




Rotary clamp cylinder/single guide Double acting/single rod

RCS2 Series

● Bore size: $\phi 12/\phi 16/\phi 20/\phi 25/\phi 32/\phi 40/\phi 50/\phi 63$

JIS symbol  ● Double acting



Specifications

Descriptions		RCS2							
Bore size	mm	$\phi 12$	$\phi 16$	$\phi 20$	$\phi 25$	$\phi 32$	$\phi 40$	$\phi 50$	$\phi 63$
Actuation		Double acting							
Working fluid		Compressed air							
Max. working pressure	MPa	1.0							0.6
Min. working pressure	MPa	0.1 (*1)							
Proof pressure	MPa	1.6							
Ambient temperature	°C	-10 to 60 (no freezing)							
Port size	Rc, NPT, G	M5				1/8		1/4	
Stroke tolerance	mm	+1.0 0			+1.2 0				
Working piston speed	mm/s	50 to 200							
Cushion		Rod side: rubber cushioned, Head side: no cushioning							
Lubrication		Not required (use turbine oil type 1 ISO VG32 if necessary)							
Rotating angle		$90^\circ \pm 10^\circ$							
Rotation direction		Right/Left							
Non-rotating accuracy (clamping, default value)		$\pm 1.4^\circ$		$\pm 1.2^\circ$			$\pm 0.9^\circ$		$\pm 0.7^\circ$
Pressurized area	Pull side	84	150	201	377	804	1256	1963	3117
	Push side	113	201	314	490	603	1056	1649	2803

*1: With constant pressurization

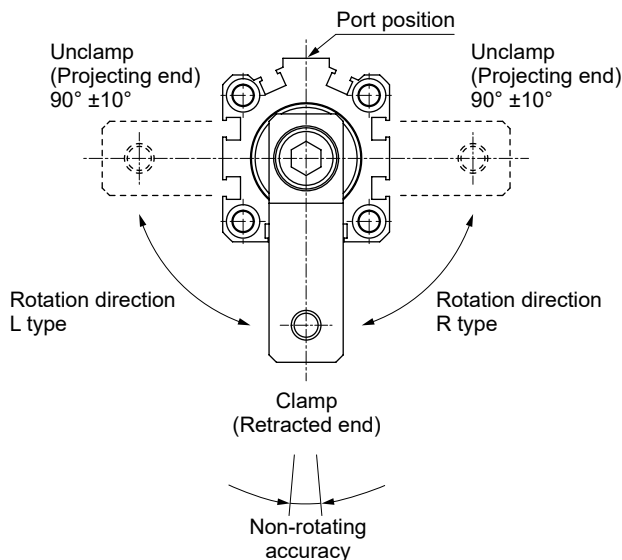
Stroke

Bore size (mm)	Stroke (mm)	Rotary stroke *1 (mm)	Clamp stroke *2 (mm)
$\phi 12, \phi 16$	17.5, 27.5, 37.5	7.5	10, 20, 30
$\phi 20, \phi 25$	19.5, 29.5, 39.5	9.5	10, 20, 30
$\phi 32, \phi 40$	25, 35, 45, 65	15	10, 20, 30, 50
$\phi 50, \phi 63$	29, 39, 49, 69	19	10, 20, 30, 50

*1: Rotary stroke length is the dimension of rotary linear movement in the clamp direction from the unclamp side.

*2: Clamp stroke length is the dimension of linear movement in the clamp direction after rotation.

Rotating angle, rotation direction, non-rotating accuracy



Switch specifications (T switch)

- 1-color/2-color display/for AC magnetic field proof

Descriptions	Proximity 2-wire		Proximity 2-wire				Proximity 3-wire				Reed 2-wire				Proximity 2-wire			
	T1H/T1V	T2H/T2V	T2YH/T2YV	T2WH/T2WV	T3H/T3V	T3PH/T3PV (Custom order)	T3YH/T3YV	T3WH/T3WV	T0H/T0V	T5H/T5V		T8H/T8V		T2YD				
Applications	Programmable controller For relay, compact solenoid valve		Dedicated for programmable controller				For programmable controller, relay				For programmable controller, relay		For programmable controller, relay For programmable controller, relay, IC circuit (without indicator lamp), serial connection		Dedicated for programmable controller			
Output method	-		-				NPN Output	PNP Output	NPN Output	NPN Output	-				-			
Power supply voltage	-		-				10 to 28 VDC				-				-			
Load voltage	85 to 265 VAC		10 to 30 VDC		24 VDC ±10%		30 VDC or less				12/24 VDC	100/110 VAC	5/12/24 VDC	100/110 VAC	12/24 VDC	110 VAC	220 VAC	24 VDC ±10%
Load current	5 to 100 mA		5 to 20 mA (*1)				100 mA or less		50 mA or less		5 to 50 mA	7 to 20 mA	50 mA or less	20 mA or less	5 to 50 mA	7 to 20 mA	7 to 10 mA	5 to 20 mA (*1)
Indicator lamp	LED (Lit when ON)	LED (Lit when ON)	Red/green LED (Lit when ON)	Red/green LED (Lit when ON)	LED (Lit when ON)	Yellow LED (Lit when ON)	Red/green LED (Lit when ON)	Red/green LED (Lit when ON)	LED (Lit when ON)		Without indicator lamp		LED (Lit when ON)		Red/green LED (Lit when ON)			
Leakage current	1 mA or less with 100 VAC, 2 mA or less with 200 VAC		1 mA or less				10 µA or less				0 mA				1 mA or less			
Weight	1 m: 33 3 m: 87 5 m: 142	1 m: 18 3 m: 49 5 m: 80	1 m: 33 3 m: 87 5 m: 142	1 m: 18 3 m: 49 5 m: 80	1 m: 18 3 m: 49 5 m: 80	1 m: 33 3 m: 87 5 m: 142	1 m: 18 3 m: 49 5 m: 80	1 m: 33 3 m: 87 5 m: 142	1 m: 18 3 m: 49 5 m: 80	1 m: 18 3 m: 49 5 m: 80		1 m: 33 3 m: 87 5 m: 142		1 m: 61 3 m: 166 5 m: 272				

*1: The above max. load current is 20 mA at 25°C. The current is lower than 20 mA if the operating ambient temperature around the switch is higher than 25°C. (5 to 10 mA at 60°C)

*2: Switch for AC magnetic field (T2YD) cannot be used in DC magnetic field.

Switch specifications (F switch)

- 1-color/2-color display

Descriptions	Proximity 2-wire		Proximity 3-wire		Proximity 2-wire		Proximity 3-wire		
	F2S		F3S		F2H/F2V	F2YH/F2YV	F3H/F3V	F3PH/F3PV (Custom order)	F3YH/F3YV
Applications	Dedicated for programmable controller		For programmable controller, relay		Dedicated for programmable controller		For programmable controller, relay		
Output method	-		NPN Output		-		NPN Output	PNP Output	NPN Output
Power supply voltage	-		10 to 28 VDC		-		10 to 28 VDC	4.5 to 28 VDC	10 to 28 VDC
Load voltage	10 to 30 VDC		30 VDC or less		10 to 30 VDC	24 VDC ±10%	30 VDC or less		
Load current	5 to 20 mA		50 mA or less		5 to 20 mA		100 mA or less	50 mA or less	
Indicator lamp	LED (Lit when ON)				Yellow LED (Lit when ON)	Red/green LED (Lit when ON)	Yellow LED (Lit when ON)		Red/green LED (Lit when ON)
Leakage current	1 mA or less		10 µA or less		1 mA or less		10 µA or less		
Weight	g				1 m: 10	3 m: 29			

*1: F switches use bend-resistant lead wires.

Cylinder weight

(Unit: g)

Bore size (mm)	Stroke (mm)														Rod side flange (FA)	Head side flange (FB)	Switch weight	
	17.5	19.5	25	29	27.5	29.5	35	39	37.5	39.5	45	49	65	69				
ø12	69				84				99							49	49	Refer to the weight in the switch specifications above.
ø16	100				123				146							59	59	
ø20		212				252				292						114	114	
ø25		267				314				361						125	125	
ø32			333				372				411		489			145	145	
ø40			554				629				704		854			193	193	
ø50				997				1118				1239		1481		335	335	
ø63				1373				1526				1679		1985		464	464	

Theoretical thrust table

(Unit: N)

Bore size (mm)	Operating direction	Working pressure MPa									
		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
ø12	Push	11.3	22.6	33.9	45.2	56.5	67.9	79.2	90.5	1.02 × 10 ²	1.13 × 10 ²
	Pull	8.5	17.0	25.4	33.9	42.4	50.9	59.4	67.9	76.3	84.8
ø16	Push	20.1	40.2	60.3	80.4	1.01 × 10 ²	1.21 × 10 ²	1.41 × 10 ²	1.61 × 10 ²	1.81 × 10 ²	2.01 × 10 ²
	Pull	15.1	30.2	45.2	60.3	75.4	90.5	1.06 × 10 ²	1.21 × 10 ²	1.36 × 10 ²	1.51 × 10 ²
ø20	Push	31.4	62.8	94.2	1.26 × 10 ²	1.57 × 10 ²	1.88 × 10 ²	2.20 × 10 ²	2.51 × 10 ²	2.83 × 10 ²	3.14 × 10 ²
	Pull	20.1	40.2	60.3	80.4	1.01 × 10 ²	1.21 × 10 ²	1.41 × 10 ²	1.61 × 10 ²	1.81 × 10 ²	2.01 × 10 ²
ø25	Push	49.1	98.2	1.47 × 10 ²	1.96 × 10 ²	2.45 × 10 ²	2.95 × 10 ²	3.44 × 10 ²	3.93 × 10 ²	4.42 × 10 ²	4.91 × 10 ²
	Pull	37.8	75.6	1.13 × 10 ²	1.51 × 10 ²	1.89 × 10 ²	2.27 × 10 ²	2.64 × 10 ²	3.02 × 10 ²	3.40 × 10 ²	3.78 × 10 ²
ø32	Push	80.4	1.61 × 10 ²	2.41 × 10 ²	3.22 × 10 ²	4.02 × 10 ²	4.83 × 10 ²	5.63 × 10 ²	6.43 × 10 ²	7.24 × 10 ²	8.04 × 10 ²
	Pull	60.3	1.21 × 10 ²	1.81 × 10 ²	2.41 × 10 ²	3.02 × 10 ²	3.62 × 10 ²	4.22 × 10 ²	4.83 × 10 ²	5.43 × 10 ²	6.03 × 10 ²
ø40	Push	1.26 × 10 ²	2.51 × 10 ²	3.77 × 10 ²	5.03 × 10 ²	6.28 × 10 ²	7.54 × 10 ²	8.80 × 10 ²	1.01 × 10 ³	1.13 × 10 ³	1.26 × 10 ³
	Pull	1.06 × 10 ²	2.11 × 10 ²	3.17 × 10 ²	4.22 × 10 ²	5.28 × 10 ²	6.33 × 10 ²	7.39 × 10 ²	8.44 × 10 ²	9.50 × 10 ²	1.06 × 10 ³
ø50	Push	1.96 × 10 ²	3.93 × 10 ²	5.89 × 10 ²	7.85 × 10 ²	9.82 × 10 ²	1.18 × 10 ³	1.37 × 10 ³	1.57 × 10 ³	1.77 × 10 ³	1.96 × 10 ³
	Pull	1.65 × 10 ²	3.30 × 10 ²	4.95 × 10 ²	6.60 × 10 ²	8.25 × 10 ²	9.90 × 10 ²	1.15 × 10 ³	1.32 × 10 ³	1.48 × 10 ³	1.65 × 10 ³
ø63	Push	3.12 × 10 ²	6.23 × 10 ²	9.35 × 10 ²	1.25 × 10 ³	1.56 × 10 ³	1.87 × 10 ³	-	-	-	-
	Pull	2.80 × 10 ²	5.61 × 10 ²	8.41 × 10 ²	1.12 × 10 ³	1.40 × 10 ³	1.68 × 10 ³	-	-	-	-

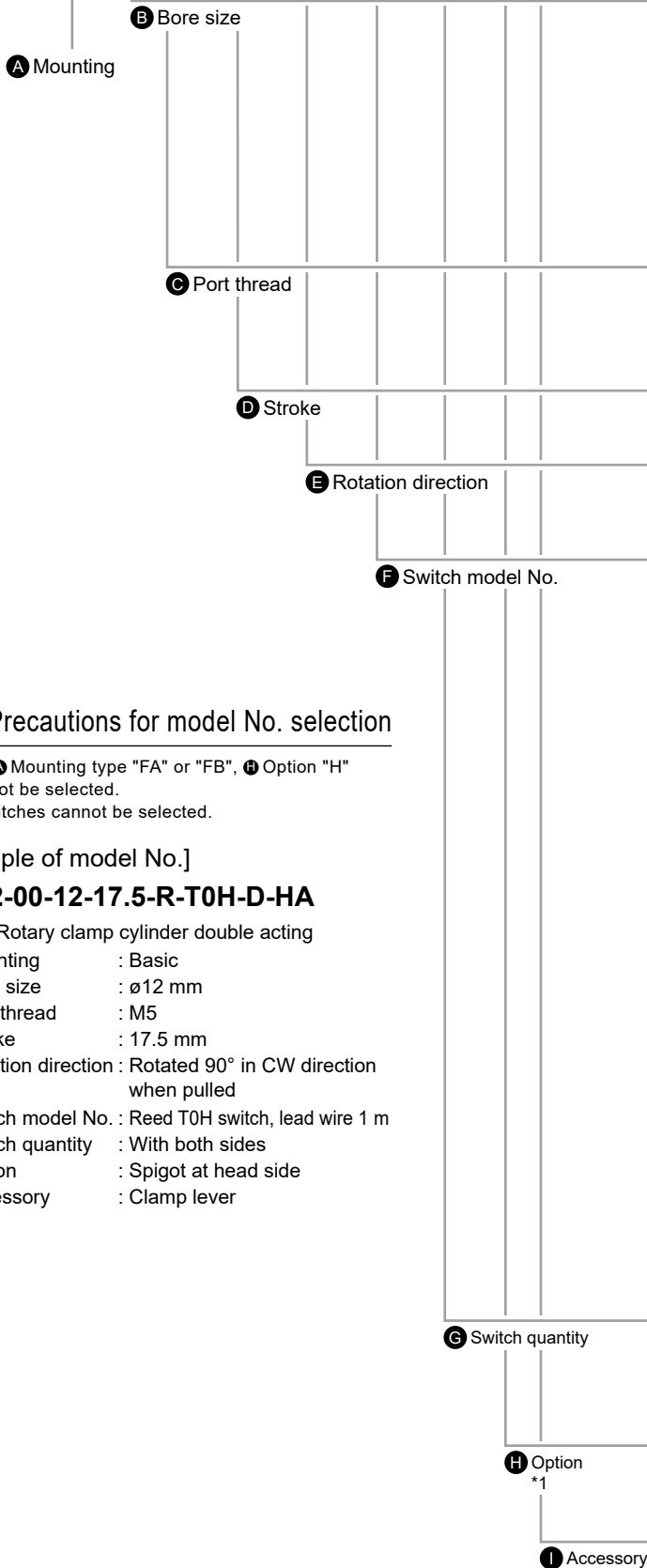
How to order

Without switch (built-in magnet for switch)

RCS2 - 00 - 12 - 17.5 - R - H A

With switch (built-in magnet for switch)

RCS2 - 00 - 12 - 17.5 - R - T0H - D - H A



⚠ Precautions for model No. selection

- *1: For **A** Mounting type "FA" or "FB", **H** Option "H" cannot be selected.
- *2: F switches cannot be selected.

