

Features

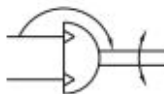
- Twin rack and pinion fitted as standard.
- Can be adjusted between 0 and 190 degrees.
- Simple mounting of sensors.
- Magnetic as standard.

Specification

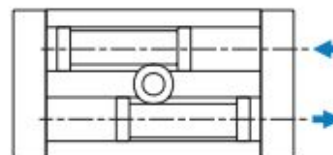
Acting type	Double acting				
Tube I.D. (mm)	16	20	25	32	
Port size	Rc1/8				
Medium	Air				
Operating pressure range	0.1~1 MPa				
Proof pressure	1.5 MPa				
Ambient temperature	-5~+60°C (No freezing)				
Lubrication	Not required				
Cushion	NBR spacer				
Allowable kinetic energy	Cushion pad	0.007J	0.040J	0.081J	0.32J
	Cushion	0.039J	0.116J	0.294J	1.6J
Stable rotation time regulation range	0.2~1.0 s/90°				
Weight (kg)	0.7	1.16	1.57	3.07	

* RCD specification, please refer to page 5-5.

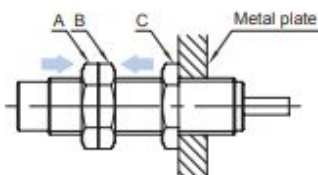
Symbol



Action profile

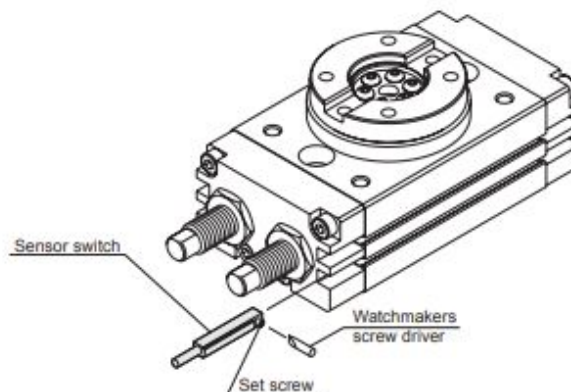


Installation guide of shock absorber

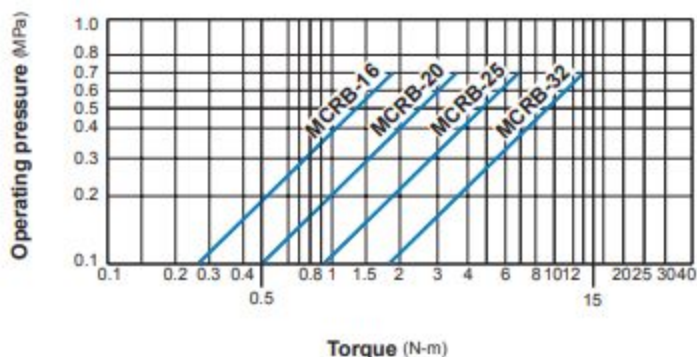


- 1 Install 3 nuts on the shock absorber as the picture shown.
- 2 Bind the A nut and B nut together via tightening them with different rotating direction.
- 3 Hold B nut and rotate C nut to bind the plate and C nut together.
- 4 Unbind the A nut and B nut. The installation is complete.

Installation of sensor switch



Torque diagram



Theoretic force

Unit: N·m

Type					
Tube I.D.		16	20	25	32
Operating pressure (MPa)	0.1	0.26	0.5	0.91	1.88
	0.2	0.52	1	1.81	3.78
	0.3	0.78	1.5	2.72	5.66
	0.4	1.04	2.01	3.62	7.56
	0.5	1.31	2.51	4.55	9.44
	0.6	1.57	3	5.45	11.32
	0.7	1.83	3.5	6.36	13.23

