

Rotary Actuator Rack & Pinion Style

Series *CRA1*

Size: 30, 50, 63, 80, 100

How to Order

Size 30

CRA1 B W 30 — 90

● **Mounting style**

B	Basic style
L	Foot style

● **Rotating angle**

90	90°
180	180°

● **Rod end shape**
Double shaft

Size 50 to 100

CRA1 B S 50 — 90 - XG

● **Mounting style**

B	Basic style
L *	Foot style
F	Flange style

* For part numbers, refer to the tables below.

● **Air cushion**

Nil	None
C	With air cushion

● **Rotating angle**

Standard	90	90°
	180	180°
Option	100	100°
	190	190°

● **Shaft type**

Standard	S	Single shaft
	W	Double shaft
Option	X	Single shaft with four chamfers
	Y	Double shaft key
	Z	Double shaft with four chamfers

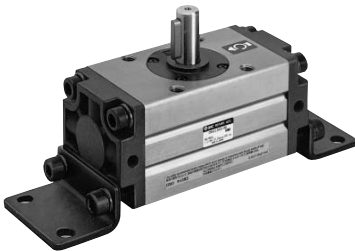
● **Type**

Nil	Pneumatic
H	Air-hydro

● **Size**

50
63
80
100

Foot Bracket Part No.



Size	Foot bracket	Mounting screws included in foot bracket
30	CRA1L30-Y-1	M5 x 0.8 x 25
50	CRA1L50-Y-1	M8 x 1.25 x 35
63	CRA1L63-Y-1	M10 x 1.5 x 40
80	CRA1L80-Y-1	M12 x 1.75 x 50
100	CRA1L100-Y-1	M12 x 1.75 x 50



Note 1) The part numbers shown above include mounting screw.

Note 2) As ordering foot bracket, write "1 piece" for the bracket for one rotary actuator.

Rotary Actuator Rack & Pinion Style **Series CRA1**



Specifications

Type	Pneumatic				
Size	30	50	63	80	100
Fluid	Air (Non-lube)				
Max. operating pressure	1 MPa				
Min. operating pressure	0.1 MPa				
Ambient and fluid temperature	0 to 60°C (No freezing)				
Cushion	None	Not attached, Air cushion			
Output (N·m) ⁽¹⁾	1.9	9.3	17	32	74
Allowable surge pressure	—				
Backlash	⁽²⁾	Within 1°			
Tolerance in rotating angle	—	+ 4° 0			



Note 1) Output under the operating pressure of 0.5 MPa.

Note 2) Since CRA1□30 has a stopper installed, there is no backlash produced under pressure.

Allowable Kinetic Energy/Safe Range of Rotation Time

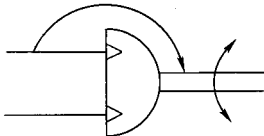
Model	Allowable kinetic energy			Adjustable range of rotation time safe in operation
	Allowable kinetic energy (mJ)		Cushion angle	
	Without cushion	With cushion ^(Note)		Rotation time (s/90°)
CRA1□W30	10	—	—	0.2 to 1
CRA1□□50	50	980	35°	0.2 to 2
CRA1□□63	120	1500	35°	0.2 to 3
CRA1□□80	160	2000	35°	0.2 to 4
CRA1□□100	540	2900	35°	0.2 to 5



Note) Allowable kinetic energy of the bumpers equipped model

The maximum absorbed energy under proper adjustment of the cushion needle

Symbol



Weight/Standard

(kg)

Model	Standard weight		Additional weight	
	90°	180°	Foot bracket	Flange bracket
CRA1BW30	0.3	0.4	0.1	—
CRA1BW50	1.5	1.7	0.3	0.5
CRA1BW63	2.5	3	0.5	0.9
CRA1BW80	4.3	5	0.9	1.5
CRA1BW100	8.5	9.5	1.2	2

Weight/With Auto Switches

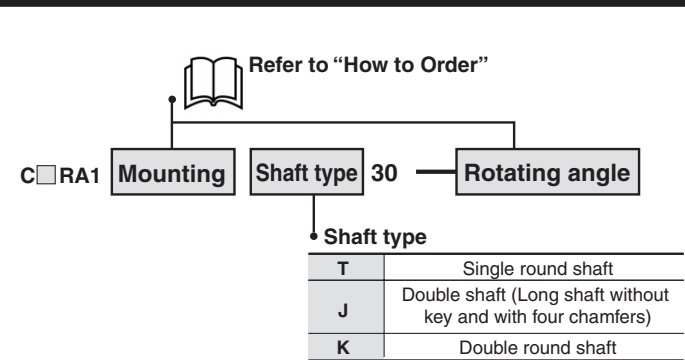
(kg)

Size	Additional weight
	With 2 auto switches
30	0.1
50	0.2
63	0.4
80	0.6
100	0.9

Series **CRA1**

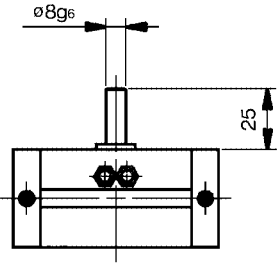
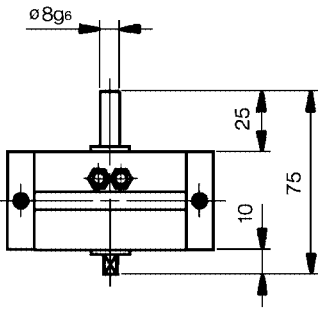
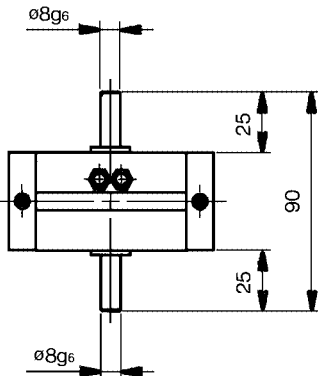
Shaft Type Variations/Without Key Grooves (Size 30)

Shaft Type: T, J, K



Specifications	
Type	Pneumatic
Size	30
Shaft type	Single round shaft (T), Double round shaft (K), Double shaft/(Long shaft without key and with four chamfers) (J)
Cushion	None
Auto switch	Mountable
Mounting	Basic style, Foot style

Dimensions (mm)

Shaft type	T (Single round shaft)	J (Double shaft/Long shaft without key and with four chamfers)	K (Double round shaft)
Configuration			

Rotary Actuator Rack & Pinion Style **Series CRA1**

Shaft Variations/Without Key Groove (Size 50 to 100)

Shaft Type: T, J, K

CRA1 ☐ Mounting ☐ Shaft type ☐ Size ☐ Rotating angle ☐

Air cushion

Nil	None
C	With air cushion

Refer to "How to Order"

• **Shaft type**

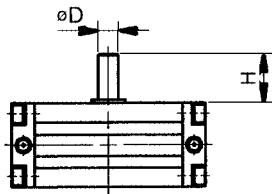
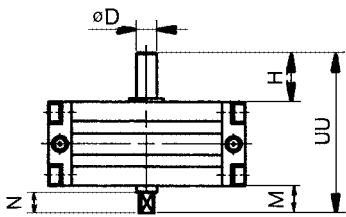
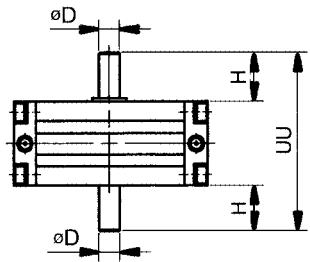
T	Single round shaft
J	Double shaft (Long shaft without key and with our chamfers)
K	Double round shaft

Specifications

Type	Pneumatic	Air-hydro
Size	50, 63, 80, 100	
Fluid	Air (Non-lube)	Hydraulic oil
Shaft type	Single round shaft (T), Double round shaft (K), Double shaft/Long shaft without key and with four chamfers (J)	
Cushion	Not attached, Air cushion	None
Auto switch	Mountable	
Mounting	Basic style, Foot style	

Dimensions

(mm)

Shaft type	T (Single round shaft)		J (Double shaft/Long shaft without key & with four chamfers)					K (Double round shaft)		
Configuration										
Size	D (g6)	H	D (g6)	H	M	N	UU	D (g6)	H	UU
50	15	36	15	36	20	15	118	15	36	134
63	17	41	17	41	22	17	139	17	41	158
80	20	50	20	50	25	20	167	20	50	192
100	25	60	25	60	30	25	202	25	60	232

Series CRA1

Shaft Variations (Size 30)

Shaft Type: S, X, Y, Z

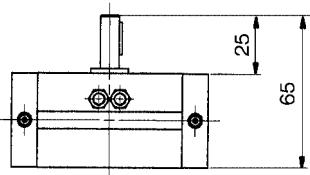
CRA1 Mounting Shaft type 30 Rotating angle
Refer to "How to Order"

