

Control valve(5/2way)

M5 Series



Symbol

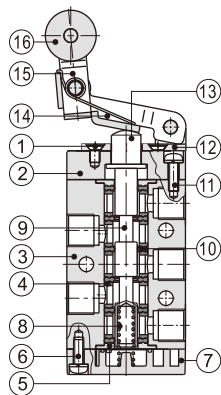


Product feature

1. Exhaust outlet locates over the body, which is convenient to install muffler to decrease noise and pollution.
2. The external force required by direction-change of series of M5B, M5R and M5L is provided by external mechanism, which can be used for position test or stroke switch.
3. M5C, M5D, M5Y, M5PF, M5PM, M5PP, M5PL and M5HS are operated manually, owning control joints with several structure forms and suitable for application under different conditions.
4. It is in sliding column structure that the control force is not influenced by working pressure (that is, there is no back pressure effect); internal circle is sealed with good tightness and the direction-change is sensitive.
5. Lubricant is not necessary.
6. Multi-mounting makes it convenient to install and apply.
7. The control joints of series of M5C, M5D, M5Y, M5R and M5L are made of metal which has longer service life and more reliable and steady performance.

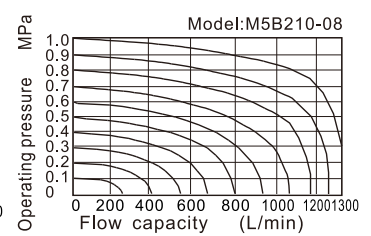
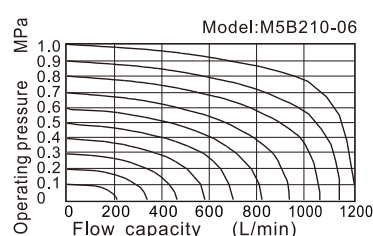
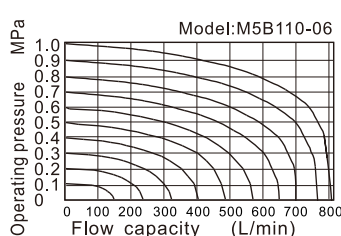
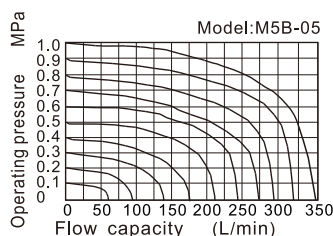
Inner structure

M5L210



No.	Item	No.	Item	No.	Item
1	Screw	7	Bottom cover	13	Axle
2	Fore cover	8	Spring	14	Rotating block
3	Body	9	Spool	15	Rocker
4	Spacer	10	Piston O-ring	16	Roller
5	Positioning block	11	Screw		
6	Screw	12	Roller holder		

Flow chart



Specification

Model		M5B	M5C	M5D	M5R	M5L	M5Y	M5PM	M5PP	M5PF	M5PL	M5HS
Fluid		Air (to be filtered by 40 μm filter element)										
Operating		External control direct acting type										
Port size [Note1]		05: M5 06: 1/8" 08: 1/4"										
Orifice size	Mini type	05: 2.5mm ² (Cv=0.14)										
	110	06: 8.0mm ² (Cv=0.45)										
	210	06: 9.0mm ² (Cv=0.50) 08: 12.0mm ² (Cv=0.67)										
Valve type		5/2 Way										
Lubrication [Note2]		Not required										
Pressure range		0~1.0MPa(0~145psi)										
Proof pressure		1.5MPa(215psi)										
Temperature °C		-20~70										
Material of body		Aluminum alloy										

[Note1] G thread is available.

[Note2] Once lubricated air is used, continue with same medium to optimise valve life span.
It is suggested to use ISO VG32 lubricant or the oil with the same grade.

Reversal stroke

Unit:mm								
Common type						Mini type		
Type	Spool stroke	Button stroke	Type	Spool stroke	Roller(handle) stroke	Type	Spool stroke	Roller stroke
M5B	2.0~3.3	—	M5R	2.0~3.0	4.6~6.8	M5B05	2.0~3.3	—
M5PF	2.0~3.3	3.8~5.1	M5L	2.0~3.0	5.0~7.8	M5R05	2.0~3.0	6.0~8.5
M5PP	2.0~3.3	3.8~5.1	M5C	2.0~3.0	11.0~16.0	M5L05	2.0~3.0	7.0~10.0
M5PM	2.0~3.3	3.8~5.1	M5D	2.0~3.0	5.5~8.0			
M5PL	2.0~3.3	5.9~7.2						
M5HS	2.0~3.3	5.1~6.4						

