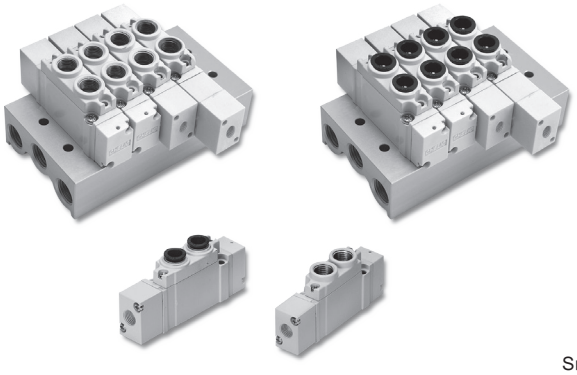
Directional control — PM series Air Operated Valve

PM3000, PM5000, PM7000, PM9000 Air operated valve

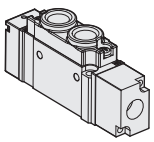
CHELIC



Provide CAD external dimension.

Small size, big flow rate!
Air hole can be changed and be added connector.

Single air pilot valve --- **PM - 3000 series** --- **M5** ---------- **P.2-3.4**
(5 port 2-position)

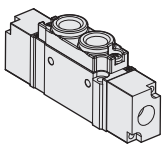


PM - 5000 series --- **Rc1/8**, **Ø4**, **Ø6**, **Ø8** ---------- **P.2-3.6**

PM - 7000 series --- **Rc1/8 1/4 Ø6**, **Ø8**, **Ø10** ---------- **P.2-3.13**

PM - 9000 series --- **Rc1/4**, **3/8**, **Ø8**, **Ø10**, **Ø12** ---------- **P.2-3.20**

Double air pilot valve --- **PM - 3000 series** --- **M5** ---------- **P.2-3.4**
(5 port 2-position)

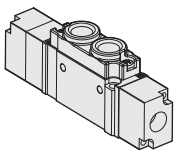


PM - 5000 series --- **Rc1/8**, **Ø4**, **Ø6, Ø8** ---------- **P.2-3.6**

PM - 7000 series --- **Rc1/8**, **1/4 ' Ø6**, **Ø8**, **Ø10** ---------- **P.2-3.13**

PM - 9000 series --- **Rc1/4**, **3/8**, **Ø8**, **Ø10**, **Ø12** ---------- **P.2-3.20**

Double air pilot valve --- **PM - 3000 series** --- **M5** ---------- **P.2-3.5**
(5 port 3-position)



PM - 5000 series --- **Rc1/8**, **Ø4**, **Ø6**, **Ø8** ---------- **P.2-3.7**

PM - 7000 series --- **Rc1/8**, **1/4**, **Ø6**, **Ø8**, **Ø10** ---------- **P.2-3.14**

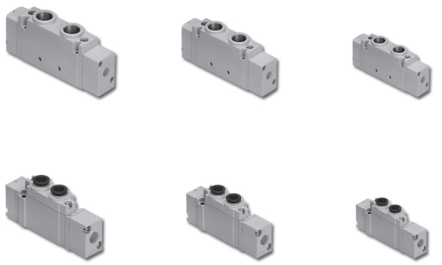
PM - 9000 series --- **Rc1/4**, **3/8**, **Ø8**, **Ø10, Ø12** ---------- **P.2-3.22**

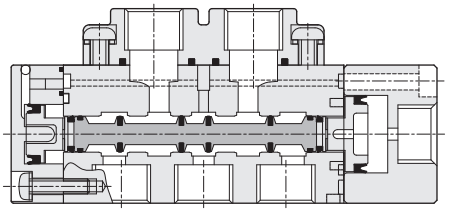
PM series Air Operated Valve

Product features/ Code of order

CHELIC

Internal structure





Specification

Item \ Model	PM3000	PM5000	PM7000	PM9000
Fluid	Air			
Pressure range kgf/cm²(kPa)	0 ~ 7 (0 ~ 700)			
Pilot pressure range kgf/cm²(kPa)	1.5 ~ 7 (150 ~ 700)			
Ambient and fluid temperature °C	5 ~ 60			
Pilot type	Air operated			
Number of positions	5/2-position, 5/3-position			
Type of actuation	Normally open, Normally closed			
Effective orifice mm²(CV)	3.6 (0.2)	9 (0.5)	16.2 (0.9)	30.6 (1.7)
Port size	M5, Rc 1/8, Ø4, Ø6, Ø8		Rc1/8, Rc 1/4, Rc 3/8, Ø6, Ø8, Ø10, Ø12	
Lubrication	Lubrication free type			

Code of order

PM – 5 – 10 – 1 – [ ] – M 2

Model

PM:
Pilot valve

Model number

3: 3000 series
5: 5000 series
7: 7000 series
9: 9000 series

Coil q'ty

10: Single
20: Double

30: Closed center
40: Exhaust center
50: Pressure center

5/3-position double coils only

Port size

Thread type		
Mark	Thread	Model
M5	M5x0.8p	PM3000
1	Rc 1/8	PM5000
1	Rc 1/8	PM7000
2	Rc 1/4	
3	Rc 3/8	PM9000
4	Rc 1/2	

For A and B port

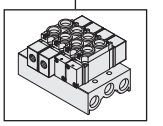
0	With fitting port

With fitting port

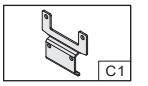
Mark	Port size	Model
C4	Ø4	PM5000
C6	Ø6	
C8	Ø8	
C6	Ø6	PM7000
C8	Ø8	
C10	Ø10	
C8	Ø8	PM9000
C10	Ø10	
C12	Ø12	

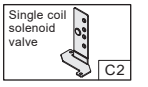
None: Stanard

Manifold



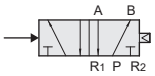
None:
Without manifold
M2 = 2 sets
M3 = 3 sets
⋮ ⋮
M20 = 20 sets

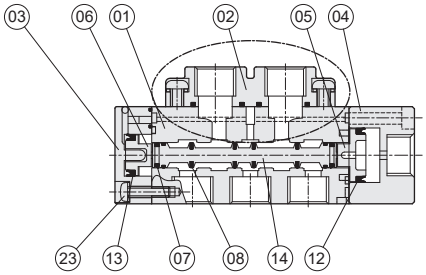


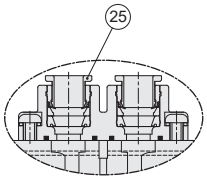


None: Without bracket
C1 : Side fixing bracket
C2 : Vertical fixing bracket
PM9000 without bracket option

5 port 2-position single

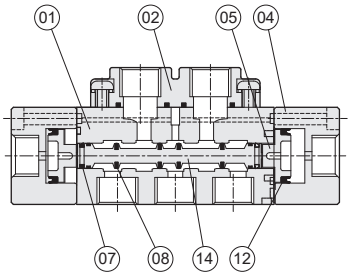




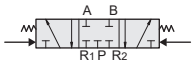


- With fitting port

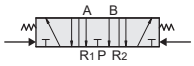
5 port 2-position double



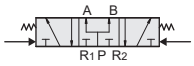
5 port 3-position double



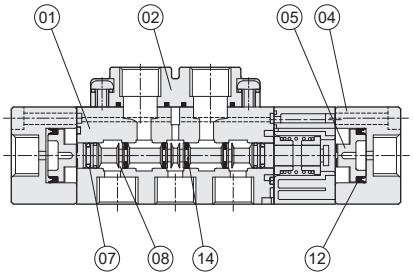
(Closed center N.C.)



(Exhaust center N.F.)



(Pressure center N.O.)



Components and Material list

No.	Item	Material	No.	Item	Material
01	Body	Aluminum alloy	**07**	Spool packing	NBR
02	Top cover	Aluminum alloy	**08**	Spool packing	NBR
03	Rear cover	Resin	**09**	Holder piston packing	NBR
04	Air pilot holder	Aluminum alloy	**10**	Rear cover packing	NBR
05	Holder piston	POM	**11**	Shaft	Aluminum alloy
06	Rear cover piston	POM	**12**	Rear screw	Alloy steel

Note: The main body has been treated with painting.

