

MCRJ-S series

MINI-ROTARY ACTUATOR



Moment of inertia



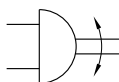
Technical data



Caution for safety
(Read before installing)

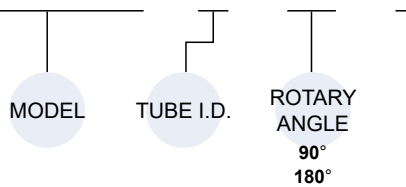


Symbol

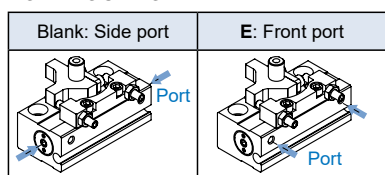


Order example

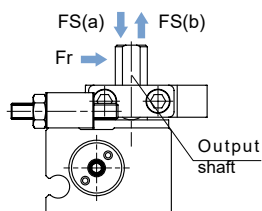
MCRJ — S — 6 — 90 — E



PORT LOCATION



Allowable load



Tube I.D. (mm)	Allowable load (N)			Output shaft size (mm)
	Fr	FS (a)	FS (b)	
6	25	20	20	ø5
8	30	25	25	ø6

Features

- Rack and pinion type with external stoppers.
- Rotary angle 90°, 180°.
- Compact and lightweight, mounting from 3 directions.
- Standard with magnet.

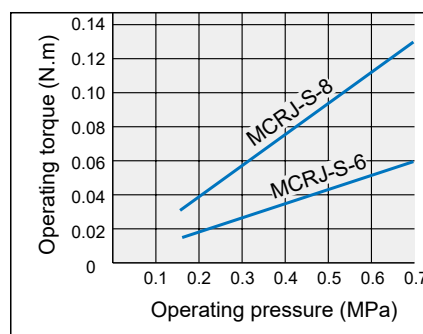
Specification

Model	MCRJ-S	
Tube I.D. (mm)	6	8
Port size	M3 × 0.5	
Rotation	90°, 180°	
Medium	Air (Non-lube)	
Operating pressure range	0.15~0.7 MPa	
Ambient temperature	0~+60°C (No freezing)	
Angle adjustment range	Each rotation end ±5°	
Sensor switch	RDC(V), RQC(V), RDFE(V)	
Weight (g)	90°	47.2
	180°	53.4

Operating torque

Tube I.D. (mm)	Operating pressure (MPa)						
	0.15	0.2	0.3	0.4	0.5	0.6	0.7
6	0.013	0.017	0.026	0.034	0.042	0.05	0.059
8	0.029	0.038	0.057	0.076	0.095	0.11	0.13

Note. Effective torque values are representative values. They are not guaranteed values. Use them only as a guide.

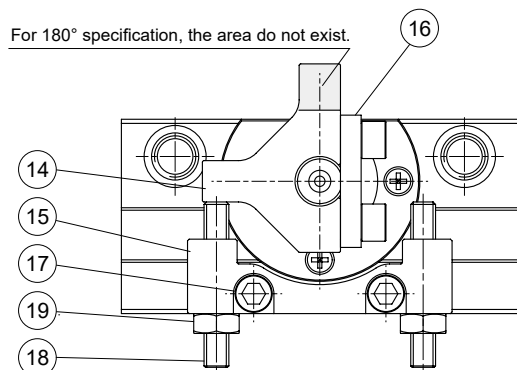
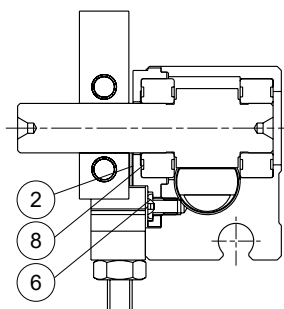
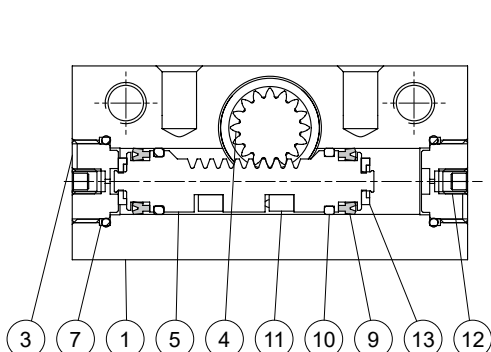


