

Rotary Actuator

Series **CRB1BWU**

Vane Style/Size:10, 15, 20, 30

How to order

Without auto switch

CRB1BWU10180S

Mounting

B	Basic
F	Flange

Size

10
15
20
30

Vane style

S	Single
D	Double

Rotation angle

Application	Symbol	Rotation angle
Single vane	90	90°
	180	180°
	270	270°
Double vane	90	90°
	100	100°

With angle adjusting unit

Size

10
15

With auto switch
Size 10, 15

CDRB1FWU10180S

Mounting

B	Basic
F	Flange

Size

20
30

Vane style

S	Single
D	Double

Rotation angle

Application	Symbol	Rotation angle
Single vane	90	90°
	180	180°
	270	270°
Double vane	90	90°
	100	100°

With auto switch
Size 20, 30

CDRB1BWU20180S

Mounting

B	Basic
F	Flange

Size

20
30

Vane style

S	Single
D	Double

Rotation angle

Application	Symbol	Rotation angle
Single vane	90	90°
	180	180°
	270	270°
Double vane	90	90°
	100	100°

With auto switch
(With switch unit)

Mounting

B	Basic
F	Flange

Size

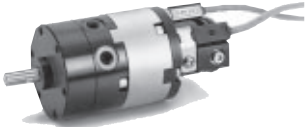

20
30

Vane style

S	Single
D	Double

Rotation angle

Application	Symbol	Rotation angle
Single vane	90	90°
	180	180°
	270	270°
Double vane	90	90°
	100	100°



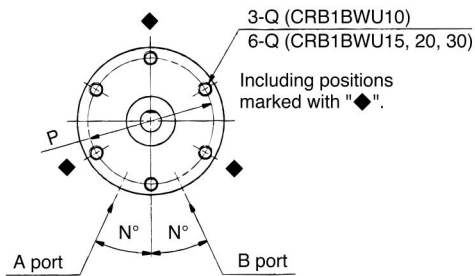
Rotary Actuator/Vane Style *Series CRB1*

Size **10, 15, 20, 30**/With angle adjuster



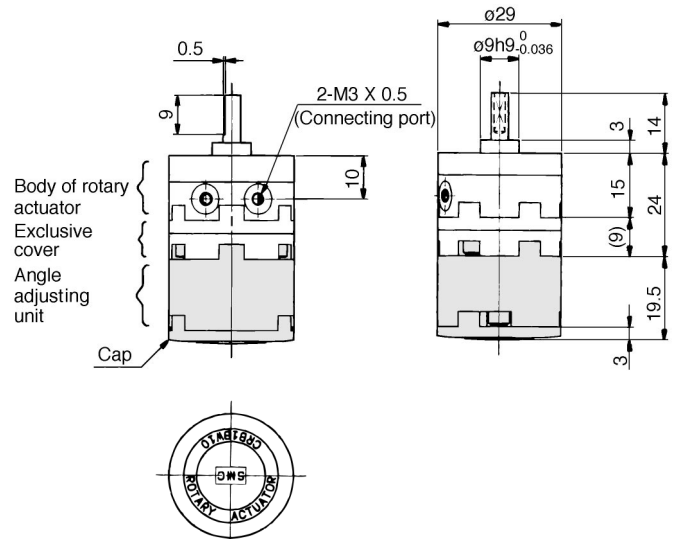
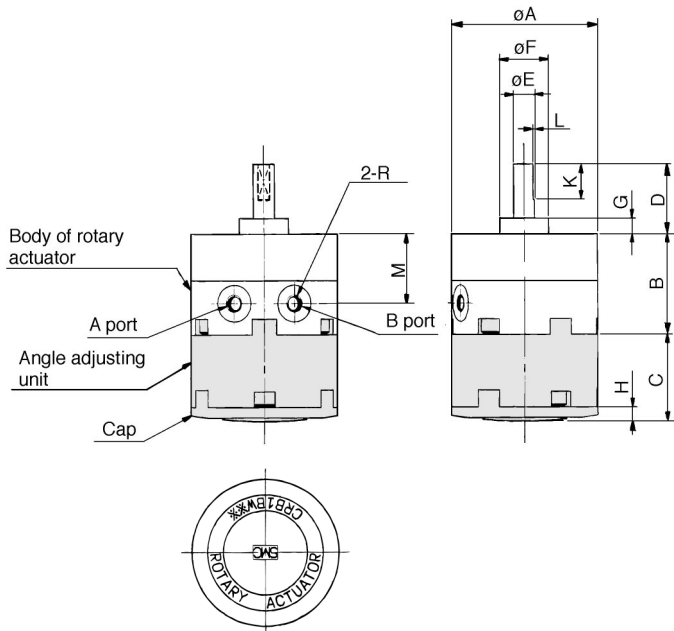
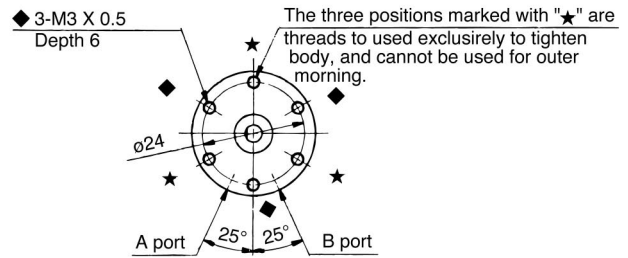
Single vane

