

Rotary Actuator Free Mount Style



Series *CRBU* (Size: 10/15/20/30)

How to Order

Standard



CRBU W

Free mount

Size

10
15
20
30

Connecting port location

—	Body side
E	Axis direction

Vane type

S	Single vane
D	Double vane

Angle of rotation

Application	Symbol	Angle of rotation
Single vane	90	90°
	180	180°
	270	270°

**With Auto Switch
Size 10/15**



**With Auto Switch
Size 20/30**



**With auto switch
(With switching unit)**

CDRB UW

Free mount

Size

20
30

Angle of rotation

Application	Symbol	Angle of rotation
Single vane	90	90°
	180	180°
	270	270°
Double vane	90	90°
	100	100°

Vane Style

S	Single vane
D	Double vane

Auto switch

—	Without auto switch
---	---------------------

* Refer to the table below for selection of applicable auto switch.

Connecting port locations




Body side
(Fittings should be ordered separately.)

Axis direction

No. of auto switches

S	1*
—	2

* The one auto switch attached with order symbol "S" is right hand operating type.

Electrical entry and 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 wires

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

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

Applicable size	Type	Electrical entry	Indicator light	Wiring (Output)	Load voltage		Auto switch part no.	Lead wire	Lead wire length* (m)				Applicable loading
					DC	AC			0.5 (—)	3 (L)	5 (Z)	— (N)	
For 10/15	Reed switch	Grommet	No	2 wire	5V, 12V	5V, 12V, 24V	90	Parallel cord	●	●	●	—	IC
					5V, 12V, 100V	5V, 12V, 24V, 100V	90A	Cab tire	●	●	●	—	
					—	—	97	Parallel cord	●	●	●	—	
					—	100V	93A	—	●	●	●	—	
					12V	—	T99	—	●	●	—	—	Relay PLC
	Solid state switch	Grommet	Yes	3 wire (NPN)	—	—	T99V	—	●	●	—	—	
					—	—	S99	Cab tire	●	●	—	—	
					5V, 12V	—	S99V	—	●	●	—	—	
					—	—	S9P	—	●	●	—	—	
					—	—	S9PV	—	●	●	—	—	
For 20/30	Reed switch	Grommet	Yes	2 wire	—	100V	R73	—	●	●	—	—	IC
		Connector			—	—	R73C	—	●	●	●	●	
		Grommet			—	—	R80	—	●	●	—	—	
		Connector			48V, 100V	24V, 48V, 100V	R80C	Cab tire	●	●	●	●	
		Grommet			12V	—	T79	—	●	●	—	—	Relay PLC
	Solid state switch	Grommet	Yes	3 wire (NPN)	—	—	T79C	—	●	●	●	●	
					—	—	S79	—	●	●	—	—	
					5V, 12V	—	S79P	—	●	●	—	—	
					—	—	—	—	●	●	—	—	
					—	—	—	—	●	●	—	—	

* Symbols for lead wire length 0.5m: — Ex.) R73C
 3m: L Ex.) R73CL
 5m: Z Ex.) R73CZ
 —: N Ex.) R73CN

• Operating time — 1.2ms • Operating temperature range — -10° to 60°C

• Shock resistance — 300m/s² {30, 6G} (Reed switch),
 1000m/s² {102G} (Solid state switch)

Series CDRBU Auto Switch Specifications



Refer to p.2.11-1 for further information on auto switch single body.



Applicable Auto Switch

Applicable series	Auto switch part No.		Electrical entry	Page
CDRBUW10 CDRBUW15	Reed switch	D-90/90A	Grommet	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	
CDRBUW20 CDRBUW30	Reed switch	D-R 7	Grommet	2.11-15
		D-R 8		
	Solid state switch	D-R 7*	Grommet/3 wire style (NPN)	2.11-24
		D-S7P	Grommet/3 wire style (PNP)	
		D-T 7	Grommet/2 wire type, Connector/2 wiretype	

* No connector type is available for solid state switch 3 wire style.

⚠ Caution

Be sure to read before handling. Refer to p.2.11-2 to 2.11-4 before handling auto switches.

Units



Every kind of unit is mountable to series CDRBU. Refer to p.1.0-23 and 1.0-24 for further information.

• Combinable units:

- | | |
|------------------------|---|
| ① Auto switch unit | ② Switch block unit |
| ③ Angle adjusting unit | ④ Angle adjusting unit with auto switch |
| ⑤ Joint unit | |