Shaft type	
S	Single shaft key
X	Single shaft with four chamfers
Y	Double shaft key
Z	Double shaft with four chamfers

Specifications

Type	Pneumatic
Size	30
Max. operating pressure (MPa)	1 MPa
Min. operating pressure (MPa)	0.1 MPa
Shaft type	Single shaft key (S), Double shaft with four chamfers (X), Double shaft key (Y), Double shaft with four chamfers (Z)
Mounting	Basic style, Foot style
Auto switch	Mountable

S (Single shaft key)

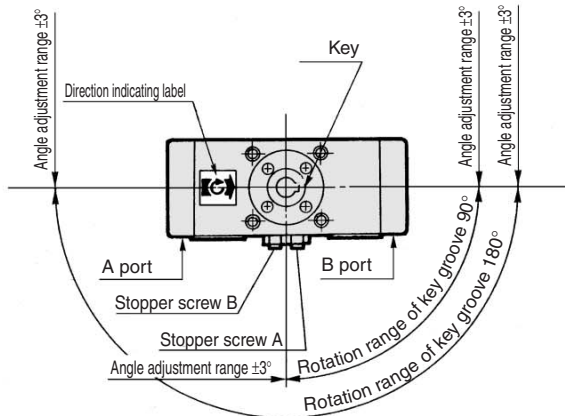


X (Single shaft with four chamfers)	Y (Double shaft key)	Z (Double shaft with four chamfers)

Rotation Range of Key Groove

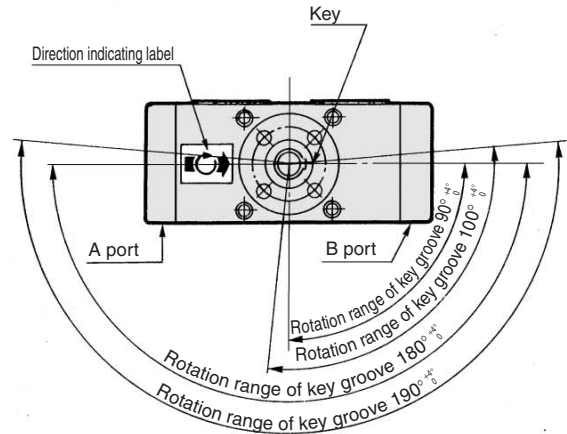
If air pressure is applied from the A side of the direction indication label, the shaft rotates clockwise. If air pressure is applied from the B side, the shaft rotates counterclockwise.

Size: 30



- Stopper screw A: For end adjustment in clockwise direction
- Stopper screw B: For end adjustment in counter clockwise direction

Size: 50 to 100



How to Set Rotation Time

Even if the torque that is generated by the rotary actuator is small, the parts could become damaged depending on the inertia of the load. Therefore, the rotation time should be determined by calculating the load's inertial moment and kinetic energy.

Allowable load on the shaft

Refer to the model selecting order step 3 for rotary actuators on page concerning allowable loads on the shafts of Series CRA1.

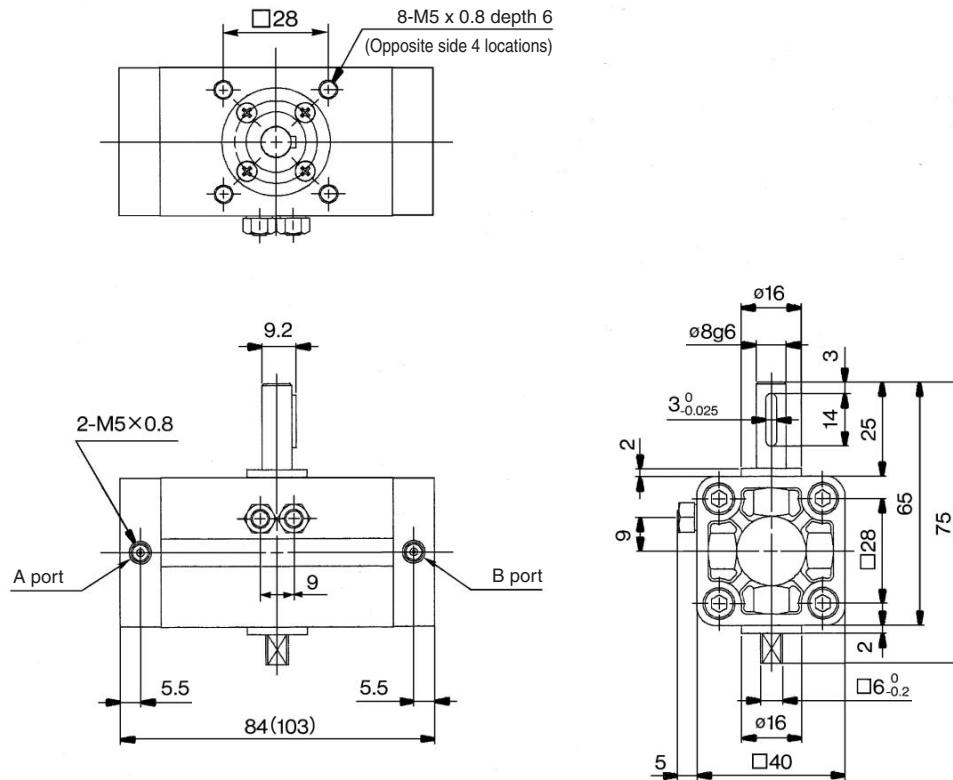
Series CRA1

Size 30/Basic Style: CRA1BW, Foot Style: CRA1LW

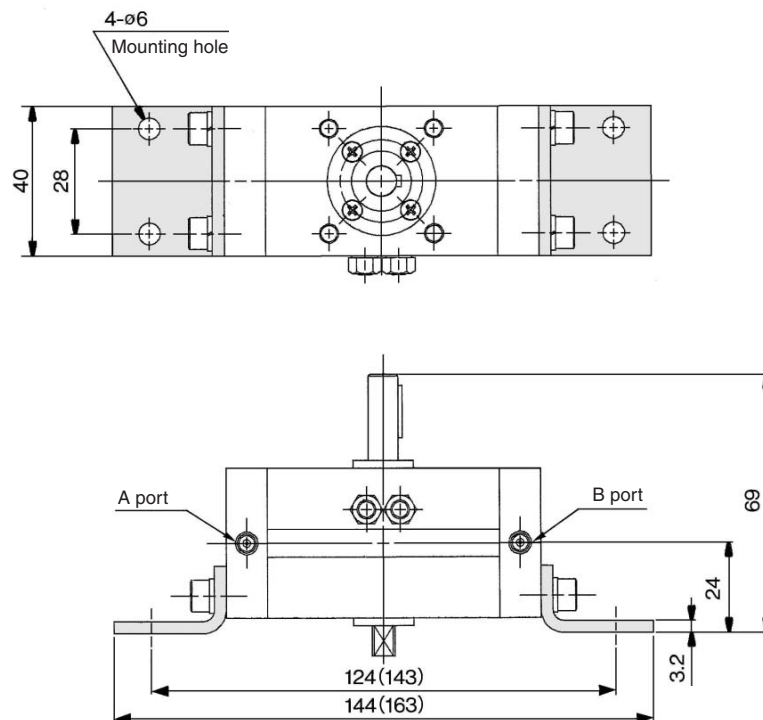
Basic style: CRA1BW30



This drawing is for
90° specifications.



Foot style: CRA1LW30



* () are the dimensions for rotation of 180°.

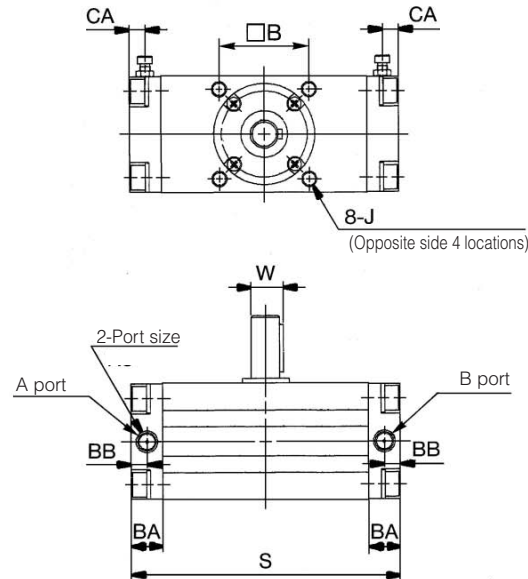
★The dimensions below show pressurization to B port.

Rotary Actuator Rack & Pinion Style **Series CRA1**

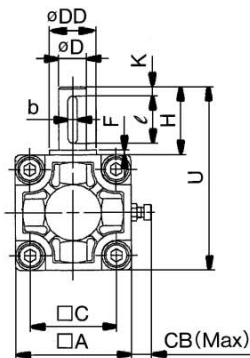
Size 50, 63, 80, 100/Basic Style: CRA1B□

Size: 50 to 100

Single shaft type: CRA1BS



Single shaft



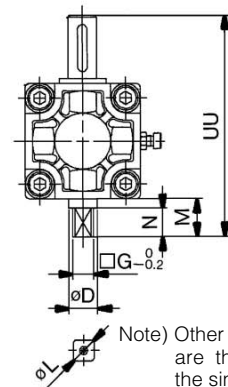
* The dimensions above show pressurization to B port.
* () are the dimensions for rotation of 180° and 190°.