[Example of model No.]

RCS2-00-12-17.5-R-T0H-D-HA

Model: Rotary clamp cylinder double acting

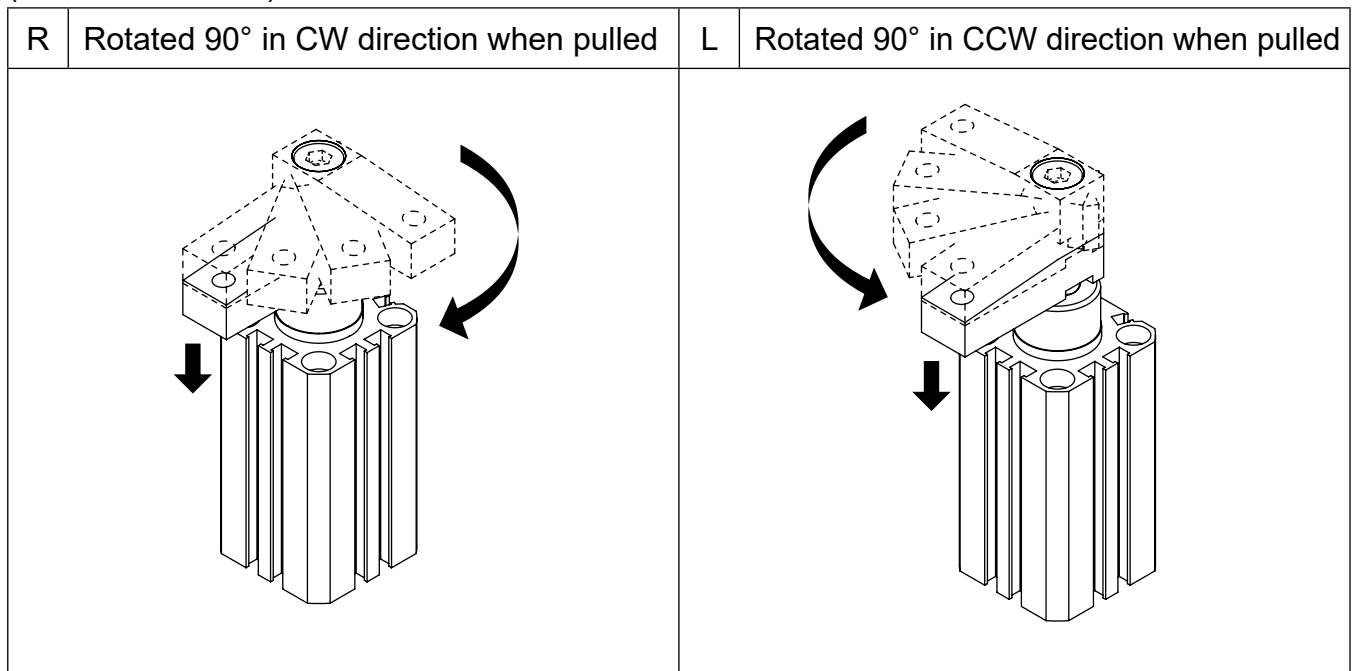
- A** Mounting : Basic
- B** Bore size : $\varnothing 12$ mm
- C** Port thread : M5
- D** Stroke : 17.5 mm
- E** Rotation direction : Rotated 90° in CW direction when pulled
- F** Switch model No. : Reed T0H switch, lead wire 1 m
- G** Switch quantity : With both sides
- H** Option : Spigot at head side
- I** Accessory : Clamp lever

Code	Content													
A Mounting														
00	Basic													
FA	Rod side flange													
FB	Head side flange													
B Bore size (mm)														
12	$\varnothing 12$													
16	$\varnothing 16$													
20	$\varnothing 20$													
25	$\varnothing 25$													
32	$\varnothing 32$													
40	$\varnothing 40$													
50	$\varnothing 50$													
63	$\varnothing 63$													
C Port thread														
Blank	Rc thread (M5 for $\varnothing 25$ and less)													
N	NPT thread ($\varnothing 32$ and over)													
G	G thread ($\varnothing 32$ and over)													
D Stroke (mm)														
Refer to the stroke length table on the following page.														
E Rotation direction Refer to the following page.														
R	Rotated 90° in CW direction when pulled													
L	Rotated 90° in CCW direction when pulled													
F Switch model No.														
Lead wire Straight	Lead wire L-shaped	Control	Voltage AC DC	Display	Lead wire	Bore size								
T0H*	T0V*	Reed	● ●	1-color display	2-wire	●	●	●	●	●	●	●	●	●
T5H*	T5V*		● ●	Without indicator lamp		●	●	●	●	●	●	●	●	●
T8H*	T8V*		● ●	1-color display	3-wire	●	●	●	●	●	●	●	●	●
T1H*	T1V*	Proximity	●	1-color display	2-wire	●	●	●	●	●	●	●	●	●
T2H*	T2V*		●			2-color display	●	●	●	●	●	●	●	●
T3H*	T3V*		●	1-color display (PNP output) (custom order)	3-wire	●	●	●	●	●	●	●	●	●
T2WH*	T2WV*	Proximity	●	2-color display	2-wire	●	●	●	●	●	●	●	●	●
T2YH*	T2YV*		●			AC magnetic field	2-wire	●	●	●	●	●	●	●
T3WH*	T3WV*		●	1-color display off-delay	2-wire	●	●	●	●	●	●	●	●	●
T3YH*	T3YV*	Proximity	●	1-color display	3-wire	●	●	●	●	●	●	●	●	●
T2YD*	-		●			2-color display	2-wire	●	●	●	●	●	●	●
T2YDT*	-		●	AC magnetic field	2-wire	●	●	●	●	●	●	●	●	●
F2S*	-	Proximity	●	1-color display	2-wire	●	●	●	●	●	●	●	●	●
F3S*	-		●			1-color display (PNP output) (custom order)	3-wire	●	●	●	●	●	●	●
F2H*	F2V*		●	2-color display	2-wire	●	●	●	●	●	●	●	●	●
F3H*	F3V*	●	1-color display (PNP output) (custom order)	3-wire	●	●	●	●	●	●	●	●	●	
F3PH*	F3PV*	Proximity	●	2-color display	3-wire	●	●	●	●	●	●	●	●	●
F2YH*	F2YV*		●			2-color display	2-wire	●	●	●	●	●	●	●
F3YH*	F3YV*		●	1-color display	3-wire	●	●	●	●	●	●	●	●	●
* Lead wire length		Blank		1 m (Standard)										
		3		3 m (Option)										
		5		5 m (Option)		*2								
G Switch quantity		R		1 on rod side										
		H		1 on head side										
		D		With both sides										
H Option		Blank		No option										
		H		Spigot at head side										
I Accessory (attached at shipment)		Blank		No accessories										
		A		Clamp lever										

(Stroke length table)

Stroke	Bore size								Rotary stroke length	Clamp stroke length
	12	16	20	25	32	40	50	63		
17.5	●	●							7.5	10
19.5			●	●					9.5	10
25					●	●			15	10
29							●	●	19	10
27.5	●	●							7.5	20
29.5			●	●					9.5	20
35					●	●			15	20
39							●	●	19	20
37.5	●	●							7.5	30
39.5			●	●					9.5	30
45					●	●			15	30
49							●	●	19	30
65					●	●			15	50
69							●	●	19	50

(Rotation direction)



Discrete switch model No.

SW - **T0H3**

Switch model No.
(Item **F** on the previous page)

Flange kit model No.

RCS2 - **FA** - **12**

Bore size
(Item **B** on the previous page)

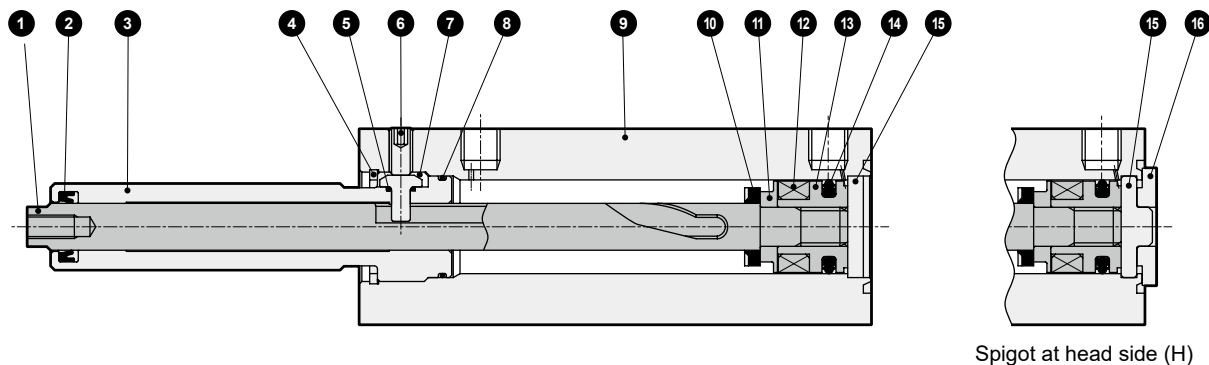
Clamp lever kit model No.

RCS2 - **A** - **12**

Code	Applicable bore size
12	ø12
16	ø16
20	ø20, ø25
32	ø32, ø40
50	ø50, ø63

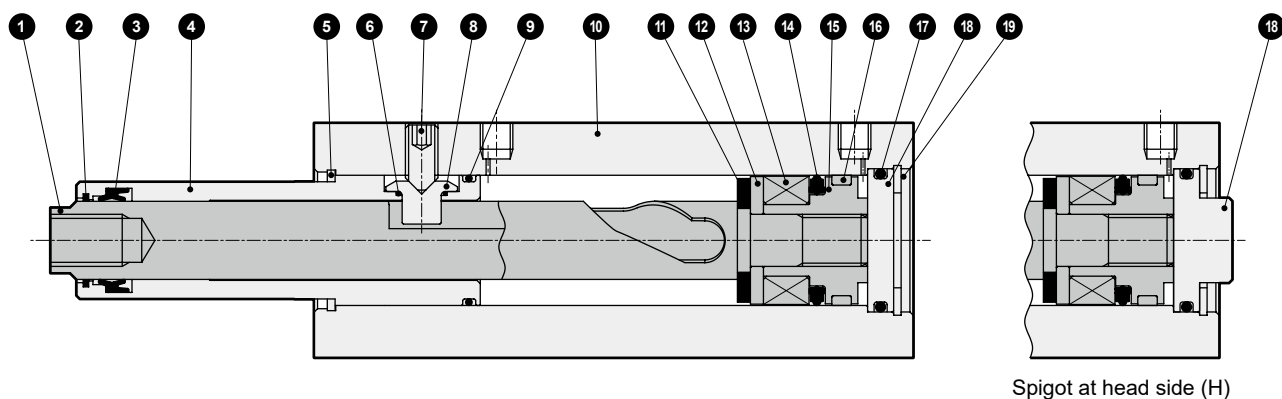
Internal structure and parts list (ø12, ø16, ø20, ø25)

● RCS2-12/16



No.	Part name	Material	Remarks	No.	Part name	Material	Remarks
1	Piston rod	Stainless steel	Special treatment	10	Cushion rubber (R)	Urethane rubber	
2	Rod packing	Nitrile rubber		11	Spacer	ø12: Aluminum alloy	Zinc chromate
3	Rod metal	Aluminum alloy	Hard alumite			ø16: Special plastic	
4	Round R snap ring	Steel	Zinc phosphate	12	Magnet	Plastic	
5	Guide pin gasket	Nitrile rubber		13	Piston	Aluminum alloy	Zinc chromate
6	Hexagon socket set screw	Stainless steel		14	Piston packing	Nitrile rubber	
7	Guide pin	Steel	Special treatment	15	Cover	Stainless steel	
8	Rod metal gasket	Nitrile rubber		16	Spigot ring	Aluminum alloy	Zinc chromate
9	Body	Aluminum alloy	Hard alumite				

● RCS2-20/25



No.	Part name	Material	Remarks	No.	Part name	Material	Remarks
1	Piston rod	Stainless steel	Special treatment	11	Cushion rubber (R)	Urethane rubber	
2	Coil scraper	Copper alloy		12	Spacer	Aluminum alloy	Zinc chromate
3	Rod packing	Nitrile rubber		13	Magnet	Plastic	
4	Rod metal	Aluminum alloy	Hard alumite	14	Piston packing	Nitrile rubber	
5	Circlip	Steel		15	Piston	Aluminum alloy	Zinc chromate
6	Guide pin gasket	Nitrile rubber		16	Wear ring	Polyacetal resin, polyester	
7	Hexagon socket set screw	Stainless steel		17	Cover gasket	Nitrile rubber	
8	Guide pin	Steel	Special treatment	18	Base plate	Aluminum alloy	Zinc chromate
9	Rod metal gasket	Nitrile rubber		19	C snap ring	Steel	Zinc phosphate
10	Body	Aluminum alloy	Hard alumite				

Consumable parts list

● Packing kit

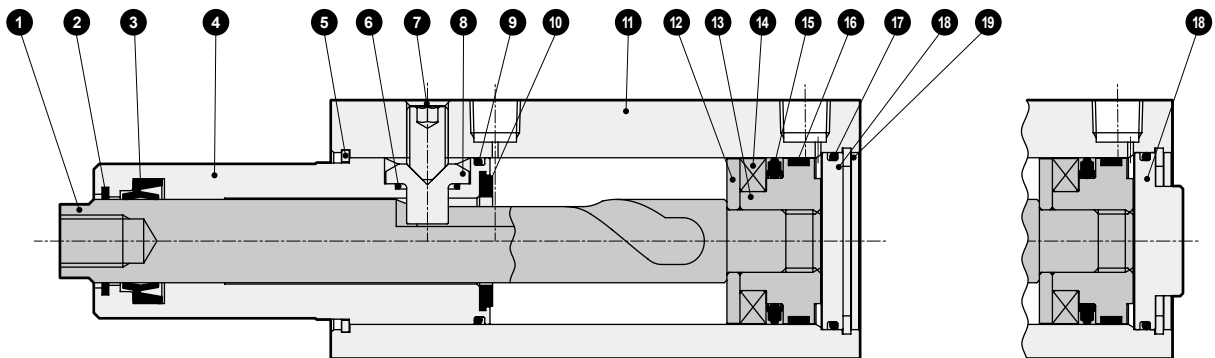
Bore size (mm)	Kit No.	Consumable parts No.
ø12	RCS2-12K	
ø16	RCS2-16K	2 5 8 10 14
ø20	RCS2-20K	
ø25	RCS2-25K	2 3 6 9 11 14 16 17