Allowable load

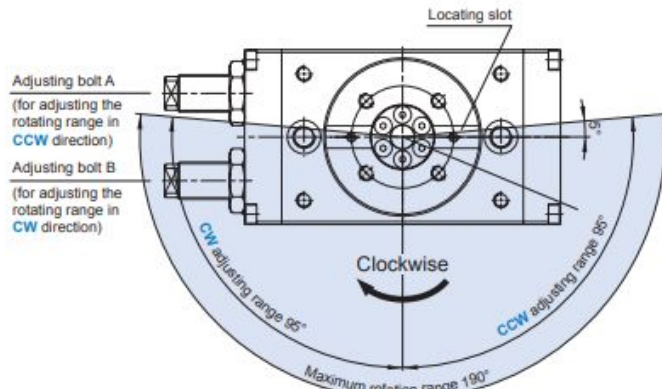
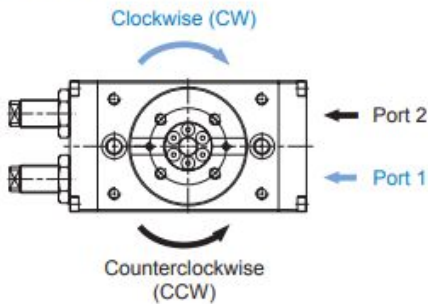
Set the load and moment to be applied to the table within the allowable values shown in the table below. (Values outside of limitations will cause excessive play, deteriorate accuracy, and shorten service life.)

Pictures					
	Tube I.D.	Allowable radial load (N)	Allowable thrust load (N)		
			(a)	(b)	
	16	78	74	78	2.4
	20	196	197	363	5.3
	25	314	296	451	9.7
	32	390	493	708	18

Rotating direction and angle

- When the port 1 is pressurized, the flange rotates in clockwise (CW) direction.
- When the port 2 is pressurized, the flange rotates in counter-clockwise (CCW) direction.

The rotating angle range can be adjusted by the method shown as right figure.

