Rotary clamp cylinder Double acting/single rod

RCC2 Series

● Bore size: ø16/ø20/ø25/ø32/ø40/ø50/ø63

● Double acting

JIS symbol 

RoHS CAD

Specifications

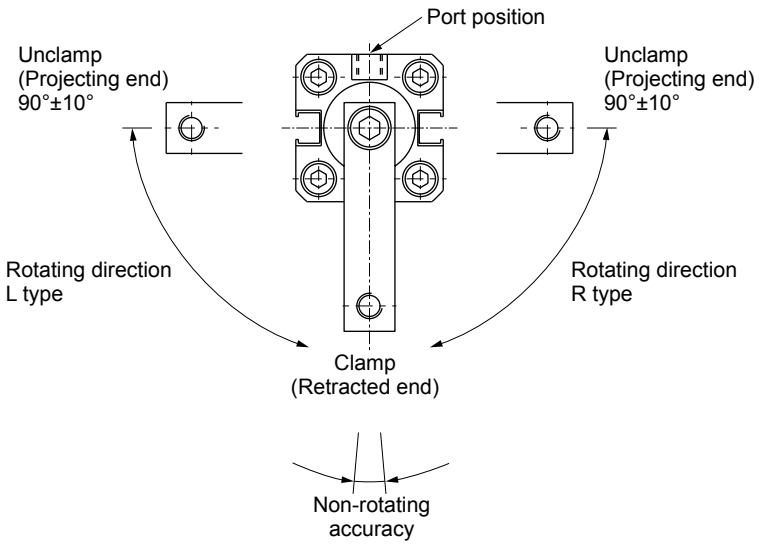
* Made-to-order product.

Item		RCC2						
Bore size	mm	ø16	ø20	ø25	ø32	ø40	ø50	ø63
Actuation		Double acting						
Working fluid		Compressed air						
Max. working pressure	MPa	1.0 (≈150 psi, 10 bar)						
Min. working pressure	MPa	0.2 (≈29 psi, 2 bar)						
Proof pressure	MPa	1.6 (≈230 psi, 16 bar)						
Ambient temperature	°C	-10 (14°F) to 60 (140°F) (no freezing)						
Port size		M5			Rc1/8		Rc1/4	
Working piston speed	mm/s	50 to 200						
Cushion		With rubber cushion						
Lubrication		Not required (use turbine oil class 1 ISO VG32 if necessary for lubrication)						
Rotating angle		90°±10°						
Rotating direction		Right/Left						
Non-rotating accuracy (clamping): Initial value		±1°			±0.9°		±0.7°	
Pressurized area mm^2	Pull	123	201	377	603	1055	1649	2626
	Push	201	314	490	804	1256	1963	3117
Durability		1 million times						

Stroke length

Bore size (mm)	Stroke length (mm)	Rotor stroke length (mm)	Clamp section stroke length (mm)
ø16	19, 29	9	10, 20
ø20	21, 31	11	10, 20
ø25			
ø32	25, 35	15	10, 20
ø40			
ø50	40, 70	20	20, 50
ø63			

Rotating direction



Switch specifications

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

Item	Proximity 2-wire			Proximity 3-wire				Reed 2-wire				Proximity 2-wire
	T2H/T2V	T2YH/T2YV	T2WH/T2WV	T3H/T3V	T3PH/T3PV	T3YH/T3YV	T3WH/T3WV	T0H/T0V		T5H/T5V		T2YD
Applications	Dedicated for programmable controller			For programmable controller, relay				For programmable controller, relay		For programmable controller, relay, IC circuit (no indicator lamp), serial connection		For programmable controller
Output method	-			NPN output	PNP output	NPN output	NPN output	-				
Pwr. supp. V.	-			10 to 28 VDC				-				
Load voltage	10 to 30 VDC		24 VDC ±10%	30 VDC or less				12/24 VDC	110 VAC	5/12/24 VDC	110 VAC	24 VDC ±10%
Load current	5 to 20 mA (*3)			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
Indicator lamp	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		Red/green LED (Lit when ON)
Leakage current	1 mA or less			10 μA or less				0 mA				1 mA or less
Weight g	1 m:18	1 m:33	1 m:18	1 m:18		1 m:33	1 m:18	1 m:18 3 m:49 5 m:80				1 m:61
	3 m:49	3 m:87	3 m:49	3 m:49		3 m:87	3 m:49					3 m:166
	5 m:80	5 m:142	5 m:80	5 m:80		5 m:142	5 m:80					5 m:272

*1 : Refer to Ending Page 1 for detailed switch specifications and dimensions.
*2 : Switches other than the above models, such as switches with connectors, are also available. Refer to Ending Page 1.
*3 : The 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)
*4 : AC magnetic field proof switch (T2YD) cannot be used in DC magnetic fields.

Cylinder weight

(Unit: kg)

Item/mounting / Bore size (mm)	Stroke length (mm) 19	29	21	31	25	35	40	70	Rod side flange (FA)	Head side flange FB	Switch weight
ø16	0.22	0.28	-	-	-	-	-	-	0.07	0.07	Refer to the weight in the switch specifications.
ø20	-	-	0.35	0.43	-	-	-	-	0.13	0.13	
ø25	-	-	0.38	0.45	-	-	-	-	0.16	0.16	
ø32	-	-	-	-	0.8	0.9	-	-	0.16	0.16	
ø40	-	-	-	-	1.0	1.1	-	-	0.25	0.25	
ø50	-	-	-	-	-	-	1.6	2.2	0.5	0.5	
ø63	-	-	-	-	-	-	2.8	3.6	0.65	0.65	

Theoretical thrust table

(Unit: N)

Bore size (mm)	Operating direction	Working pressure MPa 0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
ø16	Push	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	24.5	36.8	49.0	61.3	73.5	85.8	98.0	1.10×10^2	1.23×10^2
ø20	Push	62.8	94.2	1.26×10^2	1.57×10^2	1.89×10^2	2.20×10^2	2.51×10^2	2.83×10^2	3.14×10^2
	Pull	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	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	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	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	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	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	2.11×10^2	3.17×10^2	4.22×10^2	5.28×10^2	6.33×10^2	7.39×10^2	8.45×10^2	9.50×10^2	1.06×10^3
ø50	Push	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	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	6.23×10^2	9.35×10^2	1.25×10^3	1.56×10^3	1.87×10^3	2.18×10^3	2.49×10^3	2.81×10^3	3.12×10^3
	Pull	5.25×10^2	7.88×10^2	1.05×10^3	1.31×10^3	1.58×10^3	1.84×10^3	2.10×10^3	2.36×10^3	2.63×10^3

How to order

Without switch (built-in magnet for switch)

RCC2 - 00 - 20 - 21 - R

With switch (built-in magnet for switch)

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

Ⓐ Mounting
Ⓑ Bore size
Ⓒ Stroke length
Ⓓ Rotating direction
Ⓔ Switch model No. *1 *2
Ⓕ Switch quantity
Ⓖ Option

Code	Description
Ⓐ Mounting	
00	Basic
FA	Rod side flange
FB	Head side flange *3
HI	With spigot at head side

Ⓑ Bore size (mm)	
16	ø16
20	ø20
25	ø25
32	ø32
40	ø40
50	ø50
63	ø63

Ⓒ Stroke length (mm)

Stroke length	Bore size	Rotor	Clamp
19	ø16	9	10
21	ø20/ø25	11	10
25	ø32/ø40	15	10
29	ø16	9	20
31	ø20/ø25	11	20
35	ø32/ø40	15	20
40	ø50/ø63	20	20
70	ø50/ø63	20	50

Ⓓ Rotating direction	
R	Clamp (Pull) looking from rod side: Rotated 90° in CW direction
L	Clamp (Pull) looking from rod side: Rotated 90° in CCW direction

Ⓔ Switch model No.

