inlet pressure 0.7 MPa



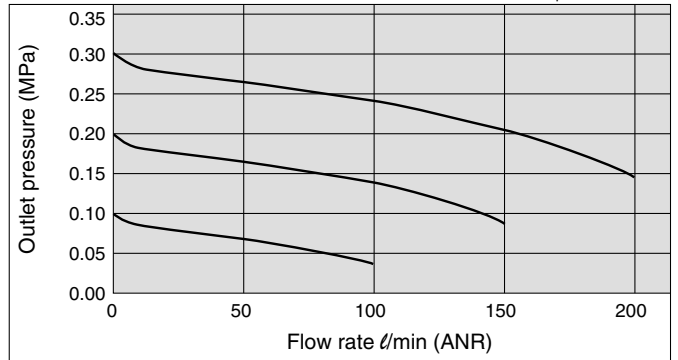
**ARM11BA1-307-1 (One-touch fittings: IN  $\phi 6$ , OUT  $\phi 4$ )** Condition: Inlet pressure 0.5 MPa



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

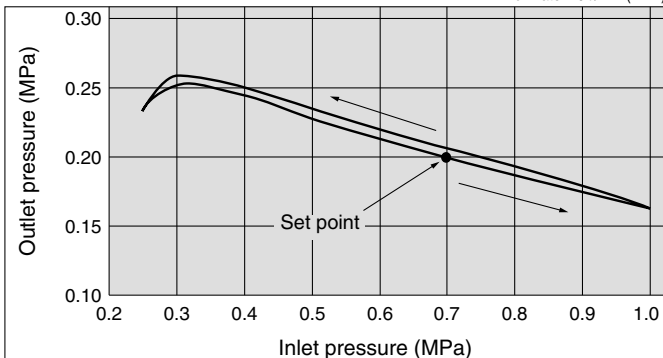


**ARM11BA1-308-1 (One-touch fittings: IN/OUT  $\phi 6$ )** Condition: Inlet pressure 0.5 MPa

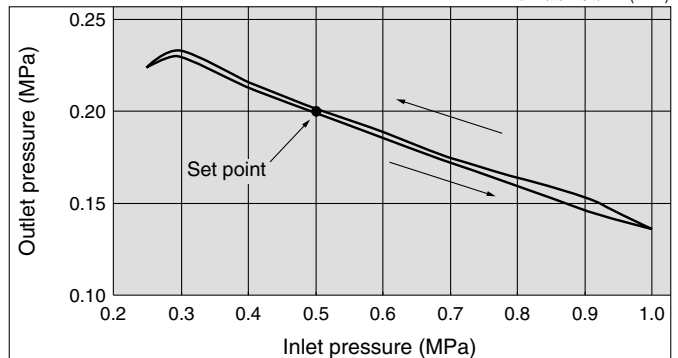


## Pressure Characteristics

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



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

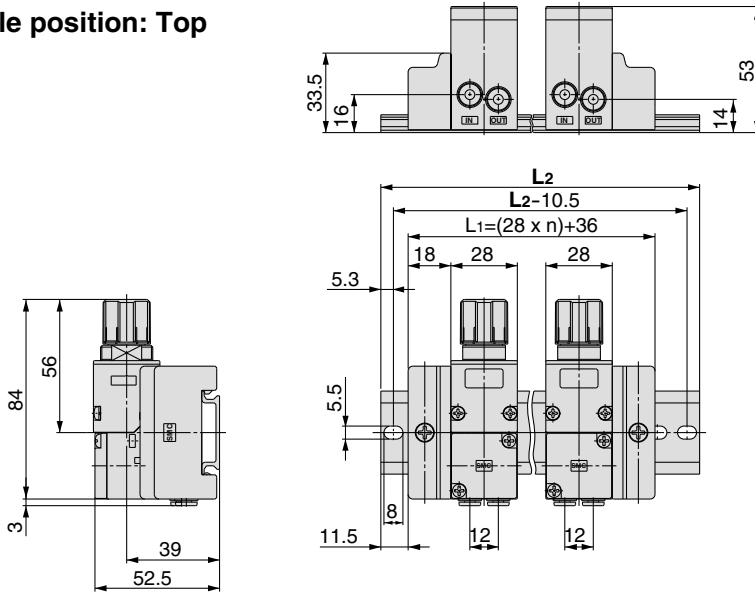


# Series ARM11B

## Dimensions

### ARM11BA1-□08

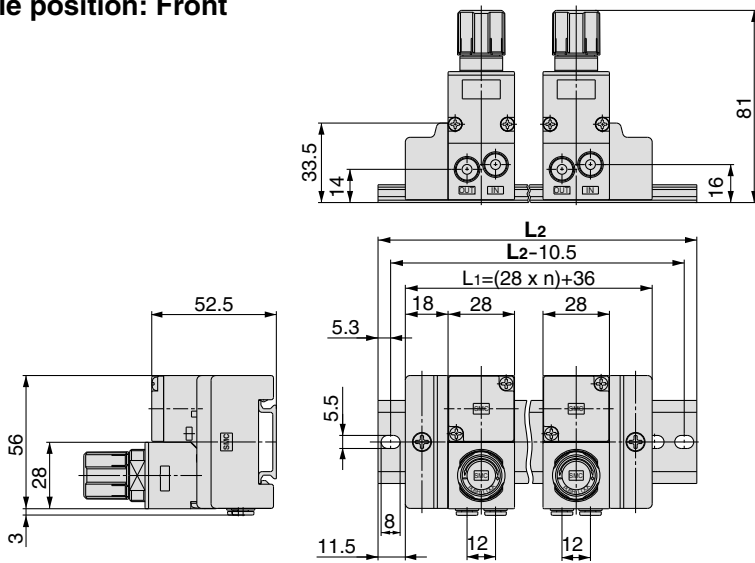
Handle position: Top



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

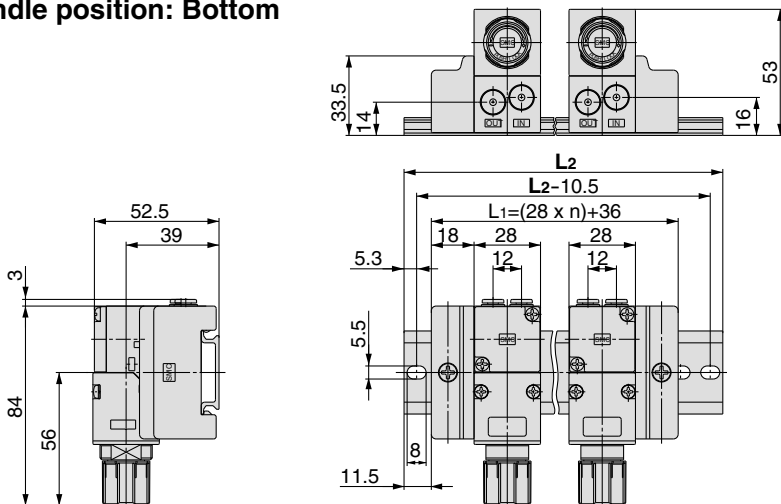
Handle position: Front



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

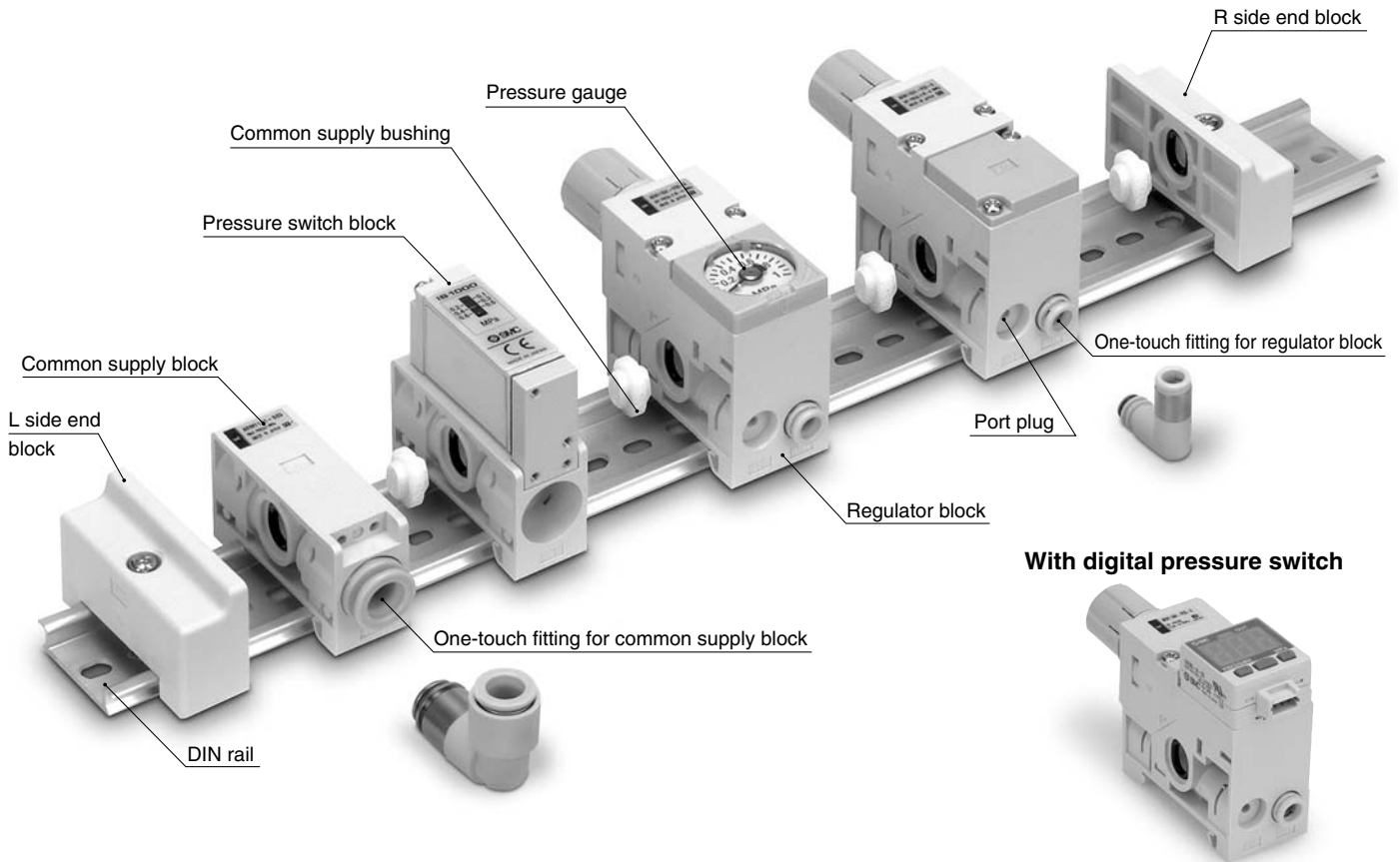


Stations	DIN rail part no.	L2 dimension
1	AXT100-DR-8	110.5
2	AXT100-DR-10	135.5
3	AXT100-DR-12	160.5
4	AXT100-DR-14	185.5
5	AXT100-DR-16	210.5
6	AXT100-DR-19	248
7	AXT100-DR-21	273
8	AXT100-DR-23	298
9	AXT100-DR-25	323
M	AXT100-DR-28	360.5