● Guide pin kit

Bore size (mm)	Kit No.	Consumable parts No.
ø12	RCS2-G-12	
ø16	RCS2-G-16	6 7
ø20	RCS2-G-20	
ø25	RCS2-G-25	7 8

Internal structure and parts list (ø32, ø40, ø50, ø63)

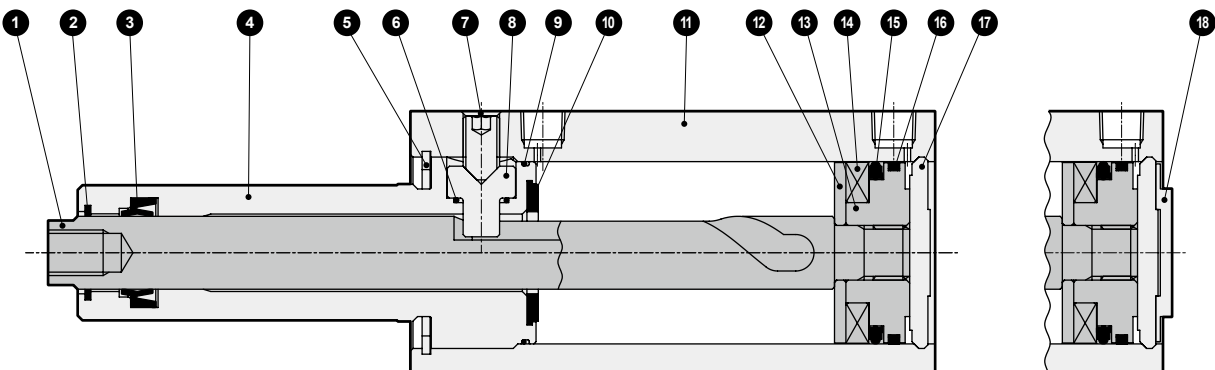
● RCS2-32



Spigot at head side (H)

No.	Part name	Material	Remarks	No.	Part name	Material	Remarks
1	Piston rod	Stainless steel	Special treatment	11	Body	Aluminum alloy	Hard alumite
2	Coil scraper	Copper alloy		12	Spacer	Aluminum alloy	
3	Rod packing	Nitrile rubber		13	Piston	Aluminum alloy	Zinc chromate
4	Rod metal	Aluminum alloy	Hard alumite	14	Magnet	Plastic	
5	Circlip	Steel		15	Piston packing	Nitrile rubber	
6	Guide pin gasket	Nitrile rubber		16	Wear ring	Polyacetal resin, polyester	
7	Hexagon socket set screw	Stainless steel		17	Cover gasket	Nitrile rubber	
8	Guide pin	Steel	Special treatment	18	Base plate	Aluminum alloy	Zinc chromate
9	Rod metal gasket	Nitrile rubber		19	C snap ring	Steel	Zinc phosphate
10	Cushion rubber (R)	Urethane rubber					

● RCS2-40/50/63



Spigot at head side (H)

No.	Part name	Material	Remarks	No.	Part name	Material	Remarks
1	Piston rod	Stainless steel	Special treatment	10	Cushion rubber (R)	Urethane rubber	
2	Coil scraper	Copper alloy		11	Body	Aluminum alloy	Hard alumite
3	Rod packing	Nitrile rubber		12	Spacer	Aluminum alloy	
4	Rod metal	Aluminum alloy	Hard alumite	13	Piston	Aluminum alloy	Zinc chromate
5	C snap ring	Steel	Zinc phosphate	14	Magnet	Plastic	
6	Guide pin gasket	Nitrile rubber		15	Piston packing	Nitrile rubber	
7	Hexagon socket set screw	Stainless steel		16	Wear ring	Polyacetal resin, polyester	
8	Guide pin	Steel	Special treatment	17	Cover	Aluminum alloy	
9	Rod metal gasket	Nitrile rubber		18	Spigot ring	Aluminum alloy	Zinc chromate

Consumable parts list

● Packing kit

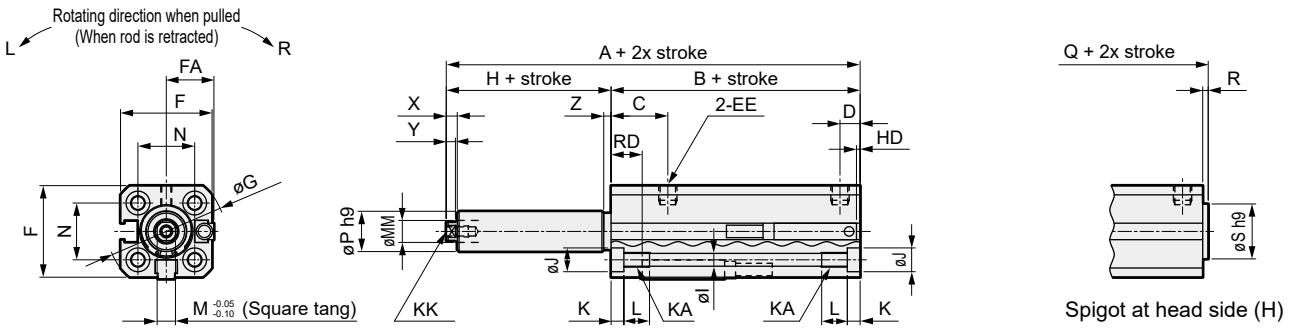
Bore size (mm)	Kit No.	Consumable parts No.
ø32	RCS2-32K	2 3 6 9 10 15 16 17
ø40	RCS2-40K	
ø50	RCS2-50K	2 3 6 9 10 15 16
ø63	RCS2-63K	

● Guide pin kit

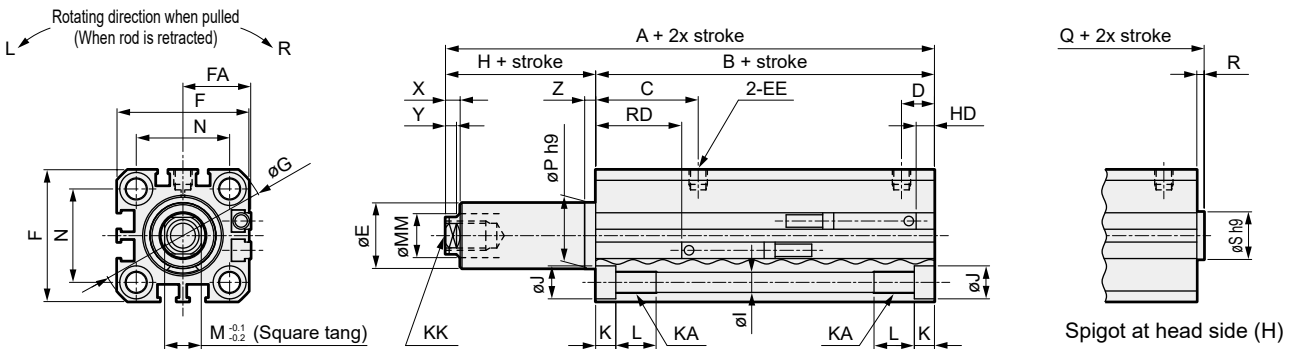
Bore size (mm)	Kit No.	Consumable parts No.
ø32	RCS2-G-32	7 8
ø40	RCS2-G-40	
ø50	RCS2-G-50	7 8
ø63	RCS2-G-63	

Dimensions (basic shape: 00)

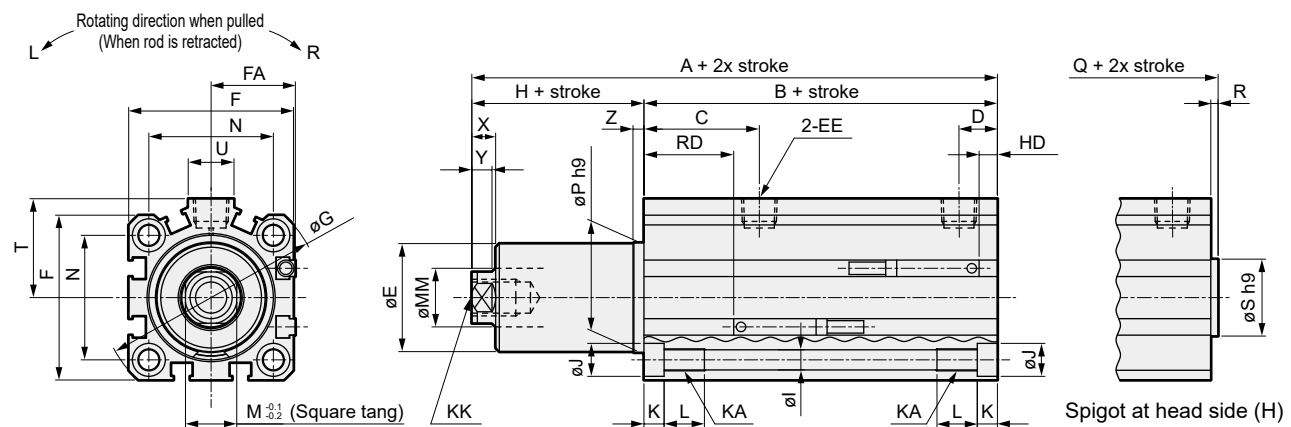
● RCS2-00-12/16



● RCS2-00-20/25



● RCS2-00-32/40/50/63



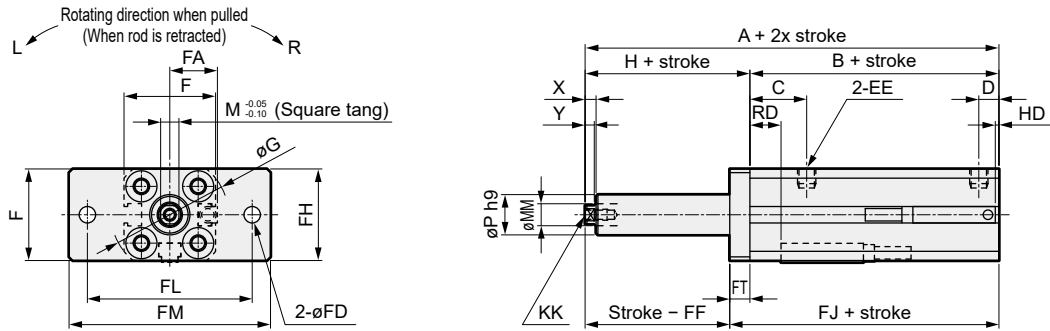
Code	Basic (00) dimensions table																										
Bore size	A	B	C	D	E	EE	F	G	H	I	J	K	KA	KK	L	M	MM	N	P	Q	R	S	T	U	X	Y	Z
ø12	33	28	15.5	5.5	-	M5 depth 4	25	32	5	3.5	6.5	3.5	M4	M3 depth 5.5	7	5	6	15.5	11	34.5	1.5	15	-	-	3	2.5	2
ø16	33.5	28.5	15	5.5	-	M5 depth 4	29	38	5	3.5	6.5	3.5	M4	M5 depth 6.5	7	7	8	20	14	34.9	1.5	20	-	-	3	2.5	2.2
ø20	53.5	52.5	28	9	17.9	M5 depth 4	36	47	1	5.5	9	5.5	M6	M8 depth 11	11	10	12	25.5	18	55.5	2	13	-	-	4	3	3
ø25	54.5	53.5	27.5	10.5	22.5	M5 depth 4	40	51	1	5.5	9	5.5	M6	M8 depth 11	11	10	12	28	23	56.5	2	15	-	-	4	3	3
ø32	63.5	56.5	31.5	10.5	29.5	Rc1/8	45	60	7	5.5	9	5.5	M6	M10 depth 12	11	14	16	34	30	65.5	2	21	27	12.5	6.5	5.5	3
ø40	64.5	50	29	9	29.5	Rc1/8	52	69	14.5	5.5	9	5.5	M6	M10 depth 12	11	14	16	40	30	66.5	2	28	31	15	6.5	5.5	3
ø50	74	57.5	34	11.5	36.5	Rc1/4	64	86	16.5	6.9	11	6.5	M8	M12 depth 16	14	17	20	50	37	76	2	35	39	18	7.5	5.5	3.5
ø63	77	61	34.5	10.5	47.5	Rc1/4	77	103	16	8.7	14	9	M10	M12 depth 16	20	17	20	60	48	79	2	35	45.5	23	7.5	5.5	3.5

Code	Switch model No.																							
	T2, T3, T3P, T0, T5			T1, T2YD, T2YDT			T2Y, T3Y, T2J			T2W, T3W			T8			F2S, F3S			F2, F3, F3P, F2Y, F3Y					
Bore size	RD	HD	FA	RD	HD	FA	RD	HD	FA	RD	HD	FA	RD	HD	FA	RD	HD	FA	RD	HD	FA	RD	HD	FA
ø12	8.5	0.5	13 (16.5)	-	-	-	-	-	-	10.5	2.5	23.8 (26.8)	-	-	-	-	-	-	-	-	-	-	-	-
ø16	9	0.5	15 (18.5)	-	-	-	-	-	-	11	2.5	25.8 (28.8)	-	-	-	-	-	-	-	-	-	-	-	-
ø20	23.5	10	18.5 (22)	22.5	9	24.3 (27.3)	22.5	9	29.3 (32.3)	25.5	12	29.3 (32.3)	17.5	4	24.3 (27.3)	27	13.5	31.5	28	14.5	-	-	-	-
ø25	24.5	9.5	20.5 (24)	23.5	8.5	26.3 (29.3)	23.5	8.5	31.3 (34.3)	26.5	11.5	31.3 (34.3)	18.5	3.5	26.3 (29.3)	28	13	33.5	29	14	-	-	-	-
ø32	26.5	10.5	23 (26.5)	25.5	9.5	28.8 (31.8)	25.5	9.5	33.8 (36.8)	28.5	12.5	33.8 (36.8)	20.5	4.5	28.8 (31.8)	-	-	-	-	-	-	-	-	-
ø40	23.5	7.5	26.5 (30)	22.5	6.5	32.3 (35.3)	22.5	6.5	37.3 (40.3)	25.5	9.5	37.3 (40.3)	17.5	1.5	32.3 (35.3)	-	-	-	-	-	-	-	-	-
ø50	28.5	10	32.5 (36)	27.5	9	38.3 (41.3)	27.5	9	43.3 (46.3)	30.5	12	43.3 (46.3)	22.5	4	38.3 (41.3)	-	-	-	-	-	-	-	-	-
ø63	27.5	14.5	39 (42.5)	26.5	13.5	44.8 (47.8)	26.5	13.5	49.8 (52.8)	29.5	16.5	49.8 (52.8)	21.5	8.5	44.8 (47.8)	-	-	-	-	-	-	-	-	-

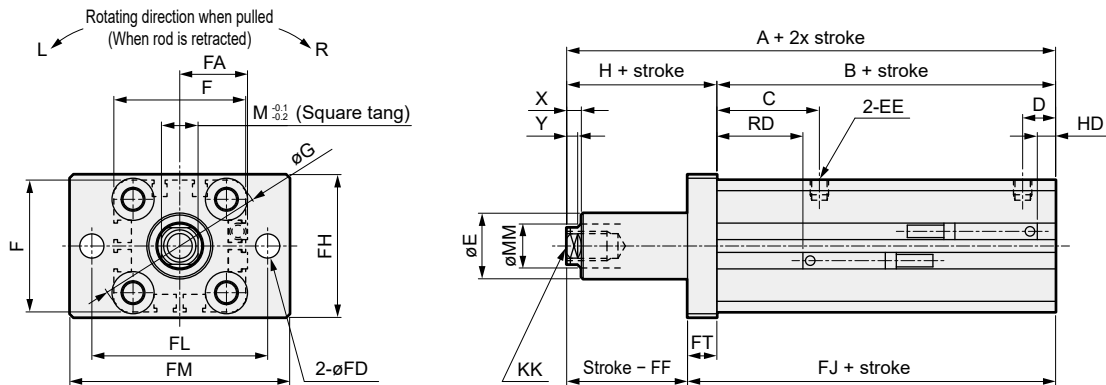
*1: Dimensions in () of FA are for the radial lead wire type. *2: Bore size of ø20 and installation port of ø25 are for the F switch only.