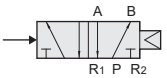
Packing and O-Ring material list

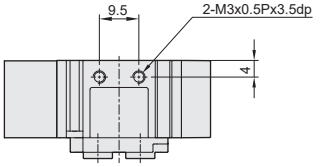
Item / Quantity / Model	Holder piston packing	Rear cover packing
	1	1
PM 5000	MYA-10	MYA-7
PM 7000	MYA-11	MYA-7

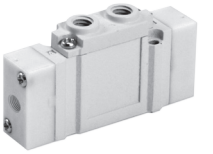
Note: Piston packing and rod packing all adopt import parts (MITSUBISH, SAKAGAHI, and same grade).

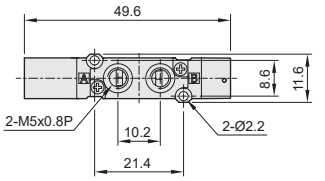
PM 310M5

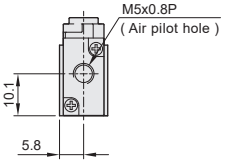
5 port 2-position single

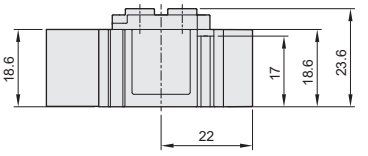


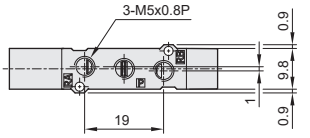






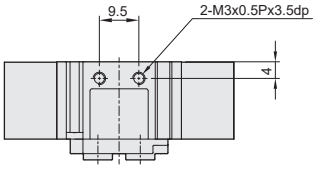


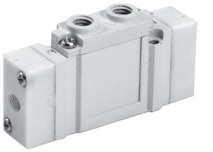


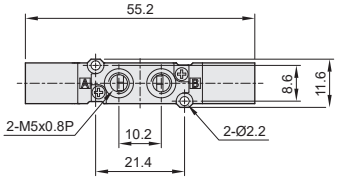


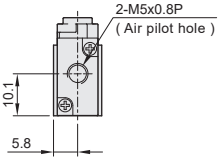
PM 320M5

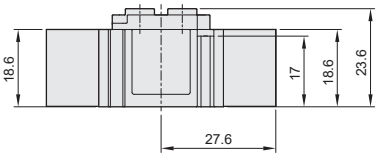
5 port 2-position double

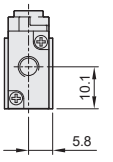


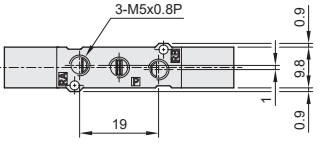






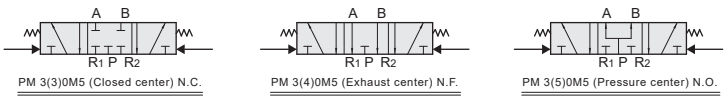


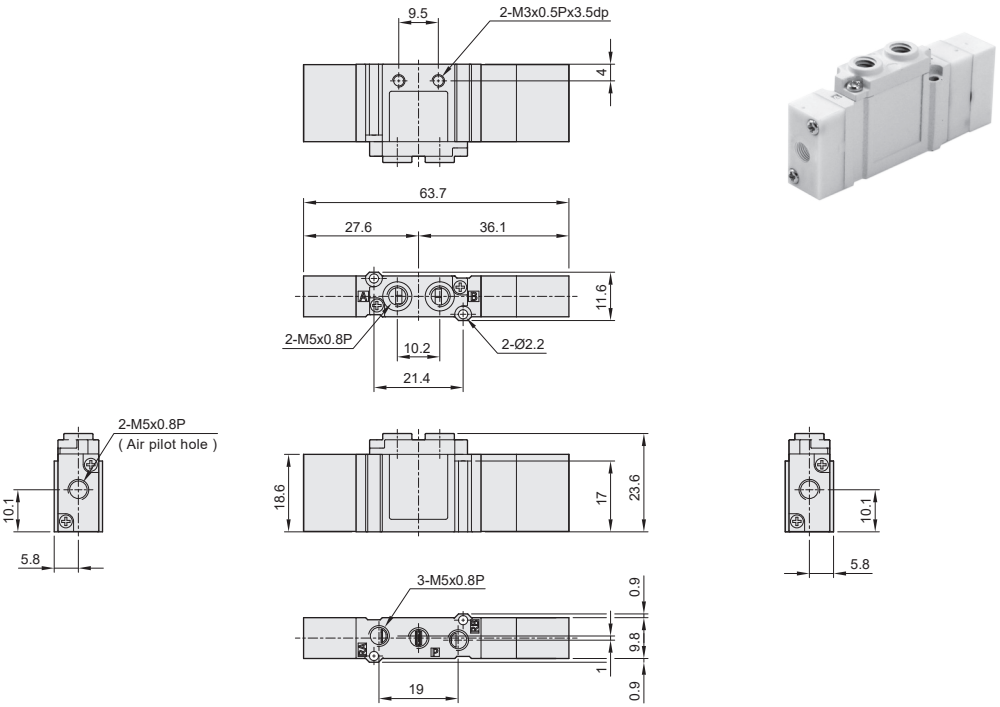




PM 3(3)0M5
PM 3(4)0M5
PM 3(5)0M5

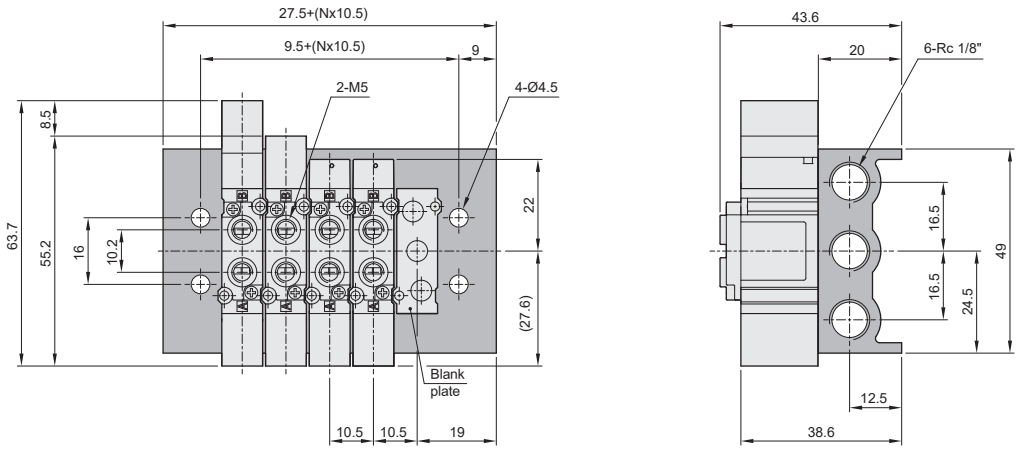
5 port 3-position double





PM 3000 series - Standard

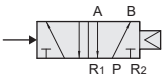
Manifold dimension

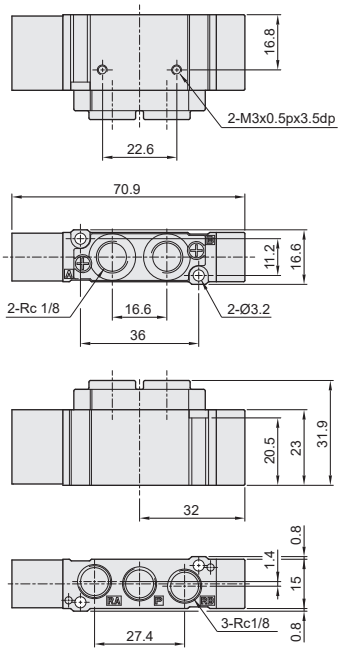


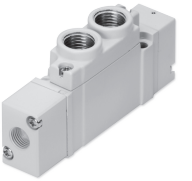
Note: Blank plate with rubber lining is reserved for temporary storage space of solenoid valves.