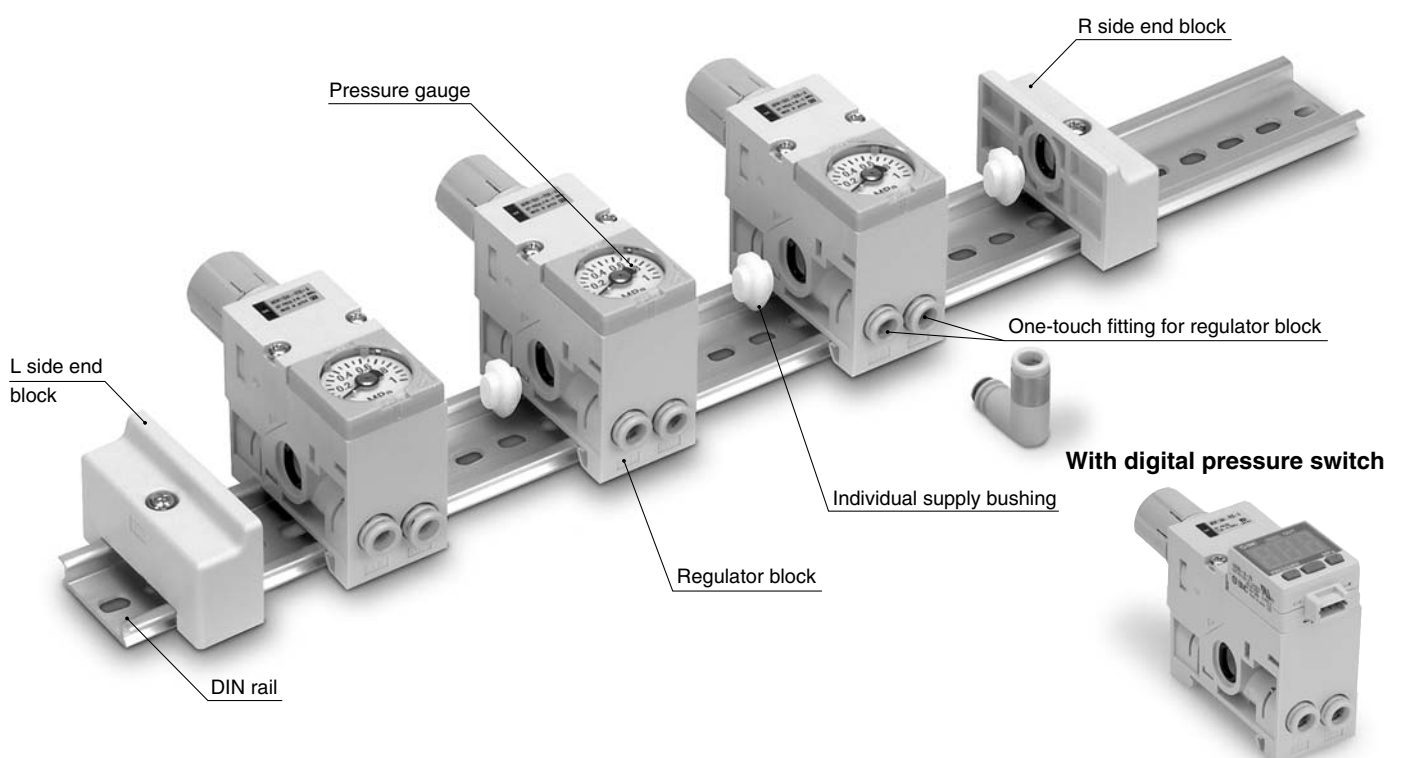


# Compact Manifold Regulator Options

## Common Supply Type



## Individual Supply Type



# Series ARM11A/B

## Regulator Block

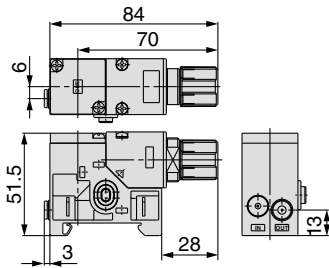
**Common Supply Type** ARM11A A 1 — R 04 — A   Z — N

1
2
3
4
5
6
7

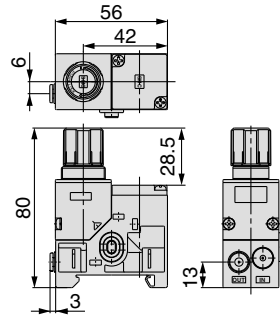
### 1. Handle Position

Symbol	Position
A	Top
B	Front
C	Bottom

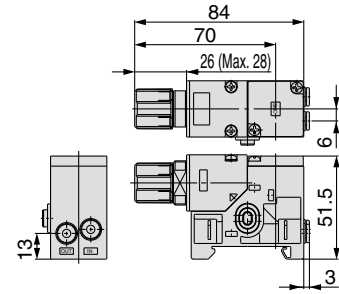
Handle position Top



Handle position Front



Handle position Bottom



### 2. OUT Piping Position

Symbol	Position
1	Bottom
2	Top

### 3. OUT Fitting Type

#### Metric size

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

#### Inch size

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

### 4. Accessory (Pressure Display)

Symbol	Accessory
-	Without pressure display
A <sup>Note 1, 2)</sup>	With pressure display

Note 1) Pressure display means either a pressure gauge or a digital pressure switch is attached.

**When choosing to attach a digital pressure switch as an attachment, be sure to enter the symbol, referring to table 7, "Digital Pressure Switch Output Specifications". Otherwise, a pressure gauge will come with the regulator.**

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

### 5. Options

Symbol	None	0.35 MPa setting <sup>Note 1)</sup>	Non-relieving	Oil-free <sup>Note 2)</sup>
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 specification is grease-free in the fluid contact area.

### 6. Unit Representation

Symbol	Description
-	Display unit for product name plate and pressure gauge: MPa
Z <sup>Note 1, 2)</sup>	Display unit for product name plate and pressure gauge: PSI
ZA <sup>Note 1, 3)</sup>	Digital pressure switch: with unit switching (MPa is initially set.)

Note 1) This option is available for use outside Japan only. (The SI unit has to be used in Japan.) Additionally, the pressure switch offers dual unit presentation in MPa and PSI.

Note 2) The digital pressure switch is equipped with unit switching and initially set to PSI.

Note 3) This option is available with the digital pressure switch.

### 7. Digital Pressure Switch Output Specifications <sup>Note)</sup>

Symbol	Details
-	None
N	NPN open collector
P	PNP open collector

Note) **When a digital pressure switch is attached, the "pressure display" in table 4 "Accessory" will be equipped.**  
The electrical entry is positioned on the side opposite the handle.

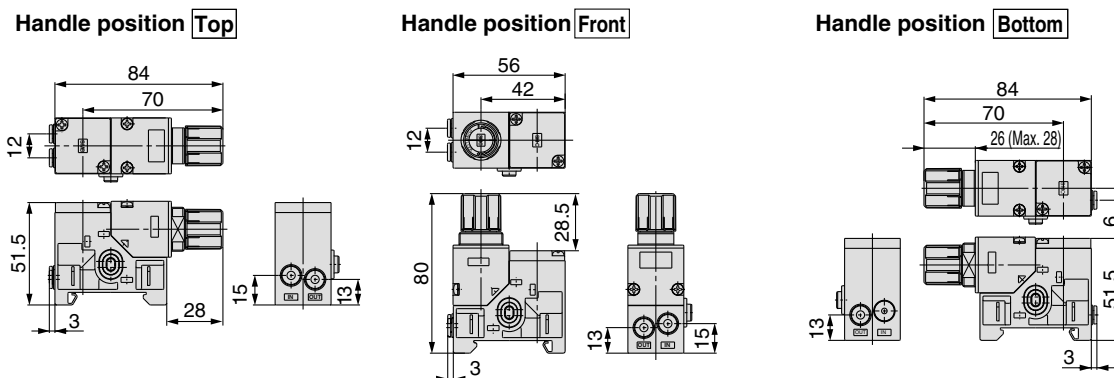
## Regulator Block

**Individual Supply Type** **ARM11B** A 1 — R 06 — A   Z — N

1
2
3
4
5
6
7

### 1. Handle Position

Symbol	Position
A	Top
B	Front
C	Bottom



### 2. IN/OUT Piping Position

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

### 3. IN/OUT Fitting Type

Mounting position	Metric size								Inch size								
	IN side				OUT side				IN side				OUT side				
	Straight		Elbow		Straight		Elbow		Straight		Elbow		Straight		Elbow		
Symbol	ø4	ø6	ø4	ø6	ø4	ø6	ø4	ø6	Symbol	ø5/32	ø1/4	ø5/32	ø1/4	ø5/32	ø1/4	ø5/32	ø1/4
06	●				●				56	●				●			
07		●			●				57		●					●	
08		●				●			58		●				●		
18			●				●		68			●				●	
19				●				●	69			●				●	
20				●				●	70			●				●	
25	●							●	75	●						●	
26		●						●	76		●					●	
27		●						●	77		●					●	
32			●				●		82			●				●	
33				●		●			83			●	●				
34				●		●			84			●			●		

### 4. Accessory (Pressure Display)

Symbol	Accessory
-	Without pressure display
A <sup>Note 1, 2)</sup>	With pressure display

Note 1) Pressure display means either a pressure gauge or a digital pressure switch is attached.

**When choosing to attach a digital pressure switch as an attachment, be sure to enter the symbol, referring to table 7, "Digital Pressure Switch Output Specifications". Otherwise, a pressure gauge will come with the regulator.**

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

### 5. Options

Symbol	None	0.35 MPa setting <sup>Note 1)</sup>	Non-relieving	<sup>Note 2)</sup> Oil-free
-	●			
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 specification is grease-free in the fluid contact area.

