



Moment of inertia



Technical data



Caution for safety
(Read before installing)



Order example

MCRC — 30 W — 180 — M A F

MODEL

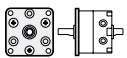
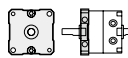
SIZE
20
30

W: Double rod
S: Single rod

ROTATION
90: 90°
180: 180°
270: 270°

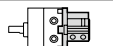
Magnet	Angle adjustable	Type (option)
Blank: without M: with magnet	Blank: Non-adjustable A: Angle adjustable	F: for adding FAC accessories

Order example of mounting accessories

Code	FA	FAC *
Fig Size		
20	FA-R2-20	FAC-R2-20
30	FA-R2-30	FAC-R2-30
Weight		
20	46 g	31 g
30	69 g	47 g

* FAC cannot be assembled with standard cylinder because the shaft needs to be extended by 7.5 mm.

Order example of type kits

Type	With magnet + Angle adjustable	With magnet	Angle adjustable
Fig Size			
20	AK-MCRC-20-MA	AK-MCRC-20-M	AK-MCRC-20-A
30	AK-MCRC-30-MA	AK-MCRC-30-M	AK-MCRC-30-A
Weight			
20	114 g	45 g	81 g
30	171 g	68 g	135 g

Features

- Compact and lightweight, mounting from 3 directions.
- Rotary angle 90°, 180°, 270°.
- Both rods have locating plane.
- Spin the rod with built-in vane mechanism.
- Options of angle adjuster for various usage.
- Options of magnet for the flush fitting sensor switch.

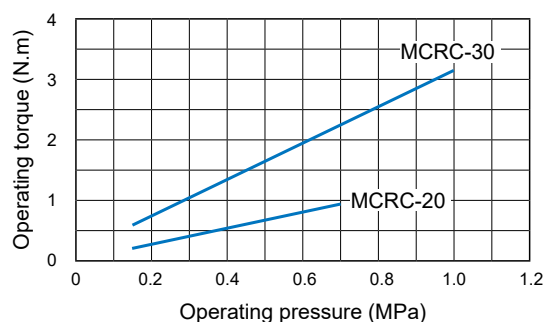
Specification

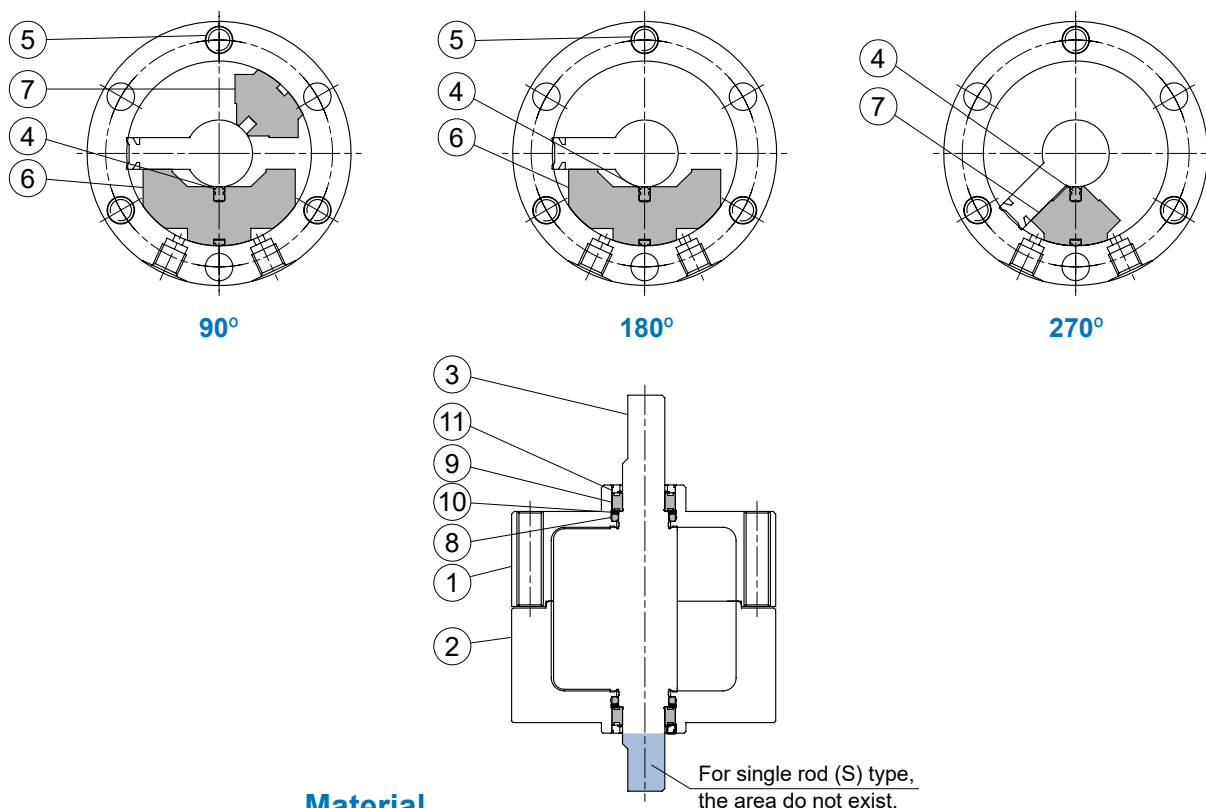
Model		MCRC	
Acting type		Double acting	
Size		20	30
Port size		M5×0.8	
Rotation		90°, 180°, 270°	
Acting angle tolerance		0~+4°	
Medium		Air (Non-lube)	
Max. operating pressure		0.7 MPa	1 MPa
Min. operating pressure		0.15 MPa	
Proof pressure		1.05 MPa	1.5 MPa
Ambient temperature		+5~+60°C	
Allowable kinetic energy (J)	Non-adj.	0.003	0.02
	Angle adj.	0.0004	0.015
Load (N)	Radial	25	30
	Axial	20	25
Rotation time adjustment range (s/90°) (*1)		0.03~0.3	0.04~0.3
Volume (cm³)	90°	A port: 3.5 B port: 4.8	A port: 8.4 B port: 11.3
	180° (*2)	5.9	14.9
	270° (*2)	7.7	19.6
Sensor switch		RDC(V), RQC(V)  , RDFE(V) 	
Weight (g)	90°	105	200
	180°	105	195
	270°	103	192