Allowable kinetic energy / Rotation time adjustment range

Tube I.D. (mm)	Allowable kinetic energy (J)	Rotation time adjustment range for stable operation (s/90°)
6	0.001	0.1~0.5
8	0.002	

MCRJ-S Inside structure & Parts list

MINI-ROTARY ACTUATOR

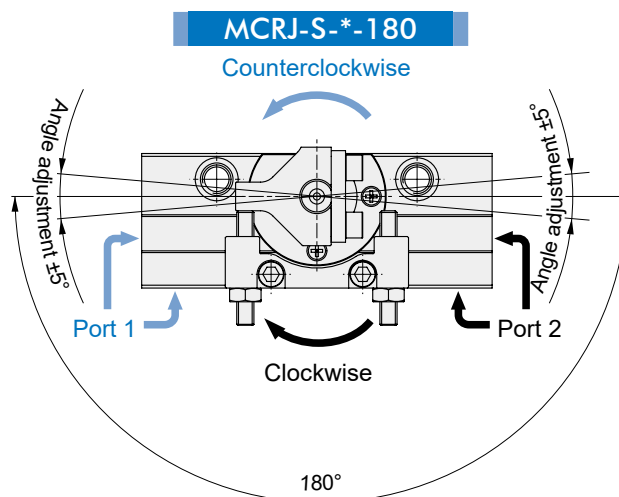
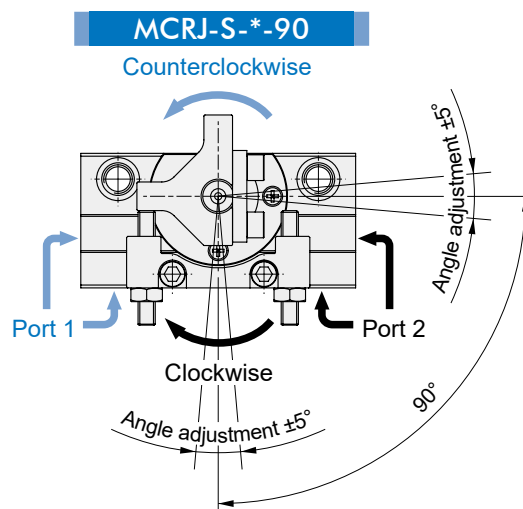


Material

No.	Tube I.D. Part name	6	8	Q'y
1	Body	Aluminum alloy		1
2	Bearing holder	Aluminum alloy		1
3	Cover	Aluminum alloy		2
4	Pinion	Stainless steel		1
5	Piston	Stainless steel		1
6	Screw	Stainless steel		3
7	O ring	NBR		2
8	Ball bearing	Bearing steel		2
9	Piston seal	NBR		2
10	Wear ring	Resin		2
11	Magnet	Magnet material		2
12	Screw	Steel		2
13	Gasket	NBR		2
14	Stopper	Alloy steel		1
15	Holder	Aluminum alloy		1
16	Stopper retainer	Low carbon steel		1
17	Hexagon screw	Stainless steel		4
18	Hexagon screw	Stainless steel		2
19	Hexagon nut	Low carbon steel		2