Model	Port size G	A	B	C	D (g6)	DD (h9)	F	H	J	K	S	U	W	BA	BB	CA	CB	Keyway dimensions b	l
CRA1BS50	1/8	62	48	46	15	25	2.5	36	M8 x 1.25 Depth 8	5	144 (177)	98	17	17	8.5	8.5	13	5 ⁰ _{-0.030}	25
CRA1BS63	1/8	76	60	57	17	30	2.5	41	M10 x 1.5 Depth 12	5	163 (201.5)	117	19.5	20	10	10	14	6 ⁰ _{-0.030}	30
CRA1BS80	1/4	92	72	70	20	35	3	50	M12 x 1.75 Depth 13	5	186 (230)	142	22.5	23.5	12	12	18	6 ⁰ _{-0.030}	40
CRA1BS100	3/8	112	85	85	25	40	4	60	M12 x 1.75 Depth 14	5	245 (311)	172	28	25	12.5	12.5	18	8 ⁰ _{-0.036}	45

* For model with air cushion

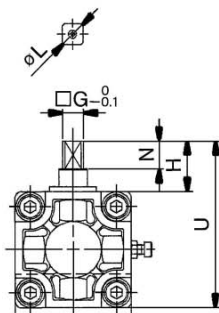
Double shaft type: CRA1BW

Double shaft



Model	D (g6)	G	M	N	UU	L
CRA1BW50	15	11	20	15	118	14
CRA1BW63	17	13	22	17	139	16
CRA1BW80	20	15	25	20	167	19
CRA1BW100	25	19	30	25	202	24

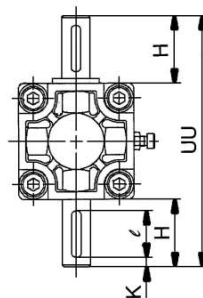
Single shaft with four chamfers: CRA1BX



Note) Other dimensions are the same as the single shaft.

Model	G	H	N	U	L
CRA1BX50	11	27	15	89	14
CRA1BX63	13	29	17	105	16
CRA1BX80	15	38	20	130	19
CRA1BX100	19	44	25	156	24

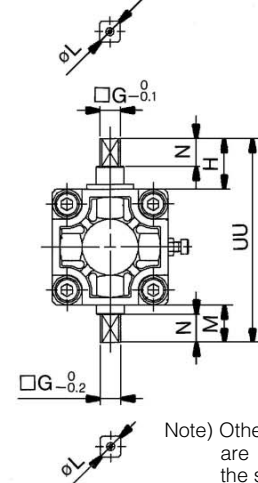
Double shaft key: CRA1BY



Note) Other dimensions are the same as the single shaft.

Model	H	K	UU	l
CRA1BY50	36	5	134	25
CRA1BY63	41	5	158	30
CRA1BY80	50	5	192	40
CRA1BY100	60	5	232	45

Double shaft with four chamfers: CRA1BZ



Model	G	H	M	N	UU	L
CRA1BZ50	11	27	20	15	109	14
CRA1BZ63	13	29	22	17	127	16
CRA1BZ80	15	38	25	20	155	19
CRA1BZ100	19	44	30	25	186	24

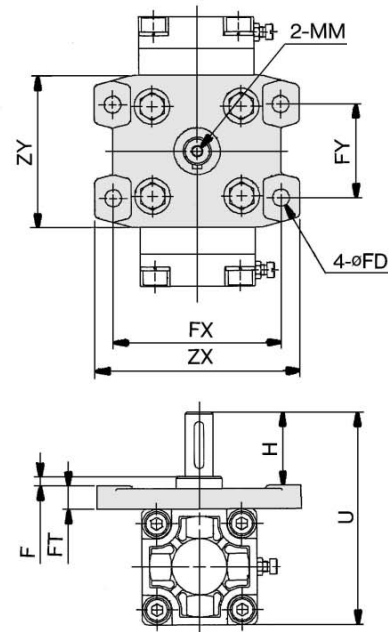
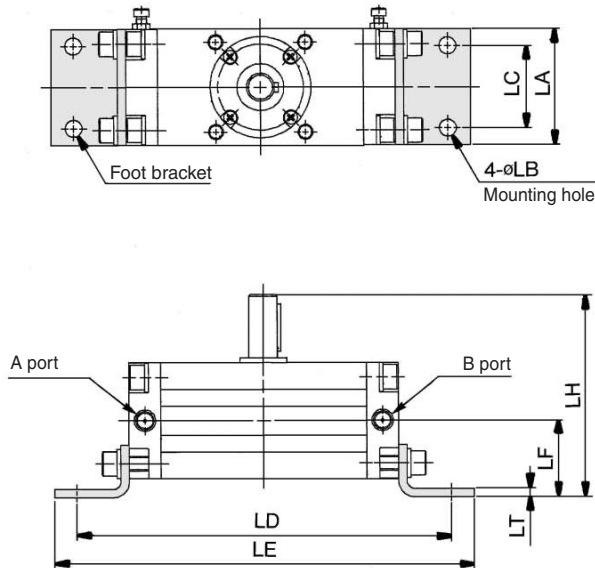
Series CRA1

Size 50, 63, 80, 100/Foot Style: CRA1L□, Flange Style: CRA1F□

Foot style: CRA1L□

Flange style

Single shaft: CRA1FS



● Dimensions above show pressurization to B port.
* () are the dimensions for rotation of 180° and 190°.

Model	LA	LB	LC	LD	LE	LF	LH	LT
CRA1L□50	62	9	44	200 (233)	224 (257)	41	108	4.5
CRA1L□63	76	11	55	235 (273.5)	263 (301.5)	48	127	5
CRA1L□80	92	13	67	274 (318)	316 (360)	58	154	6
CRA1L□100	112	13	87	333 (399)	375 (441)	73.5	189.5	6



Note) Other dimensions are the same as standard.

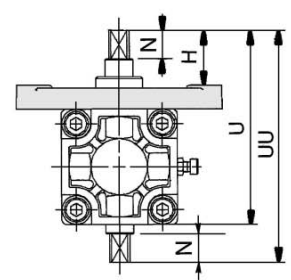
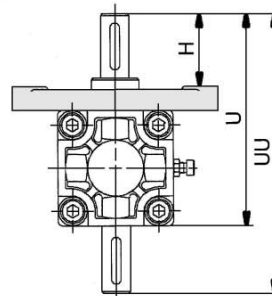
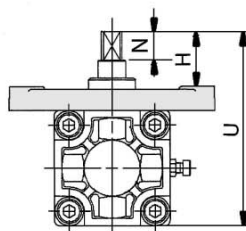
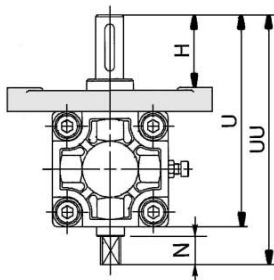
Model	F	H	MM	U	FD	FT	FX	FY	ZX	ZY
CRA1F□50	4	39	M 6 x 1.0 depth 12	114	9	13	90	50	110	81
CRA1F□63	5	45	M 6 x 1.0 depth 12	136	11.5	15	105	59	130	101
CRA1F□80	5	55	M 8 x 1.25 depth 16	165	13.5	18	130	76	160	119
CRA1F□100	5	60	M10 x 1.5 depth 20	190	13.5	18	150	92	180	133

Flange style
Double shaft: CRA1FW

Flange style
Single shaft with four
chamfers: CRA1FX

Flange style
Double shaft key:
CRA1FY

Flange style
Double shaft with four
chamfers: CRA1FZ



Note) Other dimensions are the same as the single shaft.

Model	H	N	U	UU
CRA1FW□50	39	15	114	134
CRA1FW□63	45	17	136	158
CRA1FW□80	55	20	165	190
CRA1FW□100	60	25	190	220



Note) Other dimensions are the same as the single shaft.

Model	H	N	U
CRA1FX□50	30	15	105
CRA1FX□63	33	17	124
CRA1FX□80	43	20	153
CRA1FX□100	44	25	174



Note) Other dimensions are the same as the single shaft.

Model	H	U	UU
CRA1FY□50	39	114	150
CRA1FY□63	45	136	177
CRA1FY□80	55	165	215
CRA1FY□100	60	190	250



Note) Other dimensions are the same as the single shaft.

