

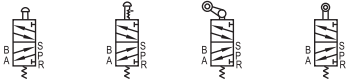
# Control valve(5/2way)



## M5 Series



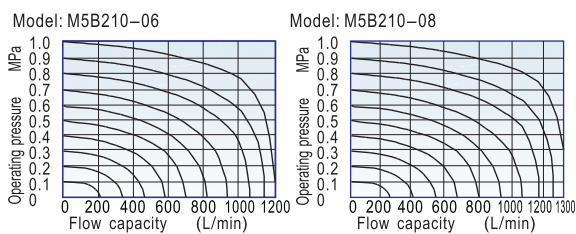
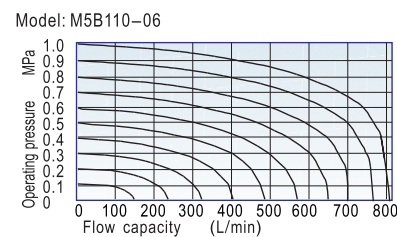
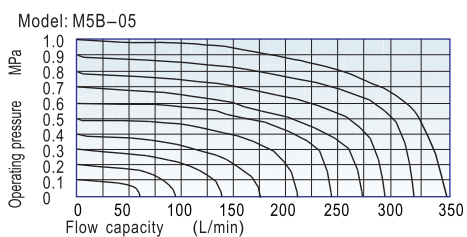
### Symbol



### Product feature

- Exhaust outlet locates over the body, which is convenient to install muffler to decrease noise and pollution.
- 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] limit switch.
- 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.
- 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.
- Lubricant is not necessary.
- Multi-mounting makes it convenient to install and apply.
- 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.

### Flow chart



### Specification

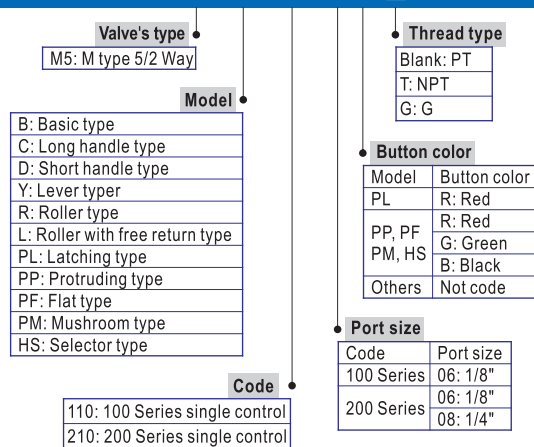
Model	S5B	S5C	S5D	S5R	S5L	S5Y	S5PM	S5PP	S5PF	S5PL	S5HS
Fluid	Air (to be filtered by 40 μm filter element)										
Operating	External control direct acting type										
Port size <sup>①</sup>	05:M5; 06:1/8"; 08:1/4"										
Orifice size	Mini type	05:2.5mm <sup>2</sup> (Cv=0.14)									
	110	06:8.0mm <sup>2</sup> (Cv=0.45)									
	210	06:9.0mm <sup>2</sup> (Cv=0.50); 08:12.0mm <sup>2</sup> (Cv=0.67)									
Valve type	5/2 Way										
Lubrication <sup>②</sup>	Not required										
Pressure range	0~1.0MPa(0~145psi)										
Proof pressure	1.5MPa(215psi)										
Temperature	-20~70 °C										
Material body	Aluminum alloy										

① PT thread, NPT thread and G thread are available.

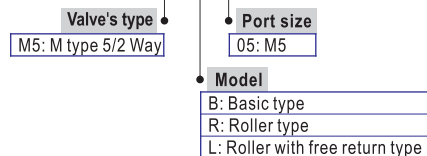
② Once lubricated air is used, continue with same medium to optimise valve life span. It is suggested to use ISO VG32 lubricant or the oil with the same grade.