Axial lead wire	Radial lead wire	Contact	Voltage AC	Voltage DC	Indicator	Lead wire
T0H*	**T0V***	Reed	●	●	1-color display	2-wire
T5H*	**T5V***	Reed	●	●	Without indicator lamp	2-wire
T2H*	**T2V***	Proximity		●	1-color display	2-wire
T3H*	**T3V***	Proximity		●	1-color display	3-wire
T3PH*	**T3PV***	Proximity		●	1-color display	3-wire
T2WH*	**T2WV***	Proximity		●	2-color display	2-wire
T2YH*	**T2YV***	Proximity		●	2-color display	2-wire
T3WH*	**T3WV***	Proximity		●	2-color display	3-wire
T3YH*	**T3YV***	Proximity		●	2-color display	3-wire
T2YD*	**-**	Proximity		●	2-color display	2-wire
T2YDT*	**-**	Proximity		●	AC magnetic field	2-wire

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

Ⓕ Switch quantity	
R	1 on rod side
H	1 on head side
D	2

Ⓖ Option	
Blank	Rod end width across flats
N4	Rod end 2 widths across flats (ø16 only)

Precautions for model No. selection

*1: Switches are shipped with the product. Contact CKD if assembling before shipment is necessary.
2: T3P⬍, T2Y⬍*, T3Y⬍*, T2YD*, and T2YDT* switches cannot be used for ø16.
*3: When the type with the switch is selected, the product could interfere with the fixing screws depending on the switch mounting surface and switch.

[Example of model No.]

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

Model: Rotary clamp cylinder double acting
Ⓐ Mounting : Basic
Ⓑ Bore size : ø20 mm
Ⓒ Stroke length : 21 mm
Ⓓ Rotating direction : Clamp (Pull) looking from rod side: Rotated 90° in CW direction
Ⓔ Switch model No. : Reed T0H switch, lead wire length 1 m
Ⓕ Switch quantity : 1 on rod side

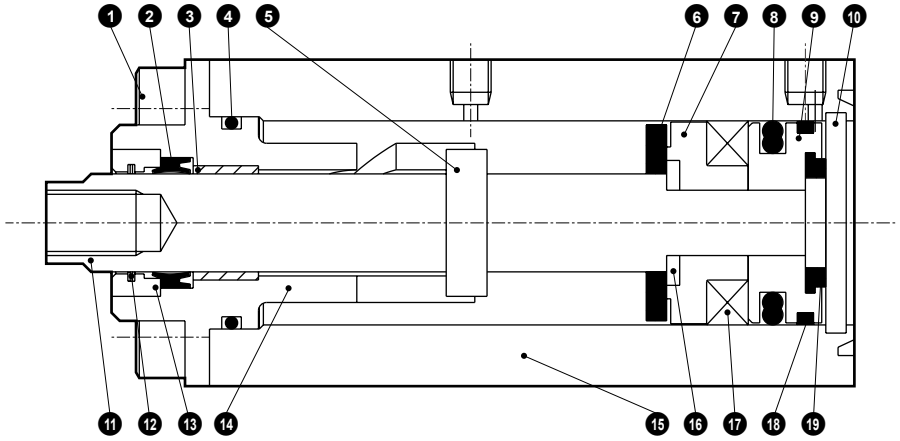
How to order switch

SW - T0H

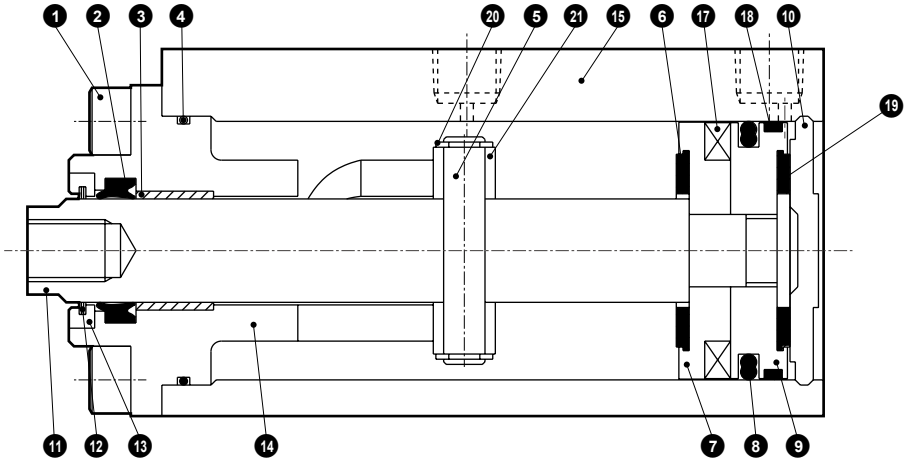
Switch model No.
(Item Ⓔ above)

Internal structure and parts list

● RCC2-16/20/25



● RCC2-32/40/50/63



No.	Part name	Material	Remarks	No.	Part name	Material	Remarks
1	Hexagon socket head cap screw	Stainless steel		11	Piston rod	ø16: Stainless steel ø20 to ø63: Steel	
2	Rod packing	Nitrile rubber		12	Coil scraper	Copper alloy	Except for ø16
3	Bush	Copper-based		13	Holder	Aluminum alloy	
4	Cylinder gasket	Nitrile rubber		14	Rod cover	Steel	
5	Pin	Steel		15	Cylinder body	Aluminum alloy	
6	Cushion rubber (R)	Urethane rubber		16	Spacer washer	Stainless steel	Except for ø16
7	Spacer	ø20, ø25: Special resin ø16, ø32 to ø63: Aluminum alloy		17	Magnet	Plastic	
				18	Wear ring	Acetal resin	
8	Piston packing	Nitrile rubber		19	Cushion rubber (H)	Urethane rubber	
9	Piston	Aluminum alloy		20	E type snap ring	Steel	
10	Cover	ø16, ø20, ø25: Stainless steel ø32 to ø63: Aluminum alloy		21	Roller	Steel	

Repair parts list

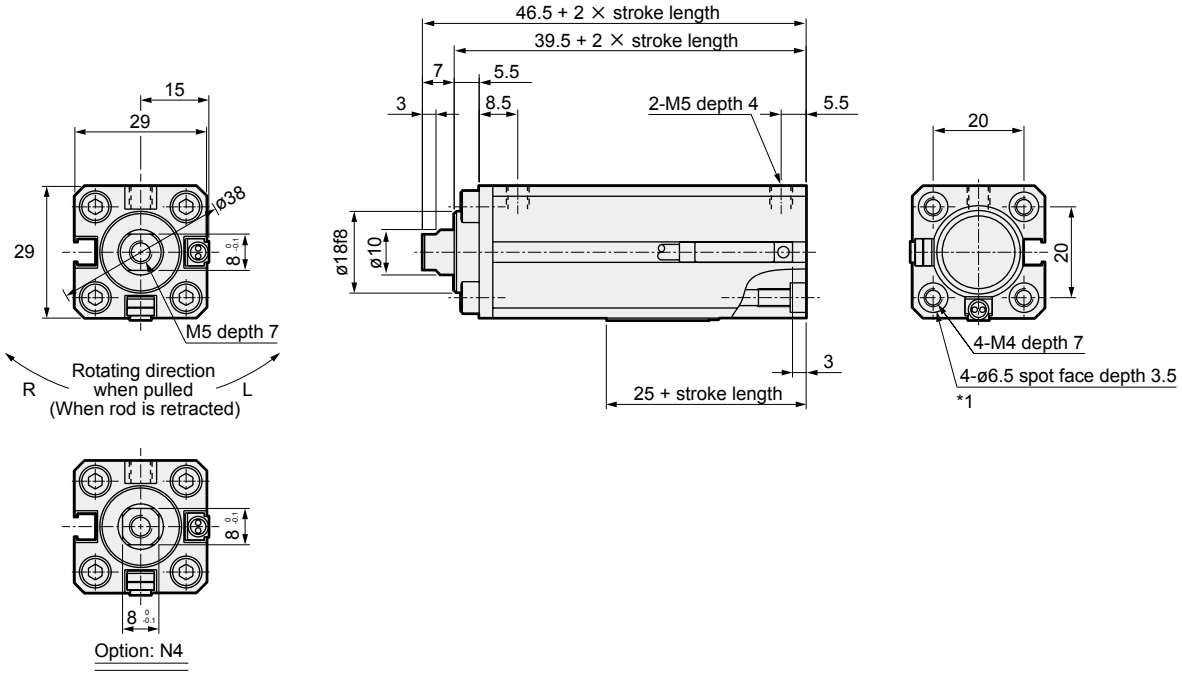
Bore size (mm)	Kit No.	Repair parts No.
ø16	RCC2-16K	❷ ❹ ❻ ❽ ⓬ ⓲ ⓳
ø20	RCC2-20K	
ø25	RCC2-25K	
ø32	RCC2-32K	
ø40	RCC2-40K	
ø50	RCC2-50K	
ø63	RCC2-63K	

Note: ⓬ Coil scraper is not supplied for ø16.
Note: ❻ Cushion rubber (R) cannot be replaced for ø16 to ø25.