PM 5101

5 port 2-position single

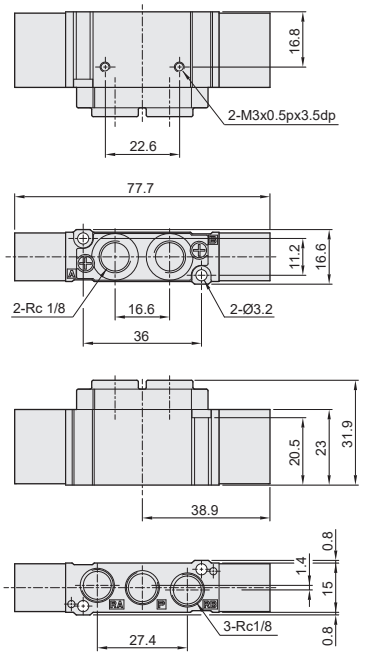


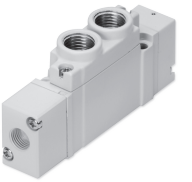


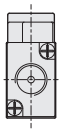


PM 5201

5 port 2-position double

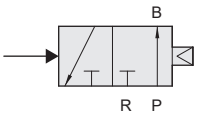




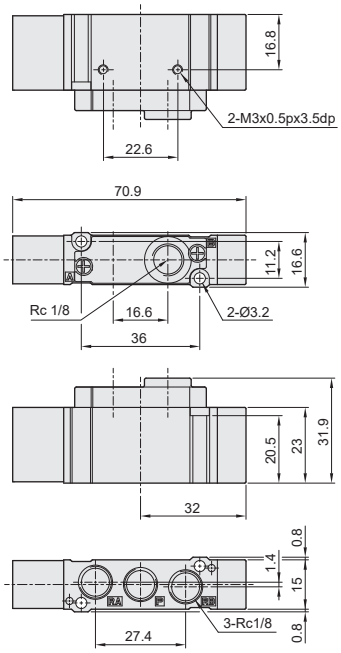


PM 5101 - TA

3 port 2-position single

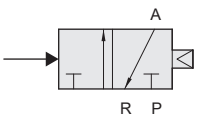


-TA (N.O.)

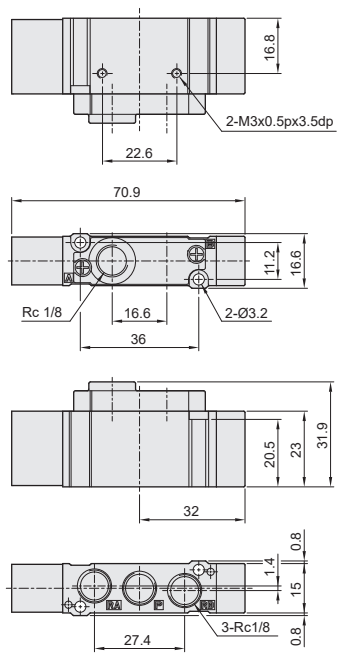


PM 5101 - TB

3 port 2-position single

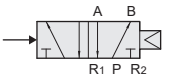


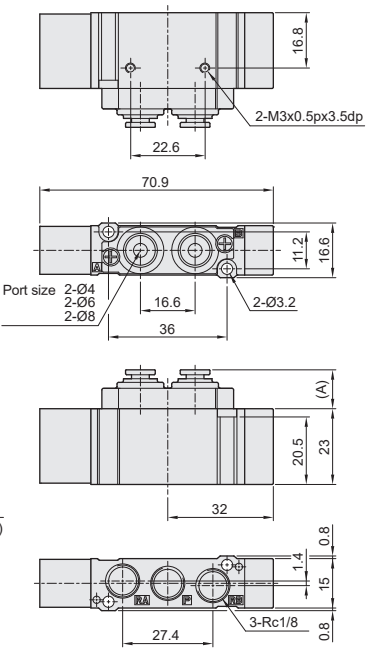
-TB (N.C.)



PM 5100 - C4 (Ø4)
PM 5100 - C6 (Ø6)
PM 5100 - C8 (Ø8)

5 port 2-position single

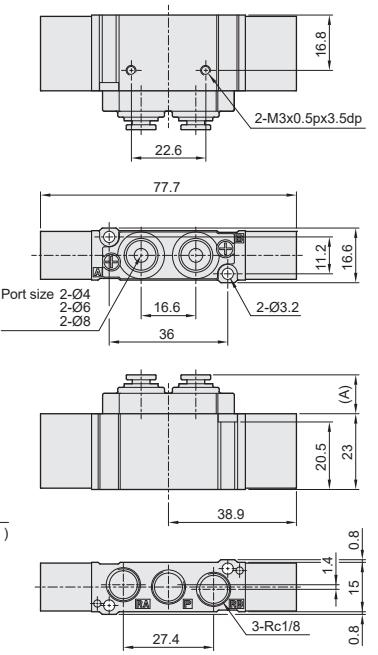


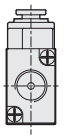


Model	A
PM5100-C4	11.6
PM5100-C6	12.2
PM5100-C8	13.5

PM 5200 - C4 (Ø4)
PM 5200 - C6 (Ø6)
PM 5200 - C8 (Ø8)

5 port 2-position double

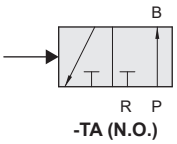


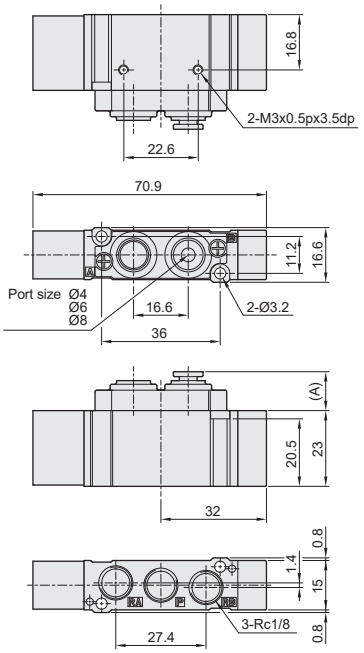


Model	A
PM5200-C4	11.6
PM5200-C6	12.2
PM5200-C8	13.5

PM 5100 - C4 - TA (Ø4)
PM 5100 - C6 - TA (Ø6)
PM 5100 - C8 - TA (Ø8)

3 port 2-position single

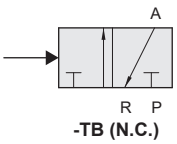


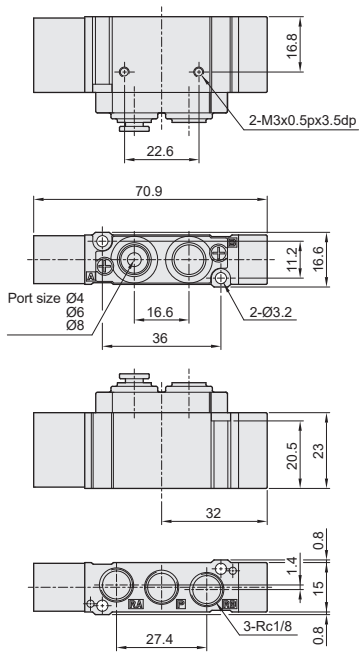


Model	A
PM5100-C4-TA	11.6
PM5100-C6-TA	12.2
PM5100-C8-TA	13.5

PM 5100 - C4 - TB (Ø4)
PM 5100 - C6 - TB (Ø6)
PM 5100 - C8 - TB (Ø8)

3 port 2-position single

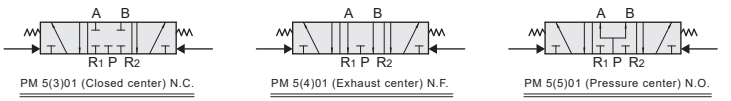


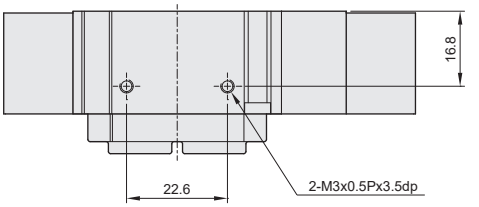


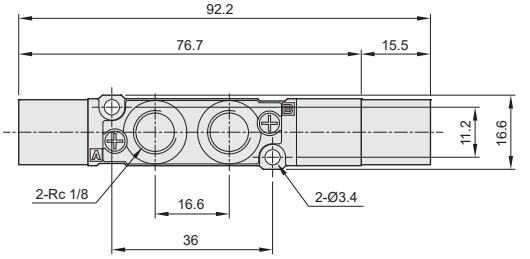
Model	A
PM5100-C4-TB	11.6
PM5100-C6-TB	12.2
PM5100-C8-TB	13.5