*1. When the operation speed is lower than the lower speed limit, the rod may jitter or stop. Please use the product in the range as table shown.

*2. Port A and B have the same volume.

Torque diagram

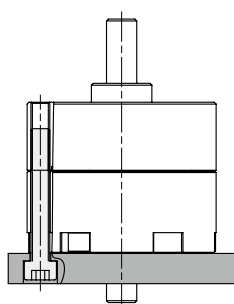




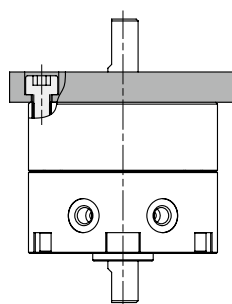
Material

No.	Part name	Material	Q'y		
			90°	180°	270°
1	Upper body	Aluminum	1		
2	Lower body	Aluminum	1		
3	Shaft	Stainless steel	1		
4	Packing	NBR	1		
5	Bolt	Stainless steel	3		
6	Adjusting block	Plastic	1	1	0
7	Adjusting block	Plastic	1	0	1
8	O-ring	NBR	2		
9	Ball bearing	Bearing steel	2		
10	Gasket	Stainless steel	2		
11	Retaining ring	Stainless steel	2		

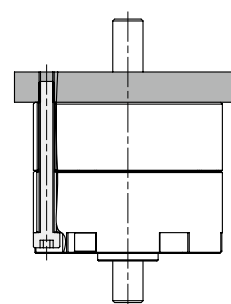
Mounting methods



Body tapped



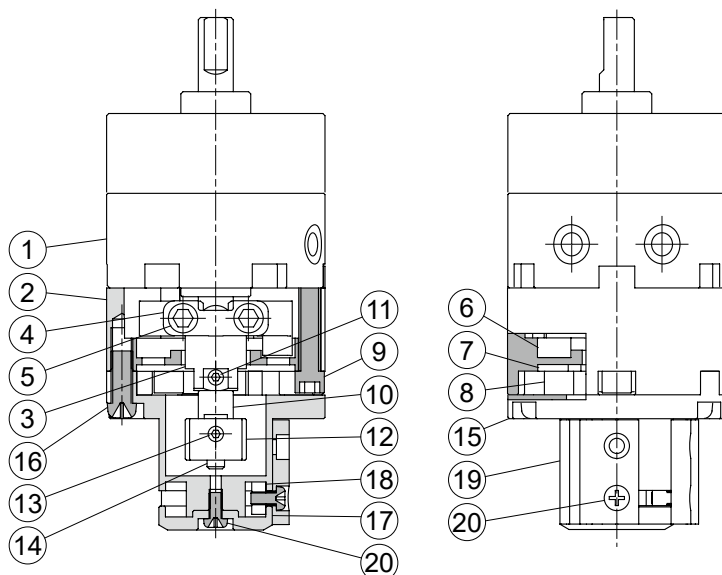
Body tapped



Body through-hole
(Fixed with the customer's plate)