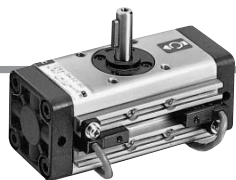
Model	H	N	U	UU
CRA1FZ□50	30	15	105	125
CRA1FZ□63	33	17	124	146
CRA1FZ□80	43	20	153	178
CRA1FZ□100	44	25	174	204

Rotary Actuator with Auto Switch Rack & Pinion Style

Series *CDRA1*

Size: 30, 50, 63, 80, 100

How to Order



Mounting style

B	Basic style
L	Foot style

Rotating angle

90	90°
180	180°

Size 30

C D RA1 B W30 90

Size 50 to 100

C D RA1 B W 50 90 XG

Built-in magnet



Mounting style

B	Basic style
L*	Foot style
F	Flange style

* For part numbers of foot bracket, refer to page 11-7-2.

Size

50
63
80
100

Cushion

Nil	None
C	With cushion

Shaft type

Standard	S	Single shaft
	W	Double shaft
Option	X	Single shaft with four chamfers
	Y	Double shaft key
	Z	Double shaft with four chamfers

Type

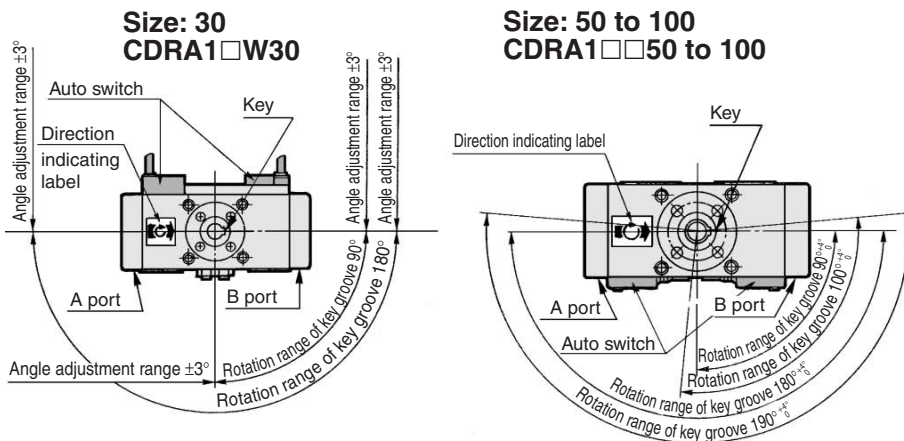
Nil	Pneumatic
H	Air-hydro

Rotating angle

Standard	90	90°
	180	180°
Option	100	100°
	190	190°

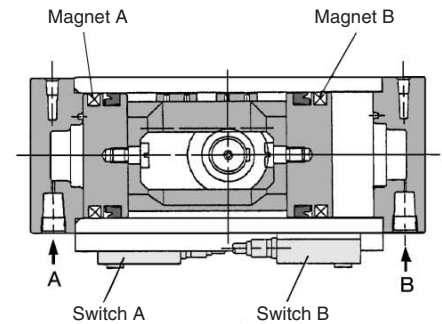
Series CDRA1

Rotation Range of Key Groove/Switch Mounting Position

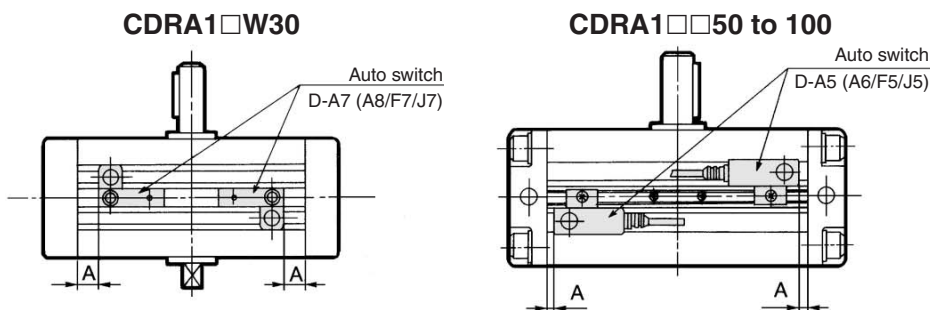


Working Principle

In the diagram below, switch B is ON. When pressure is applied from A, the piston moves to B, causing the shaft to rotate clockwise. At this time, magnet B goes out of the movement range of switch B, causing switch B to turn OFF. Furthermore, the piston moves to the right, causing magnet A to enter the movement range of switch A. As a result, switch A turns ON.



Proper Auto Switch Mounting Position at Rotation End

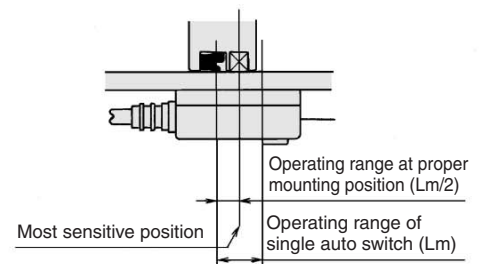


Operating angle θ m: Converts the operating range (Lm) of the auto switch into the rotation angle.
Angle of hysteresis: The hysteresis of the auto switch is converted to degrees.

Model	A (mm)	Operating angle θ m	Hysteresis angle ⁽¹⁾
CDRA1□W30-90	9 (19)	95°	20°
CDRA1□□50-90	9 (26)	65°	20°
CDRA1□□63-90	11 (30)	60°	10°
CDRA1□□80-90	15 (37)	45°	7°
CDRA1□□100-90	27 (60)	35°	5°

* The dimensions inside () are for 180° .

** Up to 2 auto switches can be mounted per actuator. The dimensions in the table are the values that represent the most sensitive positions of the auto switches. Thus, they are not the dimensions that represent the mounting position at the time of shipment.



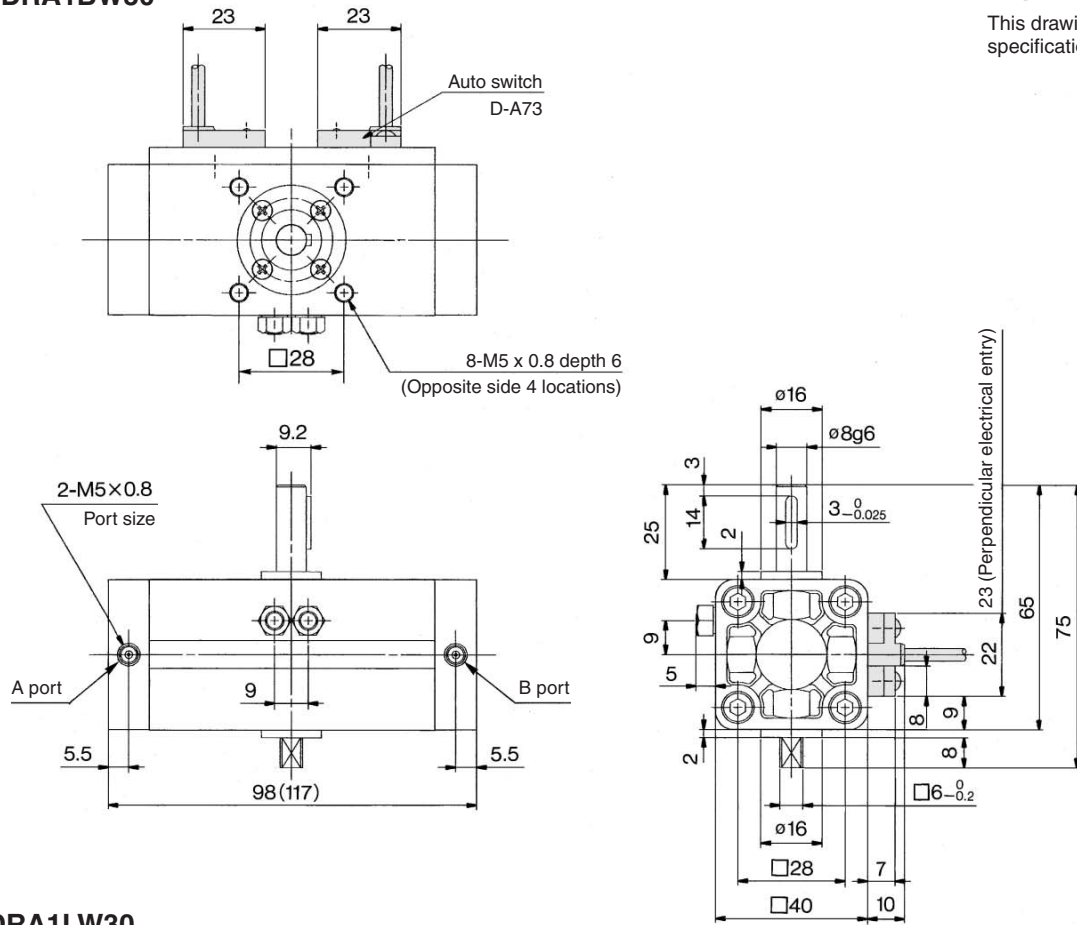
Rotary Actuator with Auto Switch Rack & Pinion Style **Series CDRA1**