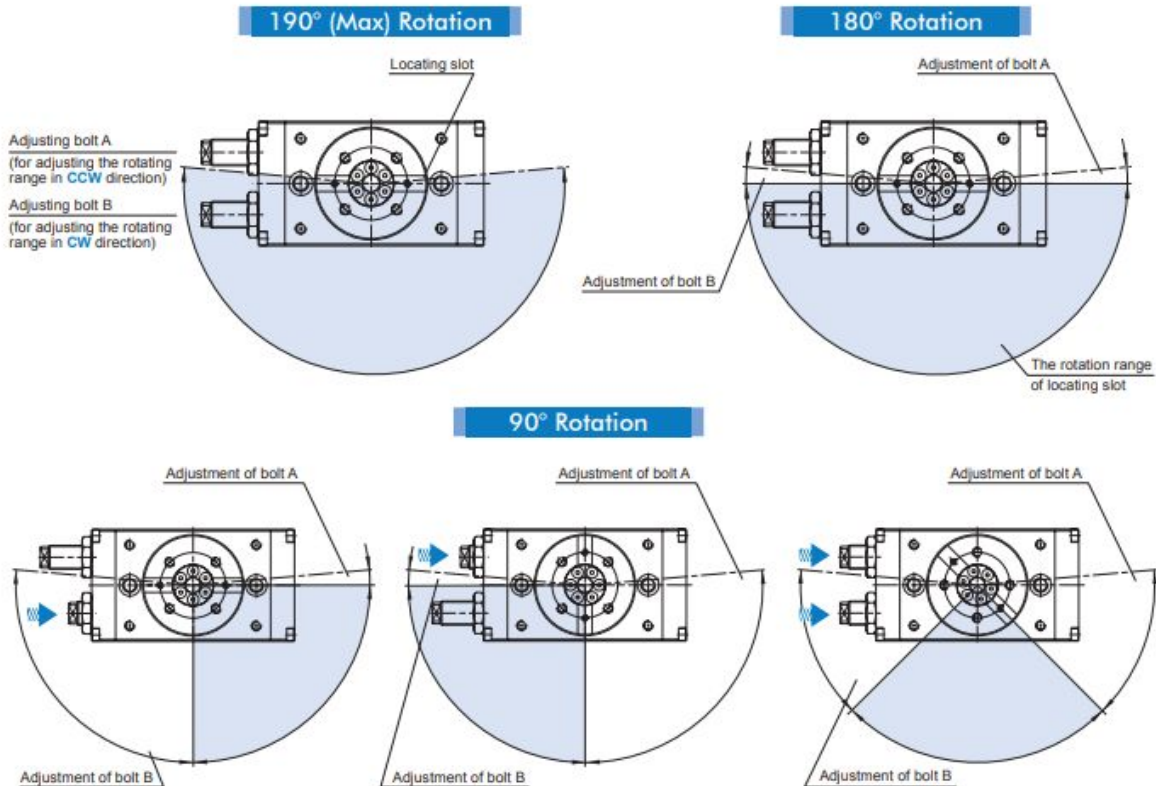


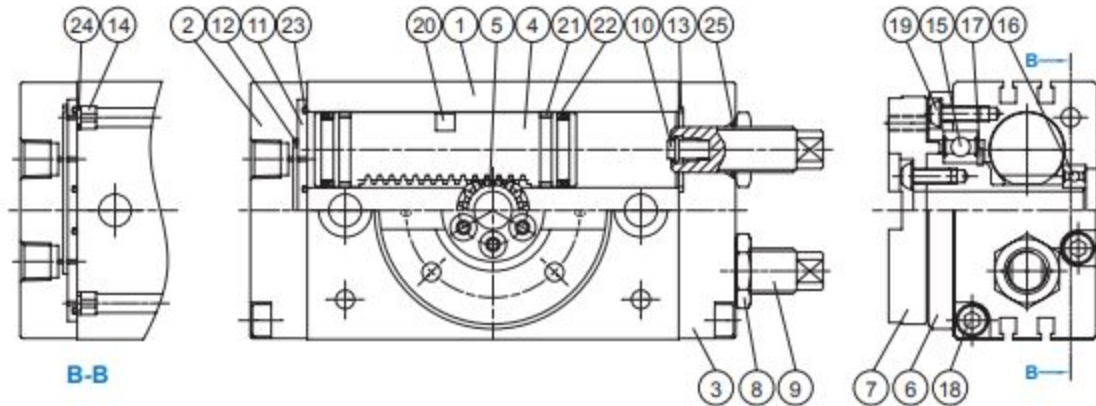
NOTE

- The figure shows the rotating range and use the pin hole as indicator.
- The locating slot in the figure locates at the situation which the CCW & CW rotating range are both adjusted at 90°.

Rotating range adjusting example

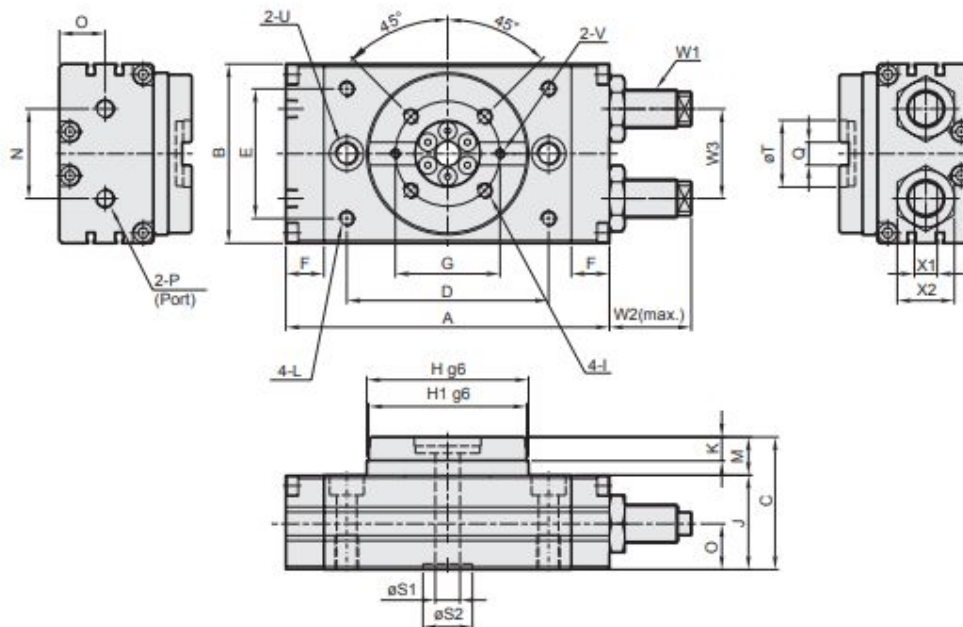
- The followed figures show the rotating range of different adjustment via bolt A and B. (The drawings also show the rotation ranges of the locating slot.)