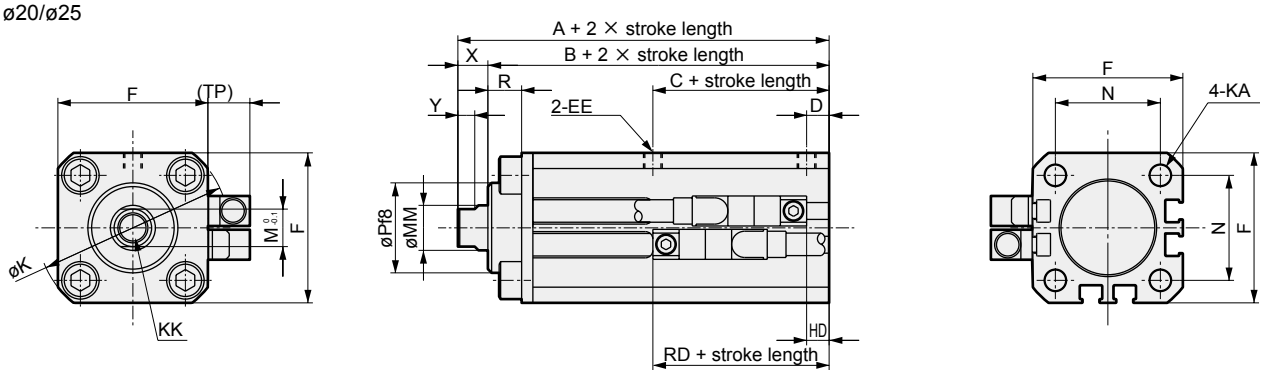
Dimensions CAD (ø16, ø20, ø25)

● Basic (00)

ø16



ø20/ø25



Code	Basic (00) dimensions table															
Bore size (mm)	A	B	C	D	EE	F	K	KA	KK	M	MM	N	P	R	X	Y
ø20	56	48	24	5.5	M5×0.8	36	47	M6 depth 11	M8 depth 15	10	12	25.5	24	9	8	4.5
ø25	57	49	26	6	M5×0.8	40	51	M6 depth 11	M8 depth 15	10	12	28	24	9	8	4.5

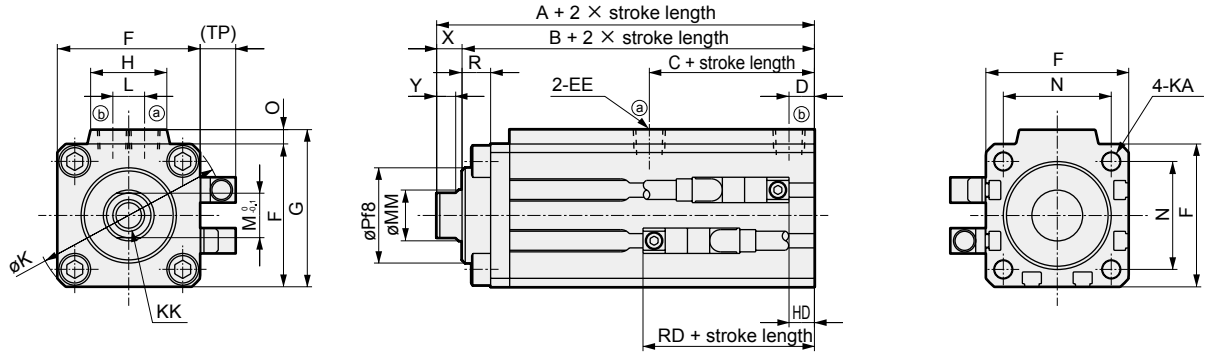
Code	With switch											
Bore size (mm)	T2/3H / T2/3V			T0/5H, T0/5V			T*YH/T*YV			T2YD*		
	HD	RD	TP	HD	RD	TP	HD	RD	TP	HD	RD	TP
ø20	7	26	0	6	27	0	6	27	5	6	27	11
ø25	6	25	0	5	26	0	5	26	5	5	26	11

*1: Cannot be mounted with a through bolt.

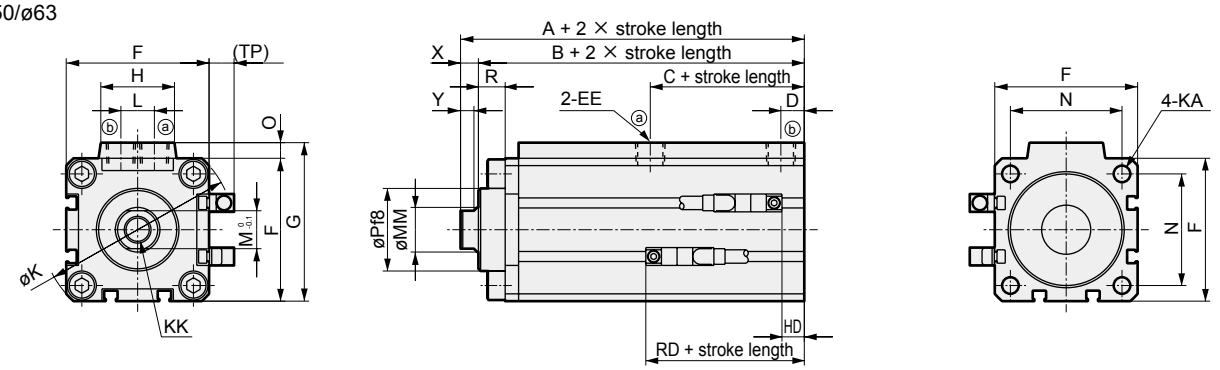
Dimensions CAD (ø32, ø40, ø50, ø63)

● Basic (00)

ø32/ø40



ø50/ø63



Code	Basic (00) dimensions table																			
Bore size (mm)	A	B	C	D	EE	F	G	H	K	KA	KK	L	M	MM	N	O	P	R	X	Y
ø32	69	61	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
ø40	70	62	29	8.5	Rc1/8	52	57	24	69	M6 depth 11	M10 depth 15	10	14	16	40	5	35	9	8	6
ø50	74	66	29	10.5	Rc1/4	64	71	33	86	M8 depth 13	M12 depth 15	15	17	20	50	7	37	12	8	6
ø63	85	75	38	11	Rc1/4	77	84	33	103	M10 depth 25	M16 depth 21	15	22	25	60	7	48	12	10	8

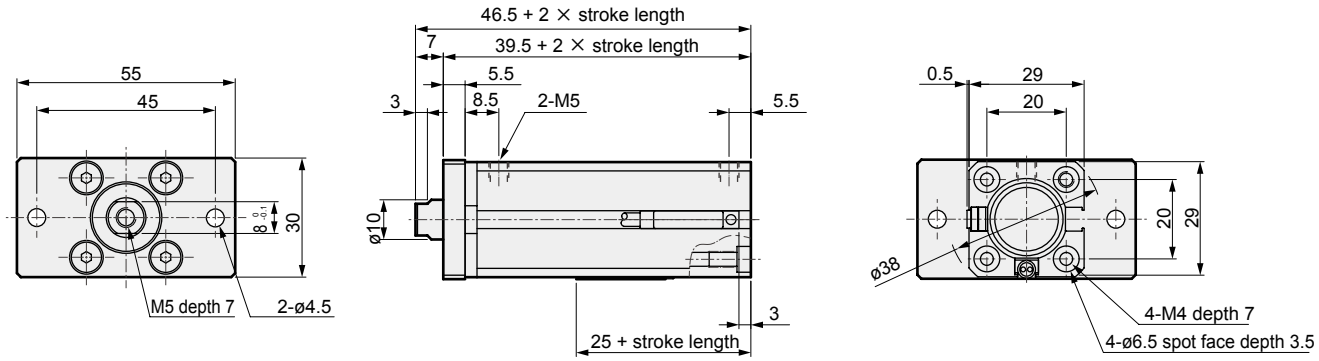
Code	With switch											
Bore size	T2/3H / T2/3V			T0/5H, T0/5V			T*YH/T*YV			T2YD*		
(mm)	HD	RD	TP	HD	RD	TP	HD	RD	TP	HD	RD	TP
ø32	9	28	0	8	29	0	8	29	5	8	29	11
ø40	10	29	0	9	30	0	9	30	5	9	30	11
ø50	11	30	0	10	31	0	10	31	5	10	31	11
ø63	19	37	0	18	38	0	18	38	5	18	38	11

*1: Cannot be mounted with a through bolt.