### 6. Unit Representation

Symbol	Description
-	Display unit for product name plate and pressure gauge: MPa
Z <sup>Note 1, 2)</sup>	Display unit for product name plate and pressure gauge: PSI
ZA <sup>Note 1, 3)</sup>	Digital pressure switch: with unit switching (MPa is initially set.)

Note 1) This option is available for use outside Japan only. (The SI unit has to be used in Japan.) Additionally, the pressure switch offers dual unit presentation in MPa and PSI.

Note 2) The digital pressure switch is equipped with unit switching and initially set to PSI.

Note 3) This option is available with the digital pressure switch.

### 7. Digital Pressure Switch Output Specifications<sup>Note)</sup>

Symbol	Details
-	None
N	NPN open collector
P	PNP open collector

Note) **When a digital pressure switch is attached, the "pressure display" in table 4 "Accessory" will be equipped.** The electrical entry is positioned on the side opposite the handle.

# Series ARM11A/B

## Digital Pressure Switch

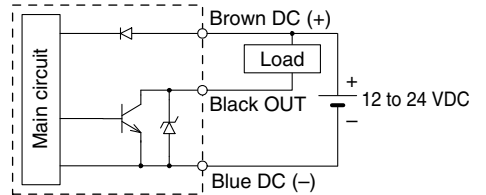
### Specifications

Rated pressure range	0 to 1 MPa
Set pressure range	-0.1 to 1 MPa
Withstand pressure	1.5 MPa
Set pressure resolution	0.01 MPa
Power supply voltage	12 to 24 VDC, Ripple (p-p) 10% or less (With power supply polarity protection)
Current consumption	55 mA or less (at no load)
Switch output	NPN or PNP open collector output: 1 output
Max. load current	80 mA
Max. applied voltage	30 V (With NPN output)
Residual voltage	1 V or less (With load current of 80 mA)
Response time	1 s
Anti-chattering function	(0.25, 0.5, 2, 3 selections)
Short circuit protection	Yes
Repeatability	±1% F.S. or less
Hysteresis	Hysteresis mode Window comparator mode
	Adjustable (can be set from 0)
Display	3-digit, 7-segment indicator, 2-color display (Red / Green) A switch can be operated simultaneously.
Display accuracy	±2% F.S. ± 1 digit (at 25°C ± 3°C ambient temperature)
Indicator light	Illuminates when output is ON. (Green)
Environmental resistance	Enclosure
	IP40
Lead wire with connector	ø3.4 3-wire 25 AWG 2 m

### Output specification

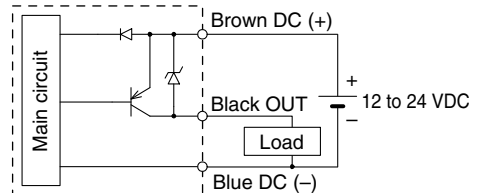
#### NPN open collector

Max. 30 V, 80 mA  
Residual voltage 1 V or less



#### PNP open collector

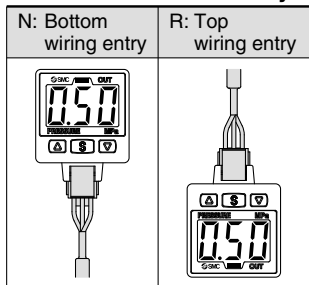
Max. 80 mA  
Residual voltage 1 V or less



### Model

**ISE35** — **N** — **25** — **M** — **X501**

#### Electrical entry



#### Option

Symbol	Details
-	None
<b>X501</b>	Oil-free

#### Option 2

Symbol	Details
-	Switch body only
<b>B</b> (Note)	With option for mounting

(Note) Adapter, O-ring, lock pin and two mounting screws are attached.

#### Option 1

Symbol	Details
-	Without lead wire with connector
<b>L</b>	With lead wire (2 m) with connector

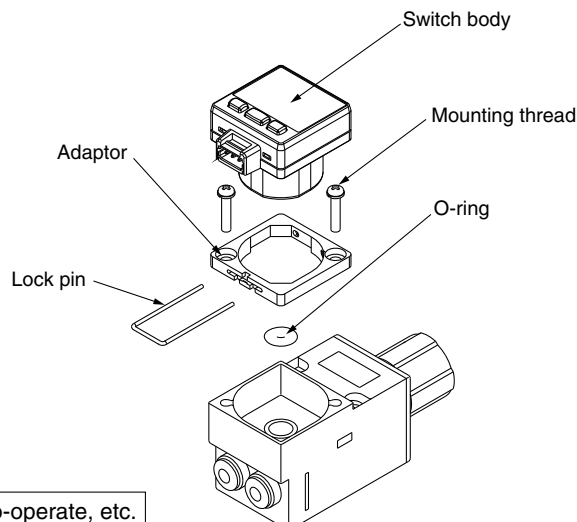
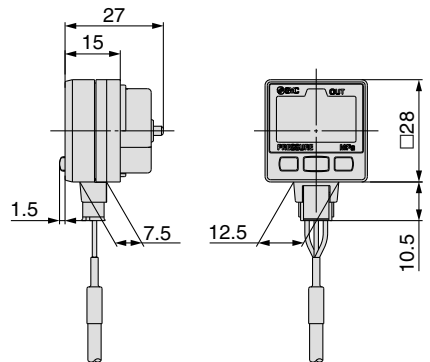
#### Output specification

Symbol	Details
<b>25</b>	NPN output
<b>65</b>	PNP output

#### Unit specification

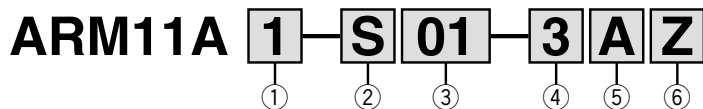
Symbol	Description
<b>M</b>	Fixed SI unit
- (Note)	With unit switching (Initial value: MPa)
<b>P</b> (Note)	With unit switching (Initial value: PSI)

(Note) This option is available for use outside Japan only. (The SI unit has to be used in Japan.)



Refer to Instruction Manual for settings, how-to-operate, etc.

## Common Supply Block



### 1. IN Piping Position

Symbol	Position
1	Bottom
2	Top

### 3. IN Fitting Type

Metric size				Inch size									
Fitting type	Straight		Elbow		Fitting type	Straight		Elbow					
Symbol	ø6	ø8	ø10	ø6	ø8	ø10	Symbol	ø1/4	ø5/16	ø3/8	ø1/4	ø5/16	ø3/8
01	●						51	●					
02		●					52		●				
03			●				53			●			
13				●			63				●		
14					●		64					●	
15						●	65						●

### 4. Option

Symbol	Description
-	None
3	Oil-free

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

### 5. Accessory

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

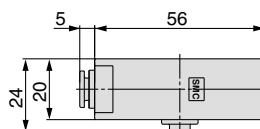
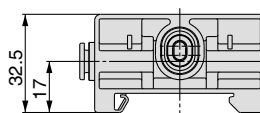
Note) This option is available for use outside Japan only. (The SI unit has to be used in Japan.) Additionally, the pressure switch offers dual unit presentation in MPa and PSI.

### 2. Common Supply Block Type

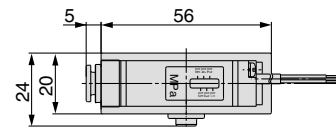
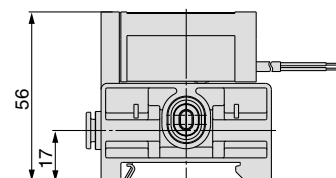
Symbol	Description
S	Common supply block
P	Common supply block with pressure switch
V	3-way valve common supply block
W	3-way valve common supply block + Pressure switch block

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

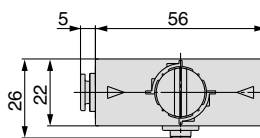
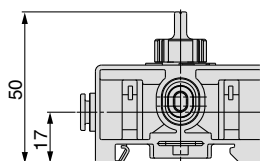
Common supply block (S)



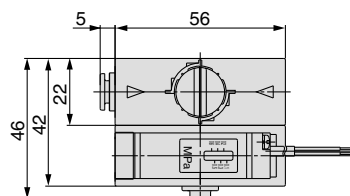
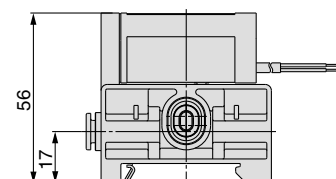
Common supply block with pressure switch (P)



3-way valve common supply block (V)



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



# Series ARM11A/B

## Pressure Switch Block

ARM11AW—**A****Z**

①      ②

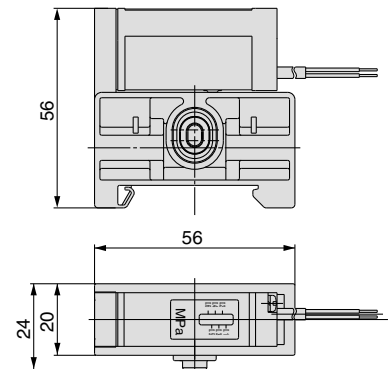
### 1. Accessory

Symbol	Description
-	Pressure switch lead wire length: 0.5 m
<b>A</b>	Pressure switch lead wire length: 3.0 m

### 2. Unit Representation

Symbol	Description
-	Display unit for product name plate: MPa
<b>Z</b> (Note)	Display unit for product name plate: PSI

Note) This option is available for use outside Japan only. (The SI unit has to be used in Japan.) Additionally, the pressure switch offers dual unit presentation in MPa and PSI.