### Ordering code

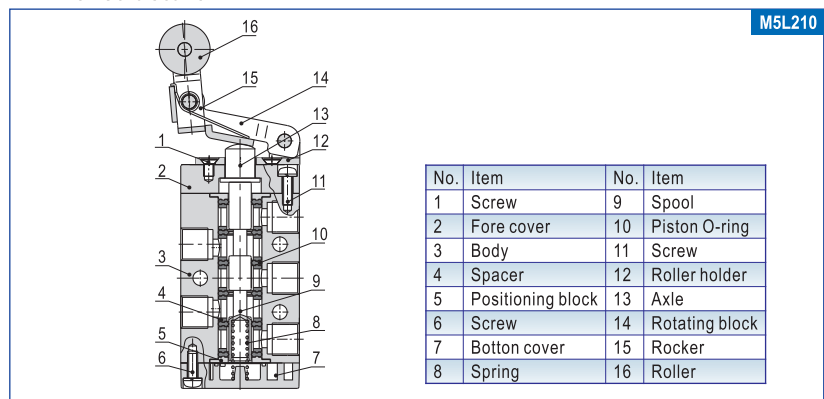
Common type: **M5 PM 210 06 R**



Mini type: **M5 R 05**



### Inner structure



### Reversal stroke

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						

Unit:mm

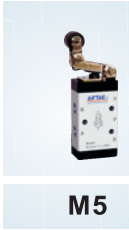


M5

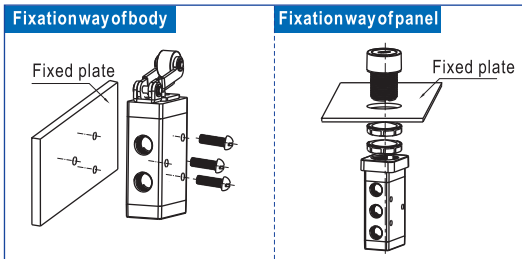
# Control valve(5/2way)



## M5 Series



### Assemble chart

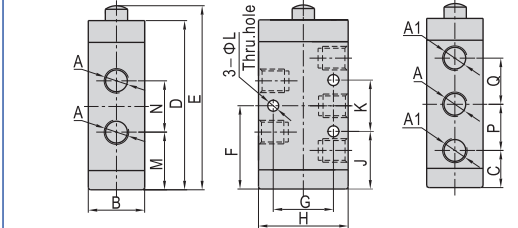


#### Attentions

- 1) The control set is made of engineering plastic which only allows manual operation and switching valves through metal impact is forbidden.
- 2) 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.
- 3) 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.
- 4) 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).
- 5) Control joint combination can be ordered individually. Please refer to the table on the right for order details.

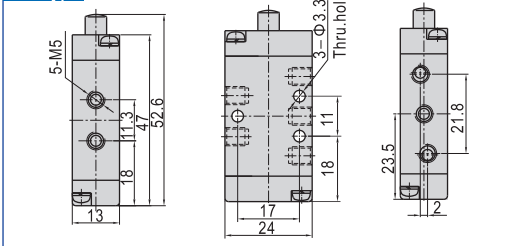
### Dimensions

#### Common type



Item	Type	M5B110	M5B210	Item	Type	M5B110	M5B210
A		06:1/8"	06:1/8"	G		18	23.5
A1		06:1/8"	06:1/8"	H		27	35
B		18	22	J		22	22.5
C		15	14.5	K		14	20
D		57.5	66	L		3.2	4.3
E		63	71.8	M		21	22.5
F		29	32.5	N		16	20
				P		14	18
				Q		14	18

#### Mini type



### Mini control set dimensions

Model	M3R05 Model	M3L05 Model
How to order	Ordering code Type M3R05-P14A M3R05 Roller type control set	Ordering code Type M3L05-P14A M3L05 Roller with free return type control set
Applicable products	M5R05	M5L05
Dimensions		

### Control set Dimensions

Model	C Long handle type		D Short handle type		Y Lever type	
	Ordering code	Type	Ordering code	Type	Ordering code	Type
How to order	M3C210-P13A	M3C210 Long handle type control set	M3D210-P13A	M3D210 Short handle type control set	M3Y210-P13A	M3Y210 Lever type control set
Applicable products	M5C110, M5C210		M5D110, M5D210		M5Y110, M5Y210	
Dimensions						

Model	R Roller type		L Roller with free return type	
	Ordering code	Type	Ordering code	Type
How to order	M3R210-P14A	M3R210 Roller type control set	M3L210-P14A	M3L210 Roller with free return type control set
Applicable products	M5R110, M5R210		M5L110, M5L210	
Dimensions				

Model	PP Protruding type		PM Mushroom type		PL Latching type (only red)	
	Ordering code	Type	Ordering code	Type	Ordering code	Type
How to order	S3PP05-P11A	S3PP protruding type control set (Green)	S3PM05-P11A	S3PM mushroom type control set (Green)	S3PL05-P12A	S3PL Latching type control set (Red)
	S3PP05-P12A	S3PP protruding type control set (Red)	S3PM05-P12A	S3PM mushroom type control set (Red)		
	S3PP05-P13A	S3PP protruding type control set (Black)	S3PM05-P13A	S3PM mushroom type control set (Black)		
Applicable products	M5PP110, M5PP210		M5PM110, M5PM210		M5PL110, M5PL210	
Dimensions						

Model	PF Flat type		HS Selector type	
	Ordering code	Type	Ordering code	Type
How to order	S3PF05-P11A	S3PF flat type control set (Green)	S3HS05-P11A	S3HS selector type control set (Green)
	S3PF05-P12A	S3PF flat type control set (Red)	S3HS05-P12A	S3HS selector type control set (Red)
	S3PF05-P13A	S3PF flat type control set (Black)	S3HS05-P13A	S3HS selector type control set (Black)
Applicable products	M5PF110, M5PF210		M5HS110, M5HS210	
Dimensions				