

Rotary clamp cylinder double acting spatter adherence prevention type RCC2-G4 Series

New product



Overview

Spatter adherence prevention has been incorporated in the RCC2 Series configured of the square space-saving cylinder with the built-in rotary clamp mechanism.

Long life even in environments containing spatter

Features

- A fiber aggregate (lube keeping structure) impregnated with spatter adherence prevention agent is used to prevent spatter from sticking and solidifying onto the piston rod during arc welding.
- A metal scraper (coil scraper) helps remove spatter adhering to the piston rod.
- The spatter adherence prevention agent is supplied steadily for a long time, improving durability over general cylinders used in spatter environments.

Features of lube keeping structure

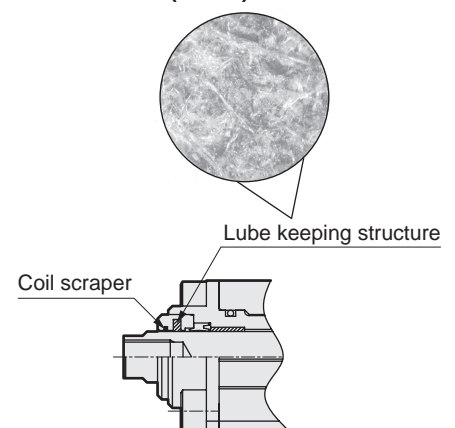
■ Spatter adherence prevention agent supply/absorption

A capillary tube effect applies the spatter adherence prevention agent evenly and regularly to the sliding surface and also absorbs any excess.

■ Dust wiper function

Fine spatter is collected into the fiber aggregate to reduce contamination on the sliding section and prevent entry into the cylinder body.

- Lube keeping structure cross section (× 180)



! Refer to safety precautions on "Pneumatic Cylinders I" catalog (No. CB-029SA).

Specifications

* Custom-order part

Descriptions		RCC2-G4						
Bore size	mm	Φ20	Φ25	Φ32	Φ40	Φ50	Φ63	
Actuation		Double acting						
Max. working pressure	MPa	1						
Min. working pressure	MPa	0.2						
Withstanding pressure	MPa	1.6						
Ambient temperature	°C	-10 to 60 (no freezing)						
Port size		M5	Rc1/8			Rc1/4		
Working piston speed	mm/s	50 to 200						
Cushion		Rubber cushioned						
Lubrication		Not required (use turbine oil Class 1 ISO VG32 for lubrication.)						
Turning angle		90°±10°						
Rotational direction		Right / Left						
Rod revolvable angle tolerance (clamp): Default		±1°		±0.9°		±0.7°		
Pressurized area	mm ²	Retract side	201	377	603	1055	1649	2626
		Push side	314	490	804	1256	1963	3117

Stroke length

Bore size (mm)	Stroke length (mm)	Rotational section stroke (mm)	Clamp section stroke (mm)
Φ20	21, 31	11	10, 20
Φ25			
Φ32	25, 35	15	10, 20
Φ40			
Φ50	40, 70	20	20, 50
Φ63			

Switch specifications

● 1 color/2 color indicator/strong magnetic field proof

* The T0/T5 switch can be used with 220 VAC. Contact CKD for working conditions.

Descriptions	Proximity 2 wire		Proximity 3 wire			Reed 2 wire				Proximity 2 wire
	T2H/T2V	T2YH/T2YV	T3H/T3V	T3PH/T3PV (custom order)	T3YH/T3YV	T0H/T0V		T5H/T5V		T2YD
Applications	Programmable controller		Programmable controller and relay			Programmable controller and relay		Programmable controller, relay, I.C. (w/o light), serial connection		Programmable controller
Output method	-		NPN output	PNP output	NPN output	-				
Power voltage	-		10 to 28 VDC			-				
Load voltage	10 to 30 VDC		30 VDC or less			12/24 VDC	110 VAC	5, 12, 24 VDC	110 VAC	24 VDC ±10%
Load current	5 to 20 mA (Note 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 20 mA
Light	LED (ON lighting)	Red/green LED (ON lighting)	LED (ON lighting)	Green LED (ON lighting)	Red/green LED (ON lighting)	LED (ON lighting)		-		Red/green LED (ON lighting)
Leakage current	1 mA or less		10 µA or less			0 mA				1.0 mA or less

Note 1: The max. load current of 20 mA is the value at 25 °C. If the switch's working ambient temperature is hotter than 25 °C, the max. value is lower than 20 mA. (5 to 10 mA at 60°C)

How to order

Without switch

RCC2-G4 - 00 - 20 - 21 - R

With switch

RCC2-G4 - 00 - 20 - 21 - R - T0H - R

Model no.