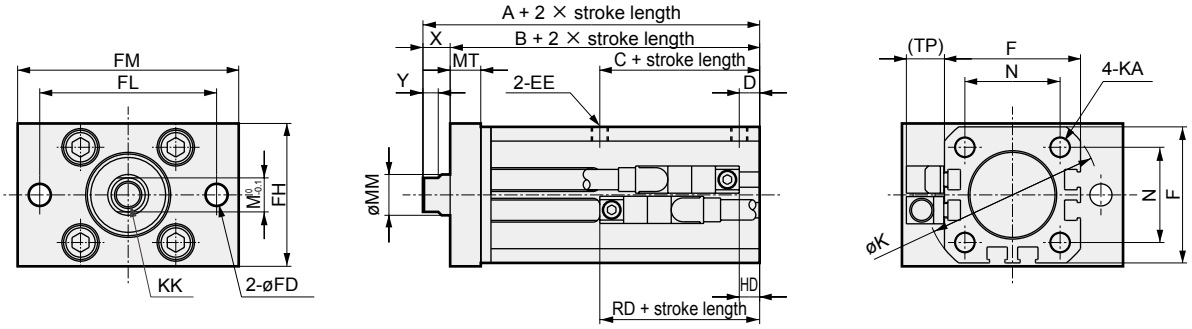
Dimensions CAD (ø16, ø20, ø25)

● Rod side flange (FA)

ø16



ø20/ø25



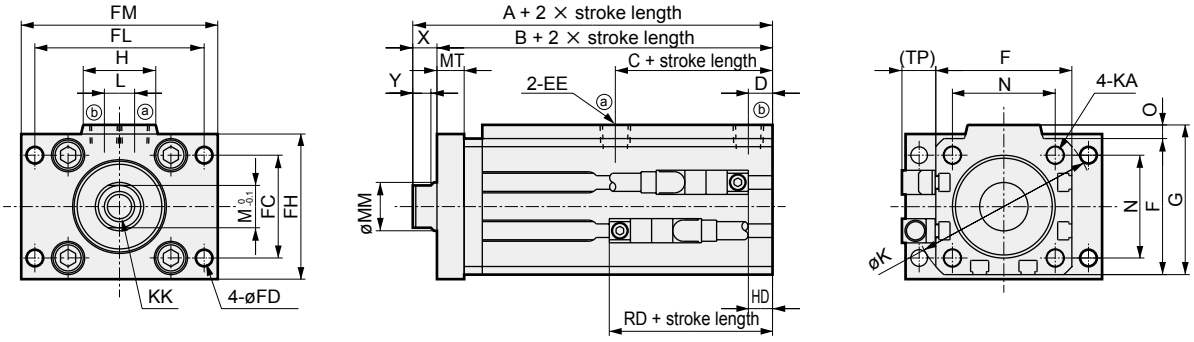
Code	Rod side flange (FA) basic dimensions																	
Bore size (mm)	A	B	C	D	EE	F	K	KA	KK	M	MM	N	X	Y	FD	FH	FL	FM
ø20	56	48	24	5.5	M5×0.8	36	47	M6 depth 11	M8 depth 15	10	12	25.5	8	4.5	6.5	38	48	60
ø25	57	49	26	6	M5×0.8	40	51	M6 depth 11	M8 depth 15	10	12	28	8	4.5	6.5	42	52	65

Code		With switch											
Bore size (mm)	MT	T2/3H / T2/3V			T0/5H, T0/5V			T*YH/T*YV			T2YD*		
		HD	RD	TP	HD	RD	TP	HD	RD	TP	HD	RD	TP
ø20	9	7	26	0	6	27	0	6	27	5	6	27	11
ø25	9	6	25	0	5	26	0	5	26	5	5	26	11

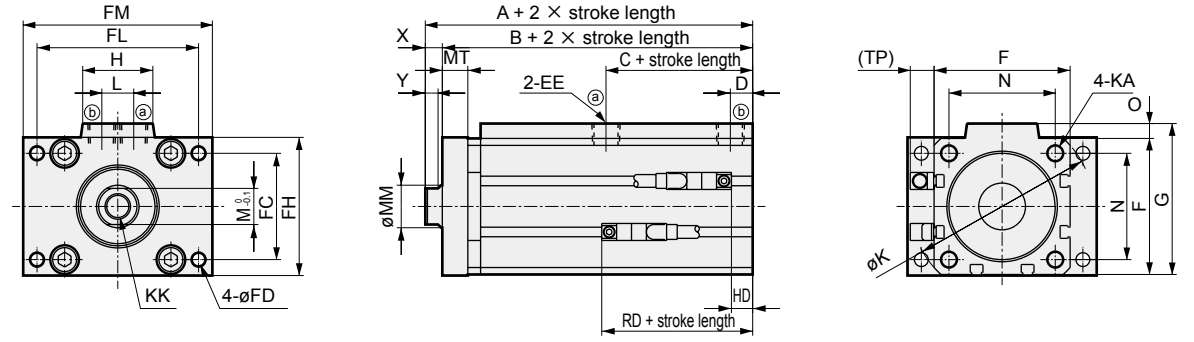
Dimensions CAD (ø32, ø40, ø50, ø63)

● Rod side flange (FA)

ø32/ø40



ø50/ø63



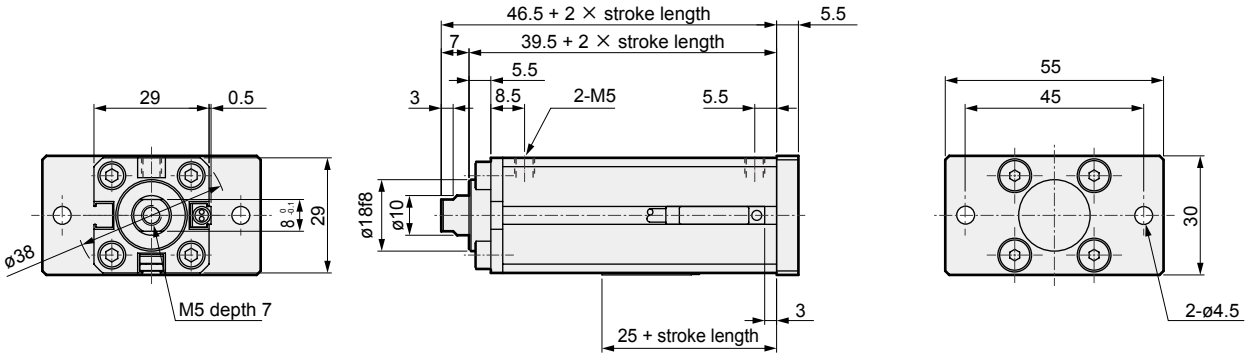
Code	Rod side flange (FA) basic dimensions																	
Bore size (mm)	A	B	C	D	EE	F	G	H	K	KA	KK	L	M	MM	N	O	X	Y
ø32	69	61	27	8	Rc1/8	45	49.5	24	60	M6 depth 11	M10 depth 15	10	14	16	34	4.5	8	6
ø40	70	62	29	8.5	Rc1/8	52	57	24	69	M6 depth 11	M10 depth 15	10	14	16	40	5	8	6
ø50	74	66	29	10.5	Rc1/4	64	71	33	86	M8 depth 13	M12 depth 15	15	17	20	50	7	8	6
ø63	85	75	38	11	Rc1/4	77	84	33	103	M10 depth 25	M16 depth 21	15	22	25	60	7	10	8

