

Features

- Ultra Compact, light weight and space saving cylinder.
- Wide range of bore sizes and strokes (12mm~100mm).
- Single and double acting available.
- Ideal for use in machinery where space is limited and incorporating sensor groove which enables flush fitting of sensors.
- Sensor can be mounted on any one of three faces on 12 and 16 bore and on four faces on 20~100 bore.

Specification

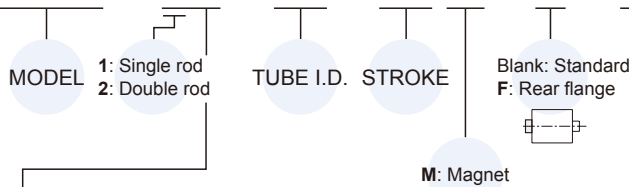
Model	MCJQ									
Acting type	Double acting / Single acting			Double						
Tube I.D. (mm)	12	16	20	25	32	40	50	63	80	100
Port size	M5×0.8			Rc1/8	Rc1/4	Rc3/8				
Medium	Air									
Operating pressure range (MPa)	Double acting	0.07~1		0.05~1						
	Single acting	0.2~1	0.15~1	0.1~1	—					
Proof pressure	1.5 MPa									
Ambient temperature	-5°C~+60°C (No freezing)									
Available speed range	50~500 mm/sec									
Sensor switch (*)	RCB, RCE, RCE1, RDEP									

Order example

* Order example for special specification, refer to page 0-7.

* RCB, RCE, RCE1, RDEP specification, please refer to page 8-8, 10, 14. RCB sensor switch only for tube I.D. ø50~100.

MCJQ – 12 – 20 – 25 M – F – G



STYLE

Code	Symbol	Description
1 1		Double acting / Male thread
1 2		Double acting / Female thread
1 3		Single acting / Normally extended male thread
1 4		Single acting / Normally extended female thread
1 5		Single acting / Normally returned male thread
1 6		Single acting / Normally returned female thread
2 1		Double rod / Male thread
2 2		Double rod / Female thread
2 3		Single acting / Double rod / Male thread
2 4		Single acting / Double rod / Female thread
2 7		Double rod / Adjustable male thread
2 8		Double rod / Adjustable female thread

Mounting accessories

FAC – MCJQ – 20

MOUNTING TYPE		MODEL	TUBE I.D.
	LB		FBC
	CB		RF
	FAC	* Only for double acting / single rod type.	

Single acting – Table for standard stroke

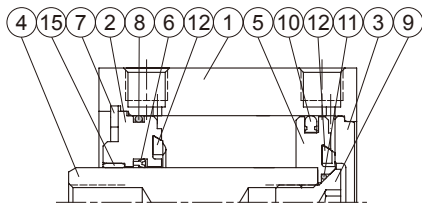
Tube I.D.	Standard stroke (mm)
ø12,16,20,25,32,40	5,10
ø50	5,10,15,20

Double acting – Table for standard stroke

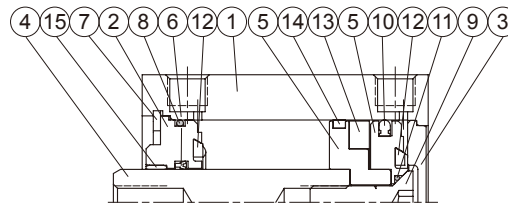
Tube I.D.	Standard stroke	Long stroke (mm)
ø12,16	5,10,15,20,25,30	35,40,45,50,75,100
ø20	5,10,15,20,25,30,	75,100,125,150,175,200
	35,40,45,50	
ø25	5,10,15,20,25,30,	75,100,125,150,175,200,250,300
	35,40,45,50,75,100	
ø32~80	5,10,15,20,25,30,	125,150,175,200,250,300
	35,40,45,50,75,100	
Tube I.D.	Standard stroke (mm)	
ø100	5,10,15,20,25,30,35,40,45,50,75,100	

- Stroke out of specification is also available.
- Please consult us if stroke out of specification.

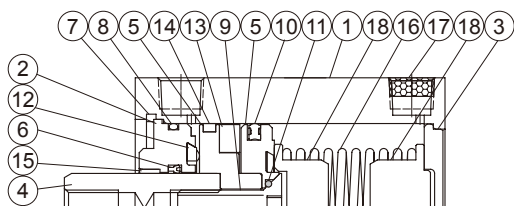
Double acting



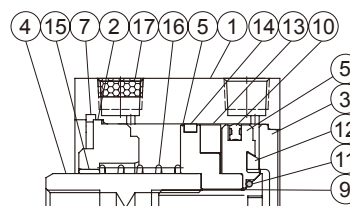
Double acting (with magnet)



Single acting Normally extended



Single acting Normally returned



Material

No.	Tube I.D. Part name	12	16	20	25	32	40	50	63	80	100	Note	Q'y	Component parts (inclusion)	Repair kits (inclusion)
1	Body	Aluminum alloy										Hard anodized	1		
2	Rod cover	Aluminum alloy										*	1	●	
3	End cover	Aluminum alloy										Anodized	1	●	
4	Piston With magnet rod Without magnet	Stainless steel					Carbor steel						1		
		SUS					Carbor steel						1		
5	Piston	Aluminum alloy										ø12~32 anodized	1	●	
6	Rod packing	NBR											1	●	●
7	Snap ring	Stainless steel					Spring steel						1	●	
8	Cover ring	NBR											1	●	●
9	Piston bolt	Stainless steel					SCM						1	●	
10	Piston packing	NBR											1	●	●
11	Piston gasket	NBR											1	●	●
12	Cushion packing	NBR											2	●	●
13	Magnet	Magnet											1	●	
14	Wear ring	—					Teflon						1	●	
15	Bush	—					Bearing alloy						1	●	
16	Spring	SWP					—						1	●	
17	Silencer	Brass					—						1	●	
18	Spring holder	Aluminum alloy					—						2	●	

* ø12~ø32 hard anodized, ø40~ø100 anodized.

Seal kit

Acting type	Rod packing		Piston packing		Cover ring		Piston gasket
	Double acting / Normally extended	Normally retruned	Double acting	Single acting	Double acting / Normally extended	Normally retruned	Double acting / Single acting
Q'y	1	0	1	1	1	0	1
12	KSYR-6	—	OPA-12	OPA-12	S-11	—	d4×w1
16	KSYR-8	—	OPA-16	OPA-16	S-14	—	d5×w1
20	KSYR-10A	—	OPA-20	OPA-20	S-18	—	d6×w1
25	KSYR-12	—	OPA-25	OPA-25	S-22,4	—	d8×w1
32	KSYR-16	—	OPA-32	OPA-32	S-28	—	S-9
40	KSYR-16	—	OPA-40	OPA-40	S-36	—	S-10
50	KSYR-20	—	OPA-50	OPA-50	S-46	—	S-16
63	KSYR-20	—	OPA-63	—	S-60	—	S-16
80	ORA-25	—	OPA-80	—	G-75	—	d20×w1
100	ORA-30	—	OPA-100	—	G-95	—	S-26

Order example Component parts

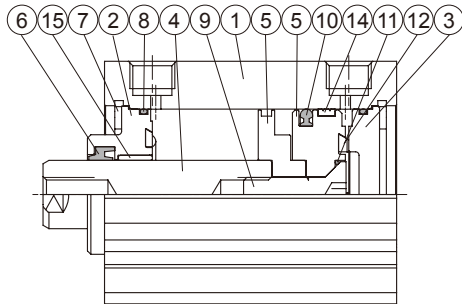
Tube I.D.	Component parts
ø12	CP-MCJQ-12(M)
ø16	CP-MCJQ-16(M)
ø20	CP-MCJQ-20(M)
ø25	CP-MCJQ-25(M)
ø32	CP-MCJQ-32(M)
ø40	CP-MCJQ-40(M)
ø50	CP-MCJQ-50(M)
ø63	CP-MCJQ-63(M)
ø80	CP-MCJQ-80(M)
ø100	CP-MCJQ-100(M)

M: With magnet

Repair kits

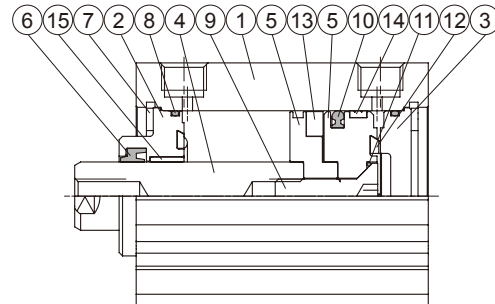
Tube I.D.	Repair kits
ø12	PS-MCJQ-12
ø16	PS-MCJQ-16
ø20	PS-MCJQ-20
ø25	PS-MCJQ-25
ø32	PS-MCJQ-32
ø40	PS-MCJQ-40
ø50	PS-MCJQ-50
ø63	PS-MCJQ-63
ø80	PS-MCJQ-80
ø100	PS-MCJQ-100

Long stroke



Long stroke

(with magnet)



Long stroke – Material

No.	Tube I.D. Part name	12	16	20	25	32	40	50	63	80	Note	Q'y	Component parts (inclusion)	Repair kits (inclusion)
1	Body	Aluminum alloy									Hard anodized	1		
2	Rod cover	Aluminum alloy									*	1	●	
3	End cover	Aluminum alloy									Anodized	1	●	
4	Piston rod	With magnet	Stainless steel			Carbor steel					1			
		Without magnet	SUS	Carbor steel										1
5	Piston	Aluminum alloy									ø12~32 anodized	1	●	
6	Rod packing	NBR										1	●	●
7	Snap ring	Stainless steel			Spring steel							2	●	
8	Cover ring	NBR										2	●	●
9	Piston bolt	Stainless steel			SCM							1	●	
10	Piston packing	NBR										1	●	●
11	Piston gasket	NBR										1	●	●
12	Cushion packing	NBR										2	●	●
13	Magnet	Magnet										1	●	
14	Wear ring	Teflon										1	●	
15	Bush	-			Bearing alloy							1	●	

* ø12~ø32 hard anodized, ø40~ø80 anodized.

Long stroke – Seal kit

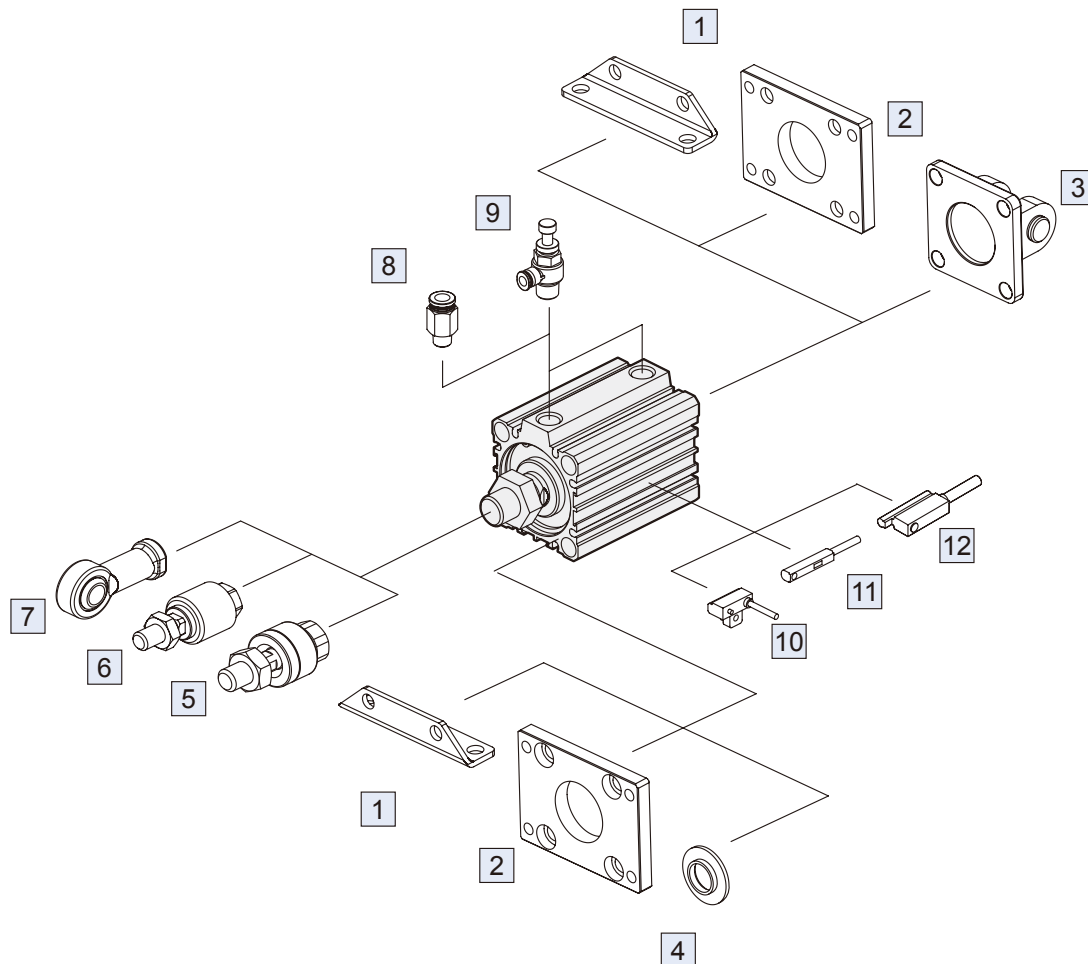
	Rod packing	Piston packing	Cover ring	Piston gasket
Acting type	Double acting			
Q'y	1	1	2	1
12	KSYR-6	OPA-12	S-11	d4×w1
16	KSYR-8	OPA-16	S-14	d5×w1
20	KSYR-10A	OPA-20	S-18	d6×w1
25	KSYR-12	OPA-25	S-22	d8×w1
32	KSYR-16	OPA-32	d28×w2	S-9
40	ORA-16	OPA-40	S-36	S-10
50	ORA-20	OPA-50	S-46	S-16
63	ORA-20	OPA-63	S-60	S-16
80	ORA-25	OPA-80	AS-41 G-75	d20×w1