A Mounting style

B Bore size

C Stroke length

D Rotational direction

E Switch model no.

<Example of model number>

RCC2-G4-00-20-21-R-T2YD3-D

Model: Rotary clamp cylinder double acting spatter adherence prevention type

- A** Mounting style : Basic type
- B** Bore size : $\Phi 20$
- C** Stroke length : 21 mm
- D** Rotational direction: When clamped (PULL) from rod side: Turn 90° CW
- E** Switch model no. : Proximity type T2YD switch for strong magnetic field proof, lead wire length 3 m
- F** Switch quantity : 2 pieces

How to order switch

SW - T0H

Switch model no.
(Above **E**)

Symbol	Descriptions
A Mounting style	
00	Basic type
FA	Rod end flange type
FB	Head end flange type

B Bore size (mm)	
20	$\Phi 20$
25	$\Phi 25$
32	$\Phi 32$
40	$\Phi 40$
50	$\Phi 50$
63	$\Phi 63$

C Stroke length (mm)			
Stroke length	Bore size	Rotational section	Clamp section
21	$\Phi 20, \Phi 25$	11	10
25	$\Phi 32, \Phi 40$	15	10
31	$\Phi 20, \Phi 25$	11	20
35	$\Phi 32, \Phi 40$	15	20
40	$\Phi 50, \Phi 63$	20	20
70	$\Phi 50, \Phi 63$	20	50

D Rotational direction	
R	When clamped (PULL) from rod side: Turn 90° CW
L	When clamped (PULL) from rod side: Turn 90° CCW

E Switch model no.					
Axial lead wire	Radial lead wire	Contact	Indicator	Lead wire	
T0H*	T0V*	Reed	1 color indicator type	2-wire	
T5H*	T5V*		Without indicator light		
T2H*	T2V*	Proximity	1 color indicator type	2-wire	
T3H*	T3V*		1 color indicator type (custom order)	3-wire	
T3PH*	T3PV*			2 color indicator type	3-wire
T2YH*	T2YV*				2-wire
T3YH*	T3YV*		Strong magnetic field proof	3-wire	
T2YD*	-			2-wire	

*Lead wire length (m)	
Blank	1 m (standard)
3	3 m (option)
5	5 m (option)

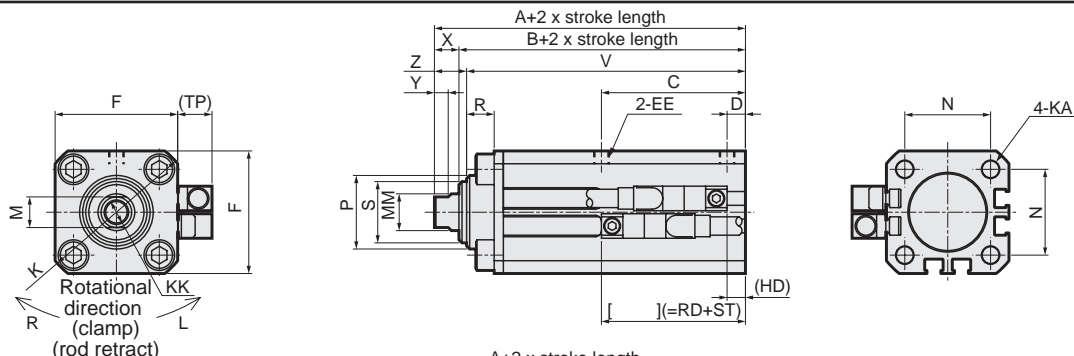
F Switch quantity	
R	One on rod end
H	One on head end
D	Two