Code							With switch											
Bore size (mm)	FD	FC	FH	FL	FM	MT	T2/3H / T2/3V			T0/5H, T0/5V			T*YH/T*YV			T2YD*		
							HD	RD	TP	HD	RD	TP	HD	RD	TP	HD	RD	TP
ø32	5.5	34	48	56	65	9	9	28	0	8	29	0	8	29	5	8	29	11
ø40	5.5	40	55	62	75	9	10	29	0	9	30	0	9	30	5	9	30	11
ø50	6.5	50	66	76	89	12	11	30	0	10	31	0	10	31	5	10	31	11
ø63	9	60	82	92	108	12	19	37	0	18	38	0	18	38	5	18	38	11

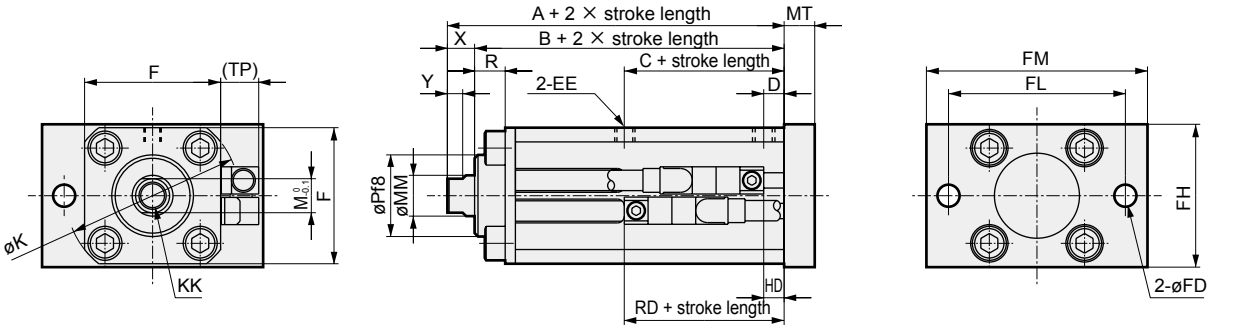
Dimensions CAD (ø16, ø20, ø25)

● Head side flange (FB)

ø16



ø20/ø25



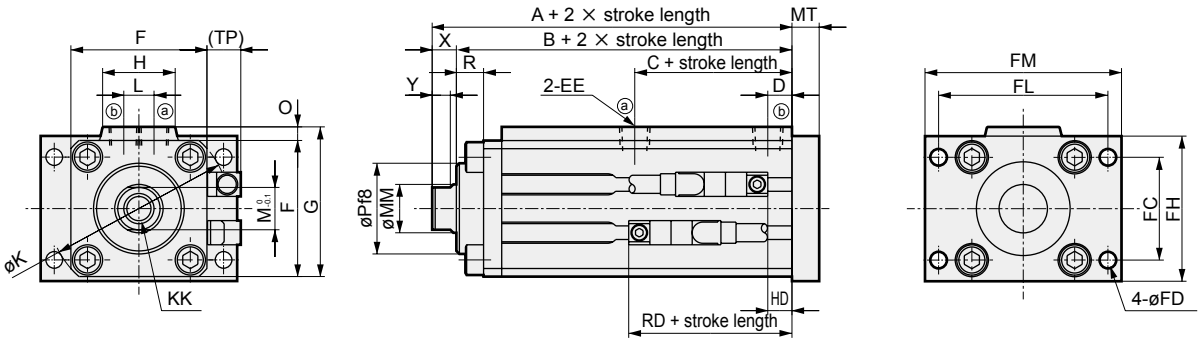
Code	Head side flange (FB) basic dimensions																			
Bore size (mm)	A	B	C	D	EE	F	K	KK	M	MM	P	R	X	Y	FD	FH	FL	FM	MT
ø20	56	48	24	5.5	M5×0.8	36	47	M8 depth 15	10	12	24	9	8	4.5	6.5	38	48	60	9
ø25	57	49	26	6	M5×0.8	40	51	M8 depth 15	10	12	24	9	8	4.5	6.5	42	52	65	9

Code	With switch											
Bore size	T2/3H / T2/3V			T0/5H, T0/5V			T*YH/T*YV			T2YD*		
(mm)	HD	RD	TP	HD	RD	TP	HD	RD	TP	HD	RD	TP
ø20	7	26	0	6	27	0	6	27	5	6	27	11
ø25	6	25	0	5	26	0	5	26	5	5	26	11

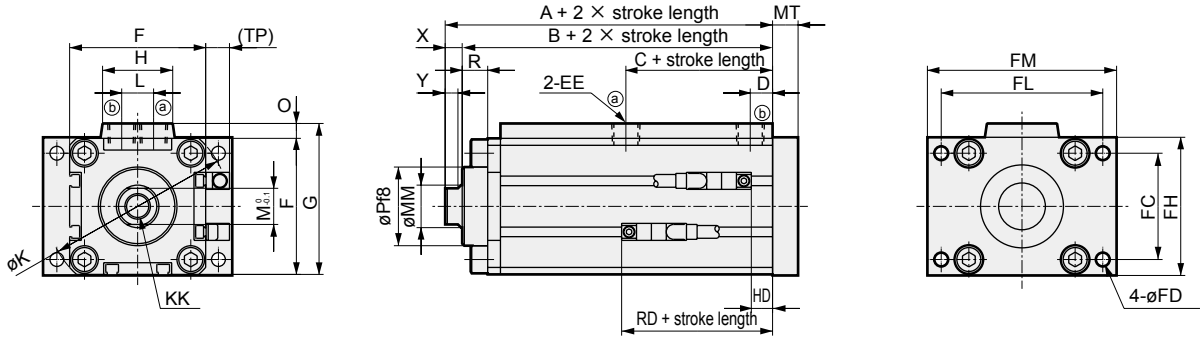
Dimensions CAD (ø32, ø40, ø50, ø63)

● Head side flange (FB)

ø32/ø40



ø50/ø63



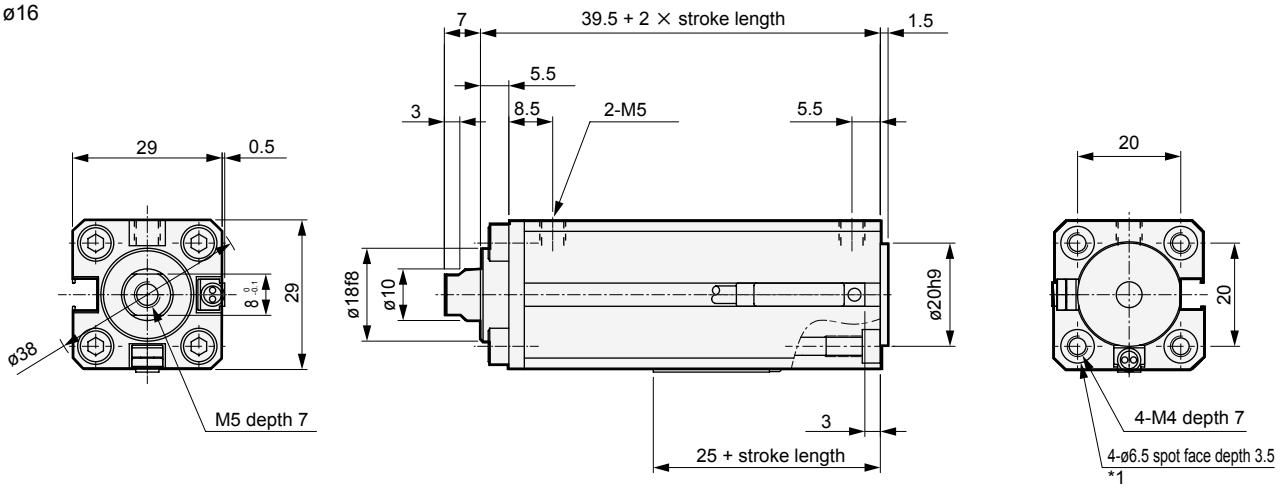
Code	Head side flange (FB) basic dimensions																		
Bore size (mm)	A	B	C	D	EE	F	G	H	K	KK	L	M	MM	O	P	R	X	Y	FD
ø32	69	61	27	8	Rc1/8	45	49.5	24	60	M10 depth 15	10	14	16	4.5	30	9	8	6	5.5
ø40	70	62	29	8.5	Rc1/8	52	57	24	69	M10 depth 15	10	14	16	5	35	9	8	6	5.5
ø50	74	66	29	10.5	Rc1/4	64	71	33	86	M12 depth 15	15	17	20	7	37	12	8	6	6.5
ø63	85	75	38	11	Rc1/4	77	84	33	103	M16 depth 21	15	22	25	7	48	12	10	8	9