Order example

Component parts / Repair kits

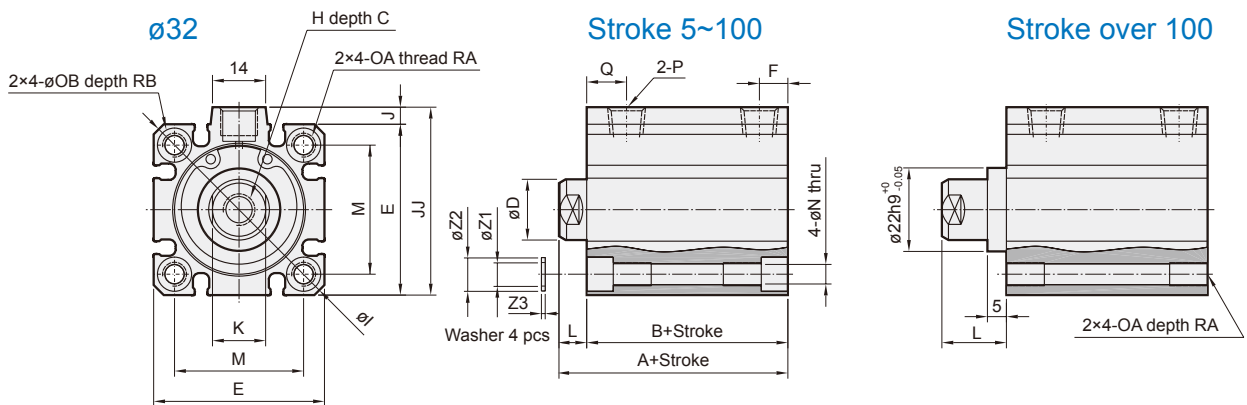
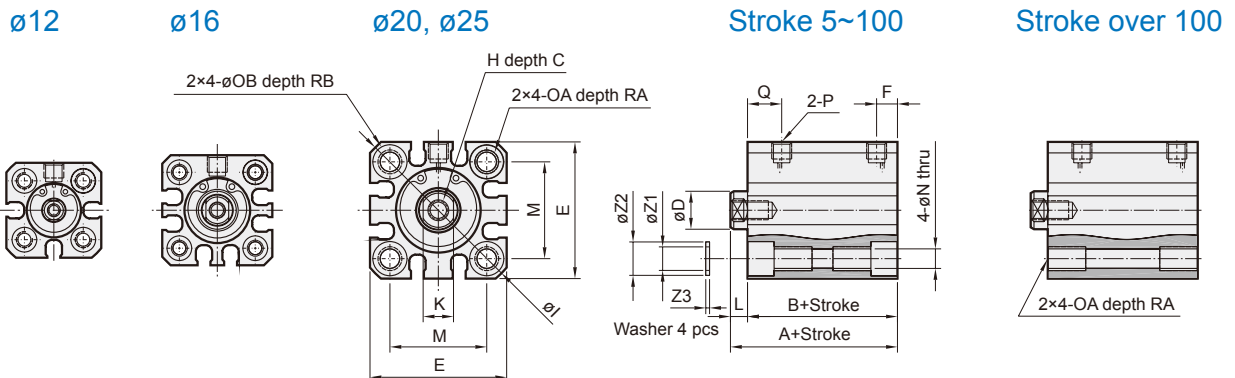
Tube I.D.	Component parts	Repair kits
ø12	CPL-MCJQ-12(M)	PSL-MCJQ-12
ø16	CPL-MCJQ-16(M)	PSL-MCJQ-16
ø20	CPL-MCJQ-20(M)	PSL-MCJQ-20
ø25	CPL-MCJQ-25(M)	PSL-MCJQ-25
ø32	CPL-MCJQ-32(M)	PSL-MCJQ-32
ø40	CPL-MCJQ-40(M)	PSL-MCJQ-40
ø50	CPL-MCJQ-50(M)	PSL-MCJQ-50
ø63	CPL-MCJQ-63(M)	PSL-MCJQ-63
ø80	CPL-MCJQ-80(M)	PSL-MCJQ-80

M: With magnet

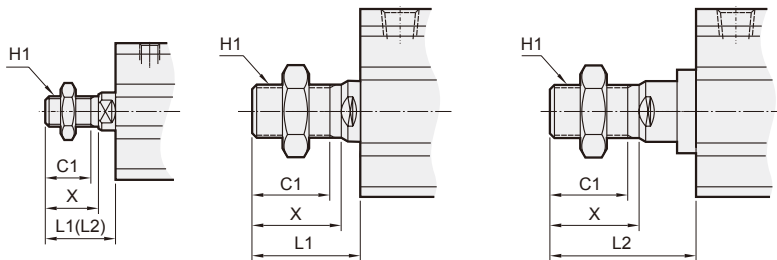


No.	Accessories	Page
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No.	Accessories	Page
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11	Sensor switch RCE/RCE1	8-10
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$\phi 12\sim 25$ $\phi 32$ for stroke 5~100 $\phi 32$ for stroke over 100



MCJQ-11 male thread size

Code Tube I.D.	C1	H1	L1	L2	X
12	9	M5×0.8	14	24	10.5
16	10	M6×1.0	15.5	25.5	12
20	12	M8×1.25	18.5	28.5	14
25	15	M10×1.25	22.5	32.5	17.5
32	20.5	M14×1.5	28.5	38.5	23.5

* L1: Standard stroke, L2: Long stroke

$\phi 12\sim 25$

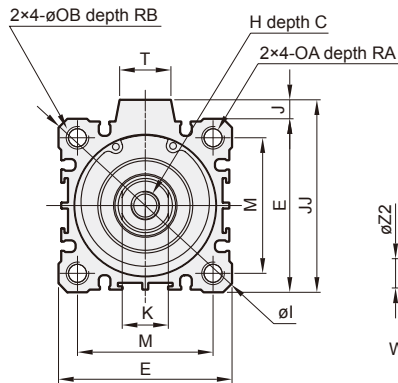
Code Tube I.D.	Standard stroke										Long stroke										C	D	E	H	I	K	M	N	OA	OB	P	Q	RA	RB	Z1	Z2	Z3
	Stroke range	Without magnet				Magnet				Stroke range	A	B	F	L																							
		A	B	F	L	A	B	F	L																												
12	5~30	20.5	17	5	3.5	25.5	22	5	3.5	31~100	45.5	32	7.5	13.5	6	6	25	M3×0.5	32	5	15.5	3.5	M4×0.7	6.5	M5×0.8	7.5	7	4	4.2	6.3	0.5						
16	5~30	20.5	17	5	3.5	25.5	22	5	3.5	31~100	45.5	32	7.5	13.5	8	8	29	M4×0.7	38	6	20	3.5	M4×0.7	6.5	M5×0.8	7.5	7	4	4.2	6.3	0.5						
20	5~50	24	19.5	5.5	4.5	34	29.5	5.5	4.5	51~200	55.5	41	9	14.5	7	10	36	M5×0.8	47	8	25.5	5.4	M6×1.0	9	M5×0.8	9	10	7	6.2	8.8	1						
25	5~50	27.5	22.5	5.5	5	37.5	32.5	5.5	5	51~300	59	44	11	15	12	12	40	M6×1.0	52	10	28	5.4	M6×1.0	9	M5×0.8	11	10	7	6.2	8.8	1						

$\phi 32$

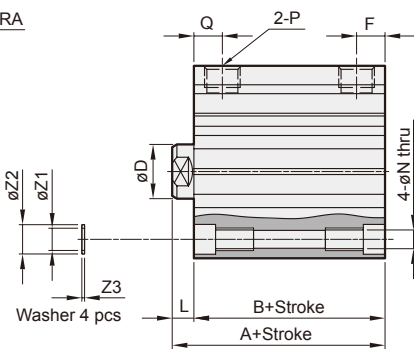
Code Tube I.D.	Standard stroke										Long stroke										P	C	D	E	H	I	J	JJ	K	M	N	OA	OB	RA	RB	Z1	Z2	Z3
	Stroke range	Without magnet				Magnet				Stroke range	A	B	F	L	Q																							
		A	B	A	B	F	L	Q																														
32	5~50	30	23	40	33	7.5	7	10.5	101~300	62.5	45.5	12.5	17	12.5	Rc1/8 (*1)	13	16	45	M8×1.25	60	4.5	49.5	14	34	5.5	M6×1.0	9	10	7	6.2	8.8	1						
	51~100	40	33	40	33	7.5	7	10.5																														

*1. Without magnet with stroke=5mm, P=M5×0.8, Q=11.5, F=5.5

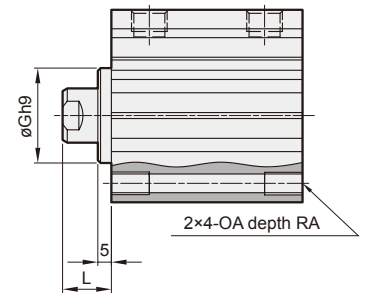
$\phi 50\sim\phi 100$



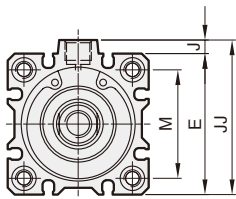
Stroke 5~100



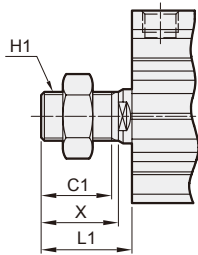
Stroke over 100



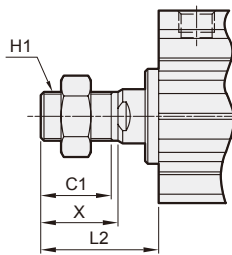
$\phi 40$



$\phi 40\sim\phi 100$ (Stroke 5~100)



$\phi 40\sim\phi 80$ (Stroke over 100)



MCJQ-11 male thread size

Code Tube I.D.	C1	H1	L1	L2	X
40	20.5	M14×1.5	28.5	38.5	23.5
50	26	M18×1.5	33.5	43.5	28.5
63	26	M18×1.5	33.5	43.5	28.5
80	32.5	M22×1.5	43.5	53.5	35.5
100	32.5	M26×1.5	43.5	—	35.5