Size 30/Basic Style: CDRA1BW, Foot Style: CDRA1LW

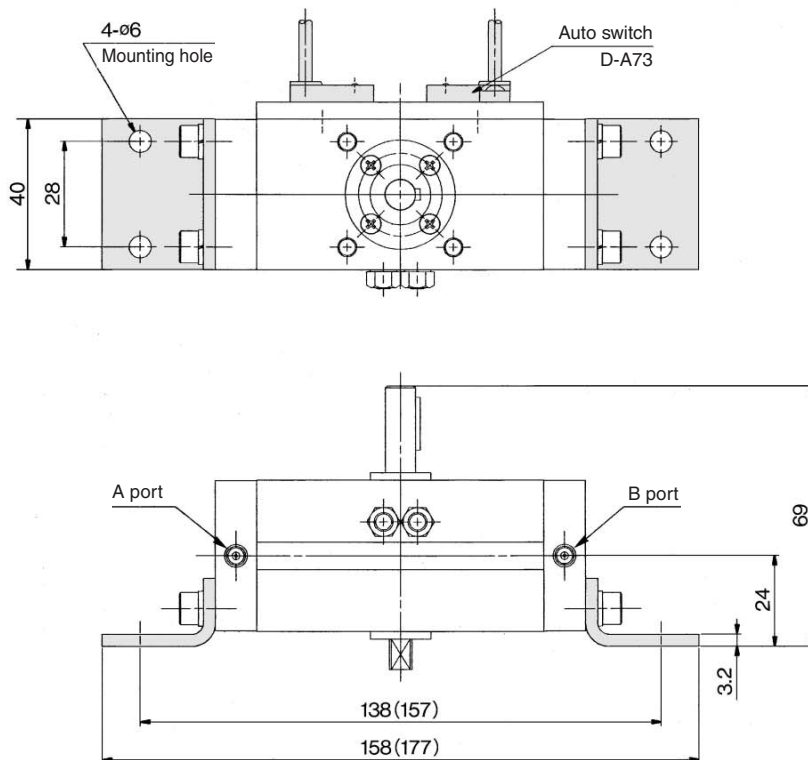
With auto switch
Basic style: CDRA1BW30



This drawing is for 90° specifications.



Foot style: CDRA1LW30



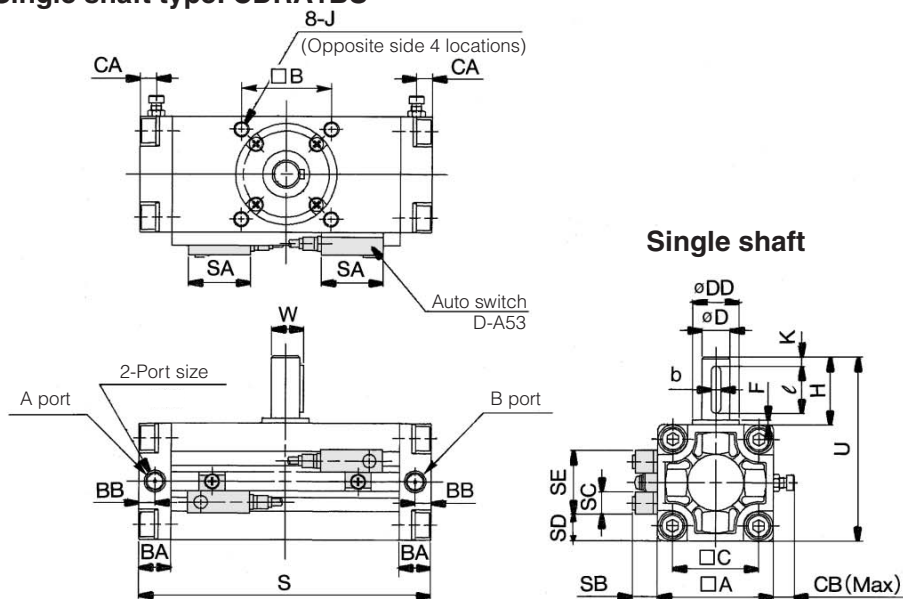
* () are the dimensions for rotation of 180°.
* The dimensions below show pressurization to B port.

Series CDRA1

Size 50, 63, 80, 100/Basic Style: CRA1B□

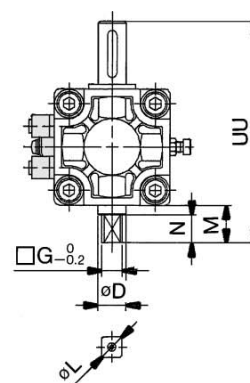
With auto switch

Single shaft type: CDRA1BS



Double shaft type:
CDRA1BW

Double shaft



Double Shaft Type

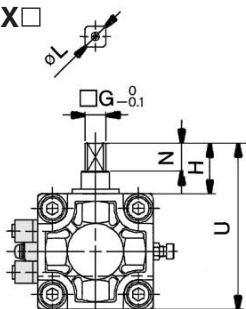
Model	D(g6)	G	M	N	UU	L
CDRA1BW50	15	11	20	15	118	14
CDRA1BW63	17	13	22	17	139	16
CDRA1BW80	20	15	25	20	167	19
CDRA1BW100	25	19	30	25	202	24

Single Shaft Type

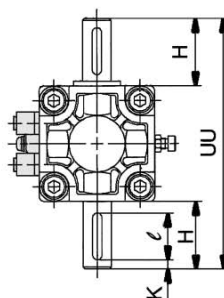
* The dimensions below show pressurization to B port.
* () are the dimensions for rotation of 180° and 190°.

Model		Port size G	A	B	C	D (g6)	DD (h9)	F	H	J	K	S	U	W	BA	BB	CA	CB	SA	SB	SC	SD	SE	Keyway dimensions		
																								b	l	
CDRA1BS50		1/8	62	48	46	15	25	2.5	36	M8 x 1.25 depth 8	5	156 (189)	98	17	17	8.5	8.5	13	33	13.5	12	14	34	5	0-0.030	25
CDRA1BS63		1/4	76	60	57	17	30	2.5	41	M10 x 1.5 depth 12	5	175 (213.5)	117	19.5	20	10	10	14	33	14.5	12	21	34	6	0-0.030	30
CDRA1BS80		1/4	92	72	70	20	35	3	50	M12 x 1.75 depth 13	5	199 (243)	142	22.5	23.5	12	12	18	33	15.5	12	29	34	6	0-0.030	40
CDRA1BS100		3/8	112	85	85	25	40	4	60	M12 x 1.75 depth 14	5	259 (325)	172	28	25	12.5	12.5	18	33	16	12	39	34	8	0-0.036	45

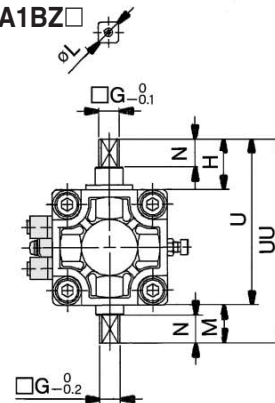
Single shaft with four chamfers:
CDRA1BX□



Double shaft key:
CDRA1BY□



Double shaft with four chamfers:
CDRA1BZ□



Note) Other dimensions are the same as the single shaft.

Model	G	H	N	U	L
CDRA1BX□50	11	27	15	89	14
CDRA1BX□63	13	29	17	105	16
CDRA1BX□80	15	38	20	130	19
CDRA1BX□100	19	44	25	156	24

Note) Other dimensions are the same as the single shaft.

Model	H	K	UU	l
CDRA1BY□50	36	5	134	25
CDRA1BY□63	41	5	158	30
CDRA1BY□80	50	5	192	40
CDRA1BY□100	60	5	232	45

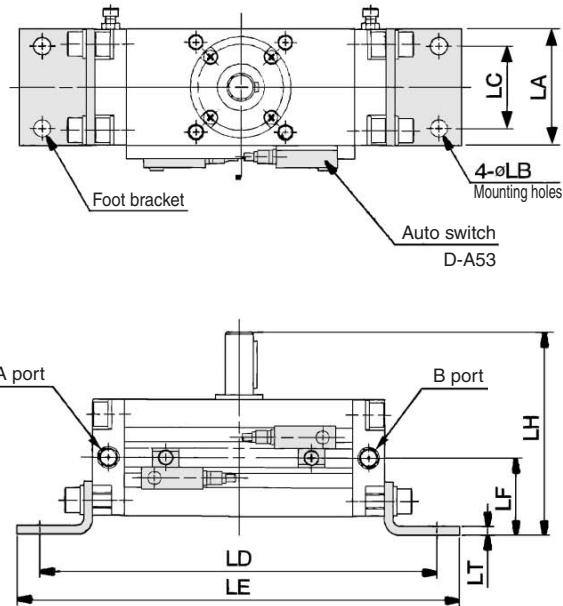
Note) Other dimensions are the same as the single shaft.