Material

No.	Part name	Material	Q'y	Repair kits (inclusion)
1	Body	Aluminum alloy	1	
2	Cover	Aluminum alloy	1	
3	End cover	Aluminum alloy	1	
4	Piston	Stainless steel	2	
5	Pinion	SCM	1	
6	Bearing retainer	Aluminum alloy	1	
7	Table	Aluminum alloy	1	
8	Seal nut	Stainless steel	2	
9	Shock absorber	Stainless steel	2	
10	Cushion pad	NBR	2	●
11	Plate	Aluminum alloy	1	
12	Packing	NBR	1	●
13	Gasket	NBR	2	●
14	Fixed	Copper	2	
15	Ball bearing	Bearing steel	1	
16	Ball bearing	Bearing steel	1	
17	Snap ring	Spring steel	1	
18	Screw	SCM	8	
19	Screw	SCM	12	
20	Magnet	Magnet material	2	
21	Wearing	Teflon	4	
22	Piston packing	NBR	4	●
23	O-ring	NBR	2	●
24	O-ring	NBR	2	●
25	O-ring	NBR	2	●



Code Tubr I.D.	A	B	C	D	E	F	G	H	H1	I	J	K	L	M	N	O	P
16	108	58	47	62	38	15	38	50	48	M5×7dp,P.C.D38	33	8	M5×8dp	14	26	15.5	Rc1/8
20	128	68	55	78	47	15	46	62.5	60	M6×7dp,P.C.D46	38	10	M6×8dp	17	27	18.5	Rc1/8
25	135.5	77	58.5	84	55	15.5	48	67	65	M6×9dp,P.C.D48	41.5	10	M6×8dp	17	37	20	Rc1/8
32	170	94	69.5	106	68	20	55	85	83	M8×10dp,P.C.D55	49.5	12.5	M8×8.5dp	20	47	24	Rc1/8

Code Tubr I.D.	Q	S1	S2	T	U	V	W1	W2
16	8 ^{+0.03} ₋₀ (wide)×3.3dp	6	17 (H7)×2.5dp	24 (H7)×3dp	2-ø6.8 thru,ø11×6.5dp,M8×12dp(sink)	M3×4dp	M10×1.0	27
20	10 ^{+0.03} ₋₀ (wide)×3.5dp	10	22 (H7)×2.5dp	32 (H7)×3dp	2-ø8.6 thru,ø14×8.5dp,M10×15dp(sink)	M4×6dp	M12×1.0	23
25	12 ^{+0.03} ₋₀ (wide)×4dp	13	22 (H7)×3dp	32 (H7)×3.7dp	2-ø8.6 thru,ø14×8.5dp,M10×15dp(sink)	M4×5dp	M14×1.5	36
32	12 ^{+0.03} ₋₀ (wide)×5dp	13	26 (H7)×3dp	35 (H7)×4.7dp	2-ø10.5 thru,ø18×10.5dp,M12×18dp(sink)	M5×5dp	M20×1.5	43

Code Tubr I.D.	W3	X1	X2	Y1	Y2
16	26	7	17	FK-1008L-S	24
20	32	8	19	FK-1210L-S	36.5
25	37	8	22	FK-1412L-S	41
32	47	12	30	FK-2016L-S	55

Code Tubr I.D.	A	E	J	K	L	N
16	64.5	31.5	17.5	-	-	-
20	78	40	23	16	9.2	8
25	81.5	40	23	20	11.2	10
32	109.5	60	40	20	13.2	12

* Other dimensions are the same as standard type.