Code Tube I.D.	Standard stroke									Long stroke				
	Stroke range	Without magnet		Magnet		F	L	Q	Stroke range	A	B	F	L	Q
		A	B	A	B									
40	5~50	36.5	29.5	46.5	39.5	8	7	11	125~300	72	55	14	17	14
	75,100	46.5	39.5	46.5	39.5	8	7	11	125~300	72	55	14	17	14
50	5~50	38.5	30.5	48.5	40.5	10.5	8	10.5	125~300	73.5	55.5	14	18	14
	75,100	48.5	40.5	48.5	40.5	10.5	8	10.5	125~300	73.5	55.5	14	18	14
63	5~50	44	36	54	46	10.5	8	15	125~300	75	57	16.5	18	16.5
	75,100	54	46	54	46	10.5	8	15	125~300	75	57	16.5	18	16.5
80	5~50	53.5	43.5	63.5	53.5	12.5	10	16	125~300	86	66	19	20	19
	75,100	63.5	53.5	63.5	53.5	12.5	10	16	125~300	86	66	19	20	19
100	5~50	65	53	75	63	13	12	23	—	—	—	—	—	—
	75,100	75	63	75	63	13	12	23	—	—	—	—	—	—

Code Tube I.D.	C	D	E	G ^{h9}	H	I	J	JJ	K	M	N	OA	OB	P	RA	RB	T	Z1	Z2	Z3
40	13	16	52	28 ⁺⁰ _{-0.052}	M8×1.25	70	5	57	14	40	5.5	M6×1.0	9	Rc1/8	10	7	14	6.2	8.8	1
50	15	20	64	35 ⁺⁰ _{-0.062}	M10×1.5	86	7	71	17	50	6.6	M8×1.25	11	Rc1/4 (*1)	14	8	19	8.2	10.8	1
63	15	20	77	35 ⁺⁰ _{-0.062}	M10×1.5	103	7	84	17	60	9	M10×1.5	14	Rc1/4 (*2)	18	10.5	19	10.2	13.8	1
80	21	25	98	43 ⁺⁰ _{-0.062}	M16×2.0	132	6	104	22	77	11	M12×1.75	17.5	Rc3/8 (*3)	22	13.5	26	12.2	17.3	2
100	27	30	117	—	M20×2.5	156	6.5	123.5	27	94	11	M12×1.75	17.5	Rc3/8 (*3)	22	13.5	26	12.2	17.3	2

*1. Without magnet with stroke=5mm, P=Rc1/8, Q=12, F=8

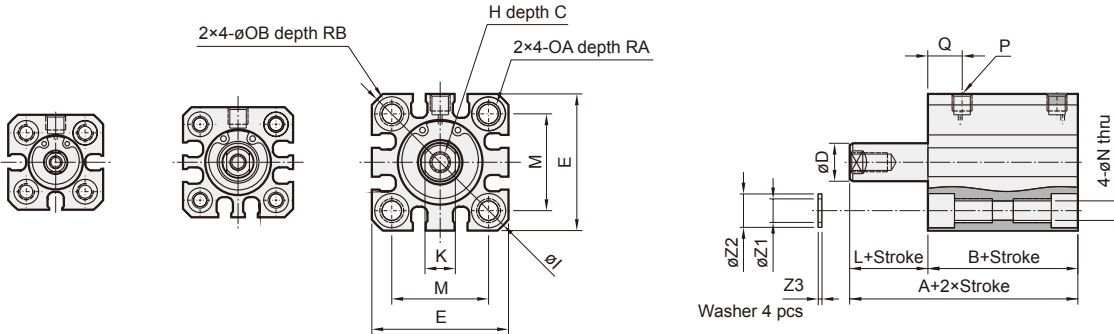
*2. Without magnet with stroke=5mm, P=Rc1/8

*3. Without magnet with stroke=5mm, P=Rc1/4

$\phi 12$

$\phi 16$

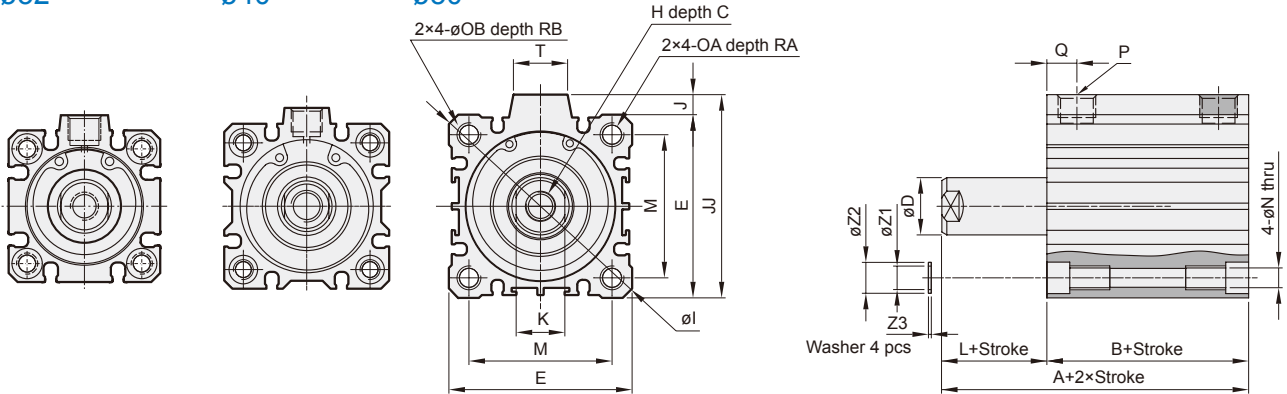
$\phi 20, \phi 25$



$\phi 32$

$\phi 40$

$\phi 50$



* L1: Standard stroke

MCJQ-13 male thread size

Code Tube I.D.	C1	H1	L1	X
12	9	M5×0.8	14	10.5
16	10	M6×1.0	15.5	12
20	12	M8×1.25	18.5	14
25	15	M10×1.25	22.5	17.5
32	20.5	M14×1.5	28.5	23.5
40	20.5	M14×1.5	28.5	23.5
50	26	M18×1.5	33.5	28.5

Note: The value B of $\phi 12\sim\phi 40$ type is greater than double acting type.

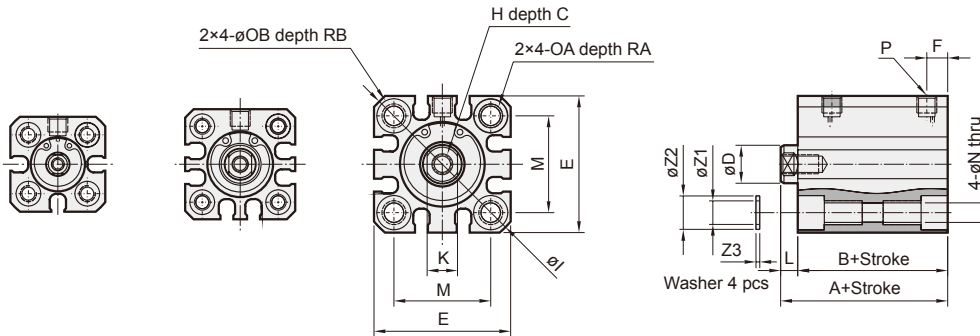
Code Tube I.D.	Standard stroke				C	D	E	H	I	J	JJ	K	L	M	N	OA	OB	P	Q	RA	RB	T	Z1	Z2	Z3	
	Without magnet		Magnet																							
	A	B	A	B																						
12	5,10	30.5	27	35.5	32	6	6	25	M3×0.5	32	-	-	5	3.5	15.5	3.5	M4×0.7	6.5	M5×0.8	7.5	7	4	-	4.2	6.3	0.5
16	5,10	35.5	32	40.5	37	8	8	29	M4×0.7	38	-	-	6	3.5	20	3.5	M4×0.7	6.5	M5×0.8	7.5	7	4	-	4.2	6.3	0.5
20	5,10	34	29.5	44	39.5	7	10	36	M5×0.8	47	-	-	8	4.5	25.5	5.4	M6×1.0	9	M5×0.8	9	10	7	-	6.2	8.8	1
25	5,10	47.5	42.5	57.5	52.5	12	12	40	M6×1.0	52	-	-	10	5	28	5.4	M6×1.0	9	M5×0.8	11	10	7	-	6.2	8.8	1
32	5,10	55	48	65	58	13	16	45	M8×1.25	60	4.5	49.5	14	7	34	5.5	M6×1.0	9	Rc1/8	10.5	10	7	14	6.2	8.8	1
40	5,10	61.5	54.5	71.5	64.5	13	16	52	M8×1.25	70	5	57	14	7	40	5.5	M6×1.0	9	Rc1/8	11	10	7	14	6.2	8.8	1
50	5~20	38.5	30.5	48.5	40.5	15	20	64	M10×1.5	86	7	71	17	8	50	6.5	M8×1.25	11	Rc1/4 (*1)	10.5	14	8	19	8.2	10.8	1

*1. Without magnet with stroke=5mm, P=Rc1/8, Q=12

$\phi 12$

$\phi 16$

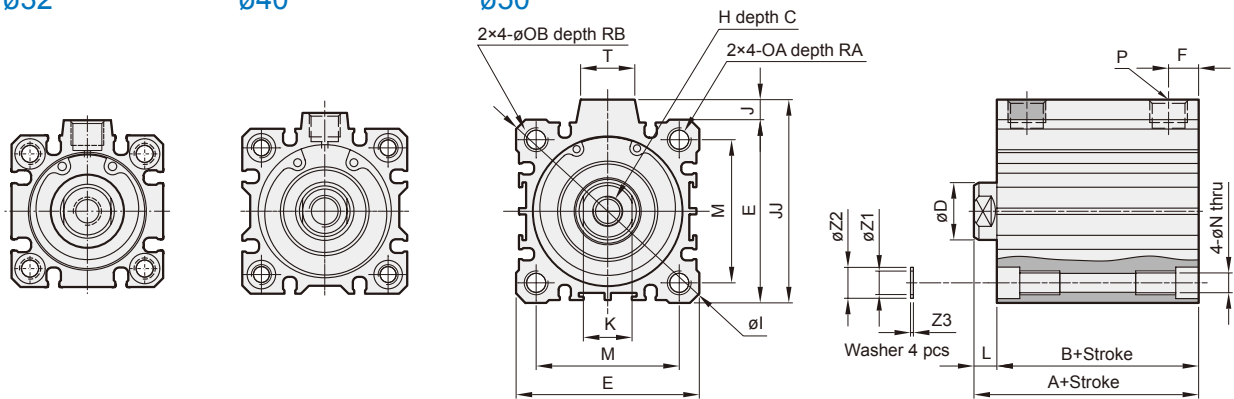
$\phi 20, \phi 25$

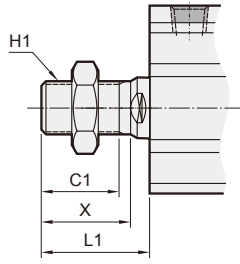


$\phi 32$

$\phi 40$

$\phi 50$





MCJQ-15 male thread size

Code Tube I.D.	C1	H1	L1	X
12	9	M5×0.8	14	10.5
16	10	M6×1.0	15.5	12
20	12	M8×1.25	18.5	14
25	15	M10×1.25	22.5	17.5
32	20.5	M14×1.5	28.5	23.5
40	20.5	M14×1.5	28.5	23.5
50	26	M18×1.5	33.5	28.5