Ordering code

Common type

M5 PM 210 06 R G

1

2

3

4

5

6

① Valve's type	② Model	③ Code	④ Port size	⑤ Button color	⑥ Thread type	
M5: M type 5/2 Way	B: Basic type	110: 100 Series single control	06: 1/8"	No this code	G: G Thread	
	C: Long handle type					
	D: Short handle type					
	Y: Lever typer					
	R: Roller type					
	L: Roller with free return type	210: 200 Series single control	06: 1/8" 08: 1/4"	Blank: Red R: Red G: Green B: Black		
	PL: Latching type					
	PP: Protruding type					
	PF: Flat type					
	PM: Mushroom type					
	HS: Selector type					

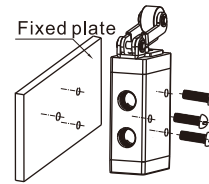
Mini type		
M5 R 05		
① Valve's type	② Model	③ Port size
M5: M type 5/2 Way	B: Basic type R: Roller type L: Roller with free return type	05: M5

M5 Series

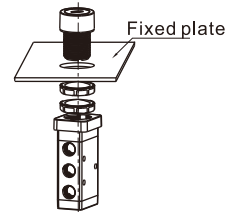
Installation and Application

- 1) Body and panel installation (picture at right) :
- 2) The control set is made of engineering plastic which only allows manual operation and switching valves through metal impact is forbidden.
- 3) The series of M5B, M5C, M5D, M5PM, M5PF and M5PP get the function of automatic restoration. The hand valves of M5Y, M5HS and M5PL are in the type of manual restoration. M5PL will be restored by turning the revolve button after being pressed into orientation.
- 4) Pay attention to the reversing stroke. The reversing stroke can not surpass its stroke stipulated in stroke control table when the direction-change of the valve is forced by any external forces, otherwise it will cause the damage of the valve.
- 5) The M5L can only switch the valve in single direction (impact from right to left). The impact from the other direction is invalid (from left to right).
- 6) Control joint combination can be ordered individually. Please refer to the following tables for order details.

Fixation way of body

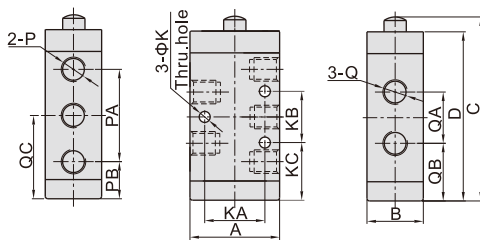


Fixation way of panel



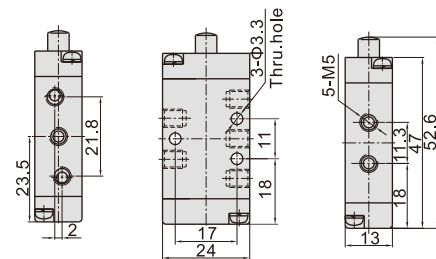
Dimensions

Common type



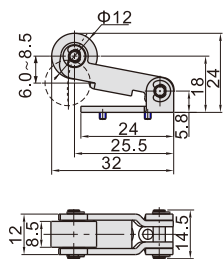
Model\Item	A	B	C	D	K	KA	KB	KC	P	PA	PB	Q	QA	QB	QC
M5B11006	27	18	63	57.5	3.3	18	14	22	1/8"	28	15	1/8"	16	21	29
M5B21006									1/8"			1/8"			
M5B21008	35	22	72	66	4.3	23.5	20	22.5	1/8"	36	14.5	1/4"	20	22.5	32.5

Mini type

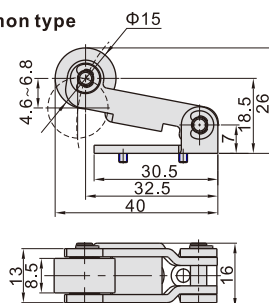


Roller type(R)

Mini type



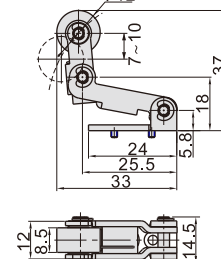
Common type



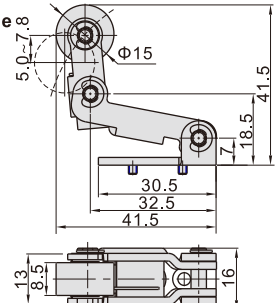
Model	Roller type(R)
How to order	M3R05-P14A
Ordering code	M3R210-P14A
Type	M3R05 Roller type control set
Applicable products	M5R05
	M3R210 Roller type control set
	M5R110, M5R210