Model	G	H	M	N	U	UU	L
CDRA1BZ□50	11	27	20	15	89	109	14
CDRA1BZ□63	13	29	22	17	105	127	16
CDRA1BZ□80	15	38	25	20	130	155	19
CDRA1BZ□100	19	44	30	25	156	186	24

Rotary Actuator with Auto Switch Rack & Pinion Style **Series CDRA1**

Size 50, 63, 80, 100/Foot Style: CDRA1L, Flange Style: CDRA1F

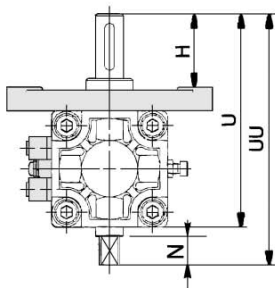
Foot style: CDRA1L□



★ Dimensions above show pressurization to B port.
* () are the dimensions for rotation of 180° and 190°.

Model	LA	LB	LC	LD	LE	LF	LH	LT
CDRA1L□50	62	9	44	212 (245)	236 (269)	41	108	4.5
CDRA1L□63	76	11	55	247 (285.5)	275 (313.5)	48	127	5
CDRA1L□80	92	13	67	287 (331)	329 (373)	58	154	6
CDRA1L□100	112	13	87	347 (413)	389 (455)	73.5	189.5	6

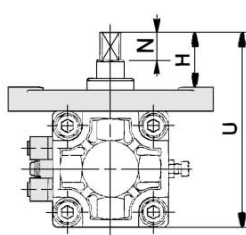
**Flange style
Double shaft:
CDRA1FW**



Note) Other dimensions are the same as the single shaft.

Model	H	N	U	UU
CDRA1FW□50	39	15	114	134
CDRA1FW□63	45	17	136	158
CDRA1FW□80	55	20	165	190
CDRA1FW□100	60	25	190	220

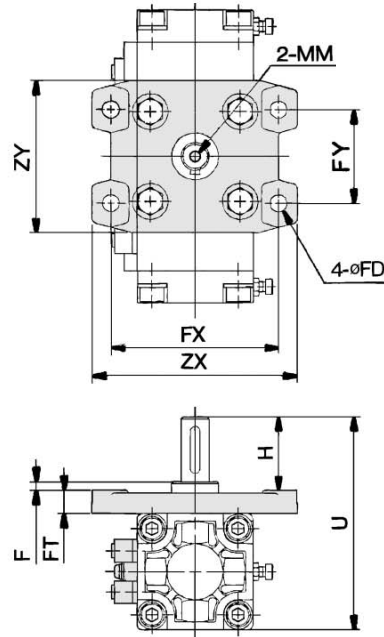
**Flange style
Single shaft with four
chamfers: CDRA1FX**



Note) Other dimensions are the same as the single shaft.

Model	H	N	U
CDRA1FX□50	30	15	105
CDRA1FX□63	33	17	124
CDRA1FX□80	43	20	153
CDRA1FX□100	44	25	174

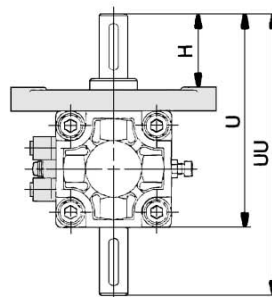
**Flange style
Single shaft: CRA1FS**



Note) Other dimensions are the same as standard.

Model	F	H	MM	U	FD	FT	FX	FY	ZX	ZY
CDRA1F□50	4	39	M 6 x 1.0 depth 12	114	9	13	90	50	110	81
CDRA1F□63	5	45	M 6 x 1.0 depth 12	136	11.5	15	105	59	130	101
CDRA1F□80	5	55	M8 x 1.25 depth 16	165	13.5	18	130	76	160	119
CDRA1F□100	5	60	M10 x 1.5 depth 20	190	13.5	18	150	92	180	133

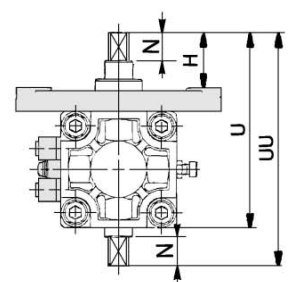
**Flange style
Double shaft key:
CDRA1FY**



Note) Other dimensions are the same as the single shaft.

Model	H	U	UU
CDRA1FY□50	39	114	150
CDRA1FY□63	45	136	177
CDRA1FY□80	55	165	215
CDRA1FY□100	60	190	250

**Flange style
Double shaft with four
chamfers: CDRA1FZ**



Note) Other dimensions are the same as the single shaft.

Model	H	N	U	UU
CDRA1FZ□50	30	15	105	125
CDRA1FZ□63	33	17	124	146
CDRA1FZ□80	43	20	153	178
CDRA1FZ□100	44	25	174	204

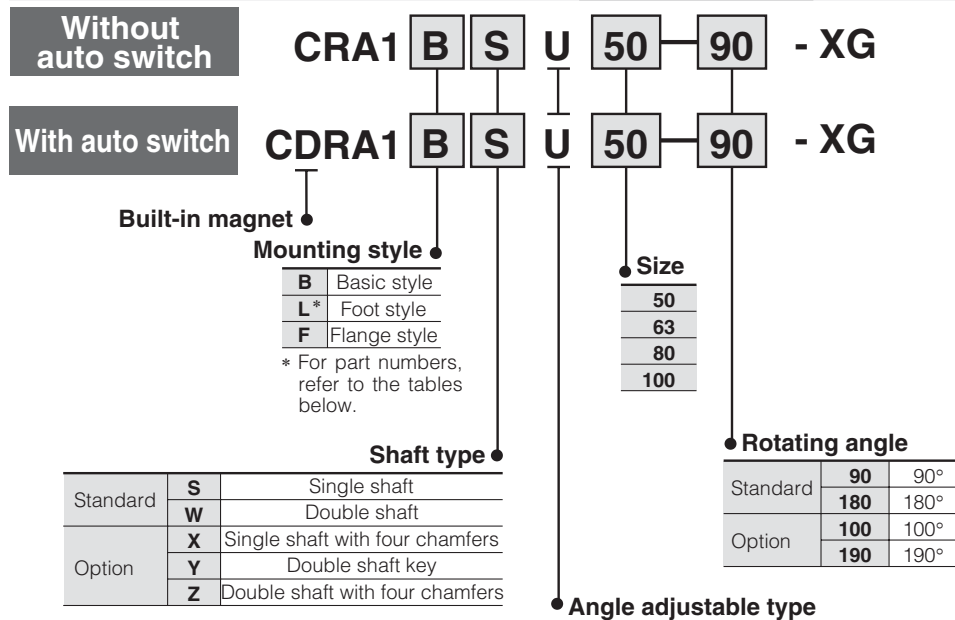
Rotary Actuator: Angle Adjustable Type Rack & Pinion Style

Series *CRA1*□□*U*

Size: 50, 63, 80, 100

* Angle adjusting mechanism is provided as standard.

How to Order



Angle Adjustable Type Rotary Actuator Rack & Pinion Style **Series CRA1□□U**



Specifications

Fluid	Air (Non-lube)
Cushion	None
Mounting	Basic style, Foot style, Flange style
Angle adjustable range	0° to 90°
Backlash	Within 1°

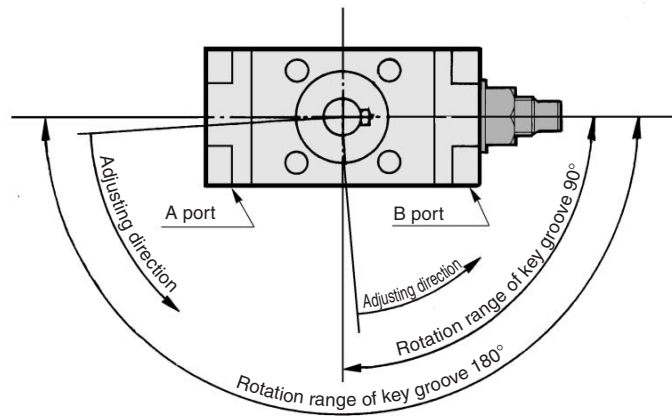
Weight

(kg)

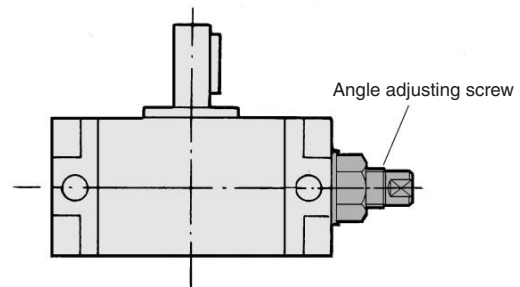
Model	Standard weight		Additional weight
	90°	180°	
CRA1□□U50	1.5	1.7	0.5
CRA1□□U63	2.5	3.0	0.8
CRA1□□U80	4.3	5.0	1.5
CRA1□□U100	8.5	9.5	2.0

Rotation Range of Key Groove

Adjusting direction is in the direction the arrows show.
Adjusting angle at 90° at maximum.
90° type: 90° to 0°, 180° type: 180° to 90°



How to Adjust Angle



Foot Bracket Part No.