CRB1BWU10/15/20/30-□S



Double vane

CRB1BWU10-□D



Dimensions below show the rotation middle position during pressurization to A port or B port.

Double vane

CRB1BWU15/20/30-□D

Size of double vane style: The outer dimensions of 15, 20, 30 and the sizes shown in the dimension table are same as those of single vane size 15, 20, 30 styles.

Dimensions below show pressurization to A port of the switches for 90°.

Model	A	B	C	D	E (g6)	F (h9)	G	H	K	L	M	N	P	Q
CRB1BWU10-□S	29	15	19.5	14	4	9	3	3	9	0.5	10	25	24	M3 X 0.5 Depth6
CRB1BWU15-□S	34	20	21.2	18	5	12	4	3.2	10	0.5	15	25	29	M3 X 0.5 Depth5
CRB1BWU15-□D														
CRB1BWU20-□S	42	29	25	20	6	14	4.5	4	10	0.5	20	25	36	M4 X 0.7 Depth7
CRB1BWU20-□D														
CRB1BWU30-□S	50	40	29	22	8	16	5	4.5	12	1	30	25	43	M5 X 0.8 Depth10
CRB1BWU30-□D														

Model	R			
	90°	100°	180°	270°
CRB1BWU10-□S	M5 X 0.8	—	M5 X 0.8	M3 X 0.5
CRB1BWU10-□D	Refer to the drawings above.*			—
CRB1BWU15-□S	M5 X 0.8	—	M5 X 0.8	M3 X 0.5
CRB1BWU15-□D	M3 X 0.5			—
CRB1BWU20-□S	M5 X 0.8	—	M5 X 0.8	—
CRB1BWU20-□D	M5 X 0.8			—
CRB1BWU30-□S	M5 X 0.8	—	M5 X 0.8	—
CRB1BWU30-□D	M5 X 0.8			—

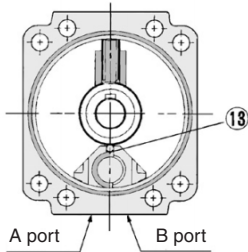
Series CRB1

Construction

Standard (Keys in the illustrations below show the intermediate rotation position.)