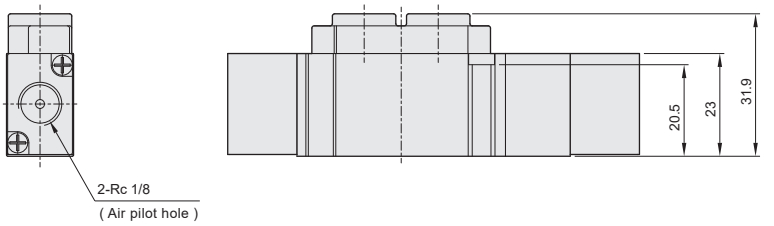
PM 5(3)01
PM 5(4)01
PM 5(5)01

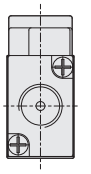
5 port 3-position double

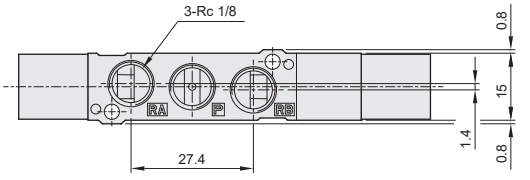






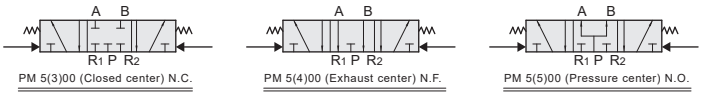


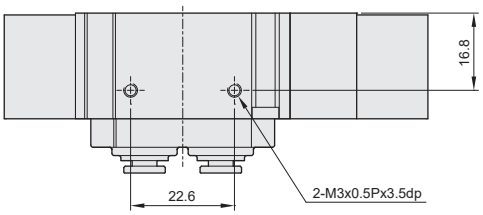


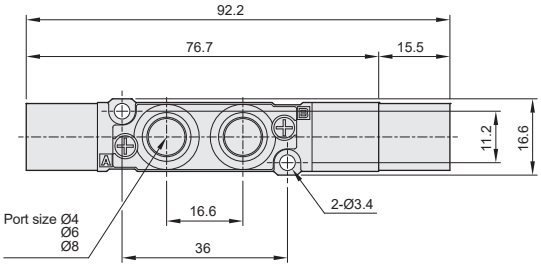


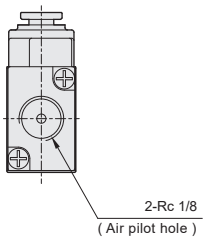
PM 5(3)00 - C4(Ø4), C6(Ø6), C8(Ø8)
PM 5(4)00 - C4(Ø4), C6(Ø6), C8(Ø8)
PM 5(5)00 - C4(Ø4), C6(Ø6), C8(Ø8)

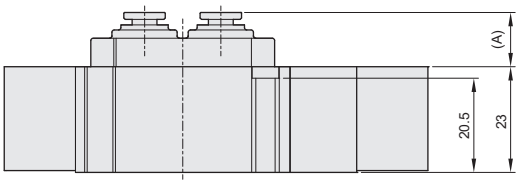
5 port 3-position double

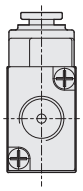


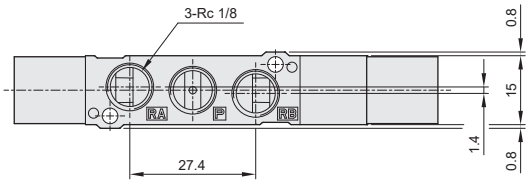








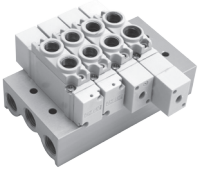


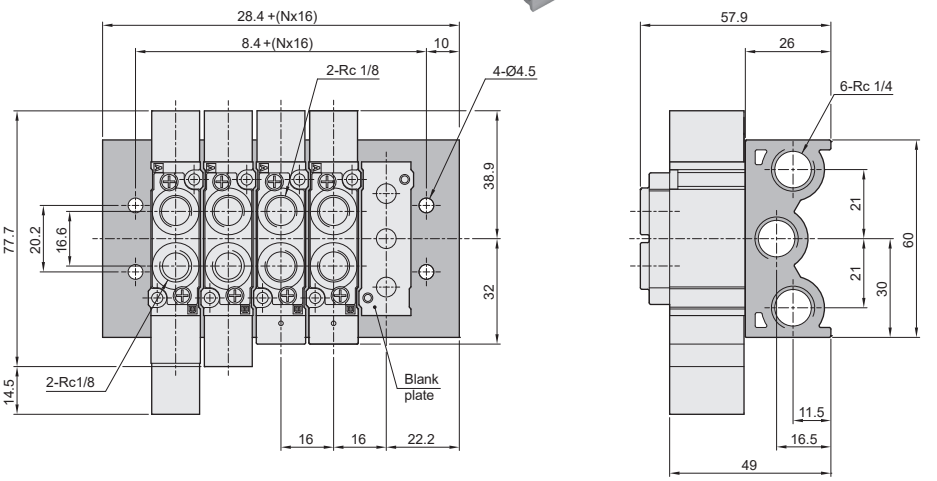


Model	A
PM5100-C4	11.6
PM5100-C6	12.2
PM5100-C8	13.5

PM 5000 series - standard

Manifold dimension

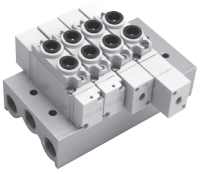


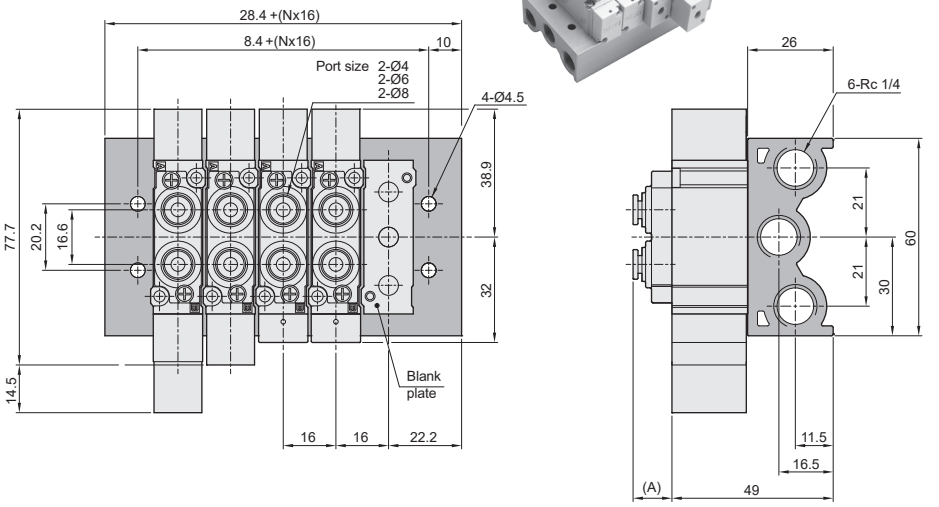


Note: Blank plate with rubber lining is reserved for temporary storage space of solenoid valves.

PM 5000 series - With fitting port

Manifold dimension

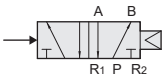


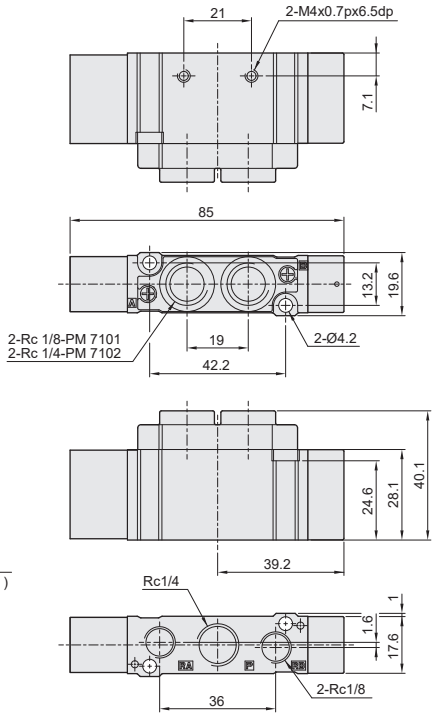


Model	A
PM5100-C4	11.6
PM5100-C6	12.2
PM5100-C8	13.5

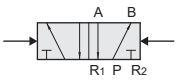
Note: Blank plate with rubber lining is reserved for temporary storage space of solenoid valves.

