

Rotary Actuator with Auto Switch



Series CDRB1

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

How to Order

With auto switch
Size 10, 15

With auto switch
Size 20, 30

With auto switch
(With switch unit)

Mounting

B	Basic
F	Flange

Shaft style

W	Double shaft, one chamfer (standard)
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Rotation

Application	Symbol	Rotation
Single Vane	90	90°
	180	180°
	270	270°
Double Vane	90	90°
	100	100°

Size

10
15

Size

20
30

No. of auto switches mounted

S	1
—	2

*Right hand side operation auto switch is attached for the one with 1 auto switch.

Electrical entry/Lead wire length

—	Grommet (Lead wire: 0.5m)
L	Grommet (Lead wire: 3m)
C	Connector (Lead wire: 0.5m)
CL	Connector (Lead wire: 3m)
CN	Connector, without lead wire

*Connector style is applicable only to "R73", "R80" and T79".
**Part numbers of lead wire with connector single unit
D-LC05: Lead wire 0.5m
D-LC30: Lead wire 3m
D-LC50: Lead wire 5m

Auto switch

—	Without auto switch
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Vane style

S	Single
D	Double



Auto Switch Specifications/ Refer to p.2.11-1 for further specifications on auto switch single unit.

Applicable size	Style	Electrical entry	Indicator	Wiring (Output)	Load voltage		Auto switch part no.	Lead wire	Lead wire length*				Applicable load
					DC	AC			0.5 (—)	3 (L)	5 (Z)	— (N)	
For 10/15	Reed switch	Grommet	No	2 wire	24V	5V, 12V	90	Parallel cord	●	●	●	—	IC
						5V, 12V, 24V	90A	Cab tire	●	●	●	—	
						5V, 12V, 24V, 100V	97	Parallel cord	●	●	●	—	
						100V	93A	Parallel cord	●	●	●	—	
	Solid state switch	Grommet	Yes	3 wire (NPN)	24V	12V	T99	Cab tire	●	●	—	—	Relay PLC
							T99V		●	●	—	—	
							S99		●	●	—	—	
							S99V		●	●	—	—	
						5V, 12V	S9P		●	●	—	—	IC
							S9PV		●	●	—	—	
For 20/30	Reed switch	Grommet	Yes	2 wire	24V	100V	R73	Cab tire	●	●	—	—	IC
							R73C		●	●	●	●	
							R80		●	●	—	—	Relay PLC
							R80C		●	●	●	●	
	Solid state switch	Grommet	Yes	3 wire (NPN)	24V	12V	T79	Cab tire	●	●	—	—	IC
							T79C		●	●	●	●	
							S79		●	●	—	—	
							S79C		●	●	—	—	
						5V, 12V	S7P		●	●	—	—	IC
							S7PV		●	●	—	—	

*Lead wire length symbols 0.5m..... — Ex.) R73C ● Operating time — 1.2ms ● Operating temperature range — -10°C to 60°C
3m..... L Ex.) R73CL ● Shock resistance — 300m/s² (Reed type), 1000m/s² (Solid state type)
5m..... Z Ex.) R73CZ
Not attached.... N Ex.) R73CN

Rotary Actuator/Vane Style *Series CRB1*



Applicable Auto Switch

Applicable series	Auto switch models		Electrical entry	Page
CDRB1BW 10 CDRB1BW 15	Reed switch	D-90/90A	Grommet/2 wire style	2.11-12 2.11-14
		D-97/93A		
	Solid state switch	D-S99/S99V*	Grommet/3 wire style (NPN)	2.11-23
		D-S9P/S9PV*	Grommet/3 wire style (PNP)	
		D-T99/T99V	Grommet/2 wire style	
CDRB1BW 20 CDRB1BW 30	Reed switch	D-R73	Grommet/2 wire style	2.11-15
		D-R80	Connector/2 wire style	
	Solid state switch	D-S79*	Grommet/3 wire style (NPN)	2.11-24
		D-S7P*	Grommet/2 wire style (PNP)	
		D-T79	Grommet/2 wire style, Connector/2 wire style	

*No connector style for 3 wire without connecting section style.

CRB1

CRBU

CRA1

CRQ

MRQ

MSQ

MSUB

How to Adjust Auto Switch

Refer to p.1.0-19 and 1.0-20 for further information on auto switch adjusting method.

Units



All units are mountable to series CDRB1. Refer to p.1.0-23 for 1.0-24 further information.

Combinable unit

①Auto switch unit

*Switch block unit (Required when using 3 auto switches.)

②Angle adjusting unit

③Angle adjusting unit with auto switch

*Joint unit (Required when connecting auto switch to angle adjusting unit.)



Precaution

Be sure to read before handling.

Refer to p.2.11-2 to 2.11-4 for common precautions of auto switch.

