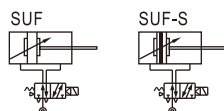


Standard cylinder(Profile)

SUF Series(With valve type)



Symbol



Product feature

1. For Standard Cylinders: use 4M210 valve for bore size 32, 40 & 50; 4M310 valve for bore size 63, 80 & 100mm.
2. Individually control, no need for extra solenoid valves.
3. Installation time & space saving; suitable for decentralize installation in large system.
4. Options of mounting accessories & easy installation.

Stroke

Bore size(mm)	Standard stroke (mm)	Mini. stroke	Max. std. stroke	Max. stroke
32	Standard type: 50 75 80 100 125 150 160 175 With TC type: 200 250 300 350 400 450 500	50	1000	2000
40	Standard type: 50 75 80 100 125 150 160 175 With TC type: 200 250 300 350 400 450 500	50	1200	2000
50	Standard type: 50 75 80 100 125 150 160 175 With TC type: 200 250 300 350 400 450 500	50	1200	2000
63	Standard type: 75 80 100 125 150 160 175 With TC type: 200 250 300 350 400 450 500	75	1500	2000
80	Standard type: 75 80 100 125 150 160 175 With TC type: 200 250 300 350 400 450 500	75	1500	2000
100	Standard type: 75 80 100 125 150 160 175 With TC type: 200 250 300 350 400 450 500	75	1500	2000

Note) Consult us for non-standard stroke.

Specification

Cylinder specification						
Bore size(mm)	32	40	50	63	80	100
Acting type	Double acting					
Fluid	Air(to be filtered by 40 μ m filter element)					
Mounting type	Basic FA FB CA CB LB TC TCM1					
Operating pressure	0.1~1.0MPa(15~145psi)(1.0~10.0bar)					
Proof pressure	1.5MPa(215psi)(15bar)					
Temperature °C	-20~80					
Speed range mm/s	30~800					
Stroke tolerance	0~250 ^{+1.0} ₀ 251~1000 ^{+1.5} ₀ 1001~1500 ^{+2.0} ₀					
Cushion type	Variable cushion					
Adjustable cushionstroke	21			28		29
Port size	1/8"	1/4"		3/8"		1/2"
PU tube size(ODXID)	Φ 8 × Φ 5				Φ 10 × Φ 6.5	
Solenoid valve specification						
Model	4M210-06 & 4M210-08			4M310-08 & 4M310-10		
Fluid	Air(to be filtered by 40 μ m filter element)					
Acting type	Internal piloted					
Port size ①	In=Exhaust=1/8" & In=1/4" Exhaust=1/8"			In=Exhaust=1/4" & In=PT3/8 Exhaust=1/4"		
Orifice size	4M210-06: 14.0mm ² (Cv=0.78) 4M210-08: 16.0mm ² (Cv=0.89)			4M310-08: 25.0mm ² (Cv=1.40) 4M310-10: 30.0mm ² (Cv=1.68)		
Valve type	5 port 2 position					
Operating pressure	0.15~0.8MPa(21~114psi)					
Proof pressure	1.5MPa(215psi)					
Temperature °C	-20~70					
Body material	Aluminum alloy					
Lubrication ②	Not required					
Max. frequency ③	5 cycle/sec			4 cycle/sec		
Coil specification						
Standard voltage	AC220V、AC110V、AC24V、DC24V、DC12V					
Scope voltage	AC: ± 15% DC: ± 10%					
Power consumption	AC: 3.5VA DC: 3.0W					
Protection	IP65(DIN40050)					
Temperature classification	B Class					
Electrical entry	Terminal, Grommet					
Activating time	0.05 sec and below					

- ① PT thread, G thread and NPT thread are available.
 ② It can't stop in the midway of lubricating. Lubricants like ISO VG32 or equivalent are recommended.
 ③ The maximum actuation frequency is in the no-load state.
 Add) Refer to P457~480 for detail of sensor switch.

Ordering code

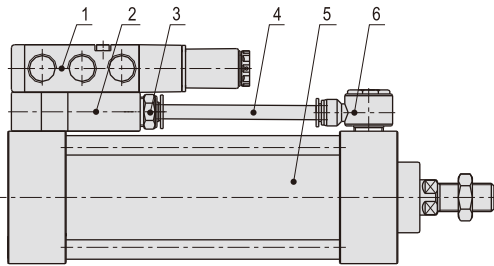
SUF 50 × 1000 S □ -06 A □ □																										
Model	SUF: Double acting with valve type																									
Bore size	32 40 50 63 80 100																									
Stroke	Refer to stroke table for details																									
Magnet	Blank: Without magnet S: With magnet																									
① Mounting type	<table border="1"> <thead> <tr> <th>Mounting type</th><th>Available series</th><th>Memo</th></tr> </thead> <tbody> <tr> <td>Blank: Standard type</td><td></td><td></td></tr> <tr> <td>LB: LB type</td><td></td><td></td></tr> <tr> <td>FA: FA type</td><td>SUF</td><td></td></tr> <tr> <td>FB: FB type</td><td></td><td></td></tr> <tr> <td>CA: CA type</td><td></td><td></td></tr> <tr> <td>CB: CB type</td><td></td><td></td></tr> <tr> <td>TC: TC type</td><td></td><td>Be used with TCM1</td></tr> </tbody> </table>		Mounting type	Available series	Memo	Blank: Standard type			LB: LB type			FA: FA type	SUF		FB: FB type			CA: CA type			CB: CB type			TC: TC type		Be used with TCM1
Mounting type	Available series	Memo																								
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TC: TC type		Be used with TCM1																								
Thread type	Blank: PT G: G T: NPT																									
Electrical entry	Blank: Terminal I: Grommet																									
Voltage	A: AC220V B: DC24V C: AC110V E: AC24V F: DC12V																									
Port size	06: 1/8" 08: 1/4" 10: 3/8"																									

① Please refer to page 209~212 for accessory parts.