* L1: Standard stroke

Code Tube I.D.	Standard stroke				C	D	E	F	H	I	J	JJ	K	L	M	N	OA	OB	P	RA	RB	T	Z1	Z2	Z3	
	Without magnet		Magnet																							
	A	B	A	B																						
12	5,10	20.5	17	25.5	22	6	6	25	5	M3×0.5	32	–	–	5	3.5	15.5	3.5	M4×0.7	6.5	M5×0.8	7	4	–	4.2	6.3	0.5
16	5,10	20.5	17	25.5	22	8	8	29	5	M4×0.7	38	–	–	6	3.5	20	3.5	M4×0.7	6.5	M5×0.8	7	4	–	4.2	6.3	0.5
20	5,10	24	19.5	34	29.5	7	10	36	5.5	M5×0.8	47	–	–	8	4.5	25.5	5.4	M6×1.0	9	M5×0.8	10	7	–	6.2	8.8	1
25	5,10	27.5	22.5	37.5	32.5	12	12	40	5.5	M6×1.0	52	–	–	10	5	28	5.4	M6×1.0	9	M5×0.8	10	7	–	6.2	8.8	1
32	5,10	30	23	40	33	13	16	45	7.5	M8×1.25	60	4.5	49.5	14	7	34	5.5	M6×1.0	9	Rc1/8 (*1)	10	7	14	6.2	8.8	1
40	5,10	36.5	29.5	46.5	39.5	13	16	52	8	M8×1.25	70	5	57	14	7	40	5.5	M6×1.0	9	Rc1/8	10	7	14	6.2	8.8	1
50	5~20	38.5	30.5	48.5	40.5	15	20	64	10.5	M10×1.5	86	7	71	17	8	50	6.5	M8×1.25	11	Rc1/4 (*2)	14	8	19	8.2	10.8	1

*1. Without magnet with stroke=5mm, P=M5×0.8, F=5.5

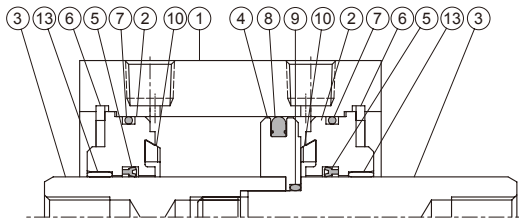
*2. Without magnet with stroke=5mm, P=Rc1/8, F=8

MCJQ Inside structure & Parts list – Double rod

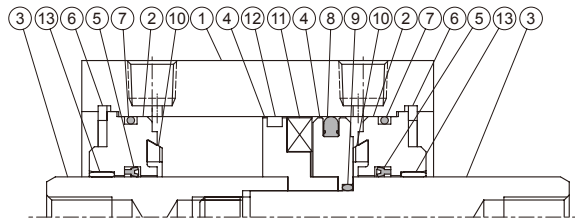
COMPACT CYLINDER



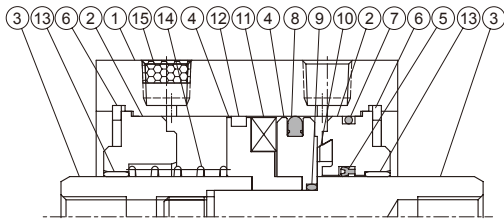
Double acting



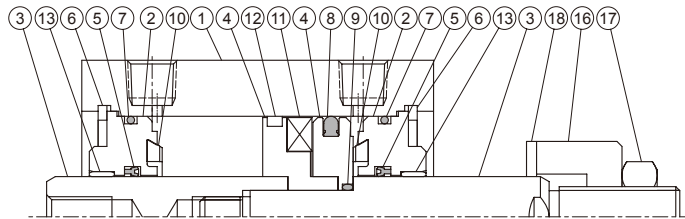
Double acting (with magnet)



Single acting



Adjustable stroke



Material

No.	Tube I.D. Part name	12	16	20	25	32	40	50	63	80	100	Note	Q'y	Component parts (inclusion)	Repair kits (inclusion)
1	Body	Aluminum alloy									Hard anodized	1			
2	Rod cover	Aluminum alloy									*1	2	●		
3	Piston rod	With magnet	Stainless steel		Carbor steel						2				
		Without magnet	SUS		Carbor steel						2				
4	Piston	Aluminum alloy									1	●			
5	Rod packing	NBR									2	●	●		
6	Snap ring	Stainless steel			Spring steel						2	●			
7	Cover ring	NBR									*2	2	●	●	
8	Piston packing	NBR									1	●	●		
9	Piston gasket	NBR									1	●	●		
10	Cushion packing	NBR									2	●	●		
11	Magnet	Magnet									1	●			
12	Wear ring	-			Teflon						1	●			
13	Bush	-			Bearing alloy						2	●			
14	Spring	SWP			-						1	●			
15	Silencer	Brass			-						1	●			
16	Adjustble nut	Carbor steel									1	●			
17	Hexagon nut	Carbor steel									1	●			
18	Cushion packing	PU									1	●			

*1. $\phi 12 \sim \phi 32$ hard anodized, $\phi 40 \sim \phi 100$ anodized. *2. Single acting (Q'y=1 pc)

Seal kit

Acting type	Rod packing		Piston packing		Cover ring		Piston gasket
	Double acting	Single acting	Double acting	Single acting	Double acting	Single acting	Double acting Single acting
Q'y	2	1	1	1	2	1	1
12	KSYR-6	KSYR-6	OPA-12	OPA-12	S-11	S-11	d4×w1
16	KSYR-8	KSYR-8	OPA-16	OPA-16	S-14	S-14	d6×w1
20	KSYR-10A	KSYR-10A	OPA-20	OPA-20	S-18	S-18	d6×w1
25	KSYR-12	KSYR-12	OPA-25	OPA-25	S-22	S-22	S-9
32	KSYR-16	KSYR-16	OPA-32	OPA-32	d28×w2	d28×w2	d11×w1
40	KSYR-16	KSYR-16	OPA-40	OPA-40	S-36	S-36	S-10
50	KSYR-20	KSYR-20	OPA-50	OPA-50	S-46	S-46	S-16
63	KSYR-20	-	OPA-63	-	S-60	-	S-14
80	ORA-25	-	OPA-80	-	G-75	-	d20×w1
100	ORA-30	-	OPA-100	-	G-95	-	S-24

Order example

Component parts / Repair kits

Tube I.D.	Component parts	Repair kits
$\phi 12$	CP-MCJQ-2-12(M)	PS-MCJQ-2-12
$\phi 16$	CP-MCJQ-2-16(M)	PS-MCJQ-2-16
$\phi 20$	CP-MCJQ-2-20(M)	PS-MCJQ-2-20
$\phi 25$	CP-MCJQ-2-25(M)	PS-MCJQ-2-25
$\phi 32$	CP-MCJQ-2-32(M)	PS-MCJQ-2-32
$\phi 40$	CP-MCJQ-2-40(M)	PS-MCJQ-2-40
$\phi 50$	CP-MCJQ-2-50(M)	PS-MCJQ-2-50
$\phi 63$	CP-MCJQ-2-63(M)	PS-MCJQ-2-63
$\phi 80$	CP-MCJQ-2-80(M)	PS-MCJQ-2-80
$\phi 100$	CP-MCJQ-2-100(M)	PS-MCJQ-2-100

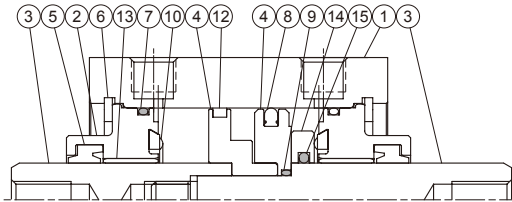
M: With magnet

MCJQ Inside structure & Parts list – Double rod / Long stroke

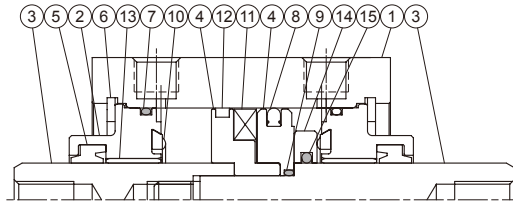
COMPACT CYLINDER



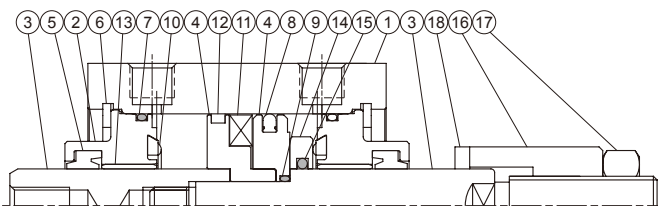
Double acting



Double acting (with magnet)



Adjustable stroke



Long stroke – Material

No.	Tube I.D. Part name	12	16	20	25	32	40	50	63	80	Note	Q'y	Component parts (inclusion)	Repair kits (inclusion)	
1	Body	Aluminum alloy									Hard anodized	1			
2	Rod cover	Aluminum alloy									*	2	●		
3	Piston rod	With magnet	Stainless steel			Carbor steel					2				
		Without magnet	SUS	Carbor steel									2		
4	Piston	Aluminum alloy										2	●		
5	Rod packing	NBR										2	●	●	
6	Snap ring	Stainless steel			Spring steel							2	●		
7	Cover ring	NBR										2	●	●	
8	Piston packing	NBR										1	●	●	
9	Piston gasket	NBR										1	●	●	
10	Cushion packing	–	NBR									2	●	●	
11	Magnet	Magnet										1	●		
12	Wear ring	–			Teflon							1	●		
13	Bush	–			Bearing alloy							2	●		
14	Sub-piston	–	PU	Aluminum alloy									1	●	
15	Sub-piston gasket	–			NBR							1	●	●	
16	Adjust nut	Carbor steel										1	●		
17	Hexagon nut	Carbor steel										1	●		
18	Cushion gasket	PU										1	●		

* $\phi 12\sim\phi 32$ hard anodized, $\phi 40\sim\phi 80$ anodized.

Long stroke – Seal kit

	Rod packing	Piston packing	Cover ring	Piston gasket	Sub-piston gasket
Acting type	Double acting				
Q'y	2	1	2	1	1
12	KSYR-6	OPA-12	S-11	d4×w1	–
16	KSYR-8	OPA-16	S-14	d5×w1	–
20	KSYR-10A	OPA-20	S-18	d6×w1	–
25	KSYR-12	OPA-25	S-22	S-9	–
32	KSYR-16	OPA-32	d28×w2	d11×w1	P-16
40	ORA-16	OPA-40	S-36	S-10	P-16
50	ORA-20	OPA-50	S-46	S-16	P-20
63	ORA-20	OPA-63	S-60	S-14	P-20
80	ORA-25	OPA-80	G-75	S-18	S-25

Order example

Component parts / Repair kits

Tube I.D.	Component parts	Repair kits
$\phi 12$	CPL-MCJQ-2-12(M)	PSL-MCJQ-2-12
$\phi 16$	CPL-MCJQ-2-16(M)	PSL-MCJQ-2-16
$\phi 20$	CPL-MCJQ-2-20(M)	PSL-MCJQ-2-20
$\phi 25$	CPL-MCJQ-2-25(M)	PSL-MCJQ-2-25
$\phi 32$	CPL-MCJQ-2-32(M)	PSL-MCJQ-2-32
$\phi 40$	CPL-MCJQ-2-40(M)	PSL-MCJQ-2-40
$\phi 50$	CPL-MCJQ-2-50(M)	PSL-MCJQ-2-50
$\phi 63$	CPL-MCJQ-2-63(M)	PSL-MCJQ-2-63
$\phi 80$	CPL-MCJQ-2-80(M)	PSL-MCJQ-2-80