Series CDRB1

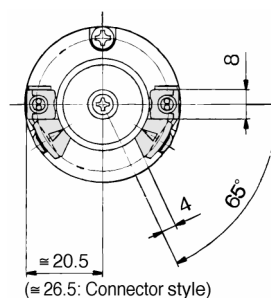
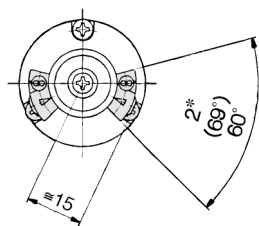
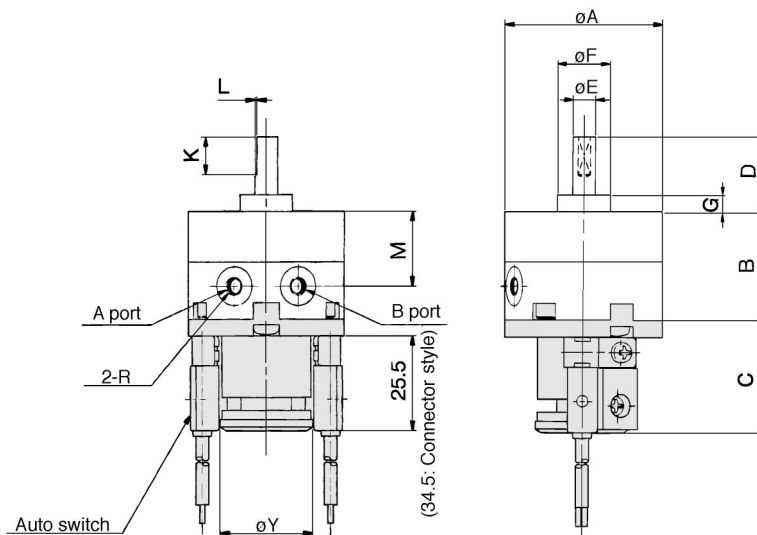
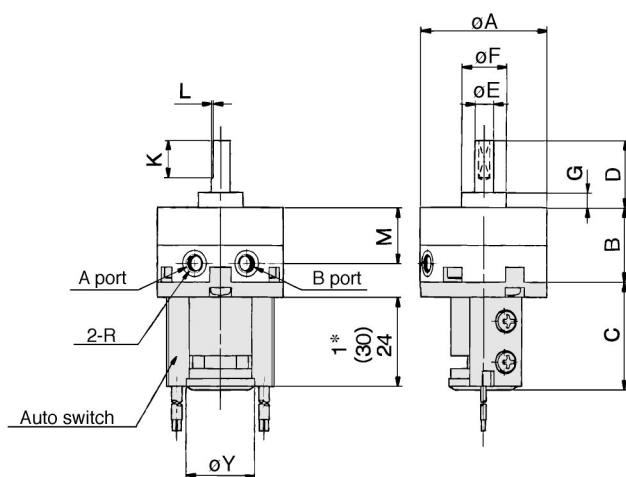
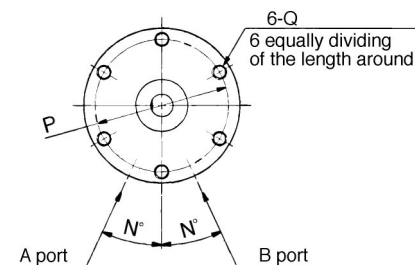
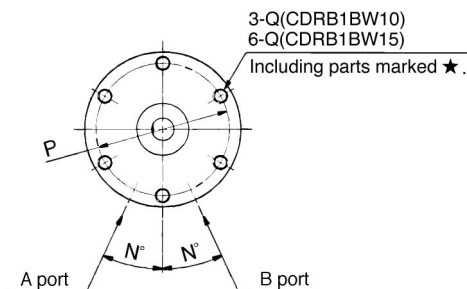
Size 10, 15, 20, 30/With auto switch

Single vane

CDRB1BW10/15-□S

Single vane

CDRB1BW20/30-□S



The dimensions above show pressurization to B port for 90° and 180°. Refer to p.1.1-7 for further information.

*1. 24: When auto switches of "D-90", "90A", "S99(V)", "T99(V)", "S9P(V)", styles are being used.

30: When "D-97", "93A" styles are being used.

*2. 60°: When auto switches of "D-90", "90A", "97", "93A" styles are being used.

69°: When auto switches of "D-S99(V)", "T99(V)", "S9P(V)" styles are being used.

Note) For auto switch attached style, positions for connecting ports are on body side.

*The diagrams of outer appearances show the auto switches with 1 right hand operating switch and one left hand operating switch.

Model	A	B	C	D	E (g6)	F (h9)	G	K	L	M	N	P	Q	R			Y
														90°	180°	270°	
CDRB1BW10-□S	29	15	29	14	4	9	3	9	0.5	10	25	24	M3 X 0.5Depth5	M5 X 0.8		M3 X 0.5	18.5
CDRB1BW15-□S	34	20	29	18	5	12	4	10	0.5	15	25	29	M3 X 0.5Depth5	M5 X 0.8		M3 X 0.5	18.5
CDRB1BW20-□S	42	29	30	20	6	14	4.5	10	0.5	20	25	36	M4 X 0.7Depth7		M5 X 0.8		25
CDRB1BW30-□S	50	40	31	22	8	16	5	12	1	30	25	43	M5 X 0.8Depth10		M5 X 0.8		25

CAD CDRB1BW [Size] -S.....SCRB [Size] , #7