Code						With switch												
Bore size (mm)	FC	FH	FL	FM	MT	T2/3H / T2/3V			T0/5H, T0/5V			T*YH/T*YV			T2YD*		
						HD	RD	TP	HD	RD	TP	HD	RD	TP	HD	RD	TP
ø32	34	48	56	65	9	9	28	0	8	29	0	8	29	5	8	29	11
ø40	40	55	62	75	9	10	29	0	9	30	0	9	30	5	9	30	11
ø50	50	66	76	89	12	11	30	0	10	31	0	10	31	5	10	31	11
ø63	60	82	92	108	12	19	37	0	18	38	0	18	38	5	18	38	11

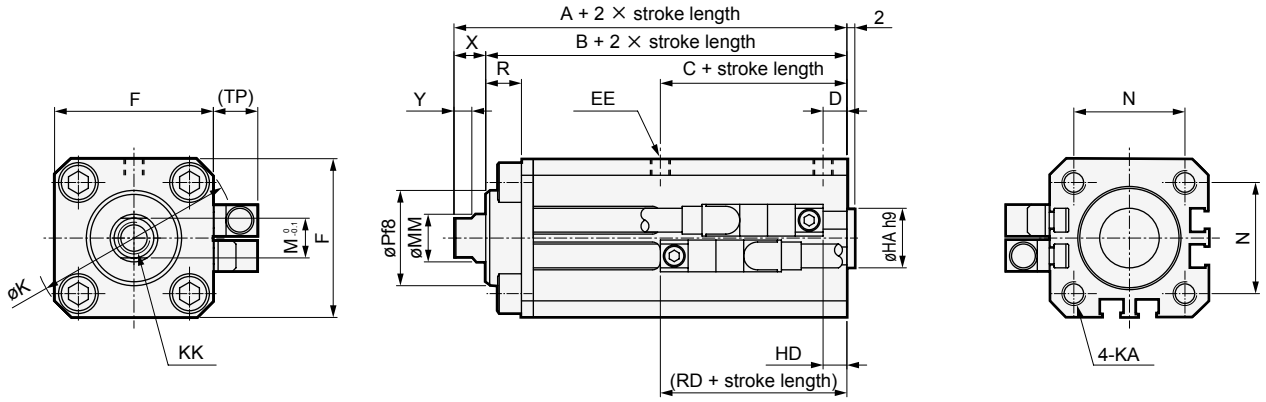
Dimensions CAD (ø16, ø20, ø25)

● With spigot at head side (HI)

ø16



ø20/ø25



Code	Basic dimensions with spigot at head side (HI)																
Bore size (mm)	A	B	C	D	EE	F	HA	K	KA	KK	M	MM	N	P	R	X	Y
ø20	56	48	24	5.5	M5×0.8	36	13	47	M6 depth 11	M8 depth 15	10	12	25.5	24	9	8	4.5
ø25	57	49	26	6	M5×0.8	40	15	51	M6 depth 11	M8 depth 15	10	12	28	24	9	8	4.5

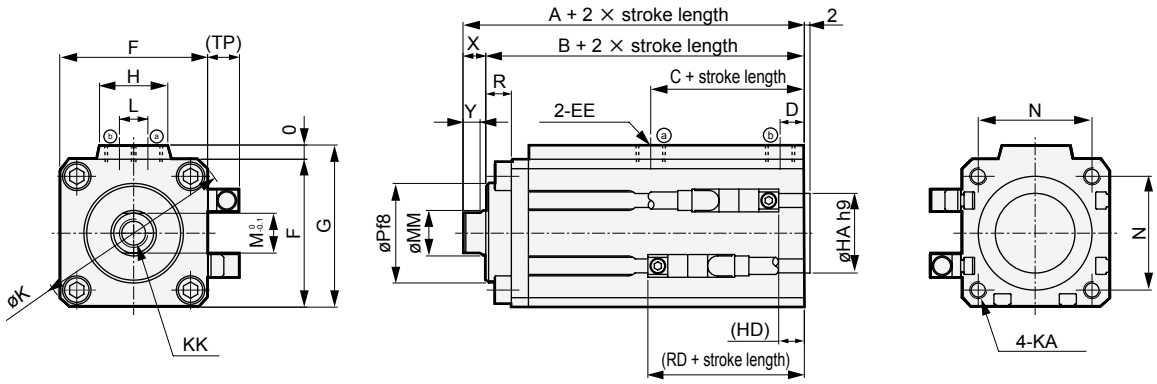
Code	With switch											
Bore size (mm)	T2/3H / T2/3V			T0/5H, T0/5V			T*YH/T*YV			T2YD*		
	HD	RD	TP	HD	RD	TP	HD	RD	TP	HD	RD	TP
ø20	7	26	0	6	27	0	6	27	5	6	27	11
ø25	6	25	0	5	26	0	5	26	5	5	26	11

*1: Cannot be mounted with a through bolt.

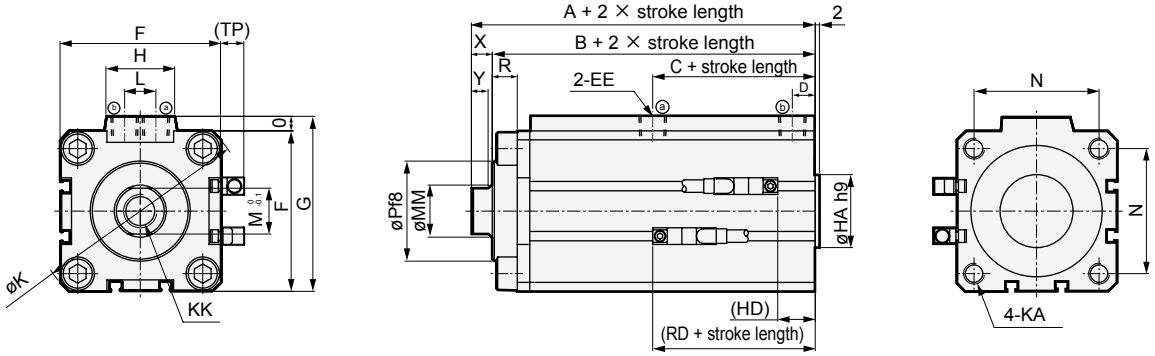
Dimensions CAD (ø32, ø40, ø50, ø63)

● With spigot at head side (HI)

ø32, ø40



ø50, ø63



Code	Basic dimensions with spigot at head side (HI)																				
Bore size (mm)	A	B	C	D	EE	F	G	H	HA	K	KA	KK	L	M	MM	N	O	P	R	X	Y
ø32	69	61	27	8	Rc1/8	45	49.5	24	21	60	M6 depth 11	M10 depth 15	10	14	16	34	4.5	30	9	8	6
ø40	70	62	29	8.5	Rc1/8	52	57	24	28	69	M6 depth 11	M10 depth 15	10	14	16	40	5	35	9	8	6
ø50	74	66	29	10.5	Rc1/4	64	71	33	35	86	M8 depth 13	M12 depth 15	15	17	20	50	7	37	12	8	6
ø63	85	75	38	11	Rc1/4	77	84	33	35	103	M10 depth 25	M16 depth 21	15	22	25	60	7	48	12	10	8

Code	With switch											
Bore size (mm)	T2/3H / T2/3V			T0/5H, T0/5V			T*YH/T*YV			T2YD*		
	HD	RD	TP	HD	RD	TP	HD	RD	TP	HD	RD	TP
ø32	9	28	0	8	29	0	8	29	5	8	29	11
ø40	10	29	0	9	30	0	9	30	5	9	30	11
ø50	11	30	0	10	31	0	10	31	5	10	31	11
ø63	19	37	0	18	38	0	18	38	6	18	38	11

*1: Cannot be mounted with a through bolt.