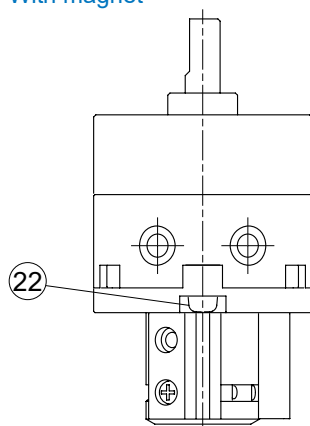
MCRC-W-*-MA

With magnet + Angle adjustable



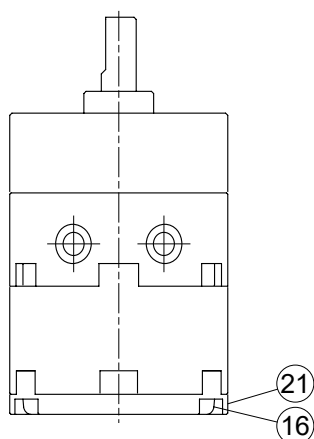
MCRC-W-*-M

With magnet



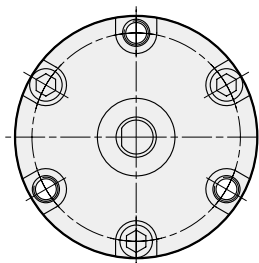
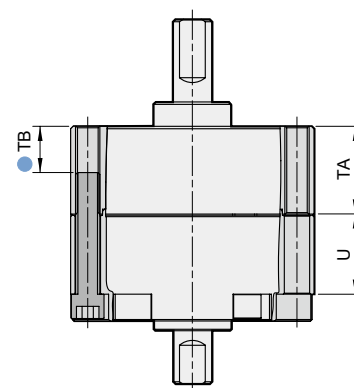
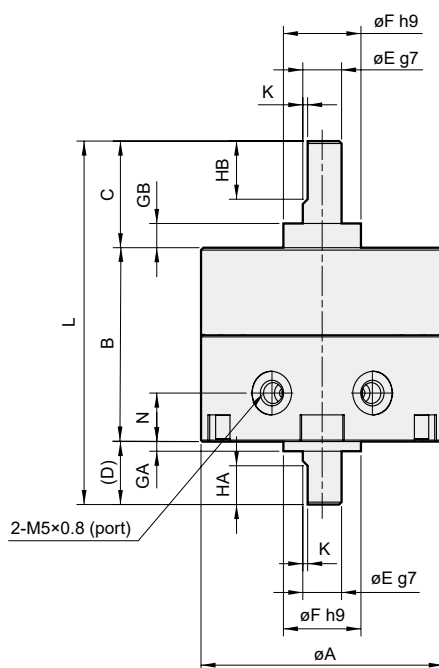
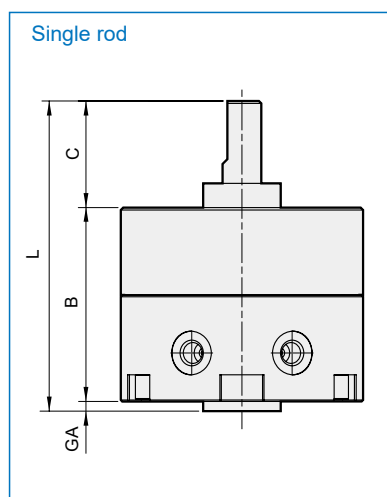
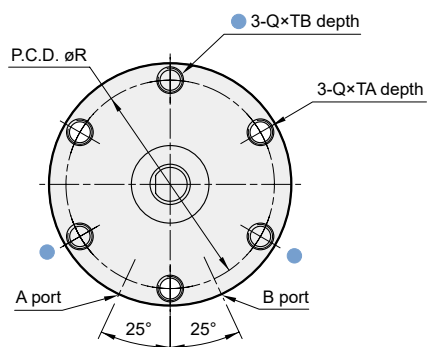
MCRC-W-*-A