F Switch quantity

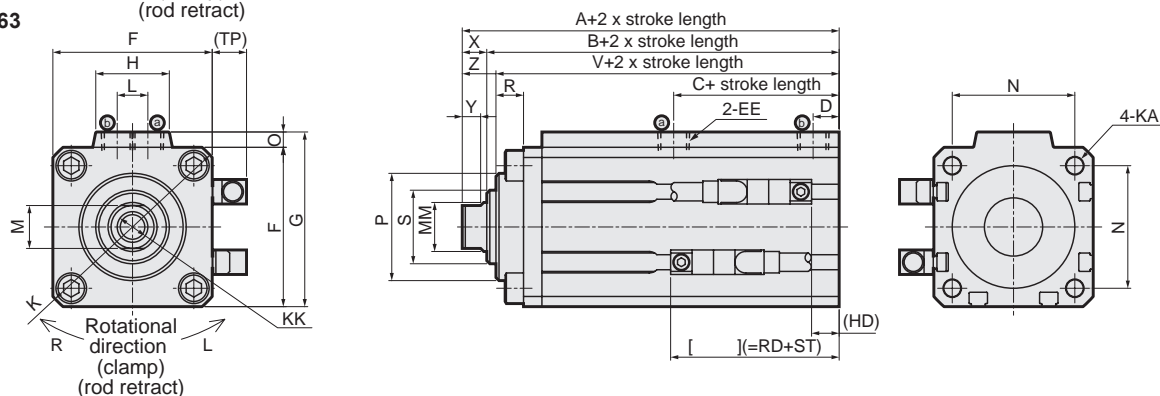
RCC2-G4 Series

Dimensions

● Φ20, Φ25



● Φ32 to Φ63



Note: The Φ50 and Φ63 switch groove differs from the above. Refer to the "Pneumatic Cylinders I" RCC2 Series.

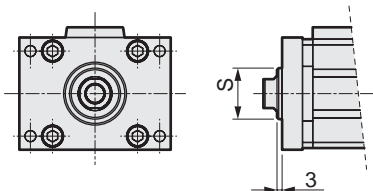
Symbol Bore size	A	B	C	D	EE	F	G	H	K	KA	KK	L	M	MM	N	O	P	R	X	Y	V	Z	S
Φ20	58.5	60.5	24	5.5	M5×0.8	36	-	-	47	M6 depth 11	M8 depth 15	-	10	12	25.5	-	24	9	8	4.5	48	10.5	20
Φ25	59.5	61.5	26	6	M5×0.8	40	-	-	51	M6 depth 11	M8 depth 15	-	10	12	28	-	24	9	8	4.5	49	10.5	20
Φ32	72	64	27	8	Rc1/8	45	49.5	24	60	M6 depth 11	M10 depth 15	10	14	16	34	4.5	30	9	8	6	61	11	24
Φ40	73	65	29	8.5	Rc1/8	52	57	24	69	M6 depth 11	M10 depth 15	10	14	16	40	5	35	9	8	6	62	11	24
Φ50	77	69	29	10.5	Rc1/4	64	71	33	86	M8 depth 13	M12 depth 15	15	17	20	50	7	37	12	8	6	66	11	30
Φ63	88	78	38	11	Rc1/4	77	84	33	103	M10 depth 25	M16 depth 21	15	22	25	60	7	48	12	10	8	75	13	36
Switch symbol	T2/3H, T2/3V			T0/5H, T0/5V			T*YH/T*YV			T2YD*													
Bore size	HD	RD	TP	HD	RD	TP	HD	RD	TP	HD	RD	TP											
Φ20	7	26	0	6	27	0	6	27	5	6	27	11											
Φ25	6	25	0	5	26	0	5	26	5	5	26	11											
Φ32	9	28	0	8	29	0	8	29	5	8	29	11											
Φ40	10	29	0	9	30	0	9	30	5	9	30	11											
Φ50	11	30	0	10	31	0	10	31	5	10	31	11											
Φ63	19	37	0	18	38	0	18	38	5	18	38	11											

Safety precautions

Refer to safety precautions on "Pneumatic Cylinders I" catalog (No. CB-029SA).

⚠ Cautions

- Cylinder durability in an environment containing spatter is higher than a general cylinder. When using in an environment where spatter is not present, durability may be inferior to the general cylinder. Do not use this cylinder in environments free from spatter.
- The spatter adherence prevention agent is volatile. If the spatter prevention agent on the rod surface starts to dry, reapply the agent to the rod surface.
- When using the support FA (rod side flange), the holder will protrude from the flange end.



Symbol bore size	S
Φ20	20
Φ25	20
Φ32	24
Φ40	24
Φ50	30
Φ63	36

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