# **AITTAE**

# M5 Series



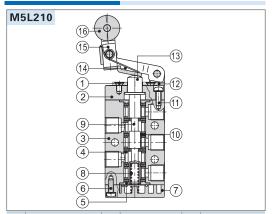
# Symbol



#### **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.
- 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



No.	Item	No.	Item	No.	Item
1	Screw	7	Botton 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		

# Specification

Model		M5B	M5C	M5D	M5R	M5L	M5Y	M5PM	M5PP	M5PF	M5PL	M5HS
Fluid			Air (to be filtered by 40 μm filter element)									
Operati	ing				Exter	nal co	ntrol d	irect ac	ting typ	эе		
Port siz	e [Note1]				05	: M5	06: 1	/8" 08	3: 1/4"			
0 :6:	Mini type					05: 2	5mm <sup>2</sup>	(Cv=0.	14)			
Orifice size	110		06: 8.0mm <sup>2</sup> (Cv=0.45)									
3126	210		06: 9.0mm <sup>2</sup> (Cv=0.50) 08: 12.0mm <sup>2</sup> (Cv=0.67)									
Valve ty	уре		5/2 Way									
Lubrica	tion [Note2]		Not required									
Pressu	re range		0~1.0MPa(0~145psi)									
Proof pressure		1.5MPa(215psi)										
Temper	rature ℃	-20~70										
Materia	al body					Al	uminu	m alloy				

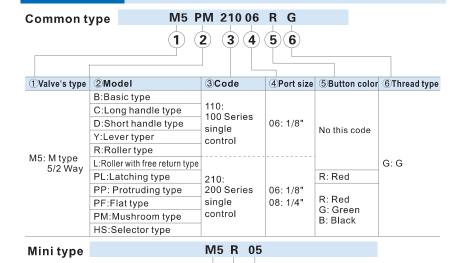
[Note1] G thread is available.

[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
		Com	Mini type					
Туре	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



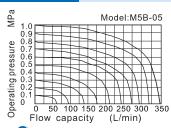
1 2 3

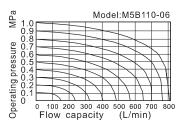
1 Valve's type

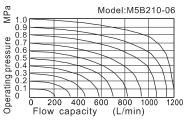
B: Basic type
R: Roller type
L: Roller with free return type

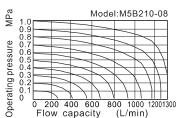
05: M5

### Flow chart











# **AITTAI**

Fixed plate

Fixation way of panel

# M5 Series

# **Installation and Application**

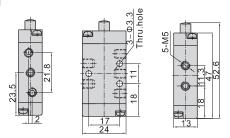
- 1) Body and panel installation (picture at right) :
- 2) The control set is made of engineering plastic which only allows manual operation and switching valves through metal impact is forbidden.
- 3) The series of M5B, M5C, M5D, M5PM, M5PF and M5PP get the function of automatic restoration. The hand 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 table on the right for order details.

# **Dimensions**

# Common type

Model\Item	Α	В	С	D	K	KA	KB	KC	Р	PA	РВ	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 M5B21008	2.5	22	71.0	66	4.0	22 5	20	22.5	1/8"	26	11 5	1/8"	20	22 5	22 5
M5B21008	35	22	/ 1.0	00	4.3	23.5	20	22.5	1/4"	30	14.5	1/4"	20	22.5	32.5

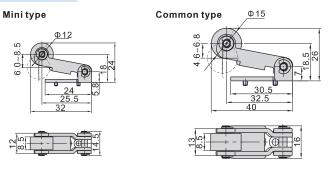
# Mini type



Fixation way of body

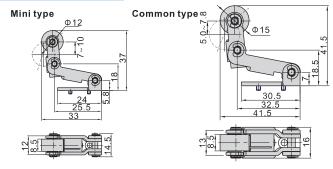
Fixed plate

## Roller type(R)



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

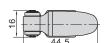
# Roller with free return type(L)



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

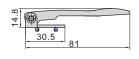
## Short handle type(D)

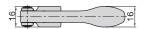




	Model	Short handle type(D)
How to	Ordering code	M3D210-P13A
order	Туре	M3D210 Short handle type control set
Applic	able products	M5D110, M5D210

## Long handle type(C)





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