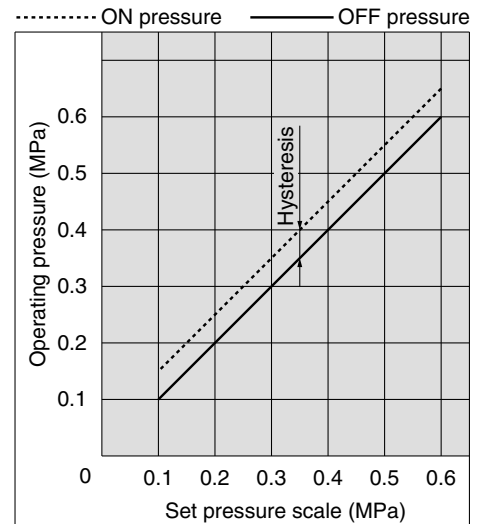


## Specifications

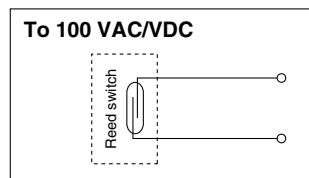
Pressure switch (Common supply block with pressure switch, 3-way valve common supply block plus pressure switch block)

Contact type	Reed type		
Contact construction	Reed switch type		
Contact component	1a		
Reed switch action	Piston type (built-in magnet)		
Wiring specification	Grommet type		
Wiring length	0.5 m (standard model)		
Proof pressure	1.0 MPa		
Maximum operating pressure	0.7 MPa		
Set pressure range	0.1 to 0.6 MPa		
Hysteresis	0.08 MPa or less		
Repeatability	±0.05 MPa		
Maximum contact capacity	AC 2 VA, DC 2 W		
Operating voltage AC, DC	24 V or less	48 V	100 V
Max. operating current and range	50 mA	40 mA	20 mA
Impact resistance	30 G		
Environmental resistance Enclosure	IP40		

## Set Pressure Range



## Electric Circuit

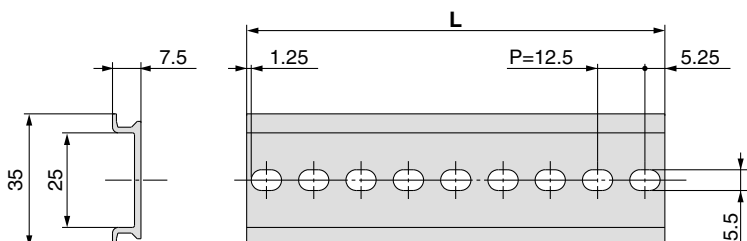


## DIN Rail

### • 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."

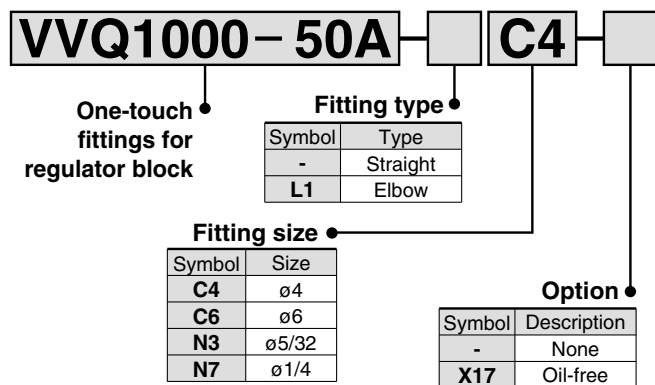


### L Dimension

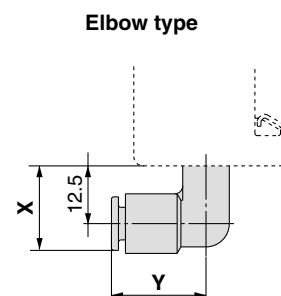
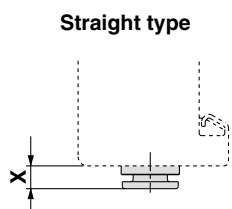
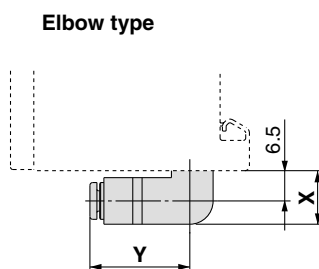
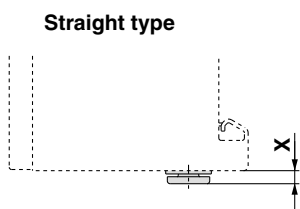
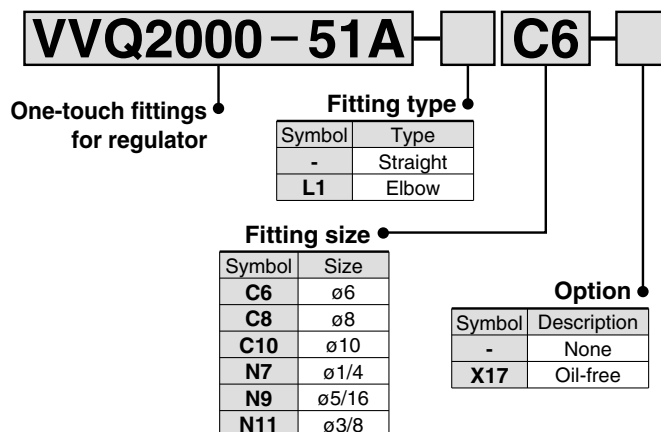
$L=12.5 \times n+10.5$

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



## One-touch Fittings for Common Supply Block



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

# Series ARM11A/B

## End Block

**ARM11E L** 

End block

End block type

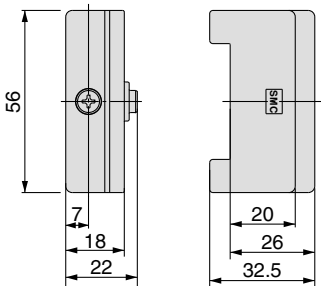
Symbol	Mounting position
L	Left side
R	Right side

Option

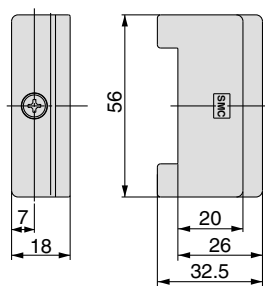
Symbol	Description
-	None
3	Oil-free

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

L side end block



R side end block

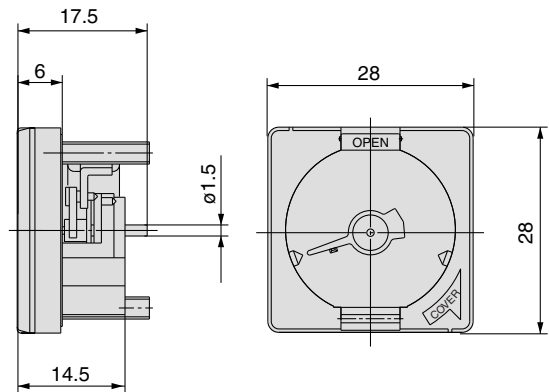


## Pressure Gauge

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

## Specifications

Display accuracy	±3%F.S. (Full Span)
Calibration angle	230°
Limit indicator	With limit indicator



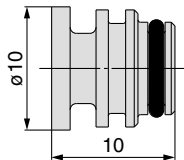
## Port Plug

**VVQ0000 -58A** 

Single unit regulator /  
Port plug for regulator block

Option

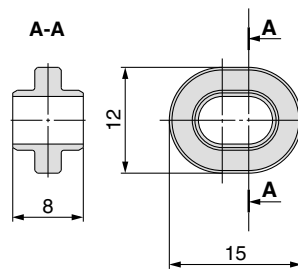
Symbol	Description
-	None
X17	Oil-free



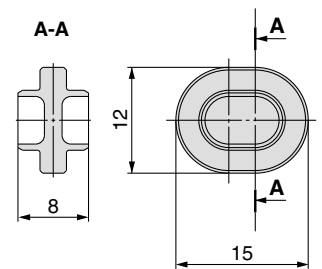
## Bushing

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

136144-S



136144-K





# Regulator Single Unit Type Series **ARM10**

## How to Order

**Standard Type** ARM10 — **06** **B** — **1** **Z** — **N**

①      ②      ③      ④      ⑤

### 1. IN/OUT Fitting Type

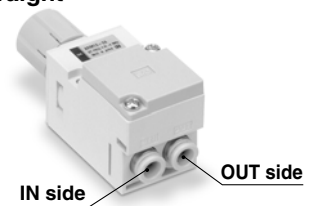
#### Metric size

Mounting position Fitting type Symbol	IN side				OUT side			
	Straight		Elbow <sup>Note)</sup>		Straight		Elbow <sup>Note)</sup>	
	ø4	ø6	ø4	ø6	ø4	ø6	ø4	ø6
06	●				●			
07		●			●			
08		●				●		
18			●				●	
19				●			●	
20				●				●
25	●						●	
26		●					●	
27		●						●
32			●		●			
33				●	●			
34				●		●		

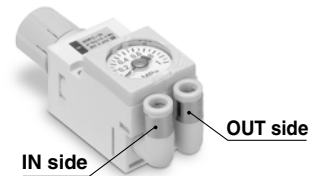
#### Inch size

Mounting position Fitting type Symbol	IN side				OUT side			
	Straight		Elbow <sup>Note)</sup>		Straight		Elbow <sup>Note)</sup>	
	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



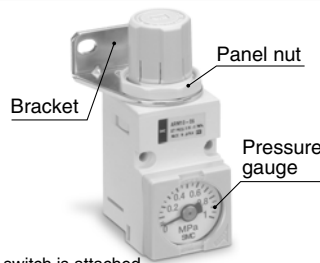
#### Elbow



Note) Use caution to ensure the connector is not disturbed, depending on piping direction, when choosing to attach a digital pressure switch.

### 2. Accessories

Symbol	None	Bracket <sup>Note 1)</sup>	Pressure gauge <sup>Note 2)</sup>	Panel nut
-	●			
B		●		(●)
G			●	
P				●
BG		●	●	(●)
GP			●	●



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

Note 2) Pressure display means either a pressure gauge or a digital pressure switch is attached.

When choosing to attach a digital pressure switch as an attachment, be sure to enter the symbol, referring to table 5, "Digital Pressure Switch Output Specifications". Otherwise, a pressure gauge will come with the regulator. Additionally, the pressure gauge cannot be changed to a copper-free model.

### 3. Options

Symbol	None	0.35 MPa setting <sup>Note 1)</sup>	Non-relieving	Oil-free <sup>Note 2)</sup>
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 specification is grease-free in the fluid contact area.

### 4. Unit Representation

Symbol	Description
-	Display unit for product name plate and pressure gauge: MPa
Z <sup>Note 1, 2)</sup>	Display unit for product name plate and pressure gauge: PSI
ZA <sup>Note 1, 3)</sup>	Digital pressure switch: with unit switching (MPa is initially set.)

Note 1) This option is available for use outside Japan only. (The SI unit has to be used in Japan.) Additionally, the pressure switch offers dual unit presentation in MPa and PSI.

Note 2) The digital pressure switch is equipped with unit switching and initially set to PSI.

Note 3) This option is available with the digital pressure switch.