Dimensions (rod side flange: FA)

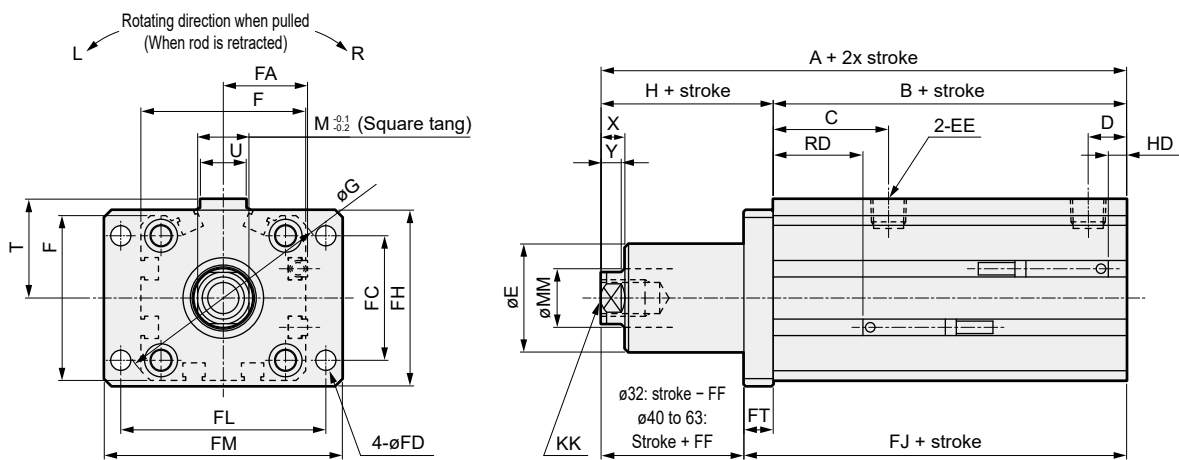
● RCS2-FA-12/16



● RCS2-FA-20/25



● RCS2-FA-32/40/50/63



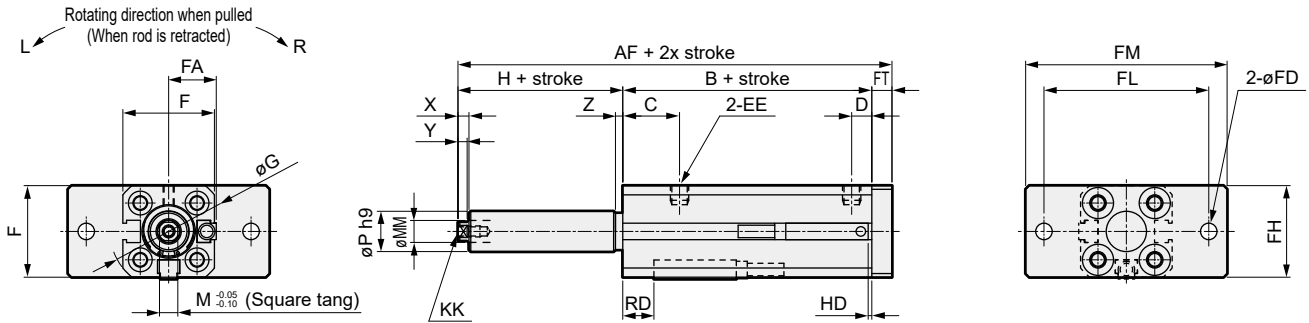
Code	Rod side flange (FA) dimensions table																								
Bore size	A	B	C	D	E	EE	F	G	H	KK	M	MM	P	T	U	X	Y	FC	FD	FF	FJ	FH	FL	FM	FT
∅12	33	28	15.5	5.5	-	M5 depth 4	25	32	5	M3 depth 5.5	5	6	11	-	-	3	2.5	-	4.5	0.5	33.5	25	45	55	5.5
∅16	33.5	28.5	15	5.5	-	M5 depth 4	29	38	5	M5 depth 6.5	7	8	14	-	-	3	2.5	-	4.5	0.6	34	30	45	55	5.5
∅20	53.5	52.5	28	9	17.9	M5 depth 4	36	47	1	M8 depth 11	10	12	-	-	-	4	3	-	6.6	7	60.5	39	48	60	8
∅25	54.5	53.5	27.5	10.5	22.5	M5 depth 4	40	51	1	M8 depth 11	10	12	-	-	-	4	3	-	6.6	7	61.5	42	52	64	8
∅32	63.5	56.5	31.5	10.5	29.5	Rc1/8	45	60	7	M10 depth 12	14	16	-	27	12.5	6.5	5.5	34	5.5	1	64.5	48	56	65	8
∅40	64.5	50	29	9	29.5	Rc1/8	52	69	14.5	M10 depth 12	14	16	-	31	15	6.5	5.5	40	5.5	6.5	58	54	62	72	8
∅50	74	57.5	34	11.5	36.5	Rc1/4	64	86	16.5	M12 depth 16	17	20	-	39	18	7.5	5.5	50	6.6	7.5	66.5	67	76	89	9
∅63	77	61	34.5	10.5	47.5	Rc1/4	77	103	16	M12 depth 16	17	20	-	45.5	23	7.5	5.5	60	9	7	70	80	92	108	9

Code	Switch model No.																								
Bore size	T2, T3, T3P, T0, T5				T1, T2YD, T2YDT				T2Y, T3Y, T2J				T2W, T3W		T8		F2S, F3S		F2, F3, F3P, F2Y, F3Y						
	RD	HD	FA	RD	HD	FA	RD	HD	FA	RD	HD	FA	RD	HD	FA	RD	HD	FA	RD	HD					
∅12	8.5	0.5	13 (16.5)	-	-	-	-	-	-	10.5	2.5	23.8 (26.8)	-	-	-	-	-	-	-	-	-	-	-	-	-
∅16	9	0.5	15 (18.5)	-	-	-	-	-	-	11	2.5	25.8 (28.8)	-	-	-	-	-	-	-	-	-	-	-	-	-
∅20	23.5	10	18.5 (22)	22.5	9	24.3 (27.3)	22.5	9	29.3 (32.3)	25.5	12	29.3 (32.3)	17.5	4	24.3 (27.3)	27	13.5	31.5	28	14.5	-	-	-	-	-
∅25	24.5	9.5	20.5 (24)	23.5	8.5	26.3 (29.3)	23.5	8.5	31.3 (34.3)	26.5	11.5	31.3 (34.3)	18.5	3.5	26.3 (29.3)	28	13	33.5	29	14	-	-	-	-	-
∅32	26.5	10.5	23 (26.5)	25.5	9.5	28.8 (31.8)	25.5	9.5	33.8 (36.8)	28.5	12.5	33.8 (36.8)	20.5	4.5	28.8 (31.8)	-	-	-	-	-	-	-	-	-	-
∅40	23.5	7.5	26.5 (30)	22.5	6.5	32.3 (35.3)	22.5	6.5	37.3 (40.3)	25.5	9.5	37.3 (40.3)	17.5	1.5	32.3 (35.3)	-	-	-	-	-	-	-	-	-	-
∅50	28.5	10	32.5 (36)	27.5	9	38.3 (41.3)	27.5	9	43.3 (46.3)	30.5	12	43.3 (46.3)	22.5	4	38.3 (41.3)	-	-	-	-	-	-	-	-	-	-
∅63	27.5	14.5	39 (42.5)	26.5	13.5	44.8 (47.8)	26.5	13.5	49.8 (52.8)	29.5	16.5	49.8 (52.8)	21.5	8.5	44.8 (47.8)	-	-	-	-	-	-	-	-	-	-

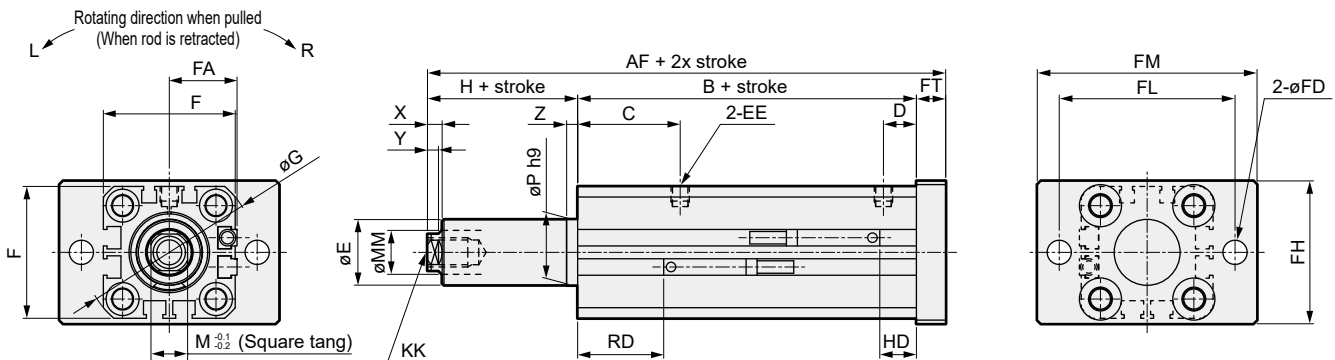
*1: Dimensions in () of FA are for the radial lead wire type. *2: Bore size of ∅20 and installation port of ∅25 are for the F switch only.

Dimensions (head side flange: FB)

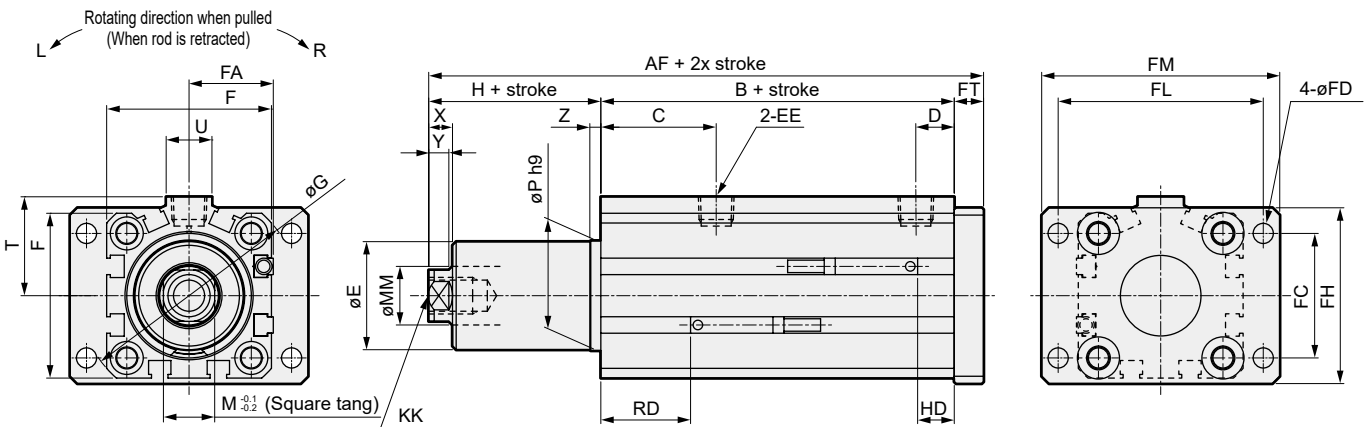
● RCS2-FB-12/16



● RCS2-FB-20/25



● RCS2-FB-32/40/50/63

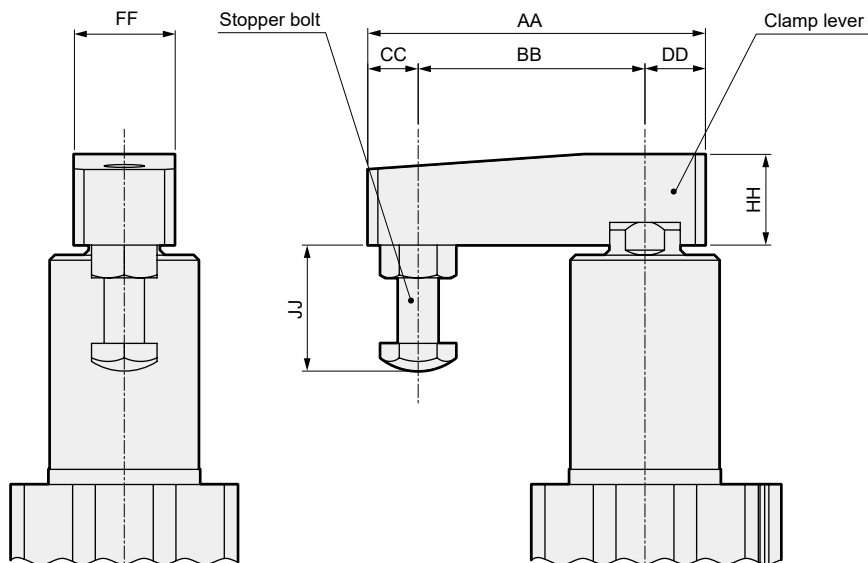
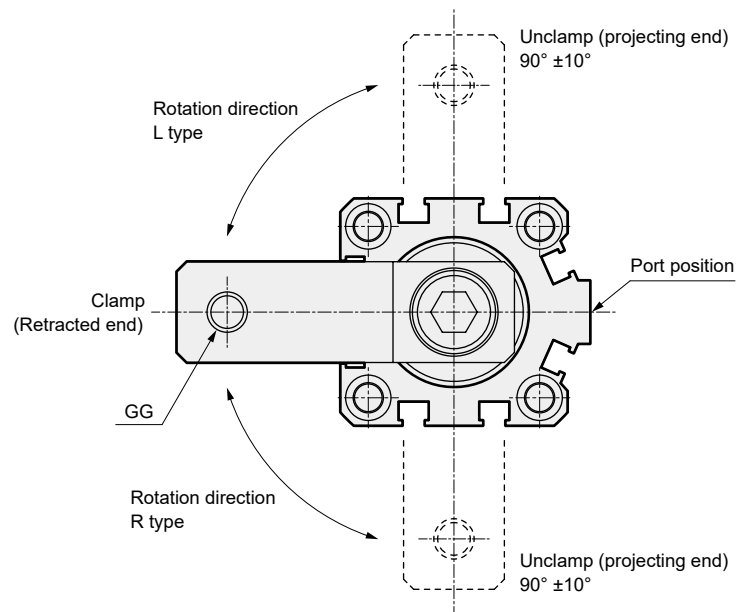