Rotary clamp cylinder Double acting/anti-spatter adherence

RCC2-G4 Series

● Bore size: ø20/ø25/ø32/ø40/ø50/ø63

JIS symbol 

RoHS

Specifications

* Made-to-order product.

Item		RCC2-G4					
Bore size	mm	ø20	ø25	ø32	ø40	ø50	ø63
Actuation		Double acting					
Max. working pressure	MPa	1 (≈150 psi, 10 bar)					
Min. working pressure	MPa	0.2 (≈29 psi, 2 bar)					
Proof pressure	MPa	1.6 (≈230 psi, 16 bar)					
Ambient temperature	°C	-10 (14°F) to 60 (140°F) (no freezing)					
Port size		M5		Rc1/8		Rc1/4	
Working piston speed	mm/s	50 to 200					
Cushion		With rubber cushion					
Lubrication		Not required (use turbine oil class 1 ISO VG32 if necessary for lubrication)					
Rotating angle		90°±10°					
Rotating direction		Right/Left					
Non-rotating accuracy (clamping): Default value		±1°		±0.9°		±0.7°	
Pressurized area	mm^2 Pulling side	201	377	603	1055	1649	2626
	mm^2 Pushing side	314	490	804	1256	1963	3117

Stroke length

Bore size (mm)	Stroke length (mm)	Rotor stroke length (mm)	Clamp section stroke length (mm)
ø20	21, 31	11	10, 20
ø25			
ø32	25, 35	15	10, 20
ø40			
ø50	40, 70	20	20, 50
ø63			

Switch specifications

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

Item	Proximity 2-wire			Proximity 3-wire				Reed 2-wire				Proximity 2-wire
	T2H/T2V	T2YH/T2YV	T2WH/T2WV	T3H/T3V	T3PH/T3PV	T3YH/T3YV	T3WH/T3WV	T0H/T0V		T5H/T5V		T2YD
Applications	Dedicated for programmable controller			For programmable controller, relay				For programmable controller, relay		For programmable controller, relay, IC circuit (no indicator lamp), serial connection		For programmable controller
Output method	-			NPN output	PNP output	NPN output	NPN output	-				
Pwr. supp. V.	-			10 to 28 VDC				-				
Load voltage	10 to 30 VDC		24 VDC ±10%	30 VDC or less				12/24 VDC	110 VAC	5/12/24 VDC	110 VAC	24 VDC ±10%
Load current	5 to 20 mA (*3)			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
Indicator lamp	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		Red/green LED (Lit when ON)
Leakage current	1 mA or less			10 μA or less				0 mA				1 mA or less
Weight g	1 m:18	1 m:33	1 m:18	1 m:18		1 m:33	1 m:18	1 m:18 3 m:49 5 m:80				1 m:61
	3 m:49	3 m:87	3 m:49	3 m:49		3 m:87	3 m:49					3 m:166
	5 m:80	5 m:142	5 m:80	5 m:80		5 m:142	5 m:80					5 m:272

*1 : Refer to Ending Page 1 for detailed switch specifications and dimensions.
*2 : Switches other than the above models, such as switches with connectors, are also available. Refer to Ending Page 1.
*3 : The 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)
*4 : AC magnetic field proof switch (T2YD) cannot be used in DC magnetic fields.

Theoretical thrust table

(Unit: N)

Bore size (mm)	Operating direction	Working pressure MPa								
		0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
ø20	Push	62.8	94.2	1.26×10^2	1.57×10^2	1.89×10^2	2.20×10^2	2.51×10^2	2.83×10^2	3.14×10^2
	Pull	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	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	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	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	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	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	2.11×10^2	3.17×10^2	4.22×10^2	5.28×10^2	6.33×10^2	7.39×10^2	8.45×10^2	9.50×10^2	1.06×10^3
ø50	Push	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	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	6.23×10^2	9.35×10^2	1.25×10^3	1.56×10^3	1.87×10^3	2.18×10^3	2.49×10^3	2.81×10^3	3.12×10^3
	Pull	5.25×10^2	7.88×10^2	1.05×10^3	1.31×10^3	1.58×10^3	1.84×10^3	2.10×10^3	2.36×10^3	2.63×10^3

How to order

Without switch (built-in magnet for switch)

RCC2-G4 - 00 - 20 - 21 - R

With switch (built-in magnet for switch)

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

Model No. | Ⓐ Mounting | Ⓑ Bore size | Ⓒ Stroke length | Ⓓ Rotating direction | Ⓔ Switch model No. *1 | Ⓕ Switch quantity

Code	Description
Ⓐ Mounting	
00	Basic
FA	Rod side flange
FB	Head side flange *2
HI	With spigot at head side

Ⓑ Bore size (mm)	
20	ø20
25	ø25
32	ø32
40	ø40
50	ø50
63	ø63

Ⓒ Stroke length (mm)

Stroke length	Bore size	Rotor	Clamp
21	ø20/ø25	11	10
25	ø32/ø40	15	10
31	ø20/ø25	11	20
35	ø32/ø40	15	20
40	ø50/ø63	20	20
70	ø50/ø63	20	50

Ⓓ Rotating direction	
R	Clamp (Pull) looking from rod side: Rotated 90° in CW direction
L	Clamp (Pull) looking from rod side: Rotated 90° in CCW direction

Ⓔ Switch model No.

Axial lead wire	Axial lead wire	Contact	Voltage AC	Voltage DC	Indicator	Lead wire
T0H*	**T0V***	Reed	●	●	1-color display	2-wire
T5H*	**T5V***	Reed	●	●	Without indicator lamp	2-wire
T2H*	**T2V***	Proximity		●	1-color display	2-wire
T3H*	**T3V***	Proximity		●	1-color display	3-wire
T3PH*	**T3PV***	Proximity		●	1-color display	3-wire
T2WH*	**T2WV***	Proximity		●	2-color display	2-wire
T2YH*	**T2YV***	Proximity		●	2-color display	2-wire
T3WH*	**T3WV***	Proximity		●	2-color display	3-wire
T3YH*	**T3YV***	Proximity		●	2-color display	3-wire
T2YD*	**-**	Proximity		●	2-color display for AC magn field	2-wire

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

Ⓕ Switch quantity	
R	1 on rod side
H	1 on head side
D	2

⚠ Precautions for model No. selection

*1: Switches are shipped with the product. Contact CKD if assembling before shipment is necessary.

*2: When the type with the switch is selected, the product could interfere with the fixing screws depending on the switch mounting surface and switch.

[Example of model No.]