### 5. Digital Pressure Switch Output Specifications<sup>Note)</sup>

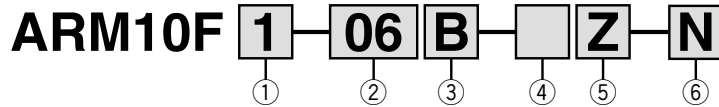
Symbol	Details
-	None
N	NPN open collector
P	PNP open collector

Note) When a digital pressure switch is attached, the "pressure display" in table 2 "Accessories" will be equipped.

The electrical entry is positioned on the side opposite the handle.

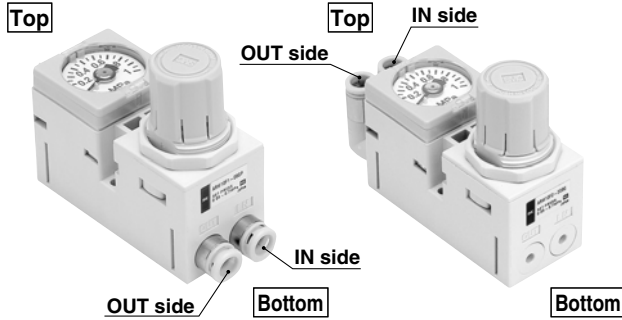
## How to Order

### Front Handle Type

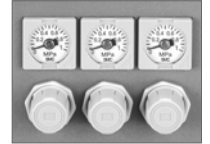


### 1. IN/OUT Piping Position

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



### Example of panel mounting



### 2. IN/OUT Fitting Type

#### Metric size

Mounting position	IN side				OUT side				
	Straight		Elbow <sup>Note)</sup>		Straight		Elbow <sup>Note)</sup>		
	Symbol	ø4	ø6	ø4	ø6	ø4	ø6	ø4	ø6
06	●				●				
07			●		●				
08			●			●			
18				●				●	
19					●			●	
20					●				●
25	●							●	
26			●					●	
27			●					●	
32				●		●			
33					●	●			
34					●	●			

#### Inch size

Mounting position	IN side				OUT side				
	Straight		Elbow <sup>Note)</sup>		Straight		Elbow <sup>Note)</sup>		
	Symbol	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) Use caution to ensure the connector is not disturbed, depending on piping direction, when choosing to attach a digital pressure switch.

### 3. Accessories

Symbol	None	Note 1) Bracket	Note 2) Pressure display	Panel nut	Note 3) Decorative cover
-	●				
B		●		(●)	
G			●		
BG		●	●	(●)	
GP			●	●	
GPC <sup>Note 4)</sup>			●	●	●

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

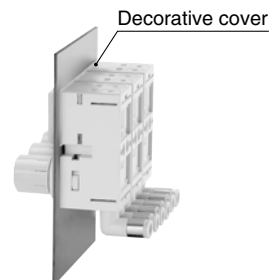
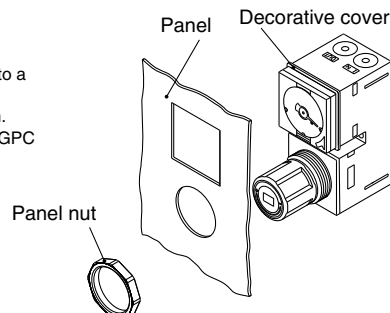
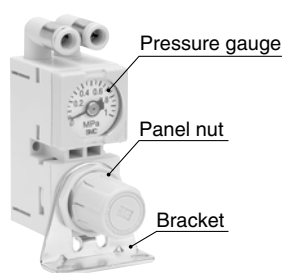
Note 2) Pressure display means either a pressure gauge or a digital pressure switch is attached.

**When choosing to attach a digital pressure switch as an attachment, be sure to enter the symbol, referring to table 6, "Digital Pressure Switch Output Specifications". Otherwise, a pressure gauge will come with the regulator.**

Additionally, the pressure gauge cannot be changed to a copper-free model.

Note 3) Not attachable to a model with digital pressure switch.

Note 4) Please note that the dimensions will be bigger when GPC is selected.



## 4. Options

Symbol	None	0.35 MPa setting <sup>Note 1)</sup>	Non-relieving	Oil-free <sup>Note 2)</sup>
-	●			
1		●		
2			●	
3				●
4		●	●	
5		●		●
6			●	●
7		●	●	●

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

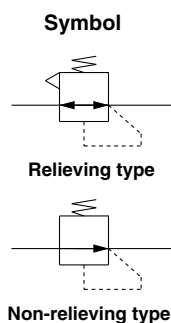
Note 2) The oil-free specification is grease-free in the fluid contact area.

## 6. Digital Pressure Switch Output Specifications <sup>Note)</sup>

Symbol	Details
-	None
N	NPN open collector
P	PNP open collector

Note) When a digital pressure switch is attached, the "pressure display" in table 3 "Accessories" will be equipped.

The electrical entry is positioned on the side opposite the handle.



## 5. Unit Representation

Symbol	Description
-	Display unit for product name plate and pressure gauge: MPa
Z <sup>Note 1, 2)</sup>	Display unit for product name plate and pressure gauge: PSI
ZA <sup>Note 1, 3)</sup>	Digital pressure switch: with unit switching (MPa is initially set.)

Note 1) This option is available for use outside Japan only. (The SI unit has to be used in Japan.)

Note 2) The digital pressure switch is equipped with unit switching and initially set to PSI.

Note 3) This option is available with the digital pressure switch.

## Specifications

Model	ARM10	ARM10F
<b>Regulator construction</b>	Direct acting	
<b>Working principal</b>	Diaphragm regulator	
<b>Relief mechanism</b>	<b>Standard</b>	Relief type
	<b>Optional</b>	Non-relieving type
<b>Backflow function</b> <sup>Note 1)</sup>	Within (unbalance type)	
<b>IN side tubing O.D.</b>	ø4, ø6, ø5/32, ø1/4	
<b>OUT side tubing O.D.</b>	ø4, ø6, ø5/32, ø1/4	
<b>Proof pressure</b>	1.5 MPa	
<b>Maximum operating pressure</b>	1.0 MPa	
<b>Set pressure range</b>	<b>Standard</b>	0.05 to 0.7 MPa
	<b>Optional</b>	0.05 to 0.35 MPa (Low pressure type)
<b>Fluid</b>	Air	
<b>Ambient and operating fluid temperature</b> <sup>Note 2)</sup>	5 to 60°C	
<b>Weight</b>	60 g	72 g

Note 1) 0.1 MPa or greater set pressure is required when used in the reverse flow.

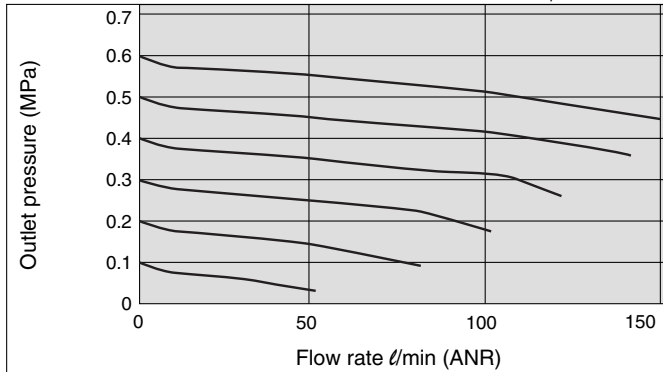
Note 2) 5 to 50°C when the digital pressure switch will be used.

Refer to page 19 for the digital pressure switch specifications.

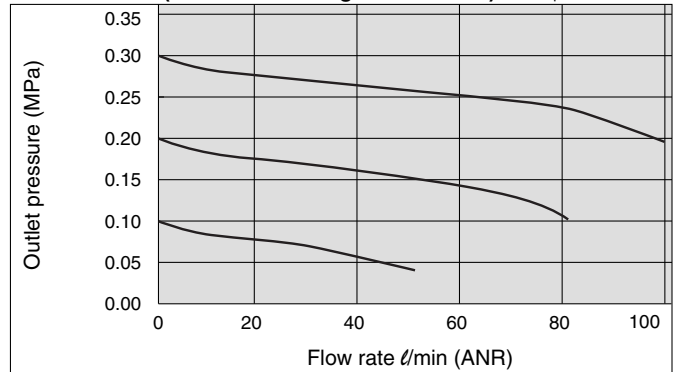
# Series ARM10

## Flow Characteristics

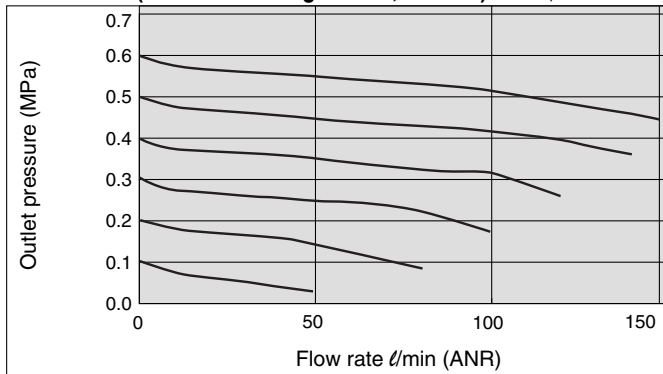
**ARM10F□-06**  
**ARM10-06 (One-touch fittings: IN/OUT ø4)** Condition: Inlet pressure 0.7 MPa



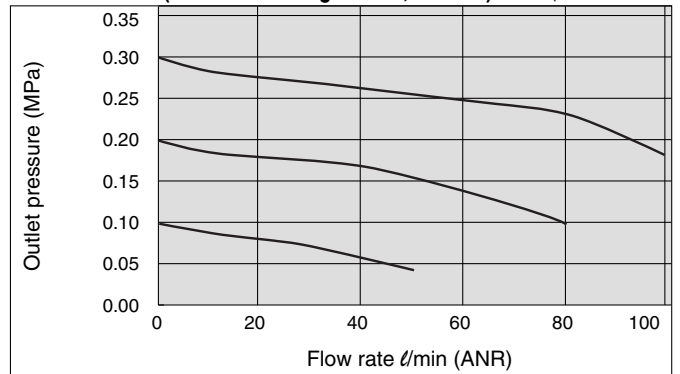
**ARM10F□-06-1**  
**ARM10-06-1 (One-touch fittings: IN/OUT ø4)** Condition: Inlet pressure 0.5 MPa