Angle adjustable



Material

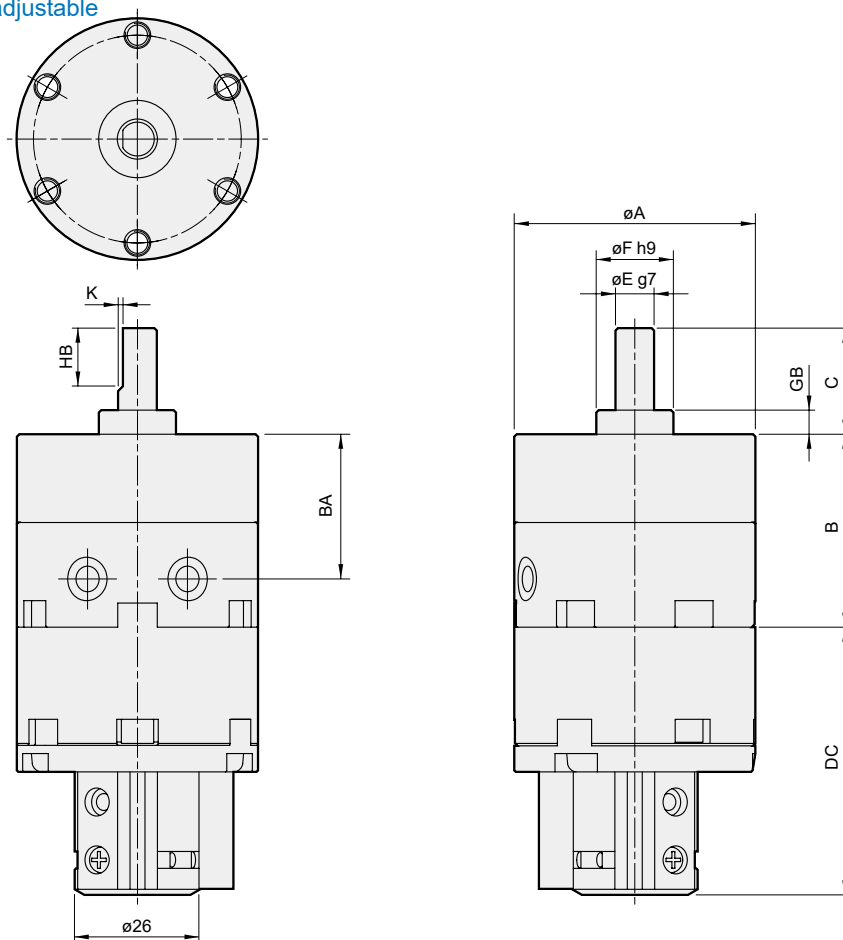
No.	Part name	Material	Q'y		
			MA	M	A
1	MCRC-W- □	-	1	1	1
2	Angle adjusting holder	Aluminum alloy	1	0	1
3	Angle positioning holder	Alloy steel	1	0	1
4	Stopper retainer	Carbon steel	1	0	1
5	Bolt	Stainless steel	2	0	2
6	Adjusting block #1	Alloy steel	2	0	2
7	Adjusting block #2	Carbon steel	2	0	2
8	Bolt	Stainless steel	2	0	2
9	Bolt	Stainless steel	3	0	3
10	Connector	Aluminum alloy	1	0	0
11	Screw	Alloy steel	1	0	0
12	Magnet holder	Aluminum alloy	1	1	0
13	Screw	Alloy steel	1	1	0
14	Magnet	Magnet material	1	1	0
15	Sensor adjustment holder	Aluminum alloy	1	1	0
16	Screw	Stainless steel	3	0	3
17	Cover #1	Aluminum alloy	1	1	0
18	Sensor adjusting block	Aluminum alloy	2	2	0
19	Sensor fixing block	Aluminum alloy	2	2	0
20	Screw	Stainless steel	3	3	0
21	Cover #2	Aluminum alloy	0	0	1
22	Screw	Stainless steel	0	3	0



Code Size	A	B	C	D	E	F	GA	GB	HA	HB	K	L		N	Q	R	TA	TB	U
												Single rod	Double rod						
20	42	29	20	(8.5)	6 ^{-0.004} _{-0.016}	14 ⁰ _{-0.043}	1.5	4.5	7	10	0.5	50.5	59	9	M4 $\times$ 0.7	36	13.5	8.5	11
30	50	40	22	(13)	8 ^{-0.005} _{-0.020}	16 ⁰ _{-0.043}	2	5	8	12	1	64	75	10	M5 $\times$ 0.8	43	18	9.5	16