M: With magnet

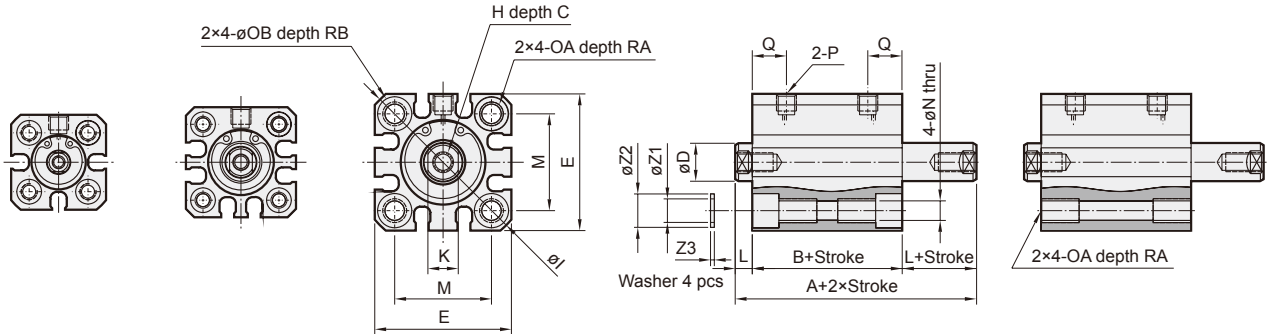
$\phi 12$

$\phi 16$

$\phi 20, \phi 25$

Stroke 5~100

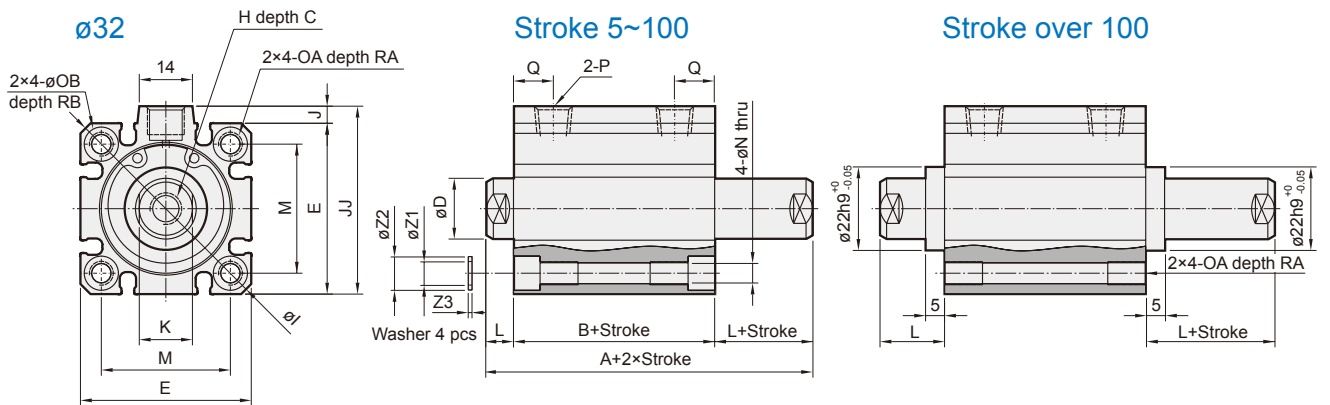
Stroke over 100



$\phi 32$

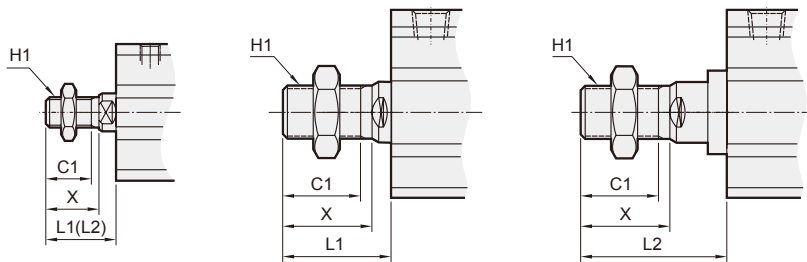
Stroke 5~100

Stroke over 100



$\phi 12\sim 25$

$\phi 32$ for stroke 5~100 $\phi 32$ for stroke over 100



MCJQ-21 male thread size

Code Tube I.D.	C1	H1	L1	L2	X
12	9	M5×0.8	14	24	10.5
16	10	M6×1.0	15.5	25.5	12
20	12	M8×1.25	18.5	28.5	14
25	15	M10×1.25	22.5	32.5	17.5
32	20.5	M14×1.5	28.5	38.5	23.5

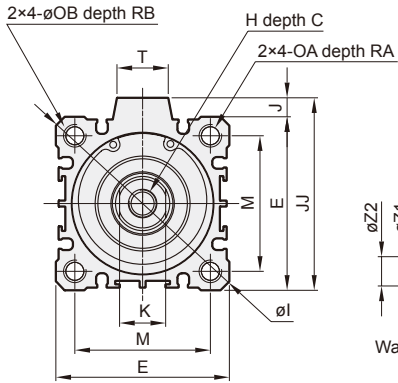
* L1: Standard stroke, L2: Long stroke

Code Tube I.D.	Standard stroke						Long stroke																							
	Stroke range	Without magnet			Magnet			Stroke range	A	B	L	C	D	E	H	I	J	JJ	K	M	N	OA	OB	P	Q	RA	RB	Z1	Z2	Z3
		A	B	L	A	B	L																							
12	5~30	29	22	3.5	34	27	3.5	31~100	59	32	13.5	6	6	25	M3×0.5	32	-	-	5	15.5	3.5	M4×0.7	6.5	M5×0.8	7.5	7	4	4.2	6.3	0.5
16	5~30	29	22	3.5	34	27	3.5	31~100	59	32	13.5	8	8	29	M4×0.7	38	-	-	6	20	3.5	M4×0.7	6.5	M5×0.8	7.5	7	4	4.2	6.3	0.5
20	5~50	35	26	4.5	45	36	4.5	51~200	70	41	14.5	7	10	36	M5×0.8	47	-	-	8	25.5	5.4	M6×1.0	9	M5×0.8	9	10	7	6.2	8.8	1
25	5~50	39	29	5	49	39	5	51~300	74	44	15	12	12	40	M6×1.0	52	-	-	10	28	5.4	M6×1.0	9	M5×0.8	11	10	7	6.2	8.8	1
32	5~50	44.5	30.5	7	54.5	40.5	7	101~300	79.5	45.5	17	13	16	45	M8×1.25	60	4.5	49.5	14	34	5.5	M6×1.0	9	Rc1/8 (*1)	12.5	10	7	6.2	8.8	1
	51~100	54.5	40.5	7	54.5	40.5	7																							

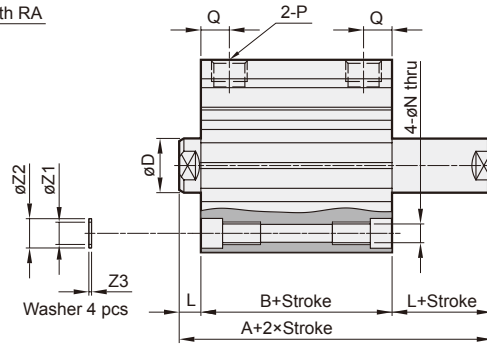
*1. Without magnet with stroke=5mm, P=M5×0.8

COMPACT CYLINDER

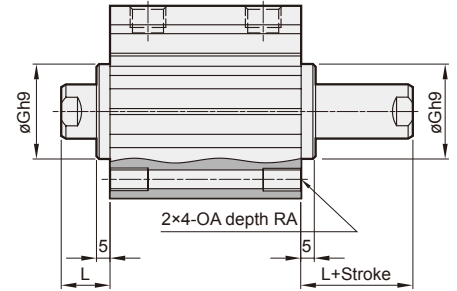
$\phi 50\sim\phi 100$



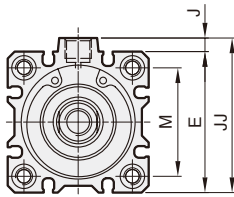
Stroke 5~100



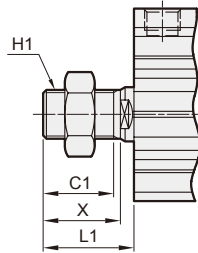
Stroke over 100



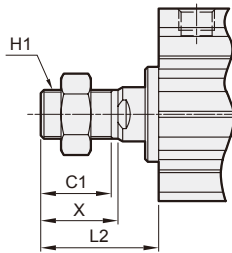
$\phi 40$



$\phi 40\sim\phi 100$
(Stroke 5~100)



$\phi 40\sim\phi 80$
(Stroke over 100)



MCJQ-21 male thread size

Code Tube I.D.	C1	H1	L1	L2	X
40	20.5	M14×1.5	28.5	38.5	23.5
50	26	M18×1.5	33.5	43.5	28.5
63	26	M18×1.5	33.5	43.5	28.5
80	32.5	M22×1.5	43.5	53.5	35.5
100	32.5	M26×1.5	43.5	—	35.5

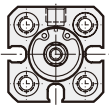
Code Tube I.D.	Standard stroke						Long stroke					
	Stroke range	Without magnet		Magnet		L	Q	Stroke range	A	B	L	Q
		A	B	A	B							
40	5~50	54	40	64	50	7	14	101~300	89	55	17	14
	51~100	64	50	64	50	7	14	101~300	89	55	17	14
50	5~50	56.5	40.5	66.5	50.5	8	14	101~300	91.5	55.5	18	14
	51~100	66.5	50.5	66.5	50.5	8	14	101~300	91.5	55.5	18	14
63	5~50	58	42	68	52	8	15.5	101~300	93	57	18	16.5
	51~100	68	52	68	52	8	15.5	101~300	93	57	18	16.5
80	5~50	71	51	81	61	10	18	101~300	106	66	20	19
	51~100	81	61	81	61	10	18	101~300	106	66	20	19
100	5~50	84.5	60.5	94.5	70.5	12	22	—	—	—	—	—
	51~100	94.5	70.5	94.5	70.5	12	22	—	—	—	—	—

Code Tube I.D.	C	D	E	G ^{h9}	H	I	J	JJ	K	M	N	OA	OB	P	RA	RB	T	Z1	Z2	Z3
40	13	16	52	28 ^{+0/-0.052}	M8×1.25	70	5	57	14	40	5.5	M6×1.0	9	Rc1/8	10	7	14	6.2	8.8	1
50	15	20	64	35 ^{+0/-0.062}	M10×1.5	86	7	71	17	50	6.6	M8×1.25	11	Rc1/4	14	8	19	8.2	10.8	1
63	15	20	77	35 ^{+0/-0.062}	M10×1.5	103	7	84	17	60	9	M10×1.5	14	Rc1/4 (*1)	18	10.5	19	10.2	13.8	1
80	21	25	98	43 ^{+0/-0.062}	M16×2.0	132	6	104	22	77	11	M12×1.75	17.5	Rc3/8 (*2)	22	13.5	26	12.2	17.3	2
100	27	30	117	—	M20×2.5	156	6.5	123.5	27	94	11	M12×1.75	17.5	Rc3/8 (*2)	22	13.5	26	12.2	17.3	2

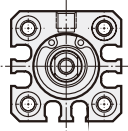
*1. Without magnet with stroke=5mm, P=Rc1/8

*2. Without magnet with stroke=5mm, P=Rc1/4

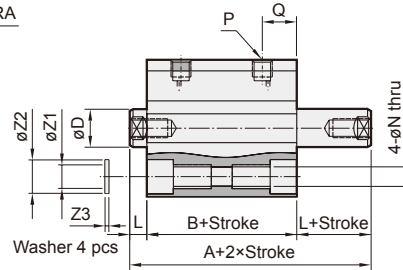
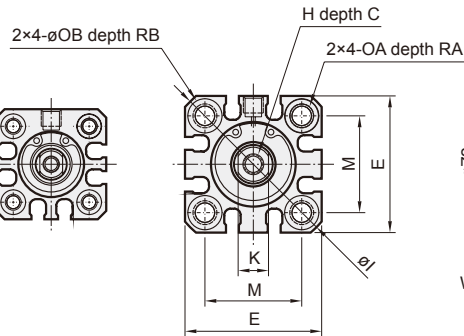
$\phi 12$



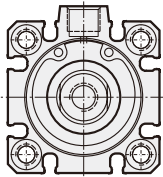
$\phi 16$



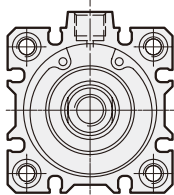
$\phi 20, \phi 25$



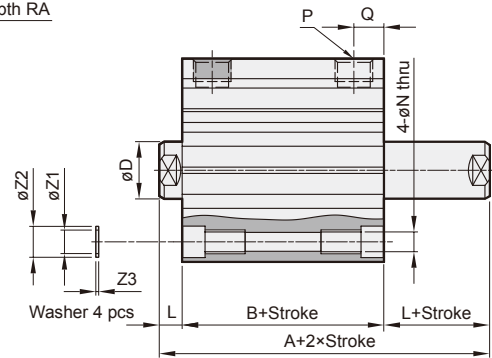
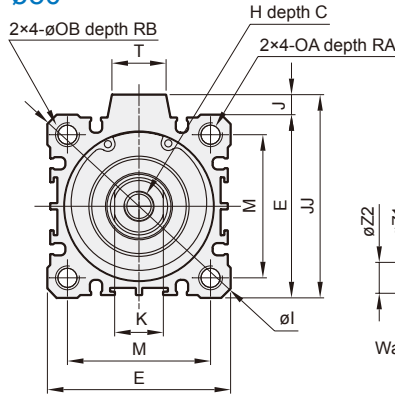
$\phi 32$