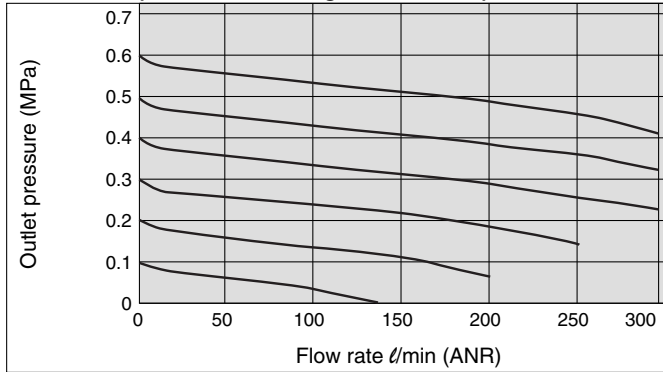
**ARM10F□-07**  
**ARM10-07 (One-touch fittings: IN ø6, OUT ø4)** Condition: Inlet pressure 0.7 MPa



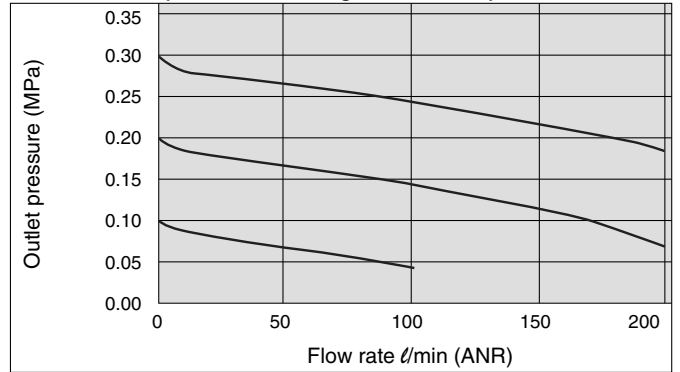
**ARM10F□-07-1**  
**ARM10-07-1 (One-touch fittings: IN ø6, OUT ø4)** Condition: Inlet pressure 0.5 MPa



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

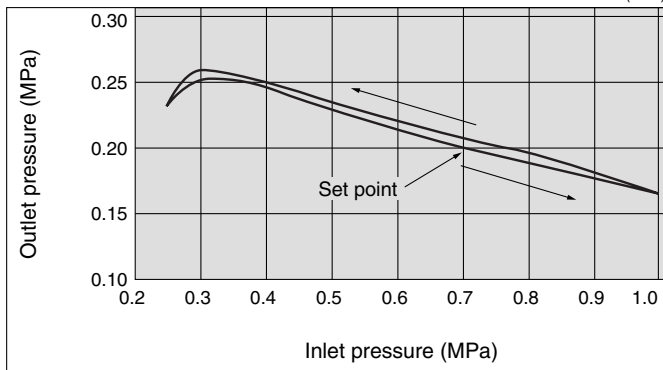


**ARM10F□-08-1**  
**ARM10-08-1 (One-touch fittings: IN/OUT ø6)** Condition: Inlet pressure 0.5 MPa

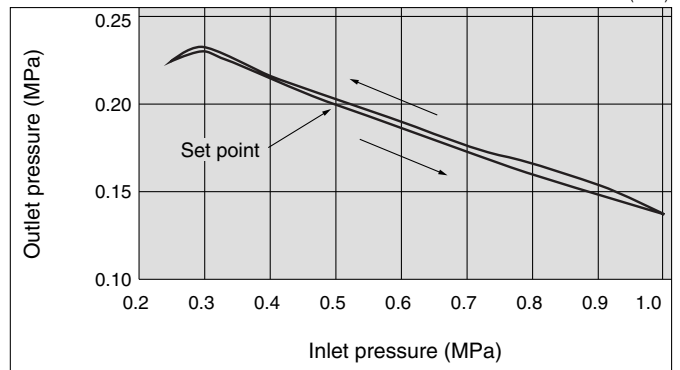


## Pressure Characteristics

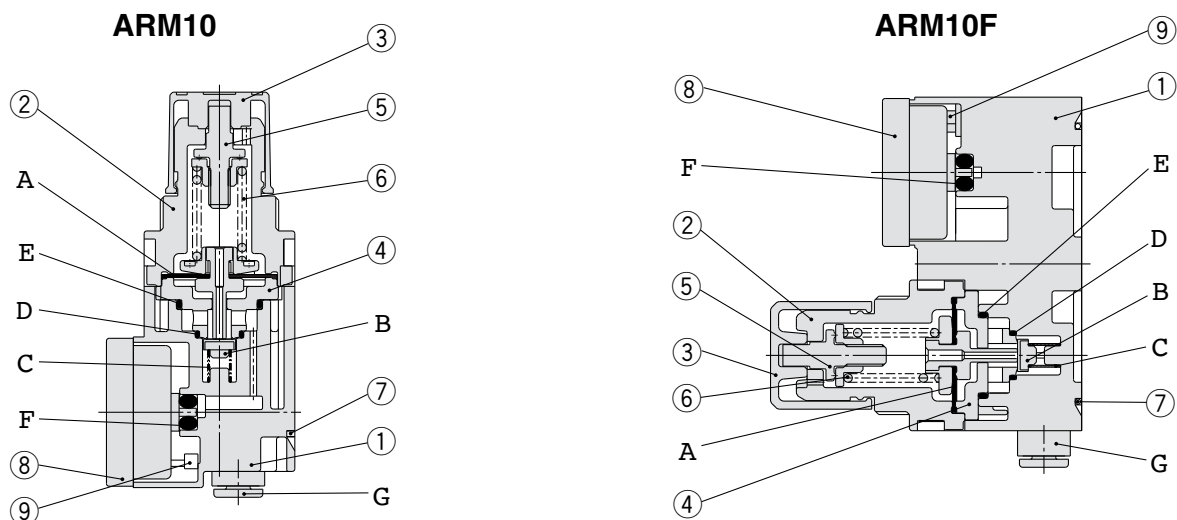
**ARM10F□-06**  
**ARM10-06** Conditions: Inlet pressure 0.7 MPa, Outlet pressure 0.2 MPa, Flow rate 20 l/min (ANR)



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



## 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

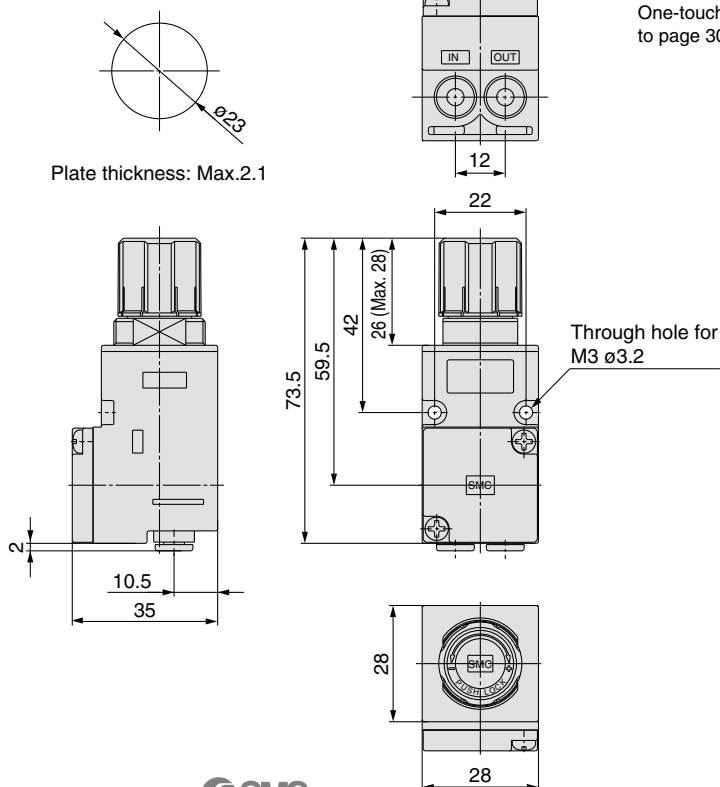
### Replacement Parts

No.	Description	Material	Part no.	Note
A	Diaphragm assembly	Weatherproof NBR, POM	136126A	Relieving type
			136126-1A	Non-relieving type
B	Valve	HNBR, Aluminum alloy	136127-30#1	
C	Valve spring	Stainless steel	136131	
D	O-ring	NBR	136146	Standard model
		HNBR	136146-30	Oil-free specification
E	O-ring	NBR	136147	Standard model
		HNBR	136147-30	Oil-free specification
F	O-ring	NBR	136148	Standard model
		HNBR	136148-30	Oil-free specification
		NBR	KA01731	Standard model for digital pressure switch
		HNBR	KA01613	Oil-free spec. for digital pressure switch
G	Fitting assembly	—	Refer to page 30.	

## Dimensions

**ARM10-06**  
**08**

### Panel cutout dimensions

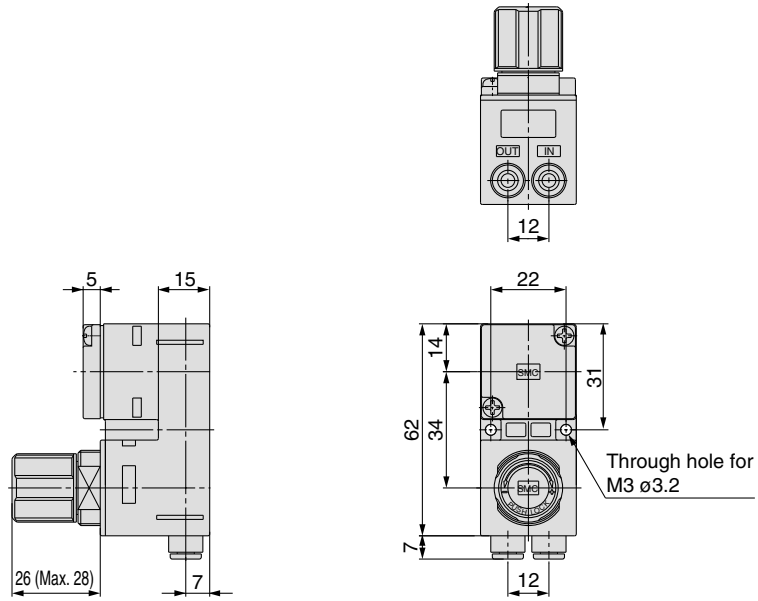


For dimensions of accessories and One-touch fitting parts, please refer to page 30.