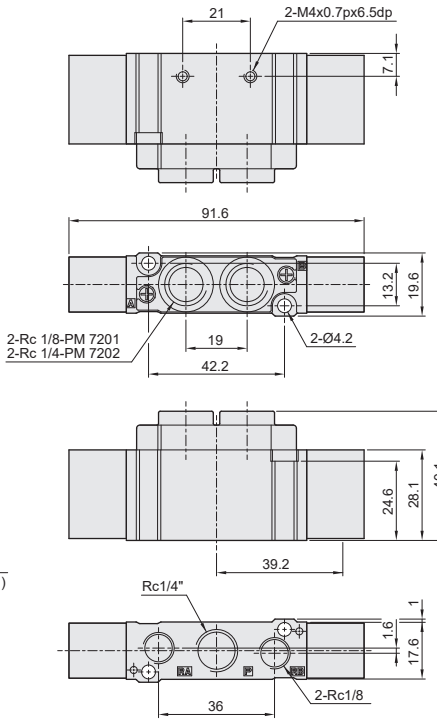
PM 7101
PM 7102
5 port 2-position single





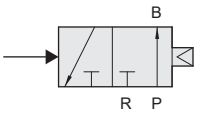
PM 7201
PM 7202
5 port 2-position double



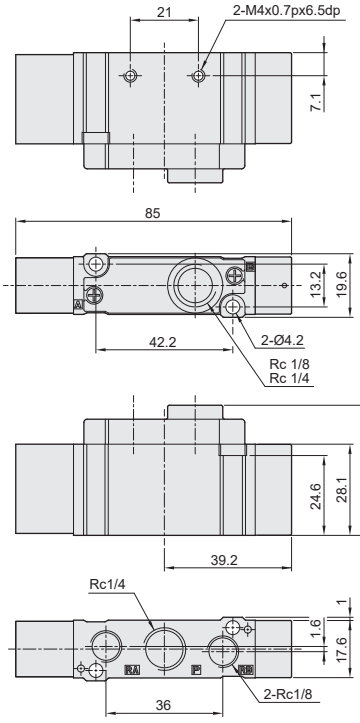


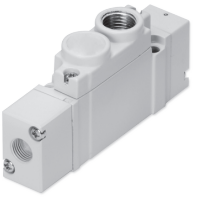
PM 7101 - TA
PM 7102 - TA

3 port 2-position single



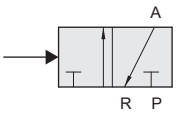
-TA (N.O.)



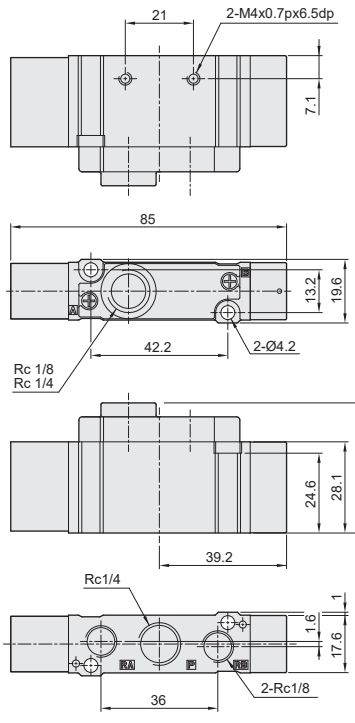


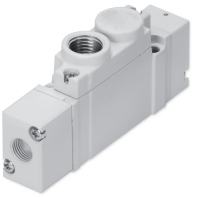
PM 7101 - TB
PM 7102 - TB

3 port 2-position single



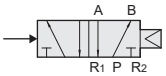
-TB (N.C.)

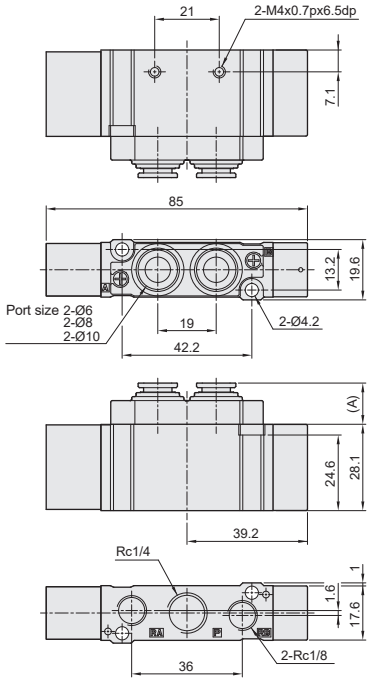


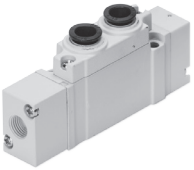


PM 7100 - C6 (Ø6)
PM 7100 - C8 (Ø8)
PM 7100 - C10 (Ø10)

5 port 2-position single



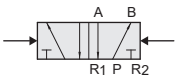


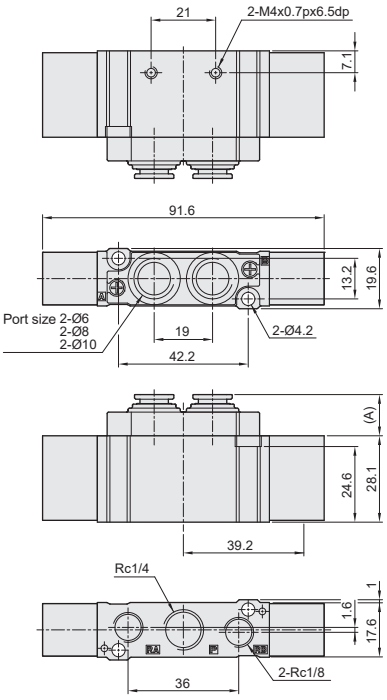


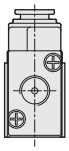
Model	A
PM7100-C6	12.9
PM7100-C8	13.3
PM7100-C10	18.6

PM 7200 - C6 (Ø6)
PM 7200 - C8 (Ø8)
PM 7200 - C10 (Ø10)

5 port 2-position double



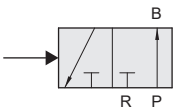




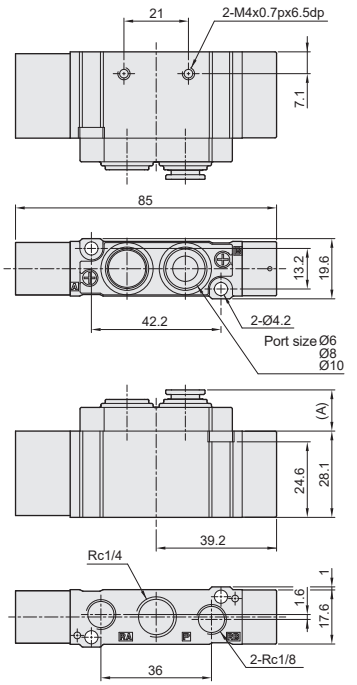
Model	A
PM7100-C6	12.9
PM7100-C8	13.3
PM7100-C10	18.6

PM 7100 - C6 - TA (Ø6)
PM 7100 - C8 - TA (Ø8)
PM 7100 - C10 - TA (Ø10)

3 port 2-position single



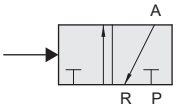
-TA(N.O.)