Code	Head side flange (FB) dimensions table																							
Bore size	AF	B	C	D	E	EE	F	G	H	KK	M	MM	P	T	U	X	Y	Z	FC	FD	FH	FL	FM	FT
ø12	38.5	28	15.5	5.5	-	M5 depth 4	25	32	5	M3 depth 5.5	5	6	11	-	-	3	2.5	2	-	4.5	25	45	55	5.5
ø16	39	28.5	15	5.5	-	M5 depth 4	29	38	5	M5 depth 6.5	7	8	14	-	-	3	2.5	2.2	-	4.5	30	45	55	5.5
ø20	61.5	52.5	28	9	17.9	M5 depth 4	36	47	1	M8 depth 11	10	12	18	-	-	4	3	3	-	6.6	39	48	60	8
ø25	62.5	53.5	27.5	10.5	22.5	M5 depth 4	40	51	1	M8 depth 11	10	12	23	-	-	4	3	3	-	6.6	42	52	64	8
ø32	71.5	56.5	31.5	10.5	29.5	Rc1/8	45	60	7	M10 depth 12	14	16	30	27	12.5	6.5	5.5	3	34	5.5	48	56	65	8
ø40	72.5	50	29	9	29.5	Rc1/8	52	69	14.5	M10 depth 12	14	16	30	31	15	6.5	5.5	3	40	5.5	54	62	72	8
ø50	83	57.5	34	11.5	36.5	Rc1/4	64	86	16.5	M12 depth 16	17	20	37	39	18	7.5	5.5	3.5	50	6.6	67	76	89	9
ø63	86	61	34.5	10.5	47.5	Rc1/4	77	103	16	M12 depth 16	17	20	48	45.5	23	7.5	5.5	3.5	60	9	80	92	108	9

Code	Switch model No.																							
	T2, T3, T3P, T0, T5			T1, T2YD, T2YDT			T2Y, T3Y, T2J			T2W, T3W			T8			F2S, F3S			F2, F3, F3P, F2Y, F3Y					
Bore size	RD	HD	FA	RD	HD	FA	RD	HD	FA	RD	HD	FA	RD	HD	FA	RD	HD	FA	RD	HD	FA	RD	HD	FA
ø12	8.5	0.5	13 (16.5)	-	-	-	-	-	-	10.5	2.5	23.8 (26.8)	-	-	-	-	-	-	-	-	-	-	-	-
ø16	9	0.5	15 (18.5)	-	-	-	-	-	-	11	2.5	25.8 (28.8)	-	-	-	-	-	-	-	-	-	-	-	-
ø20	23.5	10	18.5 (22)	22.5	9	24.3 (27.3)	22.5	9	29.3 (32.3)	25.5	12	29.3 (32.3)	17.5	4	24.3 (27.3)	27	13.5	31.5	28	14.5	-	-	-	-
ø25	24.5	9.5	20.5 (24)	23.5	8.5	26.3 (29.3)	23.5	8.5	31.3 (34.3)	26.5	11.5	31.3 (34.3)	18.5	3.5	26.3 (29.3)	28	13	33.5	29	14	-	-	-	-
ø32	26.5	10.5	23 (26.5)	25.5	9.5	28.8 (31.8)	25.5	9.5	33.8 (36.8)	28.5	12.5	33.8 (36.8)	20.5	4.5	28.8 (31.8)	-	-	-	-	-	-	-	-	-
ø40	23.5	7.5	26.5 (30)	22.5	6.5	32.3 (35.3)	22.5	6.5	37.3 (40.3)	25.5	9.5	37.3 (40.3)	17.5	1.5	32.3 (35.3)	-	-	-	-	-	-	-	-	-
ø50	28.5	10	32.5 (36)	27.5	9	38.3 (41.3)	27.5	9	43.3 (46.3)	30.5	12	43.3 (46.3)	22.5	4	38.3 (41.3)	-	-	-	-	-	-	-	-	-
ø63	27.5	14.5	39 (42.5)	26.5	13.5	44.8 (47.8)	26.5	13.5	49.8 (52.8)	29.5	16.5	49.8 (52.8)	21.5	8.5	44.8 (47.8)	-	-	-	-	-	-	-	-	-

*1: Dimensions in () of FA are for the radial lead wire type. *2: Bore size of ø20 and installation port of ø25 are for the F switch only.

Clamp lever dimensions




Code Bore size (mm)	With clamp lever								Moment of inertia (kg·m ²)	
	AA	BB	CC	DD	FF	GG	HH	JJ	Single clamp lever	With stopper bolt
ø12	29	20	4	5	8	M3 × 0.5	8	8 to 18	1.9 × 10 ⁻⁶	2.7 × 10 ⁻⁶
ø16	36	25	5	6	11	M4 × 0.7	11	8 to 18	7.3 × 10 ⁻⁶	9.8 × 10 ⁻⁶
ø20, 25	51	35	7	9	16	M6 × 1.0	14	12 to 22	3.6 × 10 ⁻⁵	5 × 10 ⁻⁵
ø32, 40	67	45	10	12	20	M8 × 1.25	18	15 to 25	1.3 × 10 ⁻⁴	1.8 × 10 ⁻⁴
ø50, 63	88	65	10	13	22	M10 × 1.5	22	30 to 40	4 × 10 ⁻⁴	6.2 × 10 ⁻⁴



Rotary clamp cylinder/single guide Double acting/packing material fluoro rubber

RCS2-T2 Series

● Bore size: $\phi 12/\phi 16/\phi 20/\phi 25/\phi 32/\phi 40/\phi 50/\phi 63$

JIS symbol  ● Double acting



Specifications

Descriptions		RCS2-T2							
Bore size	mm	$\phi 12$	$\phi 16$	$\phi 20$	$\phi 25$	$\phi 32$	$\phi 40$	$\phi 50$	$\phi 63$
Actuation		Double acting							
Working fluid		Compressed air							
Max. working pressure	MPa	1.0							0.6
Min. working pressure	MPa	0.1 (*1)							
Proof pressure	MPa	1.6							
Ambient temperature	°C	5 to 60							
Port size	Rc, NPT, G	M5				1/8		1/4	
Stroke tolerance	mm	+1.0 0			+1.2 0				
Working piston speed	mm/s	50 to 200							
Cushion		Rod side: rubber cushioned, Head side: no cushioning							
Lubrication		Not required (use turbine oil type 1 ISO VG32 if necessary)							
Rotating angle		$90^\circ \pm 10^\circ$							
Rotation direction		Right/Left							
Non-rotating accuracy (clamping, default value)		$\pm 1.4^\circ$		$\pm 1.2^\circ$			$\pm 0.9^\circ$		$\pm 0.7^\circ$
Pressurized area	Pull side	84	150	201	377	804	1256	1963	3117
	mm ² Push side	113	201	314	490	603	1056	1649	2803

*1: With constant pressurization

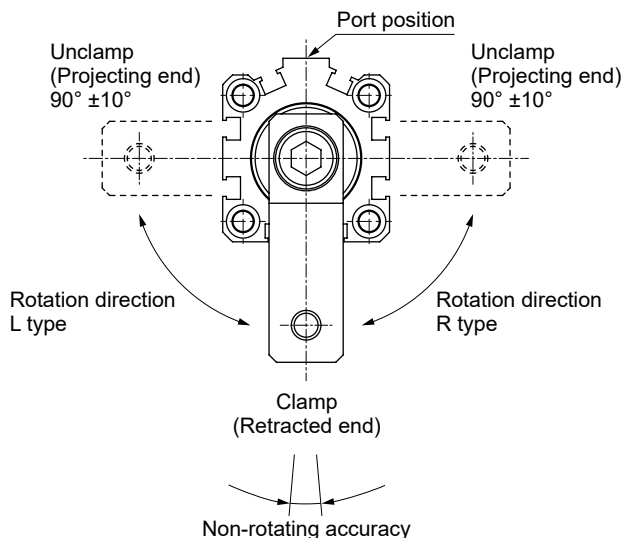
Stroke

Bore size (mm)	Stroke (mm)	Rotary stroke *1 (mm)	Clamp stroke *2 (mm)
$\phi 12, \phi 16$	17.5, 27.5, 37.5	7.5	10, 20, 30
$\phi 20, \phi 25$	19.5, 29.5, 39.5	9.5	10, 20, 30
$\phi 32, \phi 40$	25, 35, 45, 65	15	10, 20, 30, 50
$\phi 50, \phi 63$	29, 39, 49, 69	19	10, 20, 30, 50

*1: Rotary stroke length is the dimension of rotary linear movement in the clamp direction from the unclamp side.

*2: Clamp stroke length is the dimension of linear movement in the clamp direction after rotation.

Rotating angle, rotation direction, non-rotating accuracy



Switch specifications (T switch)

- 1-color/2-color display/for AC magnetic field proof

Descriptions	Proximity 2-wire		Proximity 2-wire				Proximity 3-wire				Reed 2-wire				Proximity 2-wire	
	T1H/T1V	T2H/T2V	T2YH/T2YV	T2WH/T2WV	T3H/T3V	T3PH/T3PV (Custom order)	T3YH/T3YV	T3WH/T3WV	T0H/T0V	T5H/T5V		T8H/T8V		T2YD		
Applications	For programmable controller, relay, compact solenoid valve	Dedicated for programmable controller				For programmable controller, relay				For programmable controller, relay	For programmable controller, relay, IC circuit (without indicator lamp), serial connection		For programmable controller, relay		Dedicated for programmable controller	
Output method	-				NPN Output	PNP Output	NPN Output	NPN Output	-				-			
Power supply voltage	-				10 to 28 VDC				-				-			
Load voltage	85 to 265 VAC	10 to 30 VDC	24 VDC ±10%		30 VDC or less				12/24 VDC	100/110 VAC	5/12/24 VDC	100/110 VAC	12/24 VDC	110 VAC	220 VAC	24 VDC ±10%
Load current	5 to 100 mA	5 to 20 mA (*1)			100 mA or less		50 mA or less		5 to 50 mA	7 to 20 mA	50 mA or less	20 mA or less	5 to 50 mA	7 to 20 mA	7 to 10 mA	5 to 20 mA (*1)
Indicator lamp	LED (Lit when ON)	LED (Lit when ON)	Red/green LED (Lit when ON)	Red/green LED (Lit when ON)	LED (Lit when ON)	Yellow LED (Lit when ON)	Red/green LED (Lit when ON)	Red/green LED (Lit when ON)	LED (Lit when ON)		Without indicator lamp		LED (Lit when ON)		Red/green LED (Lit when ON)	
Leakage current	1 mA or less with 100 VAC, 2 mA or less with 200 VAC	1 mA or less			10 µA or less				0 mA				1 mA or less			
Weight g	1 m: 33 3 m: 87 5 m: 142	1 m: 18 3 m: 49 5 m: 80	1 m: 33 3 m: 87 5 m: 142	1 m: 18 3 m: 49 5 m: 80	1 m: 18 3 m: 49 5 m: 80	1 m: 33 3 m: 87 5 m: 142	1 m: 18 3 m: 49 5 m: 80	1 m: 18 3 m: 49 5 m: 80		1 m: 18 3 m: 49 5 m: 80		1 m: 33 3 m: 87 5 m: 142		1 m: 61 3 m: 166 5 m: 272		

*1: The above max. load current is 20 mA at 25°C. The current is lower than 20 mA if the operating ambient temperature around the switch is higher than 25°C. (5 to 10 mA at 60°C)

*2: Switch for AC magnetic field (T2YD) cannot be used in DC magnetic field.

Switch specifications (F switch)

- 1-color/2-color display

Descriptions	Proximity 2-wire		Proximity 3-wire		Proximity 2-wire		Proximity 3-wire		
	F2S		F3S		F2H/F2V	F2YH/F2YV	F3H/F3V	F3PH/F3PV (Custom order)	F3YH/F3YV
Applications	Dedicated for programmable controller		For programmable controller, relay		Dedicated for programmable controller		For programmable controller, relay		
Output method	-		NPN Output		-		NPN Output	PNP Output	NPN Output
Power supply voltage	-		10 to 28 VDC		-		10 to 28 VDC	4.5 to 28 VDC	10 to 28 VDC
Load voltage	10 to 30 VDC		30 VDC or less		10 to 30 VDC	24 VDC ±10%	30 VDC or less		
Load current	5 to 20 mA		50 mA or less		5 to 20 mA		100 mA or less	50 mA or less	
Indicator lamp	LED (Lit when ON)				Yellow LED (Lit when ON)	Red/green LED (Lit when ON)	Yellow LED (Lit when ON)		Red/green LED (Lit when ON)
Leakage current	1 mA or less		10 µA or less		1 mA or less		10 µA or less		
Weight g					1 m: 10	3 m: 29			

*1: F switches use bend-resistant lead wires.