Standard cylinder(Profile)

SUF Series(With valve type)

Main combination

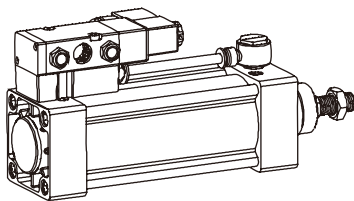


NO.	Item
1	4M series solenoid valve
2	Unite block
3	APC series tube connector
4	PU tube
5	SU series cylinder
6	APH series tube connector

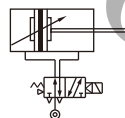
How to use

- Options for piston rod to retract or extend when solenoid coil is energized.
- Default factory setting will be piston rod to retract when energized (see Drawing one). Should you require piston rod to extend when energized, reposition the solenoid valve as shown in Drawing two.

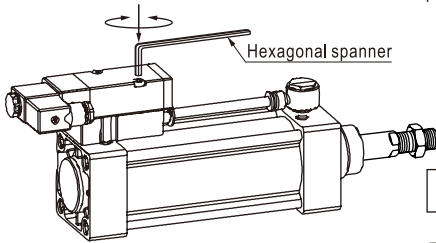
Drawing one



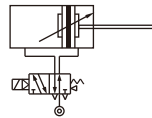
Pull when energized



Drawing two



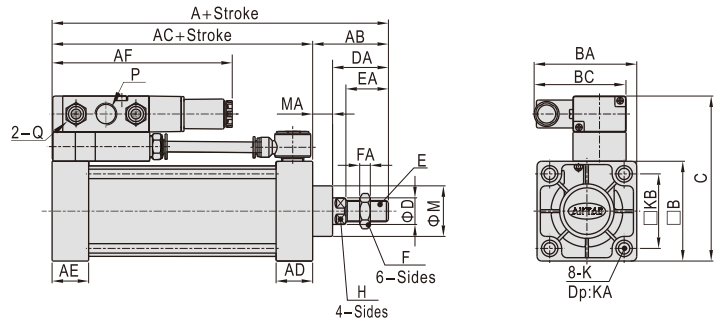
Push when energized



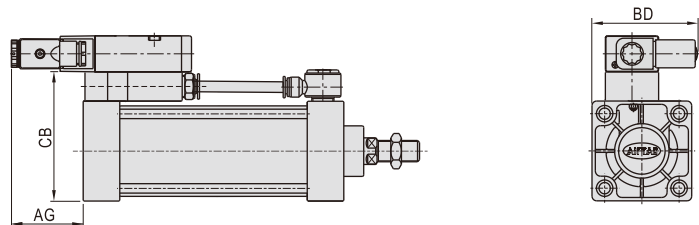
Attention Ensure that the seats between the mounting block & valve are placed correctly when repositioning the valve.

Dimensions

Pull when electrify



Push when electrify



Bore size\Item	A	AB	AC	AD	AE	AF	AG	B	BA	BC	BD
32	140	47	93	27.5	27.5	118	53	45	67	67	77
40	142	49	93	27.5	27.5	118	53	50	68.5	67	80.5
50	150	57	93	27.5	27.5	120	51	62	72	67	89
63	153	57	96	27.5	27.5	135.5	54.5	75	77.5	69.5	96.5
80	182	75	107	33	33	137	53	94	86.5	69.5	106.5
100	188	75	113	33	33	135.5	54.5	112	96	69.5	115

Bore size\Item	C	CB	D	DA	E	EA	F	FA	H	M	MA
32	89	67	12	32	M10X1.25	22	17	6	10	28	15
40	94	72	16	34	M12X1.25	24	17	7	14	32	15
50	106	84	20	42	M16X1.5	32	23	8	17	38	15
63	124	97	20	42	M16X1.5	32	23	8	17	38	15
80	143	116	25	54	M20X1.5	40	26	10	22	47	21
100	161	134	25	54	M20X1.5	40	26	10	22	47	21

Bore size\Item	Compatible valve's type	P	Q	K	KA	KB
32	4M210-06	1/8"	1/8"	M6X1(No TC)	9.5(No TC)	33
	4M210-08	1/4"		M6X0.8(With TC)	10(With TC)	
40	4M210-06	1/8"	1/8"	M6X1(No TC)	9.5(No TC)	37
	4M210-08	1/4"		M5X0.8(With TC)	9(With TC)	
50	4M210-06	1/8"	1/8"	M6X1(No TC)	9.5(No TC)	47
	4M210-08	1/4"		M5X0.8(With TC)	9.5(With TC)	
63	4M310-08	1/4"	1/4"	M8X1.25(No TC)	9.5(No TC)	56
	4M310-10	3/8"		M6X1(With TC)	7.5(With TC)	
80	4M310-08	1/4"	1/4"	M10X1.5(No TC)	11.5(No TC)	70
	4M310-10	3/8"		M8X1.25(With TC)	11(With TC)	
100	4M310-08	1/4"	1/4"	M10X1.5(No TC)	11.5(No TC)	84
	4M310-10	3/8"		M8X1.25(With TC)	11(With TC)	

Remark: The dimensions of magnet type cylinder are the same as non-magnet type cylinder.