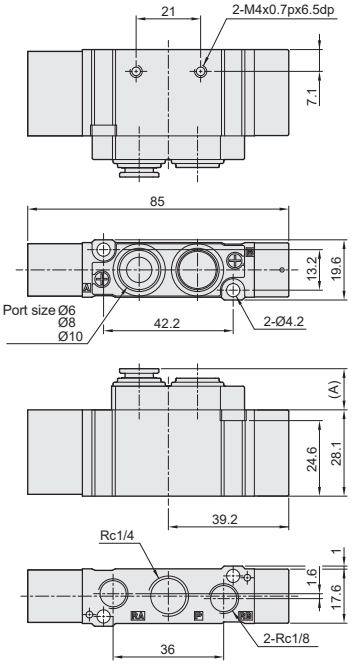
Model	A
PM7100-C6-TA	12.9
PM7100-C8-TA	13.3
PM7100-C10-TA	18.6

PM 7100 - C6 - TB (Ø6)
PM 7100 - C8 - TB (Ø8)
PM 7100 - C10 - TB (Ø10)

3 port 2-position single



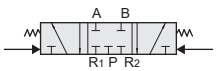
-TB(N.C.)



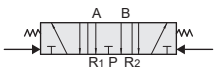
Model	A
PM7100-C6-TB	12.9
PM7100-C8-TB	13.3
PM7100-C10-TB	18.6

PM 7(3)01, 02
PM 7(4)01, 02
PM 7(5)01, 02

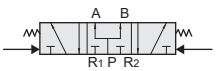
5 port 2-position double



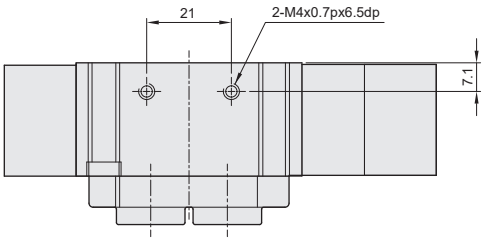
PM 7(3)01 (Closed center) N.C.

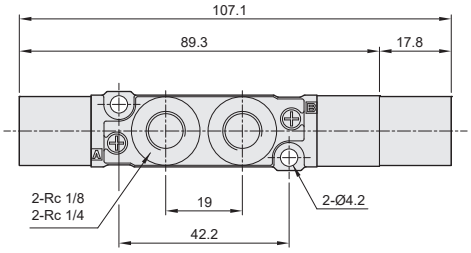


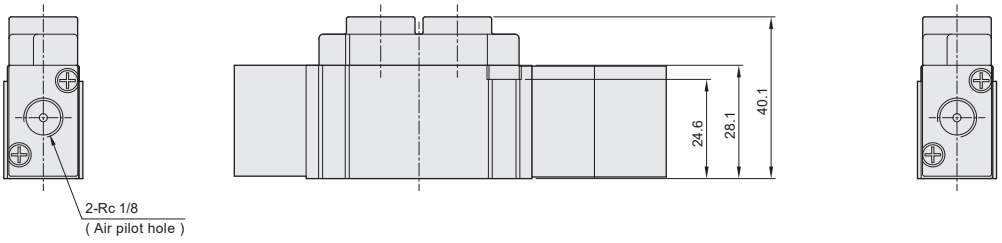
PM 7(4)01 (Exhaust center) N.F.

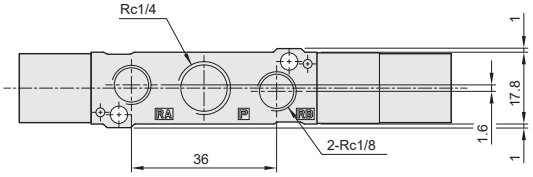


PM 7(5)01 (Pressure center) N.O.



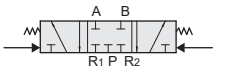




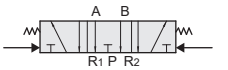


PM 7(3)00 - C6 (Ø6), C8 (Ø8), C10 (Ø10)
PM 7(4)00 - C6 (Ø6), C8 (Ø8), C10 (Ø10)
PM 7(5)00 - C6 (Ø6), C8 (Ø8), C10 (Ø10)

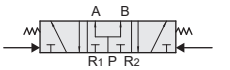
5 port 3-position double



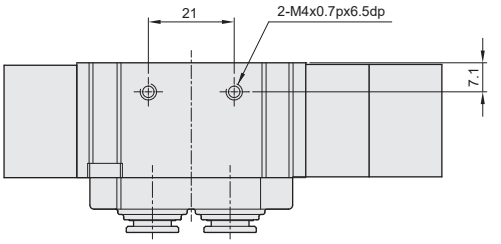
PM 7(3)00 (Closed center) N.C.

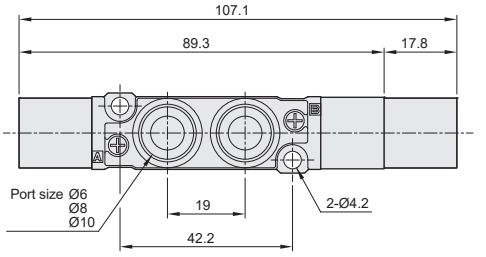


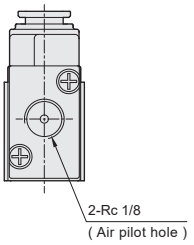
PM 7(4)00 (Exhaust center) N.F.

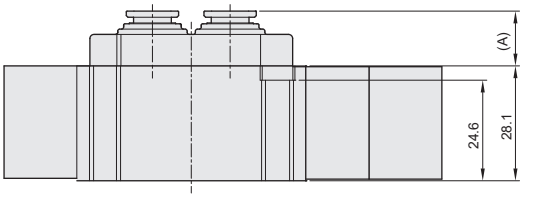


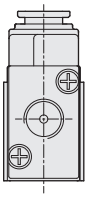
PM 7(5)00 (Pressure center) N.O.