Roller with free return type(L)

Mini type

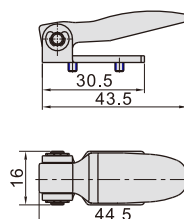


Common type



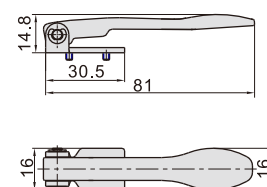
Model	Roller with free return type(L)
How to order	M3L05-P14A
Ordering code	M3L210-P14A
Type	M3L05 Roller with free return type control set
Applicable products	M5L05
	M3L210 Roller with free return type control set
	M5L110, M5L210

Short handle type(D)



Model	Short handle type(D)
How to order	M3D210-P13A
Ordering code	M3D210 Short handle type control set
Applicable products	M5D110, M5D210

Long handle type(C)

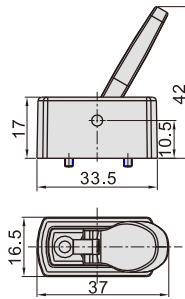


Model	Long handle type(C)
How to order	M3C210-P13A
Ordering code	M3C210 Long handle type control set
Applicable products	M5C110, M5C210

Control valve(5/2way)

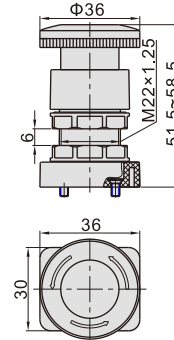
M5 Series

Lever type(Y)



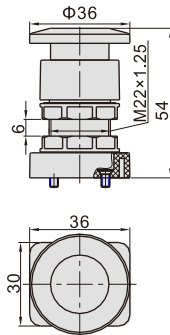
Model	Lever type(Y)
How to order	Ordering code M3Y210-P13A
	Type M3Y210 Lever type control set
Applicable products	M5Y110, M5Y210

Latching type(PL)



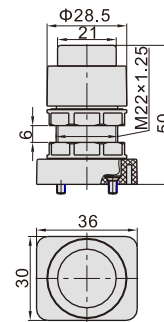
Model	Latching type (only red)(PL)
How to order	Ordering code S3PL05-P12A
	Type S3PL Latching type control set (Red)
Applicable products	M5PL110, M5PL210

Mushroom type(PM)



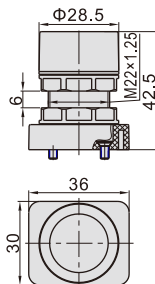
Model	Mushroom type(PM)
How to order	Ordering code S3PM05-P11A
	Type S3PM mushroom type control set (Green)
	Ordering code S3PM05-P12A
	Type S3PM mushroom type control set (Red)
	Ordering code S3PM05-P13A
	Type S3PM mushroom type control set (Black)
Applicable products	M5PM110, M5PM210

Protruding type(PP)



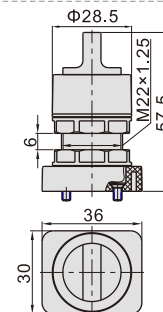
Model	Protruding type(PP)
How to order	Ordering code S3PP05-P11A
	Type S3PP protruding type control set (Green)
	Ordering code S3PP05-P12A
	Type S3PP protruding type control set (Red)
	Ordering code S3PP05-P13A
	Type S3PP protruding type control set (Black)
Applicable products	M5PP110, M5PP210

Flat type(PF)



Model	Flat type(PF)
How to order	Ordering code S3PF05-P11A
	Type S3PF flat type control set (Green)
	Ordering code S3PF05-P12A
	Type S3PF flat type control set (Red)
	Ordering code S3PF05-P13A
	Type S3PF flat type control set (Black)
Applicable products	M5PF110, M5PF210

Selector type(HS)



Model	Selector type(HS)
How to order	Ordering code S3HS05-P11A
	Type S3HS selector type control set (Green)
	Ordering code S3HS05-P12A
	Type S3HS selector type control set (Red)
	Ordering code S3HS05-P13A
	Type S3HS selector type control set (Black)
Applicable products	M5HS110, M5HS210