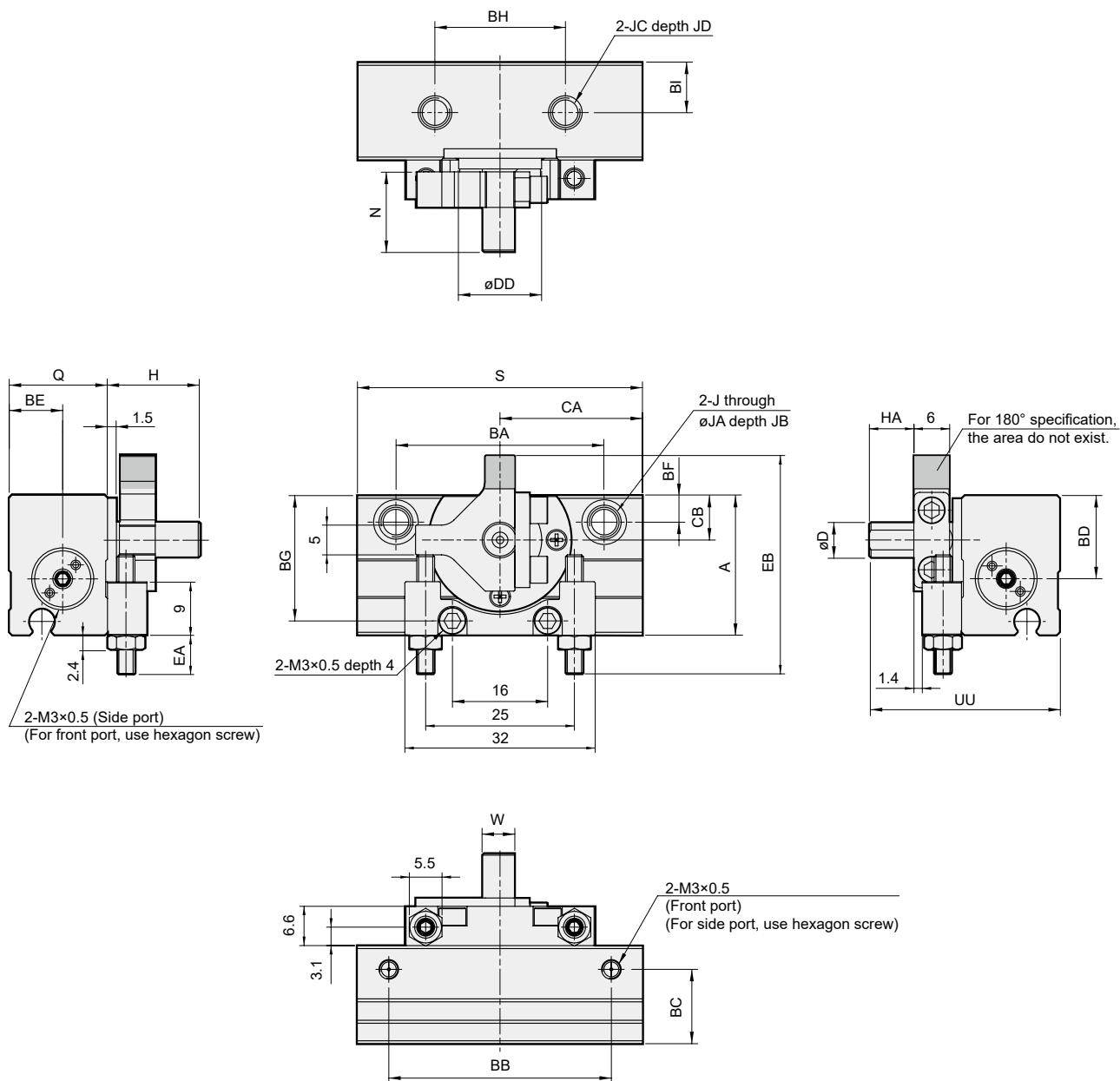
Rotating direction and angle

- The shaft rotates counterclockwise when the input air is from port 1.
The shaft rotates clockwise when the input air is from port 2.
- The rotation range can be adjusted by adjustment screws.



MCRJ-S Dimensions $\varnothing 6, \varnothing 8$

MINI-ROTARY ACTUATOR



Code Tubr I.D.	A	BA	BB	BC	BD	BE	BF	BG	BH	BI	CA	CB	D	DD	EA	EB	HA	J	JA	JB	JC	JD	H	N	Q	S	UU	W
6	19.5	30	32.4 (43.4)	9.5	11	6.5	3.5	17.1	20	7	21.5(27)	5.5	5g6	10h9	4.5	32.7	6.5	M4×0.7	5.8	3.5	M4×0.7	5	14.5	12.5	13.5	43(54)	28	4.5
8	23.5	35	37.4 (50.4)	12.5	14	9	4.5	21.1	22	8.5	24(30.5)	7.5	6g6	14h9	6.5	36.7	7.5	M5×0.8	7.5	4.5	M5×0.8	6	15.5	13.5	16.5	48(61)	32	5.5

* () for 180° specification.