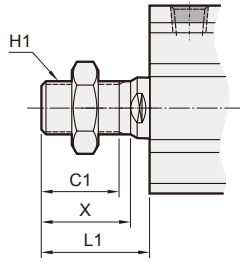


$\phi 40$



$\phi 50$





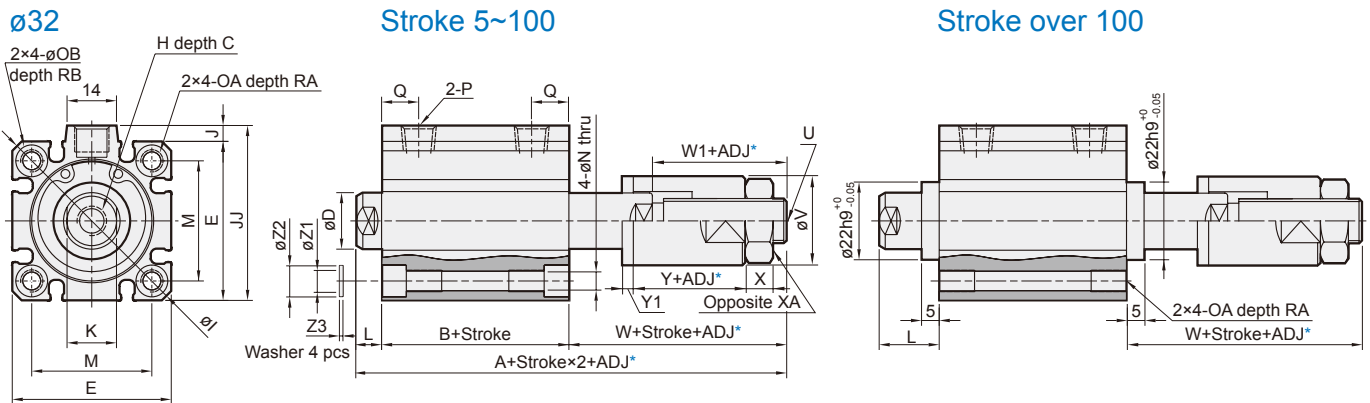
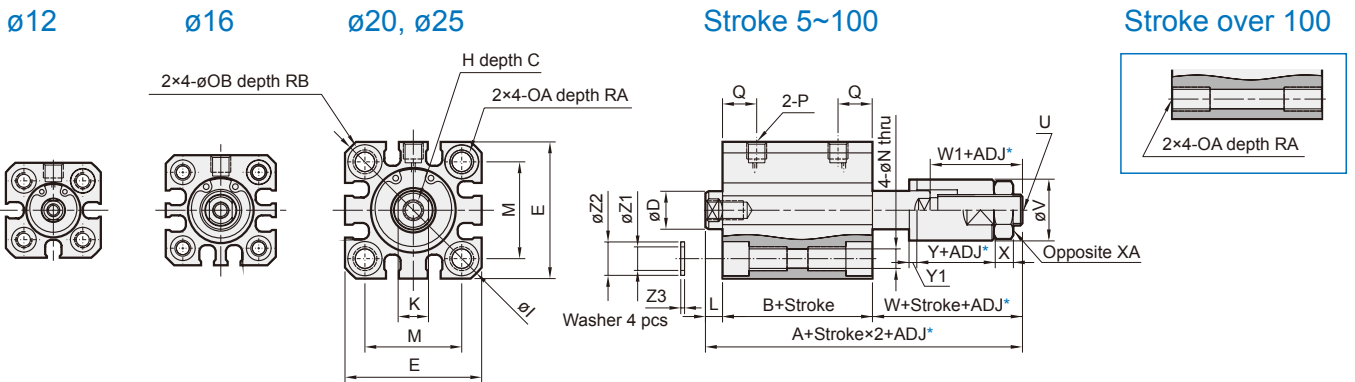
MCJQ-23 male thread size

Code Tube I.D.	C1	H1	L1	X
12	9	M5×0.8	14	10.5
16	10	M6×1.0	15.5	12
20	12	M8×1.25	18.5	14
25	15	M10×1.25	22.5	17.5
32	20.5	M14×1.5	28.5	23.5
40	20.5	M14×1.5	28.5	23.5
50	26	M18×1.5	33.5	28.5

* L1: Standard stroke

Code Tube I.D.	Standard stroke				C	D	E	H	I	J	JJ	K	L	M	N	OA	OB	P	Q	RA	RB	T	Z1	Z2	Z3	
	Without magnet		Magnet																							
	A	B	A	B																						
12	5,10	29	22	34	27	6	6	25	M3×0.5	32	–	–	5	3.5	15.5	3.5	M4×0.7	6.5	M5×0.8	7.5	7	4	–	4.2	6.3	0.5
16	5,10	29	22	34	27	8	8	29	M4×0.7	38	–	–	6	3.5	20	3.5	M4×0.7	6.5	M5×0.8	7.5	7	4	–	4.2	6.3	0.5
20	5,10	35	26	45	36	7	10	36	M5×0.8	47	–	–	8	4.5	25.5	5.4	M6×1.0	9	M5×0.8	9	10	7	–	6.2	8.8	1
25	5,10	39	29	49	39	12	12	40	M6×1.0	52	–	–	10	5	28	5.4	M6×1.0	9	M5×0.8	11	10	7	–	6.2	8.8	1
32	5,10	44.5	30.5	54.5	40.5	13	16	45	M8×1.25	60	4.5	49.5	14	7	34	5.5	M6×1.0	9	Rc1/8 (*1)	12.5	10	7	14	6.2	8.8	1
40	5,10	54	40	64	50	13	16	52	M8×1.25	70	5	57	14	7	40	5.5	M6×1.0	9	Rc1/8	14	10	7	14	6.2	8.8	1
50	5~20	56.5	40.5	66.5	50.5	15	20	64	M10×1.5	86	7	71	17	8	50	6.5	M8×1.25	11	Rc1/4	14	14	8	19	8.2	10.8	1

*1. Without magnet with stroke=5mm, P=M5×0.8

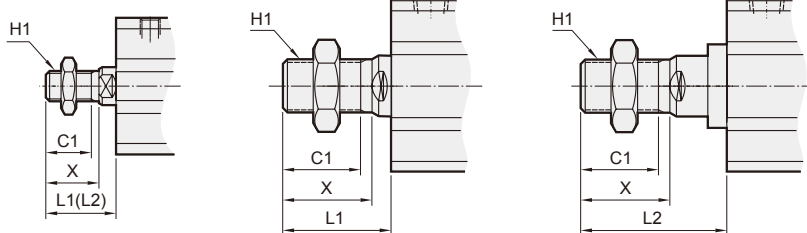


* ADJ: Adjustable stroke

$\phi 12\sim 25$

$\phi 32$ for stroke 5~100

$\phi 32$ for stroke over 100



* L1: Standard stroke, L2: Long stroke

MCJQ-27 male thread size

Code Tube I.D.	C1	H1	L1	L2	X
12	9	M5×0.8	14	24	10.5
16	10	M6×1.0	15.5	25.5	12
20	12	M8×1.25	18.5	28.5	14
25	15	M10×1.25	22.5	32.5	17.5
32	20.5	M14×1.5	28.5	38.5	23.5

Code Tube I.D.	Standard stroke						Long stroke					
	Stroke range	Without magnet		Magnet		L	W	Stroke range	A	B	L	W
		A	B	A	B							
12	5~30	45.5	22	50.5	27	3.5	20	31~100	65.5	32	13.5	20
16	5~30	49	22	54	27	3.5	23.5	31~100	69	32	13.5	23.5
20	5~50	54.3	26	64.3	36	4.5	23.8	51~200	79.3	41	14.5	23.8
25	5~50	56.5	29	66.5	39	5	22.5	51~300	81.5	44	15	22.5
32	5~50	60.9	30.5	70.9	40.5	7	23.4	101~300	91.5	45.5	17	29
	51~100	70.9	40.5									

*1. Without magnet with stroke=5mm, P=M5×0.8

Code Tube I.D.	C	D	E	H	I	J	JJ	K	M	N	OA	OB	P	Q
12	6	6	25	M3×0.5	32	-	-	5	15.5	3.5	M4×0.7	6.5	M5×0.8	7.5
16	8	8	29	M4×0.7	38	-	-	6	20	3.5	M4×0.7	6.5	M5×0.8	7.5
20	7	10	36	M5×0.8	47	-	-	8	25.5	5.4	M6×1.0	9	M5×0.8	9
25	12	12	40	M6×1.0	52	-	-	10	28	5.4	M6×1.0	9	M5×0.8	11
32	13	16	45	M8×1.25	60	4.5	49.5	14	34	5.5	M6×1.0	9	Rc1/8 (*1)	12.5

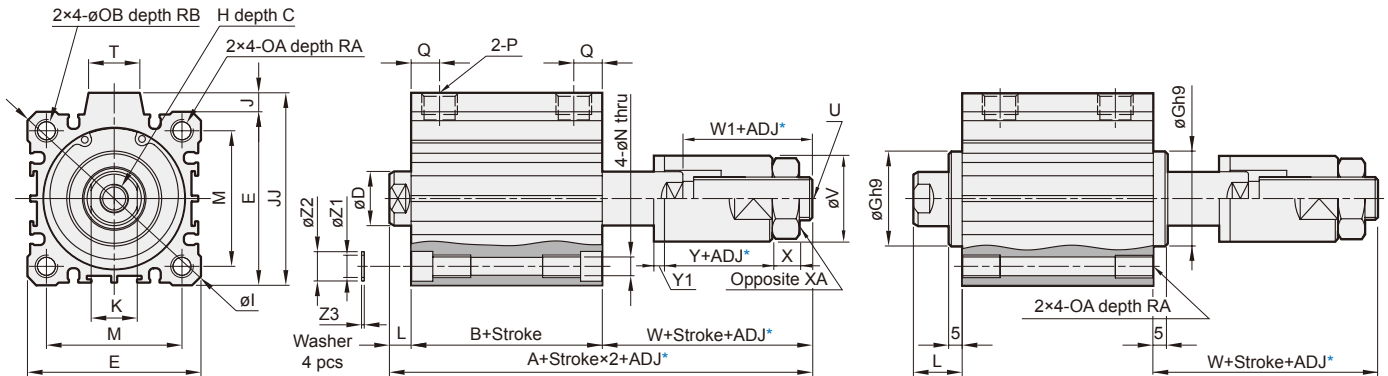
Code Tube I.D.	RA	RB	U	V	W1	X	XA	Y	Y1	Z1	Z2	Z3
12	7	4	M5×0.8	12	16	4	8	13	2	4.2	6.3	0.5
16	7	4	M8×1.25	16	19	5	13	15	2	4.2	6.3	0.5
20	10	7	M8×1.25	16	19	5	13	15	2	6.2	8.8	1
25	10	7	M10×1.25	20	18	6	17	12	2	6.2	8.8	1
32	10	7	M12×1.25	30	19	7	19	12	2	6.2	8.8	1

COMPACT CYLINDER

$\phi 50\sim\phi 100$

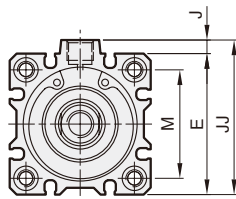
Stroke 5~100

Stroke over 100

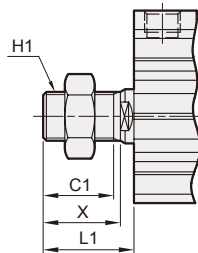


* ADJ: Adjustable stroke

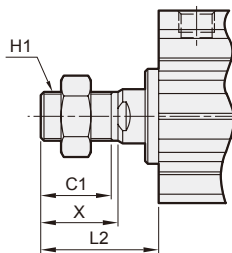
$\phi 40$



$\phi 40\sim\phi 100$
(Stroke 5~100)