Cylinder weight

(Unit: g)

Bore size (mm)	Stroke (mm)														Rod side flange (FA)	Head side flange (FB)	Switch weight	
	17.5	19.5	25	29	27.5	29.5	35	39	37.5	39.5	45	49	65	69				
ø12	69				84				99							49	49	Refer to the weight in the switch specifications above.
ø16	100				123				146							59	59	
ø20		212				252				292						114	114	
ø25		267				314				361						125	125	
ø32			333				372				411		489			145	145	
ø40			554				629				704		854			193	193	
ø50				997				1118				1239		1481		335	335	
ø63				1373				1526				1679		1985		464	464	

Theoretical thrust table

(Unit: N)

Bore size (mm)	Operating direction	Working pressure MPa									
		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
ø12	Push	11.3	22.6	33.9	45.2	56.5	67.9	79.2	90.5	1.02 × 10 ²	1.13 × 10 ²
	Pull	8.5	17.0	25.4	33.9	42.4	50.9	59.4	67.9	76.3	84.8
ø16	Push	20.1	40.2	60.3	80.4	1.01 × 10 ²	1.21 × 10 ²	1.41 × 10 ²	1.61 × 10 ²	1.81 × 10 ²	2.01 × 10 ²
	Pull	15.1	30.2	45.2	60.3	75.4	90.5	1.06 × 10 ²	1.21 × 10 ²	1.36 × 10 ²	1.51 × 10 ²
ø20	Push	31.4	62.8	94.2	1.26 × 10 ²	1.57 × 10 ²	1.88 × 10 ²	2.20 × 10 ²	2.51 × 10 ²	2.83 × 10 ²	3.14 × 10 ²
	Pull	20.1	40.2	60.3	80.4	1.01 × 10 ²	1.21 × 10 ²	1.41 × 10 ²	1.61 × 10 ²	1.81 × 10 ²	2.01 × 10 ²
ø25	Push	49.1	98.2	1.47 × 10 ²	1.96 × 10 ²	2.45 × 10 ²	2.95 × 10 ²	3.44 × 10 ²	3.93 × 10 ²	4.42 × 10 ²	4.91 × 10 ²
	Pull	37.8	75.6	1.13 × 10 ²	1.51 × 10 ²	1.89 × 10 ²	2.27 × 10 ²	2.64 × 10 ²	3.02 × 10 ²	3.40 × 10 ²	3.78 × 10 ²
ø32	Push	80.4	1.61 × 10 ²	2.41 × 10 ²	3.22 × 10 ²	4.02 × 10 ²	4.83 × 10 ²	5.63 × 10 ²	6.43 × 10 ²	7.24 × 10 ²	8.04 × 10 ²
	Pull	60.3	1.21 × 10 ²	1.81 × 10 ²	2.41 × 10 ²	3.02 × 10 ²	3.62 × 10 ²	4.22 × 10 ²	4.83 × 10 ²	5.43 × 10 ²	6.03 × 10 ²
ø40	Push	1.26 × 10 ²	2.51 × 10 ²	3.77 × 10 ²	5.03 × 10 ²	6.28 × 10 ²	7.54 × 10 ²	8.80 × 10 ²	1.01 × 10 ³	1.13 × 10 ³	1.26 × 10 ³
	Pull	1.06 × 10 ²	2.11 × 10 ²	3.17 × 10 ²	4.22 × 10 ²	5.28 × 10 ²	6.33 × 10 ²	7.39 × 10 ²	8.44 × 10 ²	9.50 × 10 ²	1.06 × 10 ³
ø50	Push	1.96 × 10 ²	3.93 × 10 ²	5.89 × 10 ²	7.85 × 10 ²	9.82 × 10 ²	1.18 × 10 ³	1.37 × 10 ³	1.57 × 10 ³	1.77 × 10 ³	1.96 × 10 ³
	Pull	1.65 × 10 ²	3.30 × 10 ²	4.95 × 10 ²	6.60 × 10 ²	8.25 × 10 ²	9.90 × 10 ²	1.15 × 10 ³	1.32 × 10 ³	1.48 × 10 ³	1.65 × 10 ³
ø63	Push	3.12 × 10 ²	6.23 × 10 ²	9.35 × 10 ²	1.25 × 10 ³	1.56 × 10 ³	1.87 × 10 ³	-	-	-	-
	Pull	2.80 × 10 ²	5.61 × 10 ²	8.41 × 10 ²	1.12 × 10 ³	1.40 × 10 ³	1.68 × 10 ³	-	-	-	-

RCS2-T2 Series

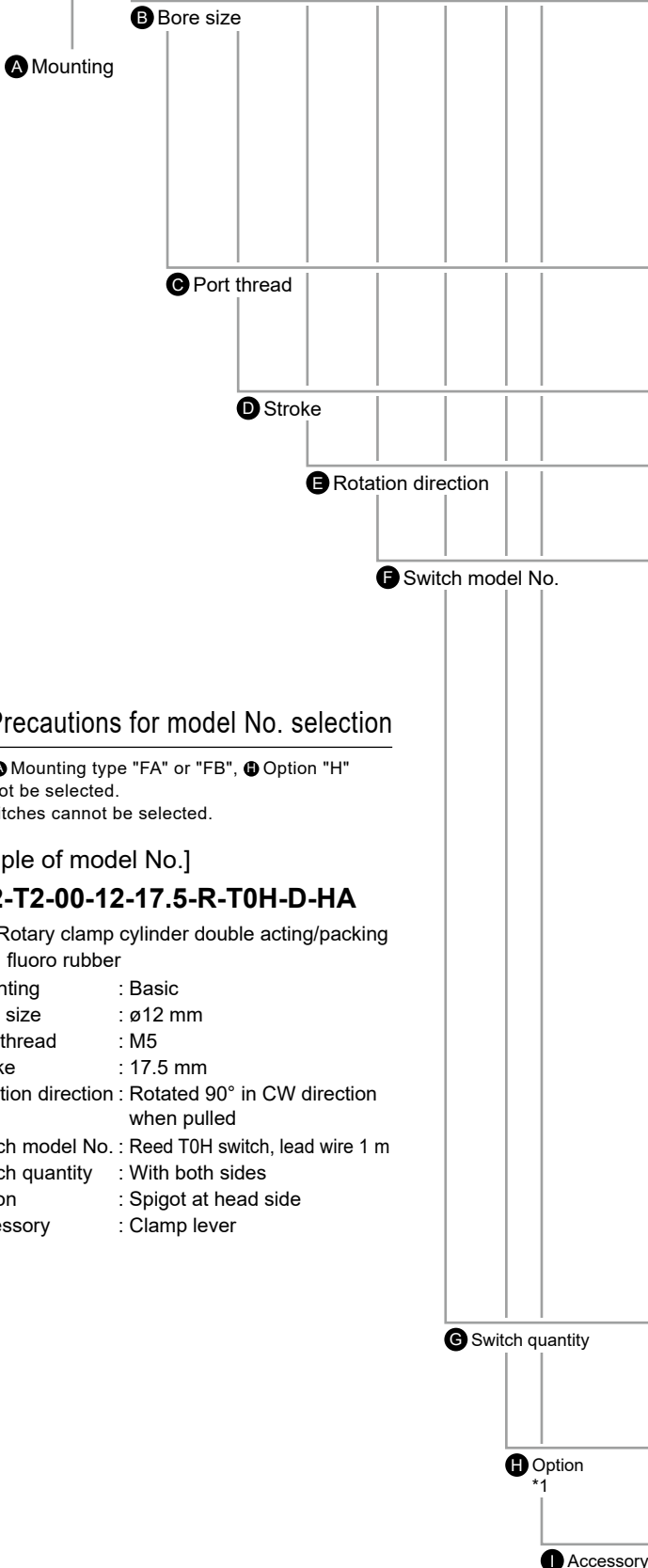
How to order

Without switch (built-in magnet for switch)

RCS2-T2 - 00 - 12 - 17.5 - R - H A

With switch (built-in magnet for switch)

RCS2-T2 - 00 - 12 - 17.5 - R - T0H - D - H A



⚠ Precautions for model No. selection

- *1: For **A** Mounting type "FA" or "FB", **H** Option "H" cannot be selected.
- *2: F switches cannot be selected.

[Example of model No.]

RCS2-T2-00-12-17.5-R-T0H-D-HA

Model: Rotary clamp cylinder double acting/packing material fluoro rubber

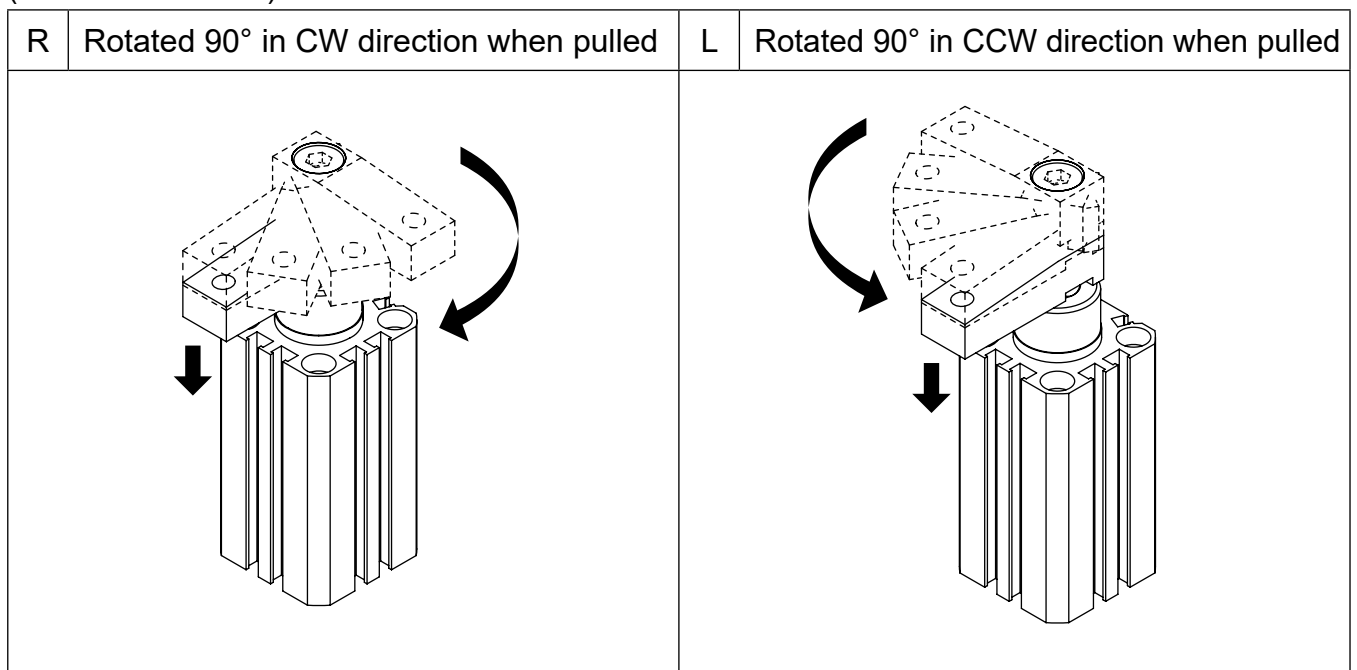
- A** Mounting : Basic
- B** Bore size : $\phi 12$ mm
- C** Port thread : M5
- D** Stroke : 17.5 mm
- E** Rotation direction : Rotated 90° in CW direction when pulled
- F** Switch model No. : Reed T0H switch, lead wire 1 m
- G** Switch quantity : With both sides
- H** Option : Spigot at head side
- I** Accessory : Clamp lever

Code	Content											
A Mounting												
00	Basic											
FA	Rod side flange											
FB	Head side flange											
B Bore size (mm)												
12	$\phi 12$											
16	$\phi 16$											
20	$\phi 20$											
25	$\phi 25$											
32	$\phi 32$											
40	$\phi 40$											
50	$\phi 50$											
63	$\phi 63$											
C Port thread												
Blank	Rc thread (M5 for $\phi 25$ and less)											
N	NPT thread ($\phi 32$ and over)											
G	G thread ($\phi 32$ and over)											
D Stroke (mm)												
Refer to the stroke length table on the following page.												
E Rotation direction Refer to the following page.												
R	Rotated 90° in CW direction when pulled											
L	Rotated 90° in CCW direction when pulled											
F Switch model No.												
Lead wire	Lead wire	Voltage	Display	Lead wire	Bore size							
Straight	L-shaped	AC	DC		12	16	20	25	32	40	50	63
T0H*	T0V*	●	●	1-color display	●	●	●	●	●	●	●	●
T5H*	T5V*	●	●	Without indicator lamp	●	●	●	●	●	●	●	●
T8H*	T8V*	●	●	1-color display	●	●	●	●	●	●	●	●
T1H*	T1V*	●	●		●	●	●	●	●	●	●	●
T2H*	T2V*	●	●	1-color display	●	●	●	●	●	●	●	●
T3H*	T3V*	●	●		●	●	●	●	●	●	●	●
T3PH*	T3PV*	●	●	1-color display (PNP output) (custom order)	●	●	●	●	●	●	●	●
T2WH*	T2WV*	●	●		●	●	●	●	●	●	●	●
T2YH*	T2YV*	●	●	2-color display	●	●	●	●	●	●	●	●
T3WH*	T3WV*	●	●		●	●	●	●	●	●	●	●
T3YH*	T3YV*	●	●		●	●	●	●	●	●	●	●
T2YD*	-	●	●	2-color display	●	●	●	●	●	●	●	●
T2YD*	-	●	●	AC magnetic field	●	●	●	●	●	●	●	●
T2JH*	T2JV*	●	●	1-color display off-delay	●	●	●	●	●	●	●	●
F2S*		●	●		●	●	●	●	●	●	●	●
F3S*		●	●	1-color display	●	●	●	●	●	●	●	●
F2H*	F2V*	●	●		●	●	●	●	●	●	●	●
F3H*	F3V*	●	●		●	●	●	●	●	●	●	●
F3PH*	F3PV*	●	●	1-color display (PNP output) (custom order)	●	●	●	●	●	●	●	●
F2YH*	F2YV*	●	●		●	●	●	●	●	●	●	●
F3YH*	F3YV*	●	●	2-color display	●	●	●	●	●	●	●	●
* Lead wire length												
Blank	1 m (Standard)											
3	3 m (Option)											
5	5 m (Option)											
G Switch quantity												
R	1 on rod side											
H	1 on head side											
D	With both sides											
H Option												
Blank	No option											
H	Spigot at head side											
I Accessory (attached at shipment)												
Blank	No accessories											
A	Clamp lever											

(Stroke length table)

Stroke	Bore size								Rotary stroke length	Clamp stroke length
	12	16	20	25	32	40	50	63		
17.5	●	●							7.5	10
19.5			●	●					9.5	10
25					●	●			15	10
29							●	●	19	10
27.5	●	●							7.5	20
29.5			●	●					9.5	20
35					●	●			15	20
39							●	●	19	20
37.5	●	●							7.5	30
39.5			●	●					9.5	30
45					●	●			15	30
49							●	●	19	30
65					●	●			15	50
69							●	●	19	50

(Rotation direction)



Discrete switch model No.

SW - T0H3

Switch model No.
(Item **F** on the previous page)

Flange kit model No.

RCS2 - FA - 12

Bore size
(Item **B** on the previous page)

Clamp lever kit model No.

RCS2 - A - 12

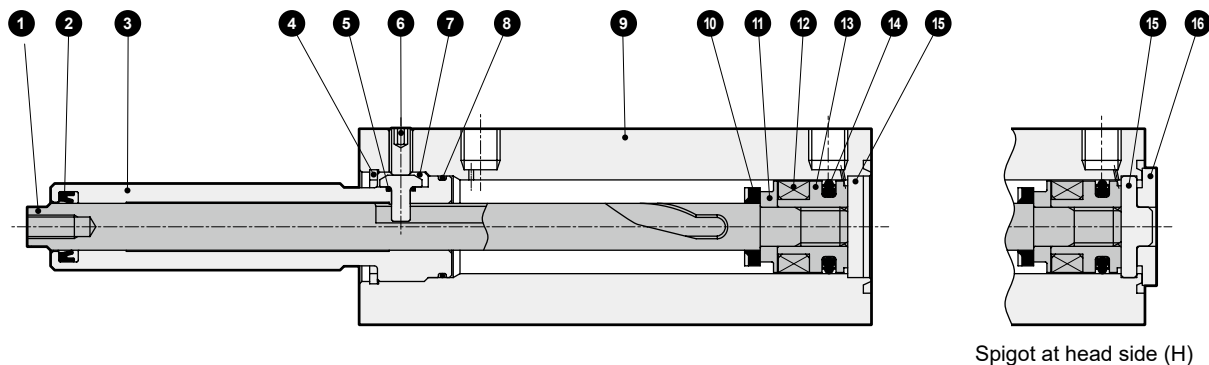
Code	Applicable bore size
12	ø12
16	ø16
20	ø20, ø25
32	ø32, ø40
50	ø50, ø63

* Dimensions are the same as the RCS2 Series basic shape. Refer to pages 7 to 10.