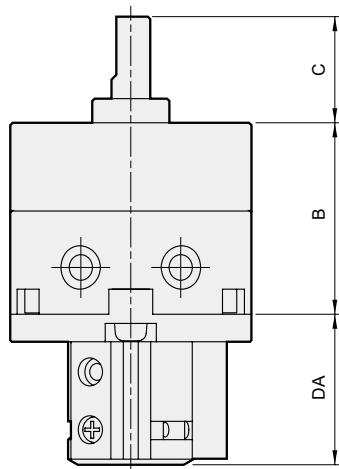
MCRC-W-*-MA

With magnet + Angle adjustable



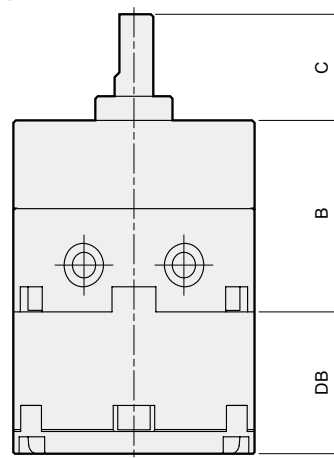
MCRC-W-*-M

With magnet



MCRC-W-*-A

Angle adjustable



Code Size	A	B	BA	C	DA	DB	DC	E	F	GB	HB	K
20	42	29	20	20	30	25	51	6 ^{-0.004} _{-0.016}	14 ⁰ _{-0.043}	4.5	10	0.5
30	50	40	30	22	31	29	55.5	8 ^{-0.005} _{-0.020}	16 ⁰ _{-0.043}	5	12	1

ROTARY ACTUATOR

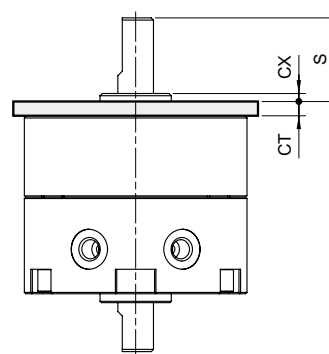
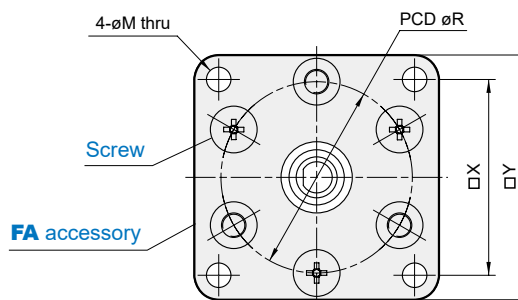
FA

Material

FA: Carbon steel

Screw: Carbon steel

Code Size	CT	CX	M	R	S	X	Y
20	3.2	1.3	4.5	36	16.8	36	46
30	3.2	1.8	5.5	43	18.8	44	55



FAC

* Need to select the MCRC-□-□-F specification and cannot be assembled with standard cylinders.

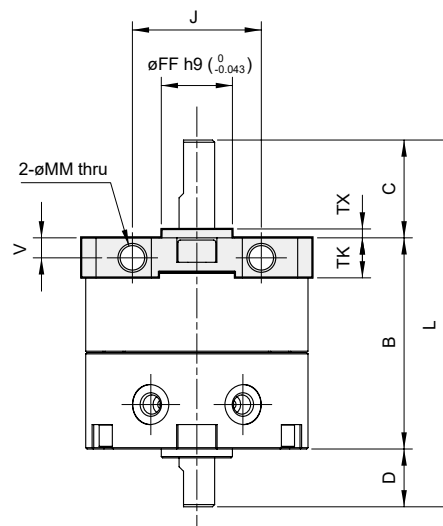
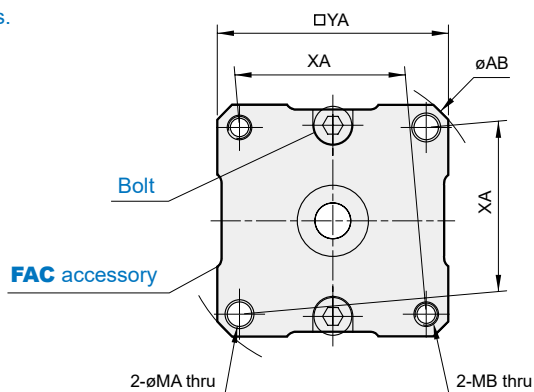
Material

FAC: Aluminum alloy

Bolt: Carbon steel

Code Size	AB	B	C	D	FF	GA	J	L	
								Single rod	Double rod
20	59	35.5	20	8.5	14	1.5	26	57	65.5
30	69	47.5	22	13	16	2	29	71.5	82.5

Code Size	MA	MB	MM	TK	TX	V	XA	YA
20	4.5	M4×0.7	4.5	8	1.5	4	36	44
30	5.5	M5×0.8	5.5	9	2	4.5	42	52



Single rod