$\phi 40\sim\phi 80$
(Stroke over 100)



MCJQ-27 male thread size

Code Tube I.D.	C1	H1	L1	L2	X
40	20.5	M14×1.5	28.5	38.5	23.5
50	26	M18×1.5	33.5	43.5	28.5
63	26	M18×1.5	33.5	43.5	28.5
80	32.5	M22×1.5	43.5	53.5	35.5
100	32.5	M26×1.5	43.5	—	35.5

Code Tube I.D.	Standard stroke								Long stroke					
	Stroke range	Without magnet		Magnet		L	Q	W	Stroke range	A	B	L	Q	W
		A	B	A	B									
40	5~50	71	40	81	50	7	14	24	101~300	102.5	55	17	14	30.5
	51~100	81	50											
50	5~50	75	40.5	85	50.5	8	14	26.5	101~300	105.5	55.5	18	14	32
	51~100	85	50.5											
63	5~50	80	42	90	52	8	15.5	30	101~300	110	57	18	16.5	35
	51~100	90	52											
80	5~50	100	51	110	61	10	18	39	101~300	130	66	20	19	44
	51~100	110	61											
100	5~50	111	60.5	121	70.5	12	22	38.5	—					
	51~100	121	70.5											

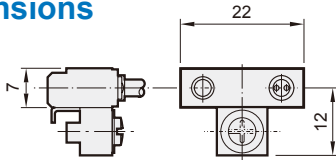
Code Tube I.D.	C	D	E	G ^{h9}	H	I	J	JJ	K	M	N	OA	OB	P	RA	RB	T	U	V	W1	X	XA	Y	Y1	Z1	Z2	Z3
40	13	16	52	28 ⁺⁰ _{-0.052}	M8×1.25	70	5	57	14	40	5.5	M6×1.0	9	Rc1/8	10	7	14	M12×1.25	30	21	7	19	12	2	6.2	8.8	1
50	15	20	64	35 ⁺⁰ _{-0.062}	M10×1.5	86	7	71	17	50	6.6	M8×1.25	11	Rc1/4	14	8	19	M16×1.5	40	22.5	8	24	15	2	8.2	10.8	1
63	15	20	77	35 ⁺⁰ _{-0.062}	M10×1.5	103	7	84	17	60	9	M10×1.5	14	Rc1/4 (*1)	18	10.5	19	M16×1.5	40	25.5	8	24	15	2	10.2	13.8	1
80	21	25	98	43 ⁺⁰ _{-0.062}	M16×2.0	132	6	104	22	77	11	M12×1.75	17.5	Rc3/8 (*2)	22	13.5	26	M22×1.5	50	33	13	32	20	3	12.2	17.3	2
100	27	30	117	—	M20×2.5	156	6.5	123.5	27	94	11	M12×1.75	17.5	Rc3/8 (*2)	22	13.5	26	M22×1.5	50	33	13	32	20	3	12.2	17.3	2

*1. Without magnet with stroke=5mm, P=Rc1/8

*2. Without magnet with stroke=5mm, P=Rc1/4

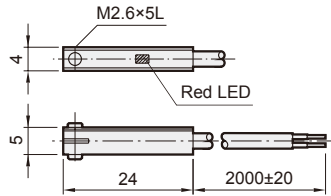
Dimensions

**RCB
RNB**

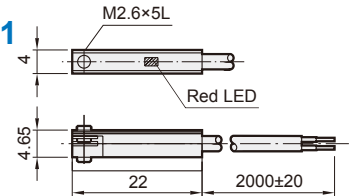


RCB, RNB: Red LED

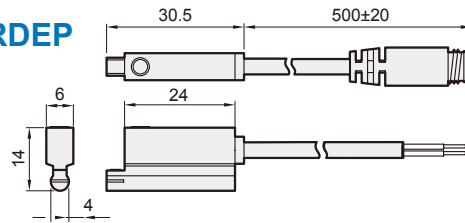
RCE



**RCE1
RNE**

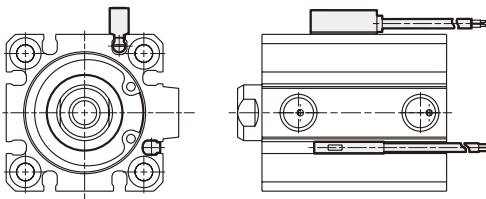


RDEP

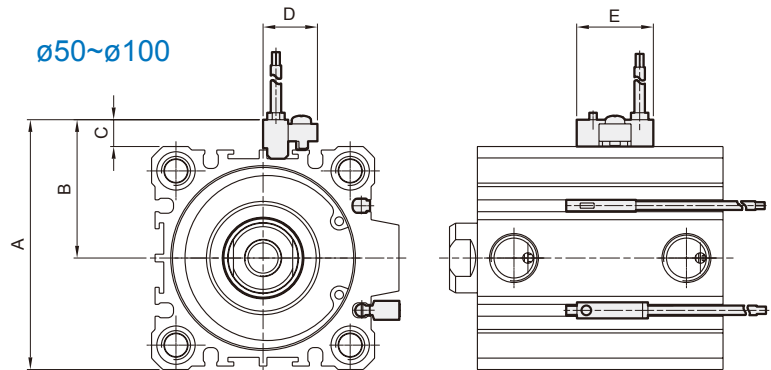


Installation of sensor switch

$\phi 12\sim\phi 40$



$\phi 50\sim\phi 100$



Order example

RCE1 — □

MODEL

RCB / RCE / RCE1 (C: Reed switch)
RNB / RNE (N: Solid state switch)
RDEP (Solid state switch)

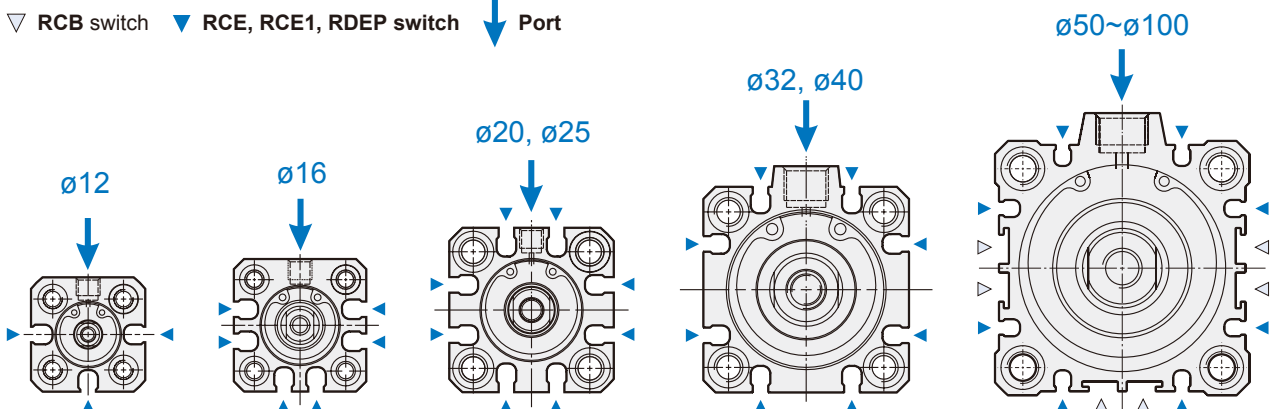
WIRE LENGTH

Blank: L=2000m
1M: L=1000m
QD: M8 3Pin connector
EQD: M8 3Pin connector

Code Tube I.D.	A	B	C	D	E
50	72	40	8	16	22
63	85	46.5	8	16	22
80	106	57	8	16	22
100	125	66.5	8	16	22

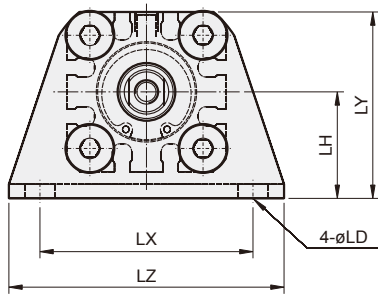
Description

▽ RCB switch ▼ RCE, RCE1, RDEP switch ↓ Port

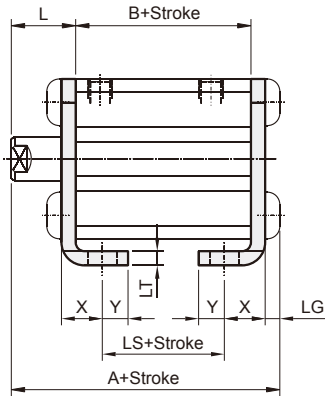


COMPACT CYLINDER

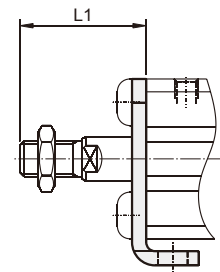
LB



Female thread

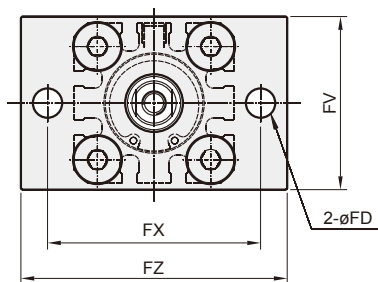


Male thread

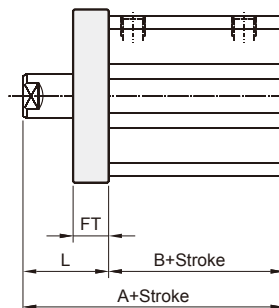


Code	Standard stroke							Long stroke														
	Stroke range	Without magnet			Magnet			Stroke range	A	B	LS	L	L1	LD	LG	LH	LT	LX	LY	LZ	X	Y
		A	B	LS	A	B	LS															
12	5~30	35.3	17	5	40.3	22	10	35~100	50.3	32	20	13.5	24	4.5	2.8	17	2	34	29.5	44	8	4.5
16	5~30	35.3	17	5	40.3	22	10	35~100	50.3	32	20	13.5	25.5	4.5	2.8	19	2	38	33.5	48	8	5
20	5~50	41.2	19.5	7.5	51.2	29.5	17.5	75~200	62.7	41	29	14.5	28.5	6.6	4	24	3.2	48	42	62	9.2	5.8
25	5~50	44.7	22.5	7.5	54.7	32.5	17.5	75~300	66.2	44	29	15	32.5	6.6	4	26	3.2	52	46	66	10.7	5.8

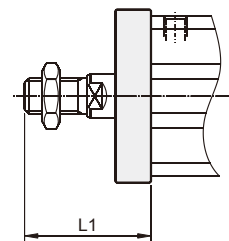
FAC



Female thread



Male thread

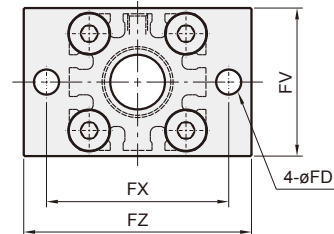
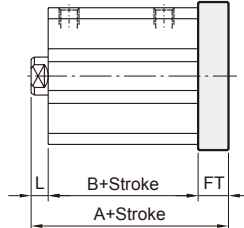
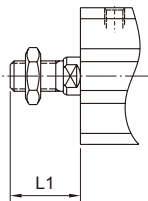


Code	Standard stroke					Long stroke										
	Stroke range	Without magnet		Magnet		Stroke range	A	B	FD	FT	FV	FX	FZ	L	L1	
		A	B	A	B											
12	5~30	30.5	17	35.5	22	35~100	45.5	32	4.5	5.5	25	45	55	13.5	24	
16	5~30	30.5	17	35.5	22	35~100	45.5	32	4.5	5.5	30	45	55	13.5	25.5	
20	5~50	34	19.5	44	29.5	75~200	55.5	41	6.6	8	39	48	60	14.5	28.5	
25	5~50	37.5	22.5	47.5	32.5	75~300	59	44	6.6	8	42	52	64	15	32.5	