RCS2-T2 Series

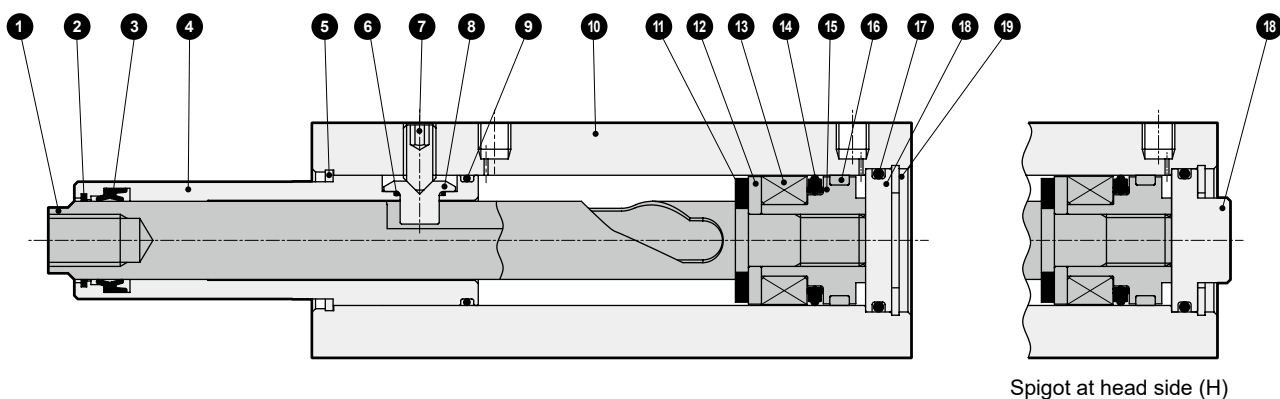
Internal structure and parts list (ø12, ø16, ø20, ø25)

● RCS2-T2-12/16



No.	Part name	Material	Remarks	No.	Part name	Material	Remarks
1	Piston rod	Stainless steel	Special treatment	10	Cushion rubber (R)	Urethane rubber	
2	Rod packing	Fluoro rubber		11	Spacer	ø12: Aluminum alloy	Zinc chromate
3	Rod metal	Aluminum alloy	Hard alumite			ø16: Special plastic	
4	Round R snap ring	Steel	Zinc phosphate	12	Magnet	Plastic	
5	Guide pin gasket	Fluoro rubber		13	Piston	Aluminum alloy	Zinc chromate
6	Hexagon socket set screw	Stainless steel		14	Piston packing	Fluoro rubber	
7	Guide pin	Steel	Special treatment	15	Cover	Stainless steel	
8	Rod metal gasket	Fluoro rubber		16	Spigot ring	Aluminum alloy	Zinc chromate
9	Body	Aluminum alloy	Hard alumite				

● RCS2-T2-20/25



No.	Part name	Material	Remarks	No.	Part name	Material	Remarks
1	Piston rod	Stainless steel	Special treatment	11	Cushion rubber (R)	Urethane rubber	
2	Coil scraper	Copper alloy		12	Spacer	Aluminum alloy	Zinc chromate
3	Rod packing	Fluoro rubber		13	Magnet	Plastic	
4	Rod metal	Aluminum alloy	Hard alumite	14	Piston packing	Fluoro rubber	
5	Circlip	Steel		15	Piston	Aluminum alloy	Zinc chromate
6	Guide pin gasket	Fluoro rubber		16	Wear ring	Polyacetal resin, polyester	
7	Hexagon socket set screw	Stainless steel		17	Cover gasket	Fluoro rubber	
8	Guide pin	Steel	Special treatment	18	Base plate	Aluminum alloy	Zinc chromate
9	Rod metal gasket	Fluoro rubber		19	C snap ring	Steel	Zinc phosphate
10	Body	Aluminum alloy	Hard alumite				

Consumable parts list

● Packing kit

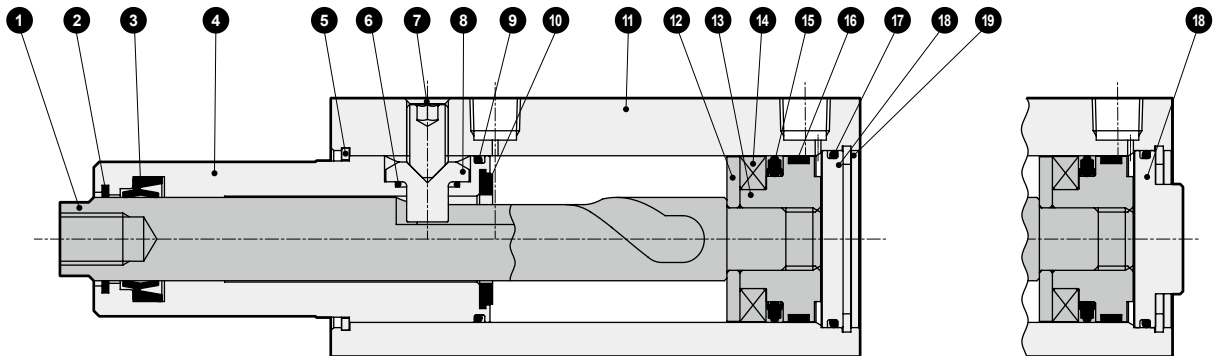
Bore size (mm)	Kit No.	Consumable parts No.
ø12	RCS2-T2-12K	
ø16	RCS2-T2-16K	2 5 8 10 14
ø20	RCS2-T2-20K	
ø25	RCS2-T2-25K	2 3 6 9 11 14 16 17

● Guide pin kit

Bore size (mm)	Kit No.	Consumable parts No.
ø12	RCS2-G-12	
ø16	RCS2-G-16	6 7
ø20	RCS2-G-20	
ø25	RCS2-G-25	7 8

Internal structure and parts list (ø32, ø40, ø50, ø63)

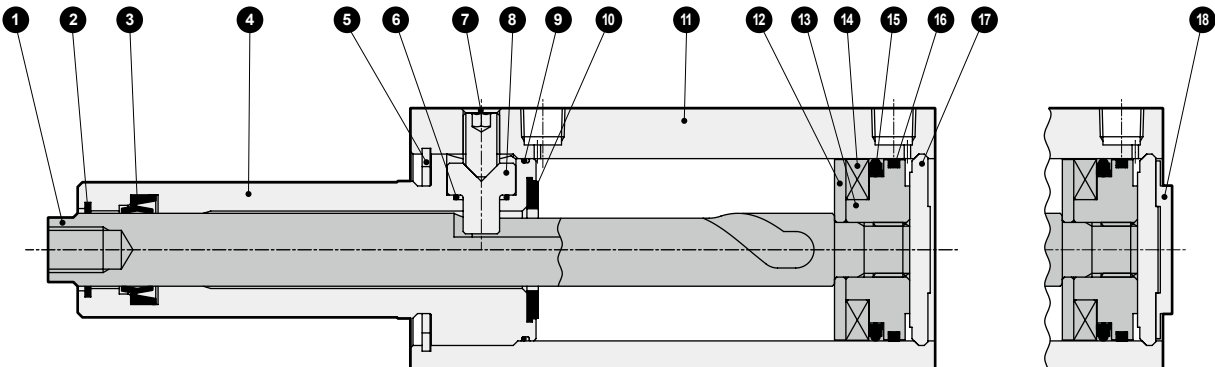
● RCS2-T2-32



Spigot at head side (H)

No.	Part name	Material	Remarks	No.	Part name	Material	Remarks
1	Piston rod	Stainless steel	Special treatment	11	Body	Aluminum alloy	Hard alumite
2	Coil scraper	Copper alloy		12	Spacer	Aluminum alloy	
3	Rod packing	Fluoro rubber		13	Piston	Aluminum alloy	Zinc chromate
4	Rod metal	Aluminum alloy	Hard alumite	14	Magnet	Plastic	
5	Circlip	Steel		15	Piston packing	Fluoro rubber	
6	Guide pin gasket	Fluoro rubber		16	Wear ring	Polyacetal resin, polyester	
7	Hexagon socket set screw	Stainless steel		17	Cover gasket	Fluoro rubber	
8	Guide pin	Steel	Special treatment	18	Base plate	Aluminum alloy	Zinc chromate
9	Rod metal gasket	Fluoro rubber		19	C snap ring	Steel	Zinc phosphate
10	Cushion rubber (R)	Urethane rubber					

● RCS2-T2-40/50/60



Spigot at head side (H)

No.	Part name	Material	Remarks	No.	Part name	Material	Remarks
1	Piston rod	Stainless steel	Special treatment	10	Cushion rubber (R)	Urethane rubber	
2	Coil scraper	Copper alloy		11	Body	Aluminum alloy	Hard alumite
3	Rod packing	Fluoro rubber		12	Spacer	Aluminum alloy	
4	Rod metal	Aluminum alloy	Hard alumite	13	Piston	Aluminum alloy	Zinc chromate
5	C snap ring	Steel	Zinc phosphate	14	Magnet	Plastic	
6	Guide pin gasket	Fluoro rubber		15	Piston packing	Fluoro rubber	
7	Hexagon socket set screw	Stainless steel		16	Wear ring	Polyacetal resin, polyester	
8	Guide pin	Steel	Special treatment	17	Cover	Aluminum alloy	
9	Rod metal gasket	Fluoro rubber		18	Spigot ring	Aluminum alloy	Zinc chromate

Consumable parts list

● Packing kit

Bore size (mm)	Kit No.	Consumable parts No.
ø32	RCS2-T2-32K	2 3 6 9 10 15 16 17
ø40	RCS2-T2-40K	
ø50	RCS2-T2-50K	2 3 6 9 10 15 16
ø63	RCS2-T2-63K	

● Guide pin kit


Bore size (mm)	Kit No.	Consumable parts No.
ø32	RCS2-G-32	7 8
ø40	RCS2-G-40	
ø50	RCS2-G-50	7 8
ø63	RCS2-G-63	



Rotary clamp cylinder/single guide Double acting/anti-spatter adherence

RCS2 - G4 Series

● Bore size: $\varnothing 32/\varnothing 40/\varnothing 50/\varnothing 63$

JIS symbol  ● Double acting



Specifications

Descriptions		RCS2-G4			
Bore size	mm	$\varnothing 32$	$\varnothing 40$	$\varnothing 50$	$\varnothing 63$
Actuation		Double acting			
Working fluid		Compressed air			
Max. working pressure	MPa	1.0			0.6
Min. working pressure	MPa	0.1 (*1)			
Proof pressure	MPa	1.6			
Ambient temperature	°C	-10 to 60 (no freezing)			
Port size	Rc, NPT, G	1/8		1/4	
Stroke tolerance	mm	+1.2 0			
Working piston speed	mm/s	50 to 200			
Cushion		Rod side: rubber cushioned, Head side: no cushioning			
Lubrication		Not required (use turbine oil type 1 ISO VG32 if necessary)			
Rotating angle		$90^\circ \pm 10^\circ$			
Rotation direction		Right/Left			
Non-rotating accuracy (clamping, default value)		$\pm 0.9^\circ$		$\pm 0.7^\circ$	
Pressurized area	Pull side	804	1256	1963	3117
	mm ² Push side	603	1056	1649	2803

*1: With constant pressurization

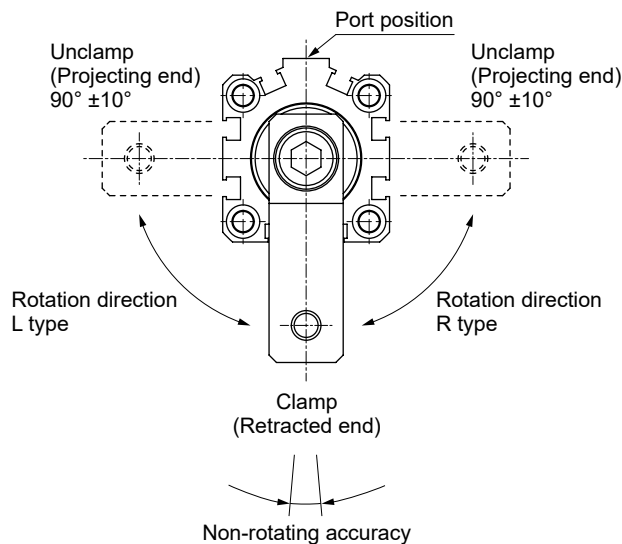
Stroke

Bore size (mm)	Stroke (mm)	Rotary stroke *1 (mm)	Clamp stroke *2 (mm)
$\varnothing 32, \varnothing 40$	25, 35, 45, 65	15	10, 20, 30, 50
$\varnothing 50, \varnothing 63$	29, 39, 49, 69	19	10, 20, 30, 50

*1: Rotary stroke length is the dimension of rotary linear movement in the clamp direction from the unclamp side.

*2: Clamp stroke length is the dimension of linear movement in the clamp direction after rotation.

Rotating angle, rotation direction, non-rotating accuracy



Switch specifications

Descriptions	Proximity 2-wire	
	T2YD	T2YDT
Applications	Dedicated for programmable controller	
Indicator light	Red/green LED (Lit when ON)	
Load voltage	24 VDC \pm 10%	
Load current	5 to 20 mA (*1)	
Internal voltage drop	6 V or less	
Leakage current	1.0 mA or less	
Output delay time *2 (ON delay, OFF delay)	60 ms or less	
Lead wire length *3	1 m (oil resistant vinyl cabtyre cable 2-conductor 0.5 mm ²)	1 m (flame-resistant vinyl cabtyre cable 2-conductor 0.5 mm ²)
Insulation resistance	100 M Ω and over at 500 VDC megger	
Withstand voltage	No failure impressed at 1000 VAC for one minute	
Shock resistance	980 m/s ²	
Ambient temperature	-10 to +60°C	
Degree of protection	JIS C0920 (water-tight), IEC standards IP67, oil resistance	
Weight g	1 m: 61 3 m: 166 5 m: 272	

*1: The above max. load current is 20 mA at 25°C. The current is lower than 20 mA if the operating ambient temperature around the switch is higher than 25°C. (5 to 10 mA at 60°C)

*2: The time taken after detecting magnet until signal output.

*3: 3 m and 5 m lead wires are available as options.

*4: This switch cannot be used in DC magnetic field.