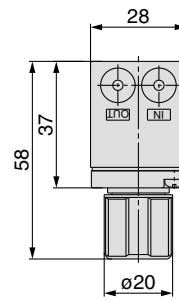
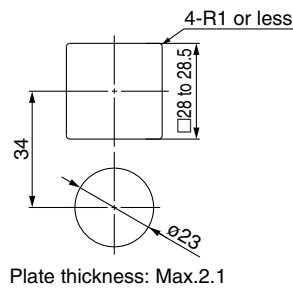
# Series ARM10

## Dimensions

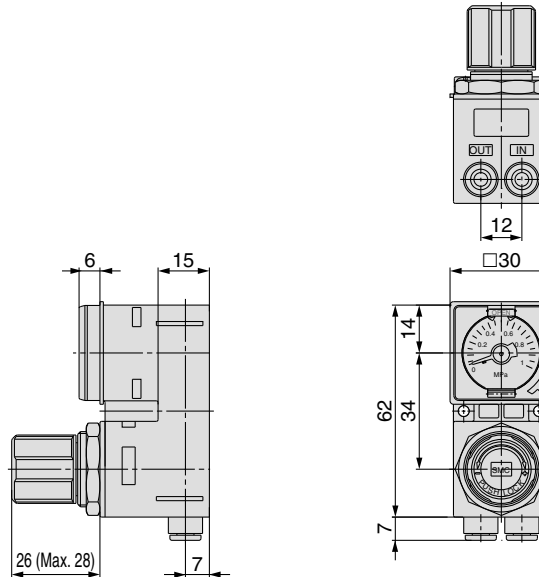
ARM10F1-<sup>06</sup><sub>08</sub>



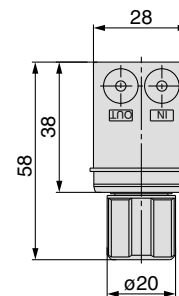
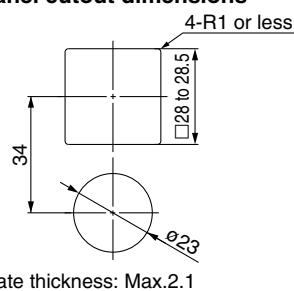
### Panel cutout dimensions



ARM10F1-<sup>06GPC</sup><sub>08GPC</sub>



### Panel cutout dimensions



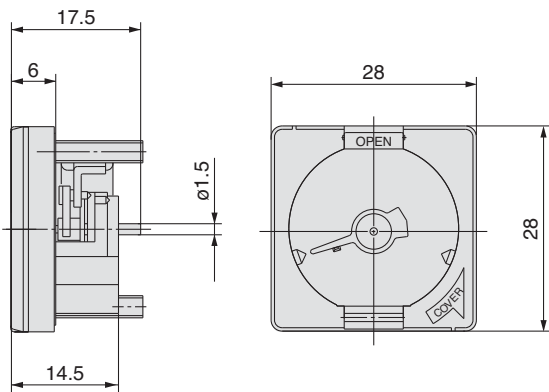
# Regulator/Single Unit Type Options

## Pressure Gauge

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

### Specifications

Display accuracy	±3% F.S. (Full Span)
Calibration angle	230°
Limit indicator	With limit indicator
Weight	17 g

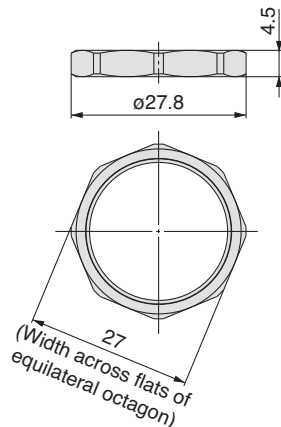


## Digital Pressure Switch

Refer to page 19.

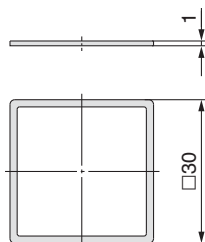
## Panel Nut

Part no.	136133
Material	POM
Weight	1 g

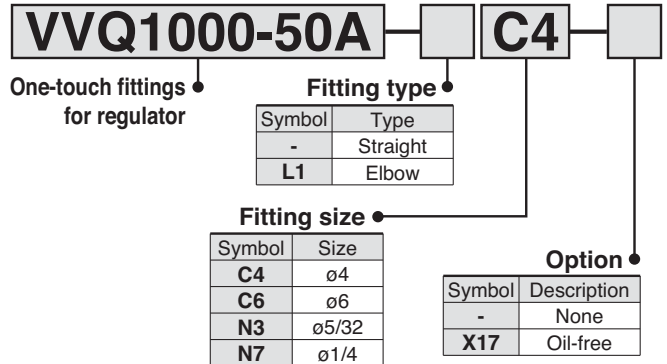


## Decorative Cover

Part no.	136155
Material	PBT
Weight	0.5 g

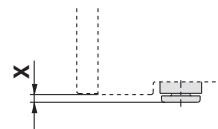


## One-touch Fittings for Regulator



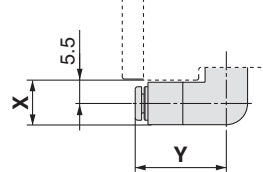
### ARM10

Straight type



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

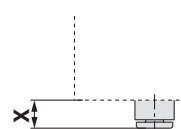
Elbow type



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

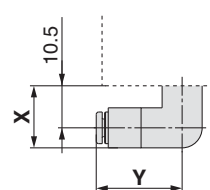
### ARM10F

Straight type



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

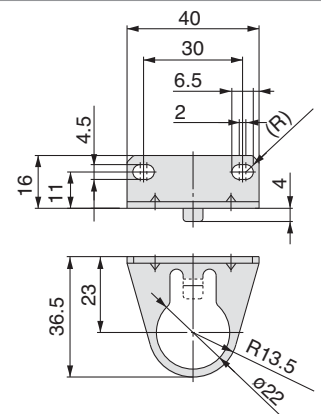
Elbow type



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#1
Material	Nickel plated steel
Weight	17 g



# Series ARM10F Made to Order

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 <sup>Note2)</sup>		Within (Unbalance type)
IN/OUT air passage diameter		ø4
IN/OUT gasket sealing O.D.		ø7
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 <sup>Note)</sup>		5 to 60°C
Weight		73 g



Note 1) Two mounting bolts and two O-rings are attached.

Note 2) 0.1 MPa or greater set pressure is required when used in the reverse flow.

Note 3) 5 to 50°C when the digital pressure switch will be used. Refer to page 19 for the digital pressure switch specifications.

### How to Order

ARM10F — **A** — **Z** — **N** — X201  
 ① ② ③ ④ •For manifold

#### 1. Accessory (Pressure Display)

Enter symbol for when the model requires a digital pressure switch.

Symbol	Accessory
-	Without pressure display
A	With pressure display

Note 1) Pressure display means either a pressure gauge or digital pressure switch is attached. When choosing to attach a digital pressure switch as an attachment, be sure to enter the symbol, referring to table 4, "Digital Pressure Switch Output Specifications". Otherwise, a pressure gauge will come with the regulator.

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

#### 2. Options

Symbol	None	0.35 MPa setting <sup>Note 1)</sup>	Non-relieving	Oil-free <sup>Note 2)</sup>
-	●			
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
-	Display unit for product name plate and pressure gauge: MPa
Z <sup>Note 1, 2)</sup>	Display unit for product name plate and pressure gauge: PSI
ZA <sup>Note 1, 3)</sup>	Digital pressure switch: with unit switching (MPa is initially set.)

Note 1) This option is available for use outside Japan only. (The SI unit has to be used in Japan.)

Note 2) The digital pressure switch is equipped with unit switching and initially set to PSI.

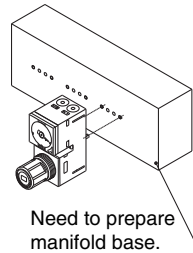
Note 3) This option is available with the digital pressure switch.

#### 4. Digital Pressure Switch Output Specifications <sup>Note)</sup>

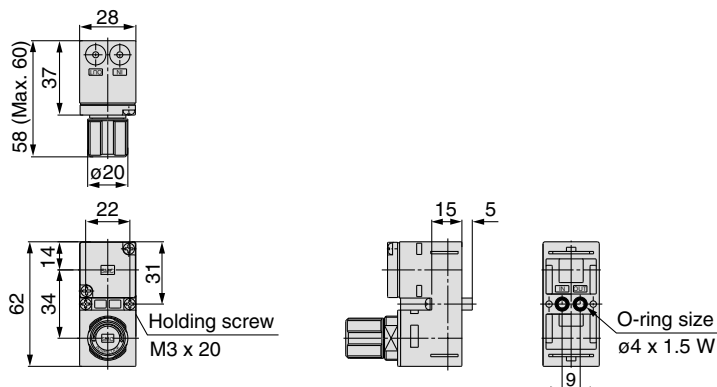
Symbol	Details
-	None
N	NPN open collector
P	PNP open collector

Note) When a digital pressure switch is attached, the "pressure display" in table 1 "Accessory" will be equipped. The electrical entry is positioned on the side opposite the handle.

#### Example



### Dimensions










Series **ARM10/11**

# Safety Instructions

These safety instructions are intended to prevent a hazardous situation and/or equipment damage. These instructions indicate the level of potential hazard by labels of "**Caution**", "**Warning**" or "**Danger**". To ensure safety, be sure to observe ISO 4414 <sup>Note 1)</sup>, JIS B 8370 <sup>Note 2)</sup> and other safety practices.

## ■ Explanation of the Labels

Labels	Explanation of the labels
 <b>Danger</b>	In extreme conditions, there is a possible result of serious injury or loss of life.
 <b>Warning</b>	Operator error could result in serious injury or loss of life.
 <b>Caution</b>	Operator error could result in injury <sup>Note 3)</sup> or equipment damage <sup>Note 4)</sup> .

Note 1) ISO 4414: Pneumatic fluid power – General rules relating to systems

Note 2) JIS B 8370: General Rules for Pneumatic Equipment

Note 3) Injury indicates light wounds, burns and electrical shocks that do not require hospitalisation or hospital visits for long-term medical treatment.

Note 4) Equipment damage refers to extensive damage to the equipment and surrounding devices.

## ■ Selection/Handling/Applications

### 1. The compatibility of the pneumatic equipment is the responsibility of the person who designs the pneumatic system or decides its specifications.

Since the products specified here are used in various operating conditions, their compatibility for the specific pneumatic system must be based on specifications or post analysis and/or tests to meet the specific requirements. The expected performance and safety assurance are the responsibility of the person who has determined the compatibility of the system. This person should continuously review the suitability of all items specified, referring to the latest catalogue information with a view to giving due consideration to any possibility of equipment failure when configuring a system.