Auto switch single unit
D-97/93.....SCRB10,#16
D-97/93.....SCRB15,#16

Free Mount Style Rotary Actuator *Series CDRBU*

With Auto Switch Dimensions/Single Vane Style



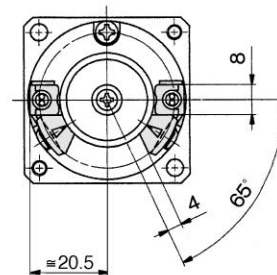
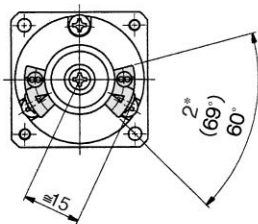
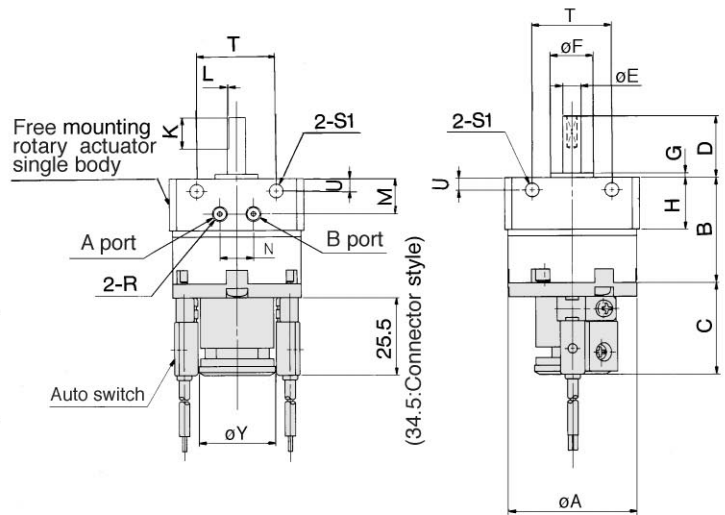
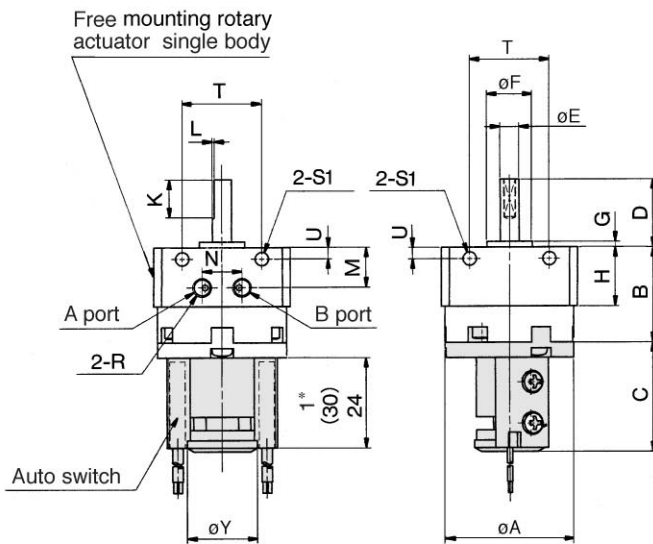
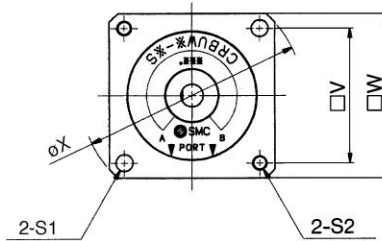
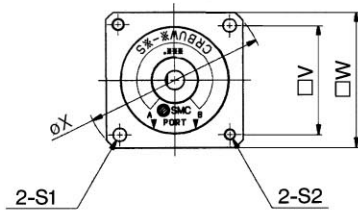
* The dimensions below show pressurization to B port of actuators for 90° and for 180°.

CDRBUW10, 15-□S

CDRBUW20, 30-□S



Refer to p.1.2-5 for further information.



- * 1) 24: When auto switches "D-90, 90A, S99(V), T99, S9P(V)" types are used.
30: When auto switches "D-97, 93A" types are used.
- * 2) 60: When auto switches "D-90, 90A, 97, 93A" types are used.
69: When auto switches "D-S99(V), T 99, S9P(V)" types are used.

(Approx. 26.5: Connector style)



Note) All connecting port locations are on the body side for auto switch attached style.

Note) The dimensions above are of one right hand side operating style attached and one left hand side operating style attached.

Model	A	B	C	D	E(g6)	F(h9)	G	H	K	L	M	N	R	S1	S2	T	U	V	W	X	Y
CDRBUW10-□S	29	22	29	14	4 ^{-0.004} _{-0.012}	9 ⁰ _{-0.036}	1	15.5	9	0.5	10.5	10.5	M5 X 0.8	3.5	M3 X 0.5	17	3	25	31	41	18.5
CDRBUW15-□S	34	25	29	18	5 ^{-0.004} _{-0.012}	12 ⁰ _{-0.043}	1.5	15.5	10	0.5	10.5	10.5	M5 X 0.8	3.5	M3 X 0.5	21	3	29	36	48	18.5
CDRBUW20-□S	42	34.5	30	20	6 ^{-0.004} _{-0.012}	14 ⁰ _{-0.043}	1.5	17	10	0.5	11.5	11	M5 X 0.8	4.5	M4 X 0.7	26	4	36	44	59	25
CDRBUW30-□S	50	47.5	31	22	8 ^{-0.005} _{-0.014}	16 ⁰ _{-0.043}	2	17.5	12	1	12	13	M5 X 0.8	5.5	M5 X 0.8	29	4.5	42	52	69	25



CDRBUW [Size]-S.....SCRB [Size], #8