Cylinder weight

(Unit: g)

Bore size (mm)	Stroke (mm)								Rod side flange (FA)	Head side flange (FB)	Switch weight
	25	29	35	39	45	49	65	69			
ø32	333		372		411		489		145	145	Refer to the weight in the switch specifications above.
ø40	554		629		704		854		193	193	
ø50		997		1118		1239		1481	335	335	
ø63		1373		1526		1679		1985	464	464	

Theoretical thrust table

(Unit: N)

Bore size (mm)	Operating direction	Working pressure MPa									
		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
ø32	Push	80.4	1.61×10^2	2.41×10^2	3.22×10^2	4.02×10^2	4.83×10^2	5.63×10^2	6.43×10^2	7.24×10^2	8.04×10^2
	Pull	60.3	1.21×10^2	1.81×10^2	2.41×10^2	3.02×10^2	3.62×10^2	4.22×10^2	4.83×10^2	5.43×10^2	6.03×10^2
ø40	Push	1.26×10^2	2.51×10^2	3.77×10^2	5.03×10^2	6.28×10^2	7.54×10^2	8.80×10^2	1.01×10^3	1.13×10^3	1.26×10^3
	Pull	1.06×10^2	2.11×10^2	3.17×10^2	4.22×10^2	5.28×10^2	6.33×10^2	7.39×10^2	8.44×10^2	9.50×10^2	1.06×10^3
ø50	Push	1.96×10^2	3.93×10^2	5.89×10^2	7.85×10^2	9.82×10^2	1.18×10^3	1.37×10^3	1.57×10^3	1.77×10^3	1.96×10^3
	Pull	1.65×10^2	3.30×10^2	4.95×10^2	6.60×10^2	8.25×10^2	9.90×10^2	1.15×10^3	1.32×10^3	1.48×10^3	1.65×10^3
ø63	Push	3.12×10^2	6.23×10^2	9.35×10^2	1.25×10^3	1.56×10^3	1.87×10^3	-	-	-	-
	Pull	2.80×10^2	5.61×10^2	8.41×10^2	1.12×10^3	1.40×10^3	1.68×10^3	-	-	-	-

RCS2-G4 Series

How to order

Without switch (built-in magnet for switch)

RCS2-G4 - 00 - 32 - 25 - R - H A

With switch (built-in magnet for switch)

RCS2-G4 - 00 - 32 - 25 - R - T2YD3 - D - H A

A Mounting

B Bore size

C Port thread

D Stroke

E Rotation direction

F Switch model No.

G Switch quantity

H Option
*1

I Accessory

Code	Content					
A Mounting						
00	Basic					
FA	Rod side flange					
FB	Head side flange					
B Bore size (mm)						
32	ø32					
40	ø40					
50	ø50					
63	ø63					
C Port thread						
Blank	Rc Thread					
N	NPT Thread					
G	G Thread					
D Stroke (mm)						
Stroke	Bore size				Rotary stroke length	Clamp stroke length
	32	40	50	63		
25	●	●			15	10
29			●	●	19	10
35	●	●			15	20
39			●	●	19	20
45	●	●			15	30
49			●	●	19	30
65	●	●			15	50
69			●	●	19	50
E Rotation direction Refer to the following page.						
R	Rotated 90° in CW direction when pulled					
L	Rotated 90° in CCW direction when pulled					
F Switch model No.						
Lead wire straight type	Contact	Voltage	Display		Lead wire	
T2YD*	Proximity	DC	2-color display for strong magnetic field (Dedicated for AC magnetic field)		2-wire	
T2YDT*					(Flame-resistant cable)	
* Lead wire length						
Blank	1 m (Standard)					
3	3 m (Option)					
5	5 m (Option)					
G Switch quantity						
R	1 on rod side					
H	1 on head side					
D	With both sides					
H Option						
Blank	No option					
H	Spigot at head side					
I Accessory (attached at shipment)						
Blank	No accessories					
A	Clamp lever					

⚠ Precautions for model No. selection

*1: For A Mounting type "FA" or "FB", H Option "H" cannot be selected.

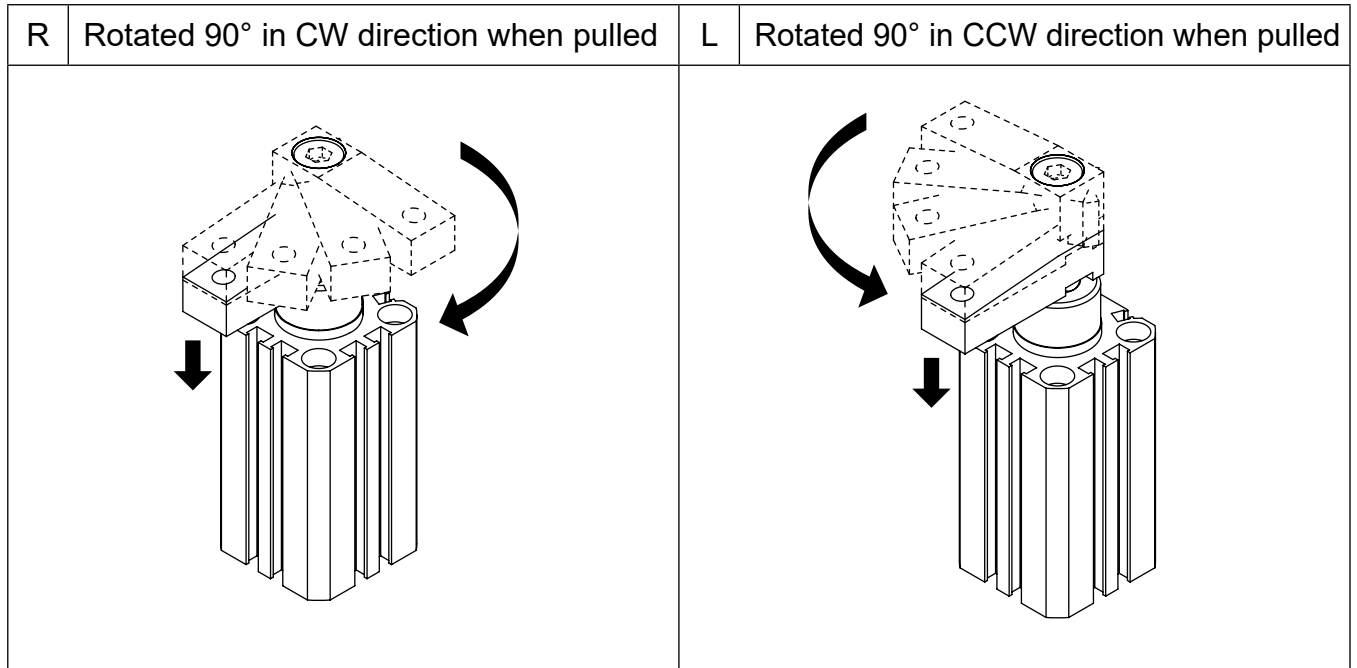
[Example of model No.]

RCS2-G4-00-32-25-R-T2YD3-D-HA

Model: Rotary clamp cylinder double acting/ anti-spatter adherence

- A Mounting : Basic
- B Bore size : ø32 mm
- C Port thread : Rc thread
- D Stroke : 25 mm
- E Rotation direction : Rotated 90° in CW direction when pulled
- F Switch model No. : Proximity T2YD switch, lead wire 3 m
- G Switch quantity : With both sides
- H Option : Spigot at head side
- I Accessory : Clamp lever

(Rotation direction)



Discrete switch
model No.

SW - **T2YD3**

Switch model No.
(Item **F** on the previous page)

Flange kit model No.

RCS2 - **FA** - **32**

Bore size
(Item **B** on the previous page)

Clamp lever kit model No.

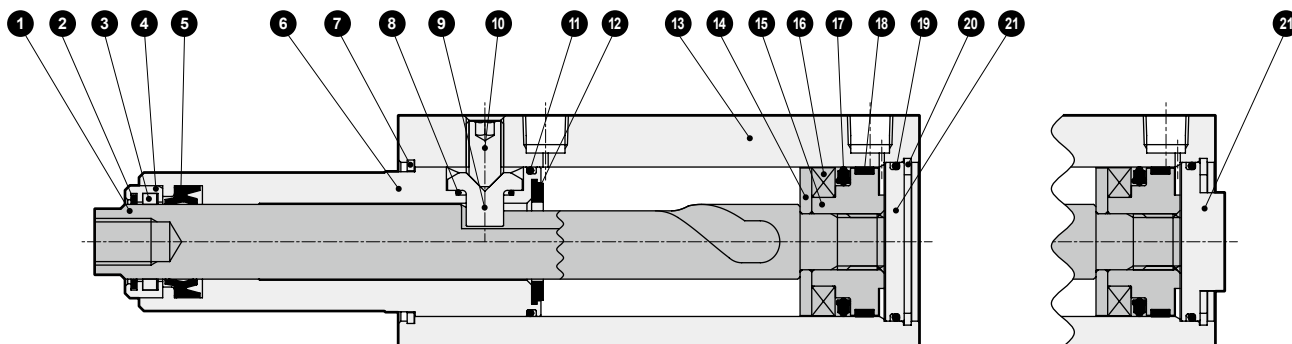
RCS2 - **A** - **32**

Code	Applicable bore size
32	ø32, ø40
50	ø50, ø63

RCS2-G4 Series

Internal structure and parts list

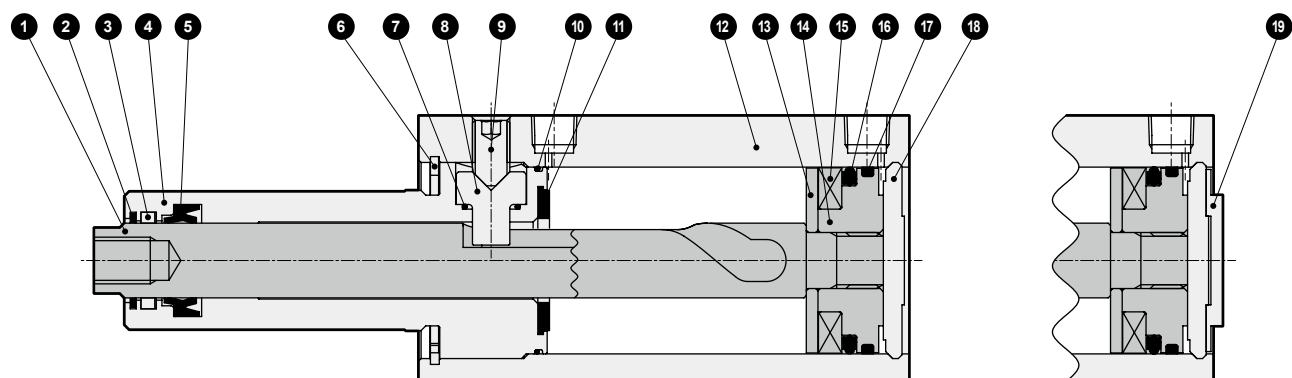
● RCS2-G4-32



Spigot at head side (H)

No.	Part name	Material	Remarks	No.	Part name	Material	Remarks
1	Piston rod	Stainless steel	Special treatment	12	Cushion rubber	Urethane rubber	
2	Coil scraper	Copper alloy		13	Body	Aluminum alloy	Hard alumite
3	Lube keeping structure			14	Spacer	Aluminum alloy	Zinc chromate
4	Holder	Aluminum alloy	Zinc chromate	15	Piston	Aluminum alloy	Zinc chromate
5	Rod packing	Nitrile rubber		16	Piston magnet	Plastic	
6	Rod metal	Aluminum alloy	Hard alumite	17	Piston packing	Nitrile rubber	
7	Circlip	Steel	Zinc phosphate	18	Wear ring	Polyacetal resin, polyester	
8	Guide pin gasket	Nitrile rubber		19	Cover gasket	Nitrile rubber	
9	Guide pin	Steel	Special treatment	20	C snap ring	Steel	Zinc phosphate
10	Hexagon socket set screw	Stainless steel		21	Base plate	Aluminum alloy	Zinc chromate
11	Rod metal gasket	Nitrile rubber					

● RCS2-G4-40/50/63



Spigot at head side (H)

No.	Part name	Material	Remarks	No.	Part name	Material	Remarks
1	Piston rod	Stainless steel	Special treatment	11	Cushion rubber	Urethane rubber	
2	Coil scraper	Copper alloy		12	Body	Aluminum alloy	Hard alumite
3	Lube keeping structure			13	Spacer	Aluminum alloy	Zinc chromate
4	Rod metal	Aluminum alloy	Hard alumite	14	Piston	Aluminum alloy	Zinc chromate
5	Rod packing	Nitrile rubber		15	Piston magnet	Plastic	
6	C snap ring	Steel	Zinc phosphate	16	Piston packing	Nitrile rubber	
7	Guide pin gasket	Nitrile rubber		17	Wear ring	Polyacetal resin, polyester	
8	Guide pin	Steel	Special treatment	18	Cover	Aluminum alloy	Zinc chromate
9	Hexagon socket set screw	Stainless steel		19	Spigot ring	Aluminum alloy	Zinc chromate
10	Rod metal gasket	Nitrile rubber					

Consumable parts list

● Packing kit (There is no lube keeping structure in the kit.)

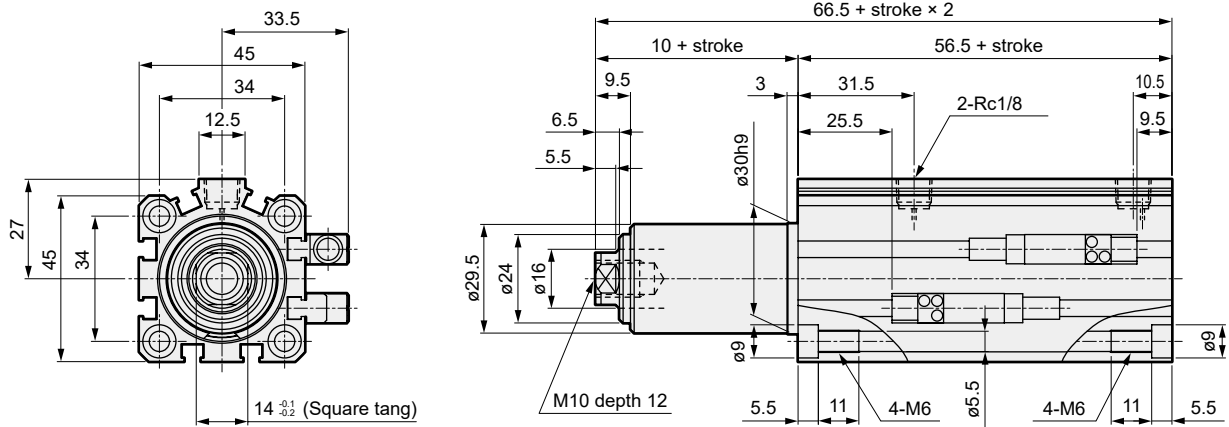
Bore size (mm)	Kit No.	Consumable parts No.
ø32	RCS2-32K	2 5 8 11 12 17 18 19
ø40	RCS2-40K	
ø50	RCS2-50K	2 5 7 10 11 16 17
ø63	RCS2-63K	

● Guide pin kit

Bore size (mm)	Kit No.	Consumable parts No.
ø32	RCS2-G-32	9 10
ø40	RCS2-G-40	
ø50	RCS2-G-50	8 9
ø63	RCS2-G-63	

Dimensions (basic shape: 00)

● RCS2-G4-00-32



* Dimensions of RCS2-G4-40, 50 and 63 are the same as RCS2 Series basic.

Refer to page 7.

* Dimensions of mounting FA and FB are the same as RCS2 Series basic.

Refer to pages 8 to 9.