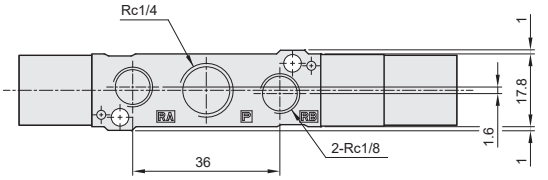








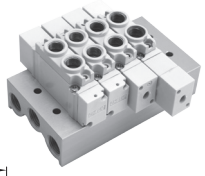


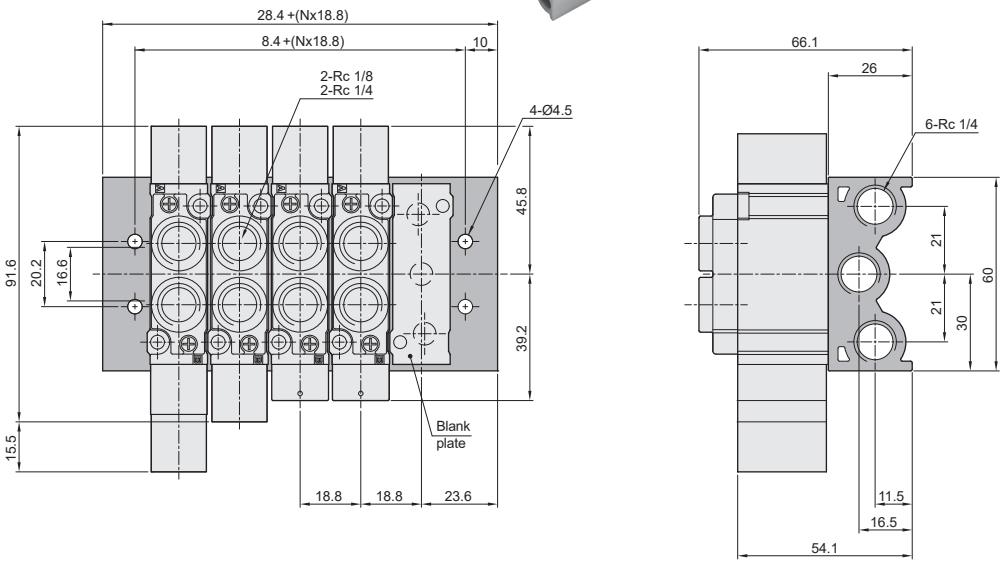


Model	A
PM7100-C6	12.9
PM7100-C8	13.3
PM7100-C10	18.6

PM 7000 series - standard

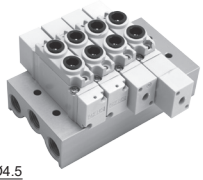
Manifold dimension

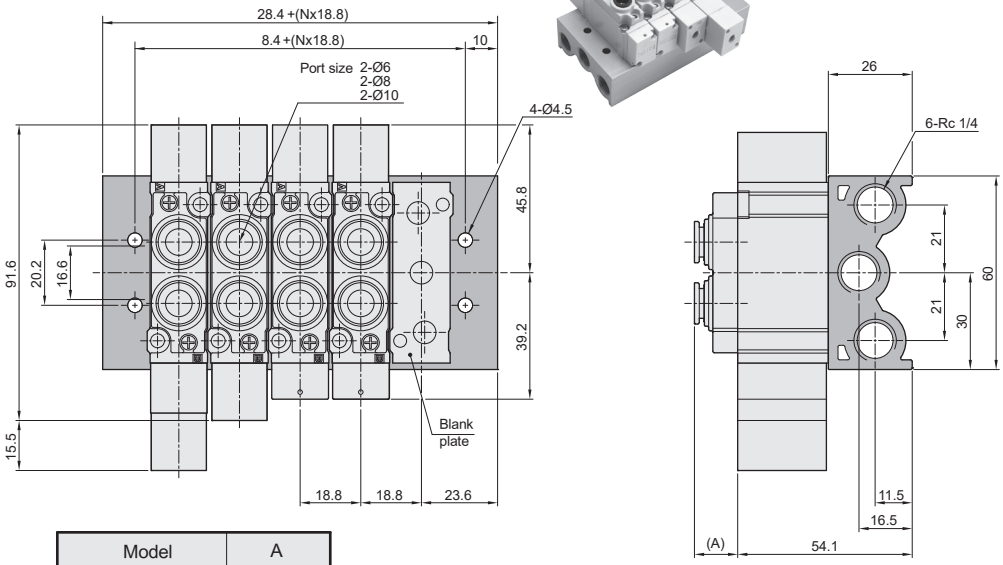




PM 7000 series - With fitting port

Manifold dimension

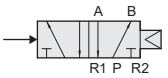


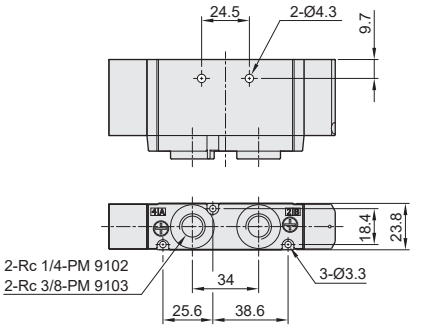


Model	A
PM7100-C6	12.9
PM7100-C8	13.3
PM7100-C10	18.6

PM 9102
PM 9103

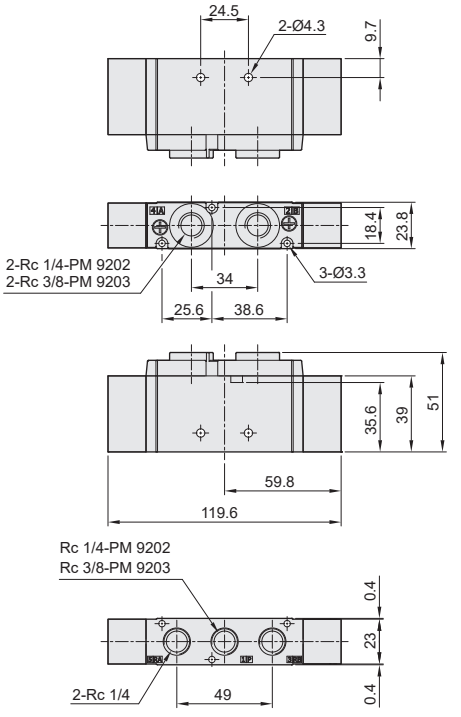
5 port 2-position single





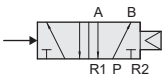
PM 9202
PM 9203

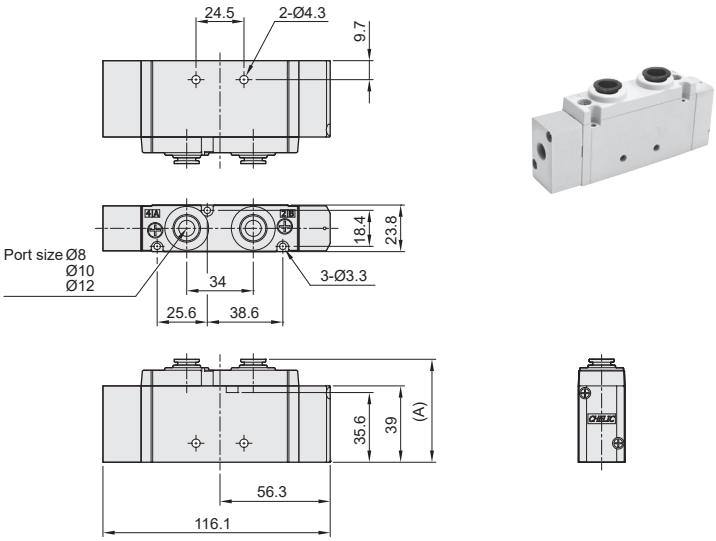
5 port 2-position double



PM 9100 - C8 (Ø8)
PM 9100 - C10 (Ø10)
PM 9100 - C12 (Ø12)

5 port 2-position single

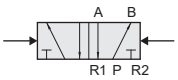


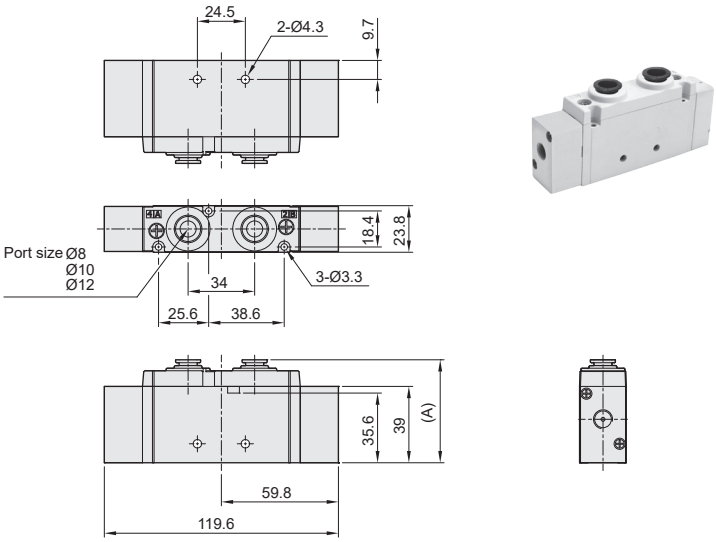


Model	A
PM9102-C8	52.5
PM9102-C10	57.6
PM9102-C12	60.6

PM 9200 - C8 (Ø8)
PM 9200 - C10 (Ø10)
PM 9200 - C12 (Ø12)

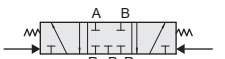
5 port 2-position double



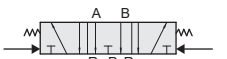


Model	A
PM9102-C8	52.5
PM9102-C10	57.6
PM9102-C12	60.6

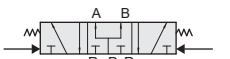
PM 9(3)02, 03
PM 9(4)02, 03
PM 9(5)02, 03
5 port 3-position double



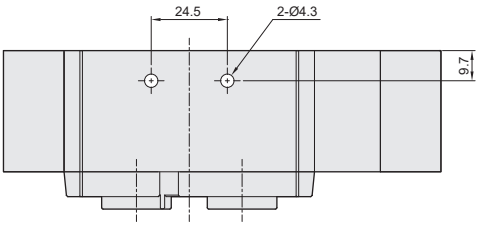
PM 9(3)02 (Closed center) N.C.