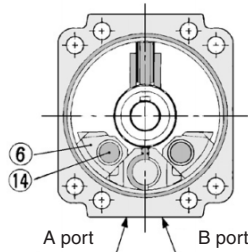
For 270° (Top view
from long shaft side)

Single vane



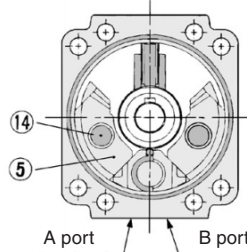
For 180° (Top view
from long shaft side)

Single vane



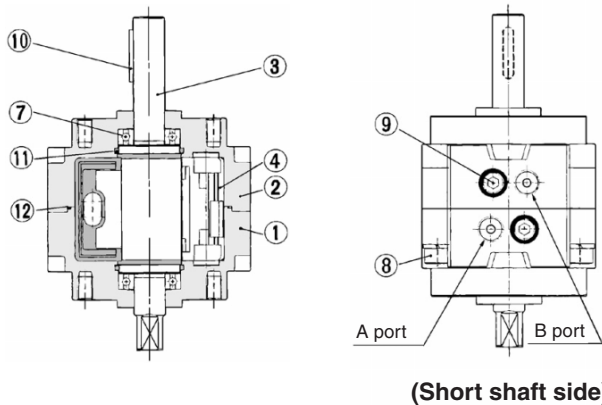
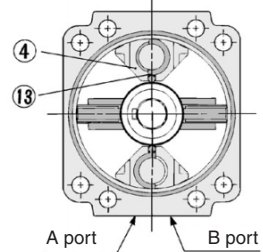
For 90° (Top view
from long shaft side)

Single vane



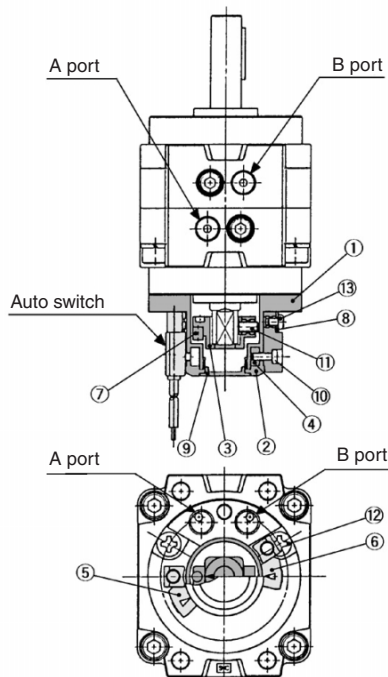
For 90° (Top view
from long shaft side)

Double vane



With auto switch

(Keys in the illustrations below show the actuator for 180° when A port is pressurized.)



Component Parts

No.	Description	Material	Note
①	Body (A)	Aluminum die-casted	CRB1BW50/63/80, painted
		Cast aluminum	CRB1BW100, painted
②	Body (B)	Aluminum die-casted	CRB1BW50/63/80, painted
		Cast aluminum	CRB1BW100, painted
③	Vane shaft	Carbon steel	
④	Stopper	Aluminum die-casted	
⑤	Stopper	Resin	For 90°
⑥	Stopper	Resin	For 180°
⑦	Bearing	High carbon chrome bearing steel	
⑧	Hexagon socket (with washer)	Carbon steel	
⑨	Fuji lock bolt	Carbon steel	
⑩	Parallel keyway	Carbon steel	
⑪	O-ring	NBR	
⑫	O-ring	NBR	Special O-ring
⑬	Stopper seal	NBR	Special seal
⑭	Holding rubber	NBR	

Component Parts

No.	Description	Material	Note
①	Cover (A)	Resin	
②	Cover (B)	Resin	
③	Magnet lever	Resin	
④	Holding block	Aluminum alloy	
⑤	Switch block (A)	Resin	
⑥	Switch block (B)	Resin	
⑦	Magnet	Magnetic body	
⑧	Arm	Stainless steel	
⑨	Rubber cap	NBR	
⑩	Round head Phillips screw	Stainless steel	
⑪	Hexagon socket head set screw	Stainless steel	
⑫	Round head Phillips screw	Carbon steel	For CDRB1BW50/63/80
	Hexagon socket head cap screw	Carbon steel	For CDRB1BW100
⑬	Round head Phillips screw	Stainless steel	