### 2. Only trained personnel should operate pneumatically operated machinery and equipment.

Compressed air can be dangerous if handled incorrectly. Assembly, handling or repair of pneumatic systems should be performed by trained and experienced operators. (Understanding JIS B 8370 General Rules for Pneumatic Equipment, and other safety rules are included.)

### 3. Do not service machinery/equipment or attempt to remove components until safety is confirmed.

1. Inspection and maintenance of machinery/equipment should only be performed once measures to prevent falling or runaway of the driver objects have been confirmed.
2. When equipment is removed, confirm that safety process as mentioned above. Turn off the supply pressure for this equipment and exhaust all residual compressed air in the system, and release all the energy (liquid pressure, spring, condenser, gravity).
3. Before machinery/equipment is restarted, take measures to prevent quick extension of a cylinder piston rod, etc.

### 4. Contact SMC if the product will be used in any of the following conditions:

1. Conditions and environments beyond the given specifications, or if product is used outdoors.
2. Installation on equipment in conjunction with atomic energy, railway, air navigation, vehicles, medical equipment, food and beverages, recreation equipment, emergency stop circuits, clutch and brake circuits in press applications, or safety equipment.
3. An application which has the possibility of having negative effects on people, property, or animals, requiring special safety analysis.
4. If the products are used in an interlock circuit, prepare a double interlock style circuit with a mechanical protection function for the prevention of a breakdown. And, examine the devices periodically if they function normally or not.

## ■ Exemption from Liability

1. SMC, its officers and employees shall be exempted from liability for any loss or damage arising out of earthquakes or fire, action by a third person, accidents, customer error with or without intention, product misuse, and any other damages caused by abnormal operating conditions.

2. SMC, its officers and employees shall be exempted from liability for any direct or indirect loss or damage, including consequential loss or damage, loss of profits, or loss of chance, claims, demands, proceedings, costs, expenses, awards, judgments and any other liability whatsoever including legal costs and expenses, which may be suffered or incurred, whether in tort (including negligence), contract, breach of statutory duty, equity or otherwise.

3. SMC is exempted from liability for any damages caused by operations not contained in the catalogues and/or instruction manuals, and operations outside of the specification range.

4. SMC is exempted from liability for any loss or damage whatsoever caused by malfunctions of its products when combined with other devices or software.



# Series ARM10/11 Compact Manifold Regulator Specific Product Precautions 1

Be sure to read this before handling.

## Design & Selection

### Warning

#### 1. Confirm the specifications.

The products appearing in this catalogue 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 catalogue 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 as an 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  $\pm 0.1$  mm or less

2. Soft nylon tubing  $\pm 0.1$  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 to the regulator. Select a type with 5  $\mu$ m 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 SMC's Best Pneumatics catalogue for further details on compressed air quality.**



# Series ARM10/11 Compact Manifold Regulator Specific Product Precautions 2

Be sure to read this 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 a low pressure until the desired pressure is reached).

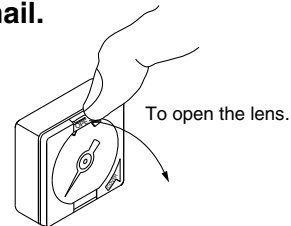
## Adjustment

### Caution

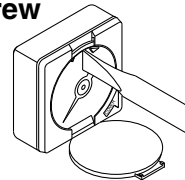
#### How to adjust indicator of the pressure gauge.

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

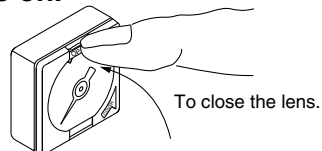
1. Open the lens cover to the arrow's direction with finger nail.



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 is prohibited.

Do not modify or reconstruct the unit.



# Series ARM10/11

## Blocks

# Specific Product Precautions 1

Be sure to read this before handling.

### Handling

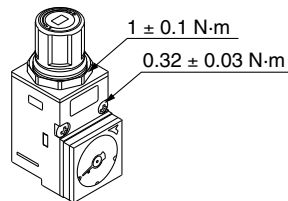
#### Warning

Observe the proper screw tightening torques during the installation.

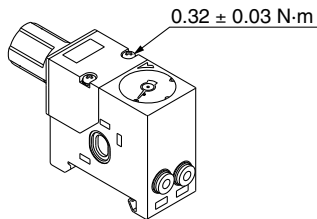
Tightening beyond the proper tightening torque may damage the mounting screws, blocks or switches.

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

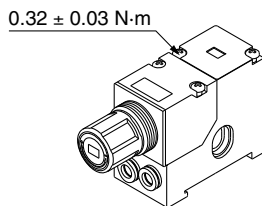
#### 1. Tightening torque for the fixing screws and panel nuts of a single unit regulator.



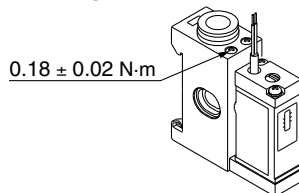
#### 2. Tightening torque for the regulator assembly fixing screws on a regulator block.



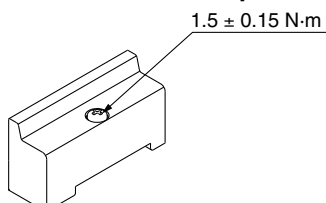
#### 3. Tightening torque for the blanking plates and pressure gauge fixing screws on a regulator block.



#### 4. Tightening torque for the pressure switch fixing screws on a common supply block with pressure switch and/or pressure switch block.



#### 5. Tightening torque for DIN rail clamp screws on end blocks.



#### Warning

##### ● Digital Pressure Switch

Mount it with the proper screw-tightening torque.

Overtightening may damage the regulator body or adaptor, etc. Meanwhile, insufficient tightening may loosen the connecting threads.

#### 1. Attach an O-ring to the regulator O-ring slit.

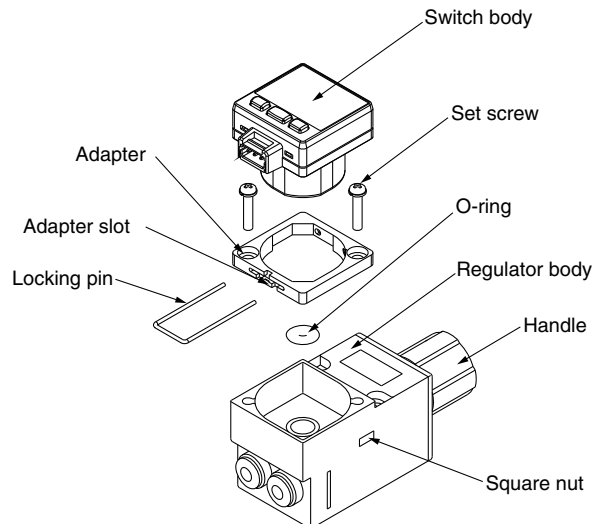
#### 2. Attach the adaptor with the 2 set screws by positioning the adaptor slot on the opposite side of the handle and keeping the 2 square nuts (right/left) attached.

Tightening torque:  $0.32 \pm 0.03$  N·m

#### 3. Attach the switch body.

#### 4. Fully insert the locking pin into the adaptor slot.

The switch body can be replaced by attaching/removing the locking pin.





# Series ARM10/11 Blocks Specific Product Precautions 2

Be sure to read this before handling.

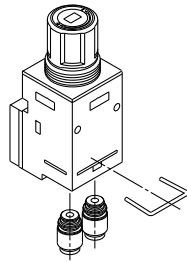
## Handling

### Caution

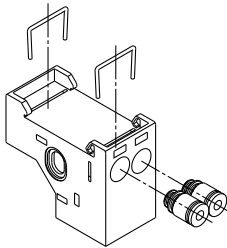
#### One-touch fitting replacement

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.

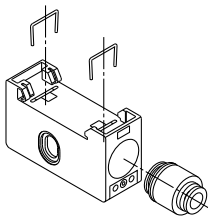
#### 1. Single unit regulator



#### 2. Regulator block



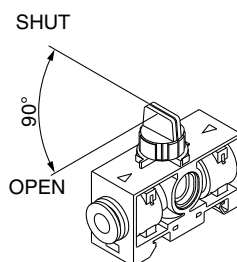
#### 3. Various common supply blocks



### 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.



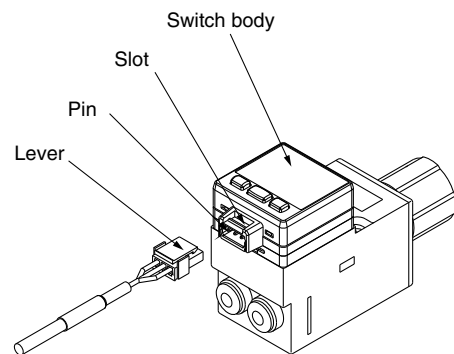
### Caution

#### ● Digital Pressure Switch How to attach a connector

Insert the connector vertically onto the pins, pinching the lever and connector with your fingers. Insert the lever into the switch body slot until it is locked.

#### How to remove a connector

Pull the lever straight forward by pushing its claw to remove it from the slot.





# Series ARM10/11 Pressure Switches Specific Product Precautions 3

Be sure to read this before handling.

## Design & Selection

### Warning

- 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.
- Never apply a load above the maximum load capacity.**  
It can damage the switch or shorten the service life.
- 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

- 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.
- 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.
- Do not drop or bump the product.**  
Dropping or bumping while handling may cause damage to the product.

## Pressure Supply

### Warning

- 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.
- 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

- The switching setting indication scale shows the set value for pressure decrease.**
- 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.**
- The pressure indication on the scale plate is provided as a guideline. Use a pressure gauge to measure the precise settings.**

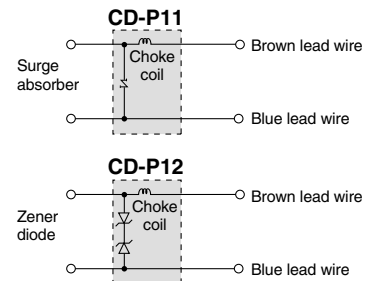
## Wiring

### Warning

- Connect the load**  
Be sure to connect the load to the pressure switch before connecting the power supply.
- 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	100 VAC	Switch connection side: 0.5 m
CD-P12	24 VDC	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

- 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.
- 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.
- 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.
- Do not apply vibration to the switch.**  
If vibration is applied, malfunction or setting errors may result.





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