Size	Foot
50	P294020-25
63	P294030-25
80	P294040-25
100	P294050-25



Note) Part no. in the table includes mounting screw.

Rotation angle becomes smaller by tightening the angle adjusting screw to the right.

Adjusting Angle per One Rotation of Angle Adjusting Screw

Size	50	63	80	100
Adjusting angle	8.2°	7.0°	6.1°	4.1°

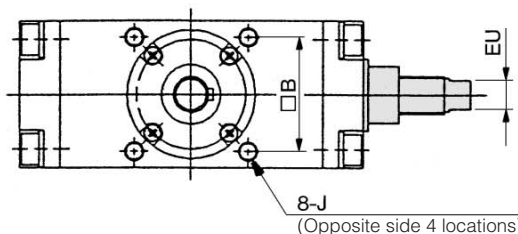
Angle Adjustable Type Rotary Actuator Rack & Pinion Style

Series CRA1□□U

Size 50, 63, 80, 100/Standard: CRA1□□U

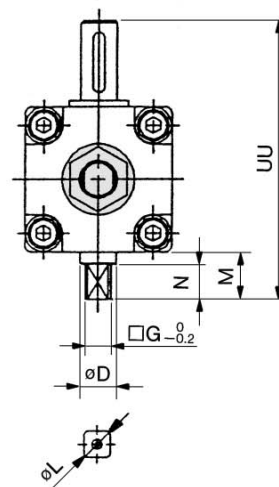
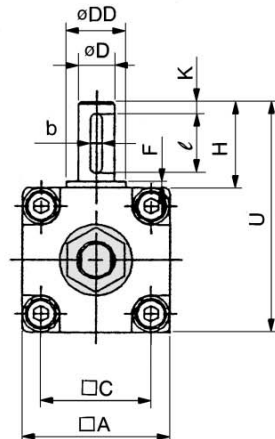
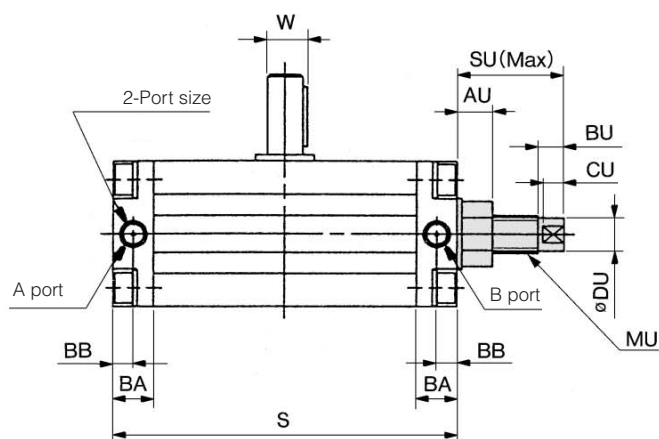
★The dimensions below show pressurization to B port.

Single shaft type: CRA1BSU



Double Shaft Type: CRA1BWU (mm)

Model	D (g6)	G	L	M	N	UU
CRA1BWU50	15	11	14	20	15	118
CRA1BWU63	17	13	16	22	17	139
CRA1BWU80	20	15	19	25	20	167
CRA1BWU100	25	19	24	30	25	202



Single Shaft Type

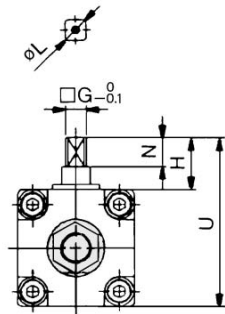
Model	Port size G	A	AU	B	BA	BB	BU	C	CU	D (g6)	DD (h9)	DU	EU	F	H	J	K	MU	S	SU	U	W	Keyway dimensions	
																							b	l
CRA1BSU50	1/8	62	15	48	17	8.5	11	46	9	15	25	14	12	2.5	36	M8 x 1.25 depth 8	5	M16 x 1.5	144 (177)	45	98	17	5 ⁰ _{-0.030}	25
CRA1BSU63	1/8	76	19	60	20	10	13	57	11	17	30	18	14	2.5	41	M10 x 1.5 depth 12	5	M20 x 1.5	163 (201.5)	54.5	117	19.5	6 ⁰ _{-0.030}	30
CRA1BSU80	1/4	92	22	72	23.5	12	16	70	13	20	35	22	19	3	50	M12 x 1.75 depth 13	5	M24 x 1.5	186 (230)	62.5	142	22.5	6 ⁰ _{-0.030}	40
CRA1BSU100	3/8	112	22	85	25	12.5	16	85	13	25	40	22	19	4	60	M12 x 1.75 depth 14	5	M24 x 1.5	245 (311)	73.5	172	28	8 ⁰ _{-0.036}	45

* () are the dimensions for rotation of 180° and 190°.

Series **CRA1□□U**

Size 50, 63, 80, 100

Single shaft with four chamfers:
CRA1BXU□



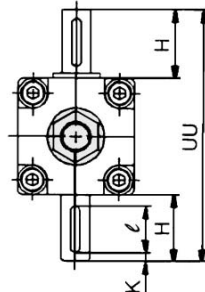
(mm)

Model	G	H	L	N	U
CRA1BXU□50	11	27	14	15	89
CRA1BXU□63	13	29	16	17	105
CRA1BXU□80	15	38	19	20	130
CRA1BXU□100	19	44	24	25	156



Note) Other dimensions are the same as the single shaft.

Double shaft key:
CRA1BYU□



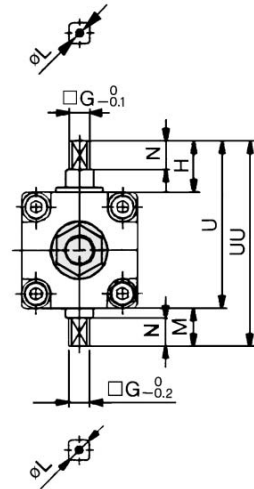
(mm)

Model	ℓ	H	K	UU
CRA1BYU□50	25	36	5	134
CRA1BYU□63	30	41	5	158
CRA1BYU□80	40	50	5	192
CRA1BYU□100	45	60	5	232



Note) Other dimensions are the same as the single shaft.

Double shaft with four chamfers:
CRA1BZU□



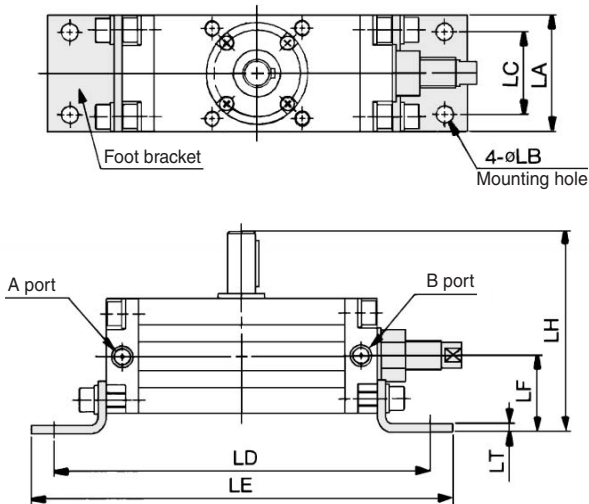
(mm)

Model	G	H	L	M	N	U	UU
CRA1BZU□ 50	11	27	14	20	15	89	109
CRA1BZU□63	13	29	16	22	17	105	127
CRA1BZU□80	15	38	19	25	20	130	155
CRA1BZU□100	19	44	24	30	25	156	186



Note) Other dimensions are the same as the single shaft.

Foot style: CRA1L□U



★ The dimensions below show pressurization to B port.

* () are the dimensions for rotation of 180° and 190°.

(mm)

Model	LA	LB	LC	LD	LE	LF	LH	LT
CRA1L□U50	62	9	44	200 (233)	224 (257)	41	108	4.5
CRA1L□U63	76	11	55	235 (273.5)	263 (301.5)	48	127	5
CRA1L□U80	92	13	67	274 (318)	316 (360)	58	154	6
CRA1L□U100	112	13	87	333 (399)	375 (441)	73.5	189.5	6

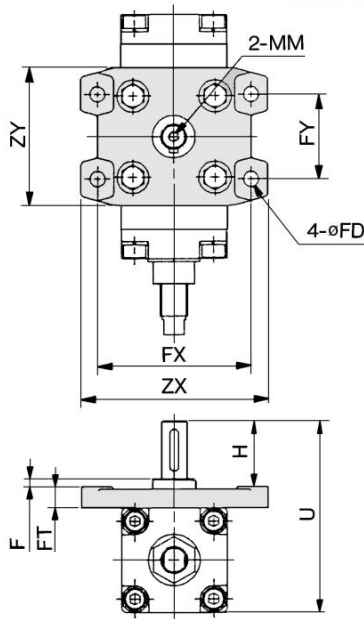


Note) Other dimensions are the same as the single shaft.