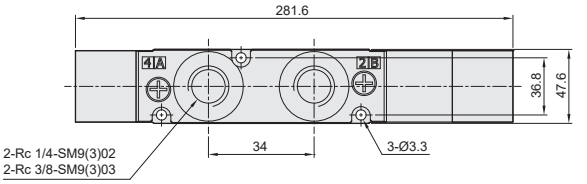


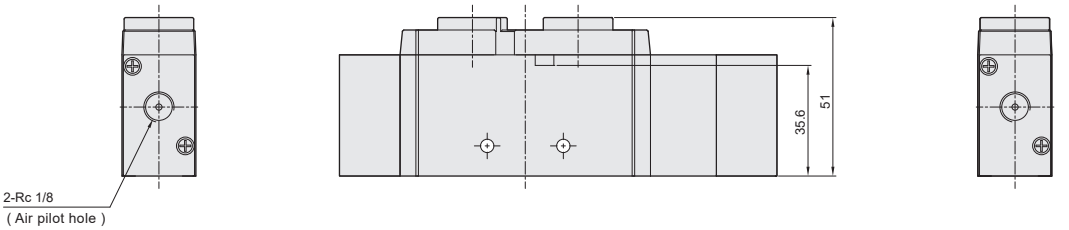
PM 9(4)02 (Exhaust center) N.F.

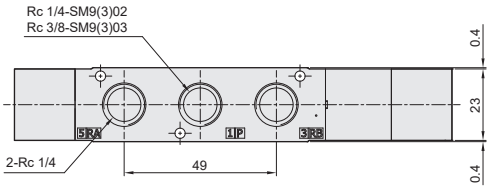


PM 9(5)02 (Pressure center) N.O.



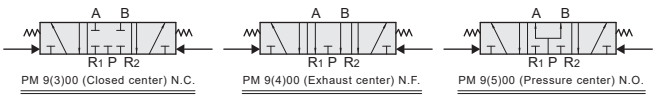


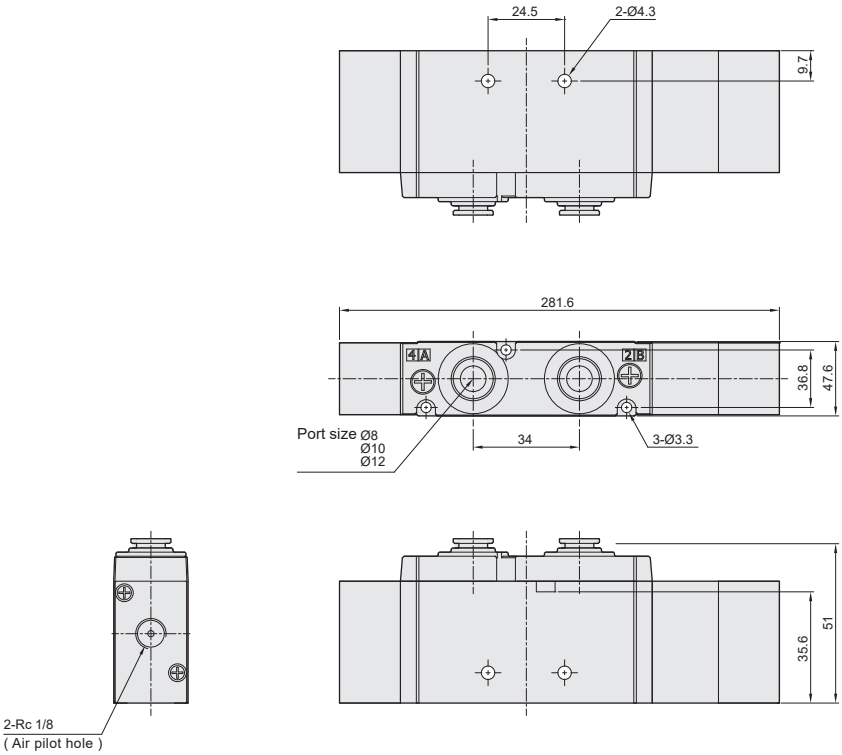




PM 9(3)00-C8(Ø8), C10(Ø10), C12(Ø12)
PM 9(4)00-C8(Ø8), C10(Ø10), C12(Ø12)
PM 9(5)00-C8(Ø8), C10(Ø10), C12(Ø12)

5 port 3-position double

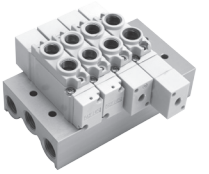


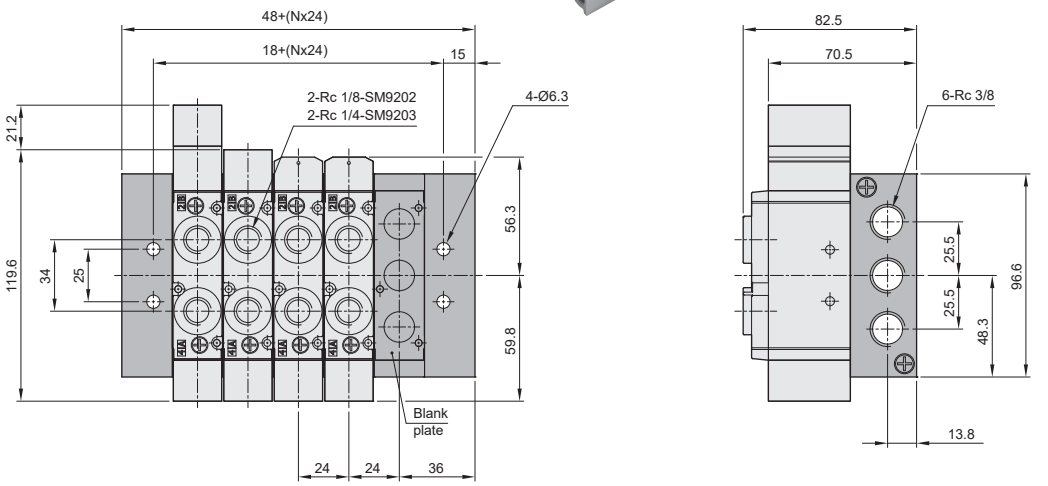


Model	A
PM9102-C8	52.5
PM9102-C10	57.6
PM9102-C12	60.6

PM 9000 series - standard

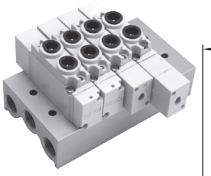
Manifold dimension

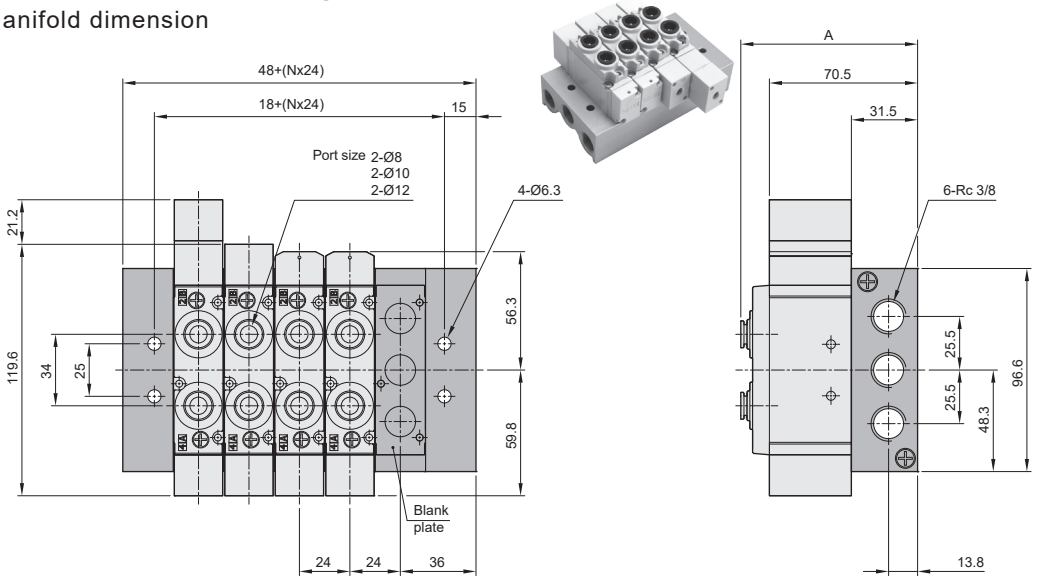




PM 9000 series - With fitting port

Manifold dimension





Model	A
PM9102-C8	84
PM9102-C10	89.1
PM9102-C12	92.1