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

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

Ⓐ Mounting : Basic
Ⓑ Bore size : ø20
Ⓒ Stroke length : 21 mm
Ⓓ Rotating direction : Clamp (Pull) looking from rod side,rotated 90° in CW direction
Ⓔ Switch model No. : Strong magnetic field proof proximity T2YD switch, Lead wire length 3 m
Ⓕ Switch quantity : 2

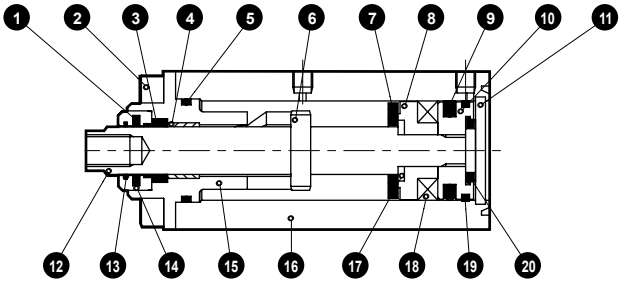
How to order switch

SW - T0H

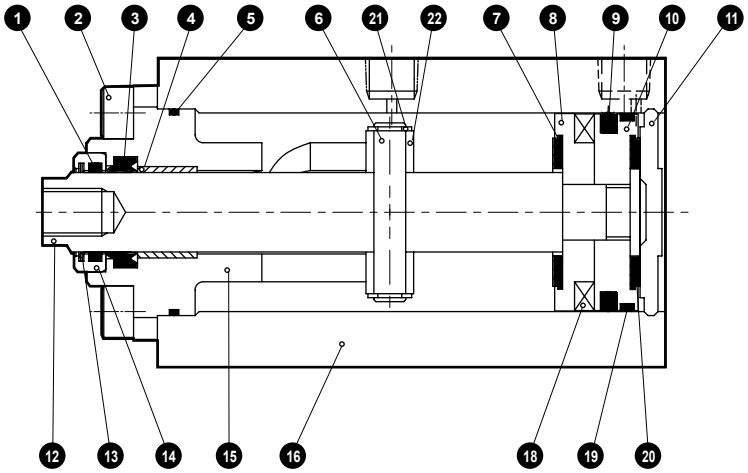
Switch model No. (Item Ⓔ above)

Internal structure and parts list

● RCC2-G4-20/25



● RCC2-G4-32/40/50/63



No.	Part name	Material	Remarks	No.	Part name	Material	Remarks
1	Lube keeping structure	Special rubber		12	Piston rod	Steel	
2	Hexagon socket head cap screw	Stainless steel		13	Coil scraper	Copper alloy	
3	Rod packing	Nitrile rubber		14	Holder	Aluminum alloy	
4	Bush	Copper-based		15	Rod cover	Steel	
5	Cylinder gasket	Nitrile rubber		16	Cylinder body	Aluminum alloy	
6	Pin	Steel		17	Spacer washer	Stainless steel	
7	Cushion rubber (R)	Urethane rubber		18	Magnet	Plastic magnet	
8	Spacer	ø20/ø25: Special resin ø32 to ø63: Aluminum alloy		19	Wear ring	Acetal resin	
				20	Cushion rubber (H)	Urethane rubber	
9	Piston packing	Nitrile rubber		21	E type snap ring	Steel	
10	Piston	Aluminum alloy		22	Roller	Steel	
11	Cover	ø20/ø25: Stainless steel ø32 to ø63: Aluminum Alloy					

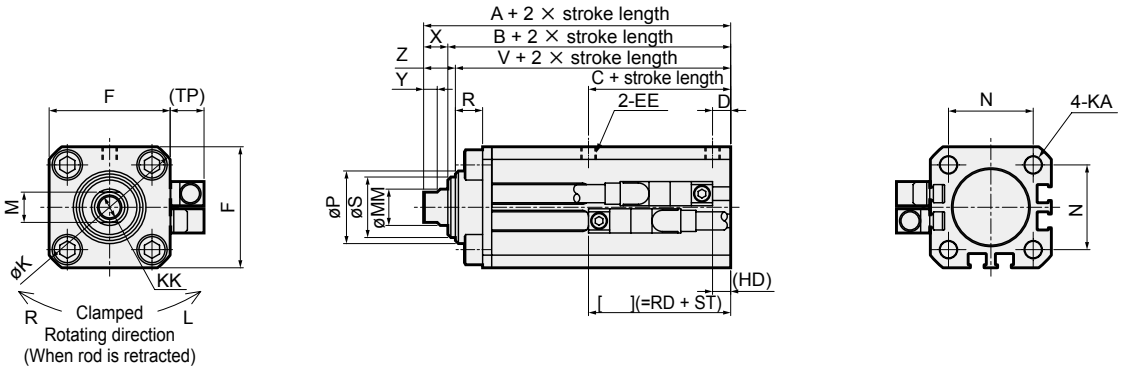
Repair parts list

Bore size (mm)	Kit No.	Repair parts No.
ø20	RCC2-20K	
ø25	RCC2-25K	
ø32	RCC2-32K	❸ ❺ ❼ ❾
ø40	RCC2-40K	⓭ ⓳ ⓴
ø50	RCC2-50K	
ø63	RCC2-63K	

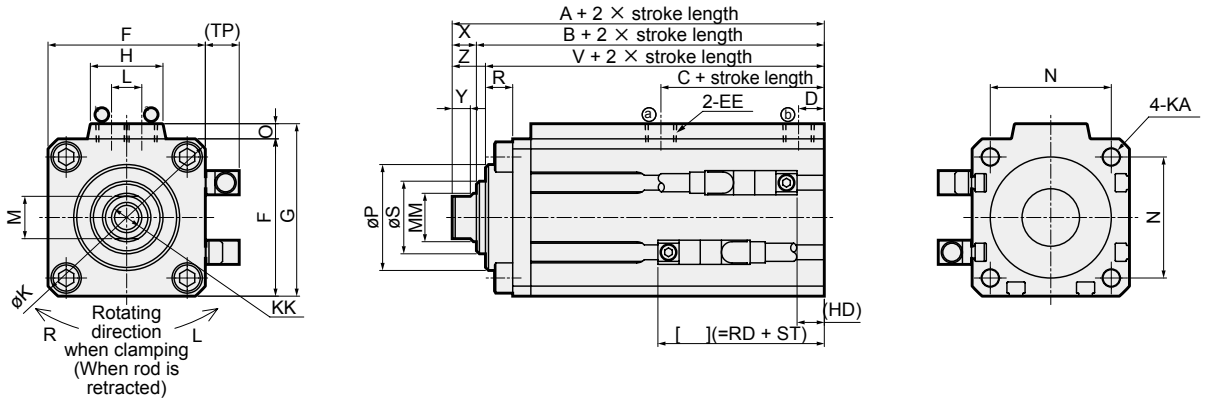
Note: ❼ Cushion rubber (R) cannot be replaced for ø20 and ø25.
Note: Contact CKD separately if ❶ Lube keeping structure is required.

Dimensions

● ø20, ø25



● ø32 to ø63



Note) The ø50 and ø63 switch grooves differ from the dimensions above. Refer to RCC2 Series double acting/single rod.

Code / Bore size	A	B	C	D	EE	F	G	H	K	KA	KK	L	M	MM
ø20	58.5	50.5	24	5.5	M5×0.8	36	-	-	47	M6 depth 11	M8 depth 15	-	10	12
ø25	59.5	51.5	26	6	M5×0.8	40	-	-	51	M6 depth 11	M8 depth 15	-	10	12
ø32	72	64	27	8	Rc1/8	45	49.5	24	60	M6 depth 11	M10 depth 15	10	14	16
ø40	73	65	29	8.5	Rc1/8	52	57	24	69	M6 depth 11	M10 depth 15	10	14	16
ø50	77	69	29	10.5	Rc1/4	64	71	33	86	M8 depth 13	M12 depth 15	15	17	20
ø63	88	78	38	11	Rc1/4	77	84	33	103	M10 depth 25	M16 depth 21	15	22	25

Code / Bore size	N	O	P	R	X	Y	V	Z	S
ø20	25.5	-	24	9	8	4.5	48	10.5	20
ø25	28	-	24	9	8	4.5	49	10.5	20
ø32	34	4.5	30	9	8	6	61	11	24
ø40	40	5	35	9	8	6	62	11	24
ø50	50	7	37	12	8	6	66	11	30
ø63	60	7	48	12	10	8	75	13	36

Switch code	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
ø20	7	26	0	6	27	0	6	27	5	6	27	11
ø25	6	25	0	5	26	0	5	26	5	5	26	11
ø32	9	28	0	8	29	0	8	29	5	8	29	11
ø40	10	29	0	9	30	0	9	30	5	9	30	11
ø50	11	30	0	10	31	0	10	31	5	10	31	11
ø63	19	37	0	18	38	0	18	38	5	18	38	11

Note: Installation method of the mountings are the same as those of RCC2 (double acting). Refer to pages 1100 to 1107.