Angle Adjustable Type Rotary Actuator Rack & Pinion Style **Series CRA1□□U**

Size 50, 63, 80, 100

Single shaft flange style: CRA1FSU

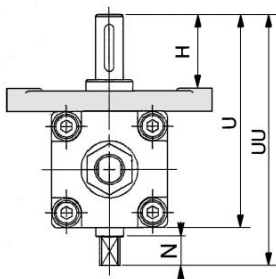


Note) Other dimensions are the same as standard.

(mm)

Model	F	FD	FT	FX	FY	H	MM	U	ZX	ZY
CRA1F□U50	4	9	13	90	50	39	M6 x 1.0 depth 12	114	110	81
CRA1F□U63	5	11.5	15	105	59	45	M6 x 1.0 depth 12	136	130	101
CRA1F□U80	5	13.5	18	130	76	55	M8 x 1.25 depth 16	165	160	119
CRA1F□U100	5	13.5	18	150	92	60	M 10 x 1.5 depth 20	190	180	133

**Flange style
Double shaft:
CRA1FWU**



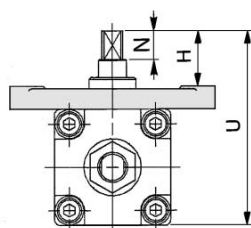
(mm)

Model	H	N	U	UU
CRA1FWU50	39	15	114	134
CRA1FWU63	45	17	136	158
CRA1FWU80	55	20	165	190
CRA1FWU100	60	25	190	220



Note) Other dimensions are the same as the single shaft.

**Flange style
Single shaft with four
chamfers: CRA1FXU**



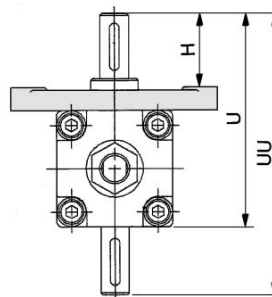
(mm)

Model	H	N	U
CRA1FXU50	30	15	105
CRA1FXU63	33	17	124
CRA1FXU80	43	20	153
CRA1FXU100	44	25	174



Note) Other dimensions are the same as the single shaft.

**Flange style
Double shaft key:
CRA1FYU**



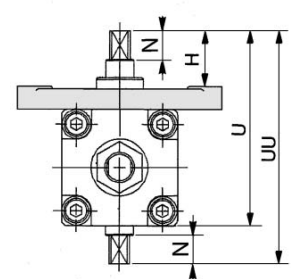
(mm)

Model	H	U	UU
CRA1FYU50	39	114	150
CRA1FYU63	45	136	177
CRA1FYU80	55	165	215
CRA1FYU100	60	190	250



Note) Other dimensions are the same as the single shaft.

**Flange style
Double shaft with four
chamfers: CRA1FZU**



(mm)

Model	H	N	U	UU
CRA1FZU50	30	15	105	125
CRA1FZU63	33	17	124	146
CRA1FZU80	43	20	153	178
CRA1FZU100	44	25	174	204

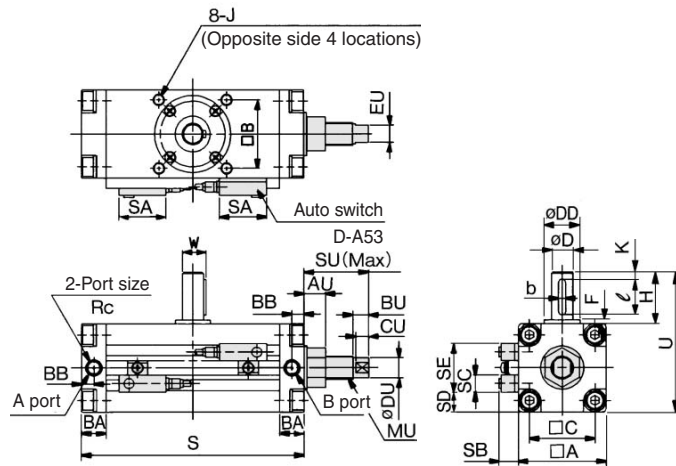


Note) Other dimensions are the same as the single shaft.

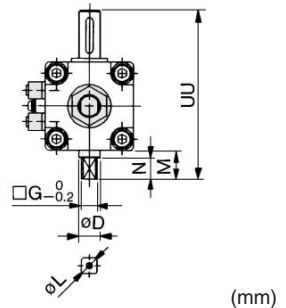
Series CRA1□□U

Size 50, 63, 80, 100

Single shaft type: CDRA1BSU



Double shaft type: CDRA1BWU



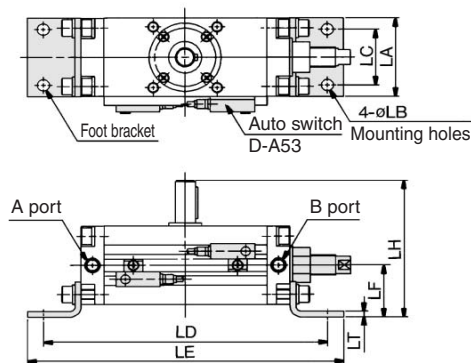
Model	øD (g6)	G	M	N	UU	øL
CDRA1BWU50	15	11	20	15	118	14
CDRA1BWU63	17	13	22	17	139	16
CDRA1BWU80	20	15	25	20	167	19
CDRA1BWU100	25	19	30	25	202	24

★ The dimensions above show pressurization to B port.

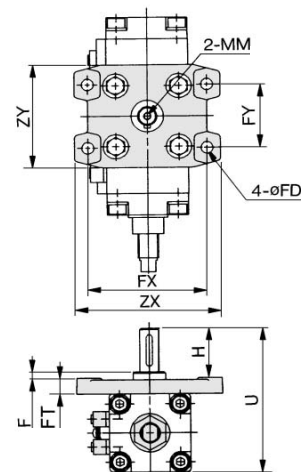
* () are the dimensions for rotation of 180° and 190°.

Model	Port size G	A	B	C	øD (g6)	øDD (h9)	F	H	J	K	S	U	W	BA	BB	SA	SB	SC	SD	SE	Keyway dimensions		AU	BU	CU	DU	EU	SU	MU
																					b	ℓ							
CDRA1BSU50	1/8	62	48	46	15	25	2.5	36	M8 x 1.25 depth 8	5	156 (189)	98	17	17	8.5	33	13.5	12	14	34	5 ⁰ _{-0.030}	25	15	11	9	14	12	45	M16 x 1.5
CDRA1BSU63	1/8	76	60	57	17	30	2.5	41	M10 x 1.5 depth 12	5	175 (213.5)	117	19.5	20	10	33	14.5	12	21	34	6 ⁰ _{-0.030}	30	19	13	11	18	14	54.5	M20 x 1.5
CDRA1BSU80	1/4	92	72	70	20	35	3	50	M12 x 1.75 depth 13	5	199 (243)	142	22.5	23.5	12	33	15.5	12	29	34	6 ⁰ _{-0.030}	40	22	16	13	22	19	62.5	M24 x 1.5
CDRA1BSU100	3/8	112	85	85	25	40	4	60	M12 x 1.75 depth 14	5	259 (325)	172	28	25	12.5	33	16	12	39	34	8 ⁰ _{-0.036}	45	22	16	13	22	19	73.5	M24 x 1.5

Foot style: CDRA1LSU



Single shaft flange style: CDRA1FSU



★ The dimensions above show pressurization to B port.

* () are the dimensions for rotation of 180° and 190°.

Note) Other dimensions are the same as the single shaft.

Model	LA	øLB	LC	LD	LE	LF	LH	LT
CDRA1LSU50	62	9	44	212 (245)	236 (269)	41	108	4.5
CDRA1LSU63	76	11	55	247 (285.5)	275 (313.5)	48	127	5
CDRA1LSU80	92	13	67	287 (331)	329 (373)	58	154	6
CDRA1LSU100	112	13	87	347 (413)	389 (455)	73.5	189.5	6

Model	F	H	MM	U	øFD	FT	FX	FY	ZX	ZY
CDRA1FSU50	4	39	M 6 x 1.0 depth 12	114	9	13	90	50	110	81
CDRA1FSU63	5	45	M 6 x 1.0 depth 12	136	11.5	15	105	59	130	101
CDRA1FSU80	5	55	M 8 x 1.25 depth 16	165	13.5	18	130	76	160	119
CDRA1FSU100	5	60	M10 x 1.5 depth 20	190	13.5	18	150	92	180	133