FBC

Male thread

Female thread

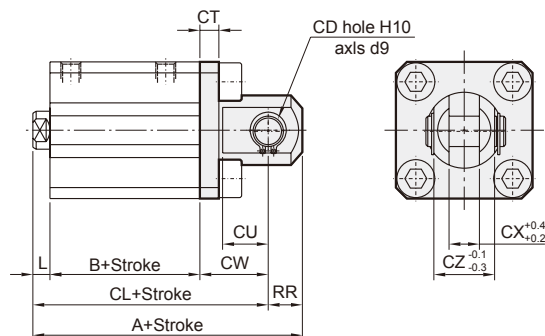
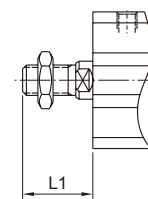


Code	Standard stroke										Long stroke				FD	FT	FV	FX	FZ
	Stroke range	Without magnet				Magnet				Stroke range	A	B	L	L1					
		A	B	L	L1	A	B	L	L1										
12	5~30	26	17	3.5	14	31	22	3.5	14	35~100	51	32	13.5	24	4.5	5.5	25	45	55
16	5~30	26	17	3.5	15.5	31	22	3.5	15.5	35~100	51	32	13.5	25.5	4.5	5.5	30	45	55
20	5~50	32	19.5	4.5	18.5	42	29.5	4.5	18.5	75~200	63.5	41	14.5	28.5	6.6	8	39	48	60
25	5~50	35.5	22.5	5	22.5	45.5	32.5	5	22.5	75~300	67	44	15	32.5	6.6	8	42	52	64

CB

Male thread

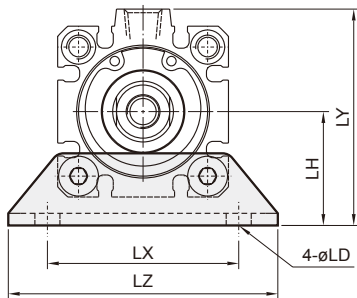
Female thread



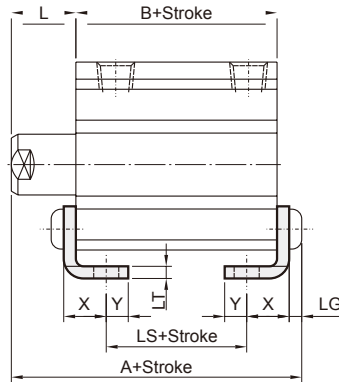
Code	Standard stroke										Long stroke						CD	CT	CU	CW	CX	CZ	RR	
	Stroke range	Without magnet				Magnet				Stroke range	A	B	CL	L	L1									
		A	B	CL	L	L1	A	B	CL							L								L1
12	5~30	40.5	17	34.5	3.5	14	45.5	22	39.5	3.5	14	35~100	65.5	32	59.5	13.5	24	5	4	7	14	5	10	6
16	5~30	41.5	17	35.5	3.5	15.5	46.5	22	40.5	3.5	15.5	35~100	66.5	32	60.5	13.5	25.5	5	4	10	15	6.5	12	6
20	5~50	51	19.5	42	4.5	18.5	61	29.5	52	4.5	18.5	75~200	82.5	41	73.5	14.5	28.5	8	5	12	18	8	16	9
25	5~50	57.5	22.5	47.5	5	22.5	67.5	32.5	57.5	5	22.5	75~300	89	44	79	15	32.5	10	5	14	20	10	20	10

LB

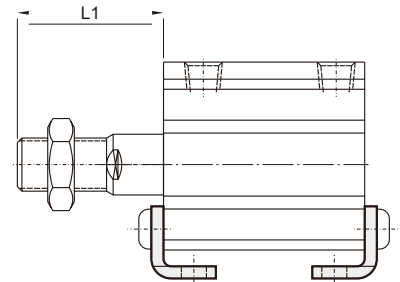
Standard stroke



Female thread

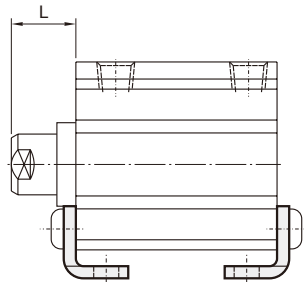


Male thread

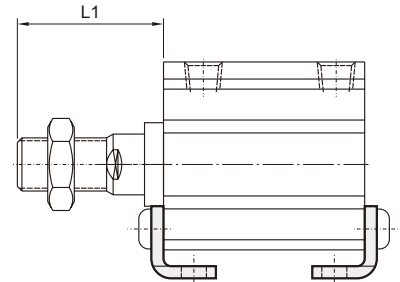


Long stroke

Female thread



Male thread

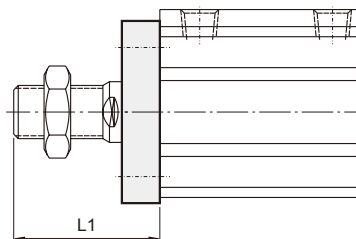
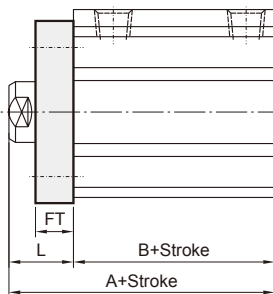
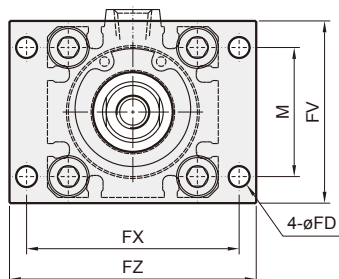


Code	Standard stroke							Long stroke				L	L1	LD	LG	LH	LT	LX	LY	LZ	X	Y
	Stroke range	Without magnet			Magnet			Stroke range	A	B	LS											
		A	B	LS	A	B	LS															
32	5~50	47.2	23	7	57.2	33	17	125~300	69.7	45.5	29.5	17	38.5	6.6	4	30	3.2	57	57	71	11.2	5.8
	75,100	57.2	33	17																		
40	5~50	53.7	29.5	13.5	63.7	39.5	23.5	125~300	79.2	55	39	17	38.5	6.6	4	33	3.2	64	64	78	11.2	7
	75,100	63.7	39.5	23.5																		
50	5~50	56.7	30.5	7.5	66.7	40.5	17.5	125~300	81.7	55.5	32.5	18	43.5	9	5	39	3.2	79	78	95	14.7	8
	75,100	66.7	40.5	17.5																		
63	5~50	62.2	36	10	72.2	46	20	125~300	83.2	57	31	18	43.5	11	5	46	3.2	95	91.5	113	16.2	9
	75,100	72.2	46	20																		
80	5~50	75	43.5	13.5	85	53.5	23.5	125~300	97.5	66	36	20	53.5	13	7	59	4.5	118	114	140	19.5	11
	75,100	85	53.5	23.5																		
100	5~50	88	53	19	98	63	29	125~300	—	—	—	22	53.5	13	7	71	6	137	136	162	23	12.5
	75,100	98	63	29																		

FAC

Female thread

Male thread



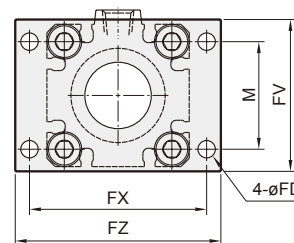
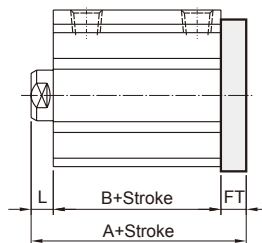
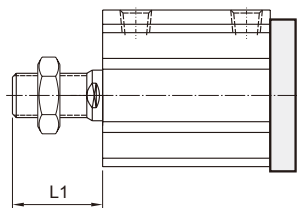
Code	Standard stroke					Long stroke			FD	FT	FV	FX	FZ	L	L1	M	
	Tube I.D.	Stroke range	Without magnet		Magnet		Stroke range	A									B
			A	B	A	B											
32	5~50	40	23	50	33	125~300	62.5	45.5	5.5	8	48	56	65	17	38.5	34	
	75,100	50	33														
40	5~50	46.5	29.5	56.5	39.5	125~300	72	55	5.5	8	54	62	72	17	38.5	40	
	75,100	56.5	39.5														
50	5~50	48.5	30.5	58.5	40.5	125~300	73.5	55.5	6.6	9	67	76	89	18	43.5	50	
	75,100	58.5	40.5														
63	5~50	54	36	64	46	125~300	75	57	9	9	80	92	108	18	43.5	60	
	75,100	64	46														
80	5~50	63.5	43.5	73.5	53.5	125~300	86	66	11	11	99	116	134	20	53.5	77	
	75,100	73.5	53.5														
100	5~50	75	53	85	63	125~300	—	—	11	11	117	136	154	22	53.5	94	
	75,100	85	63														

FBC

Standard stroke

Male thread

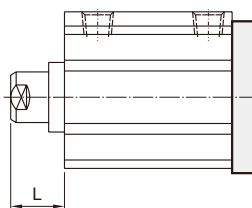
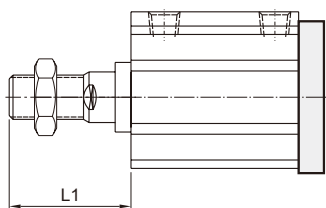
Female thread



Long stroke

Male thread

Female thread



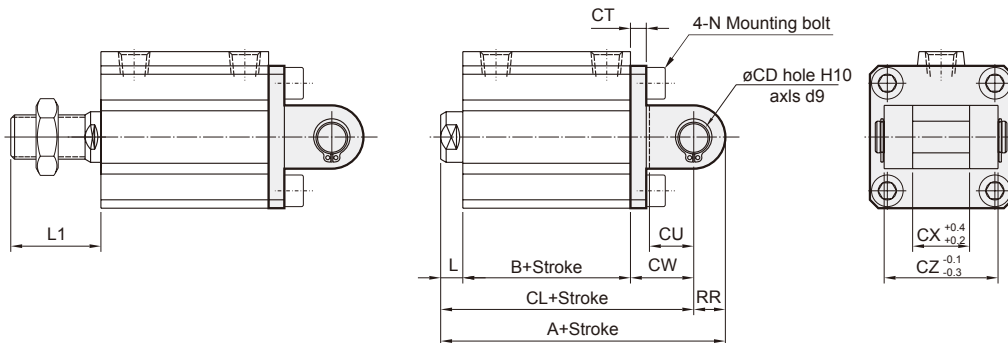
Code	Standard stroke							Long stroke					FD	FT	FV	FX	FZ	M
	Stroke range	Without magnet		Magnet		L	L1	Stroke range	A	B	L	L1						
		A	B	A	B													
32	5~50	38	23	48	33	7	28.5	125~300	70.5	45.5	17	38.5	5.5	8	48	56	65	34
	75,100	48	33															
40	5~50	44.5	29.5	54.5	39.5	7	28.5	125~300	80	55	17	38.5	5.5	8	54	62	72	40
	75,100	54.5	39.5															
50	5~50	47.5	30.5	57.5	40.5	8	33.5	125~300	82.5	55.5	18	43.5	6.6	9	67	76	89	50
	75,100	57.5	40.5															
63	5~50	53	36	63	46	8	33.5	125~300	84	57	18	43.5	9	9	80	92	108	60
	75,100	63	46															
80	5~50	64.5	43.5	74.5	53.5	10	43.5	125~300	97	66	20	53.5	11	11	99	116	134	77
	75,100	74.5	53.5															
100	5~50	76	53	86	63	12	43.5	125~300	-	-	-	-	11	11	117	136	154	94
	75,100	86	63															

CB

Standard stroke

Male thread

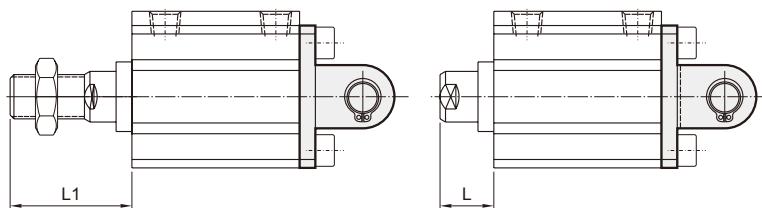
Female thread



Long stroke

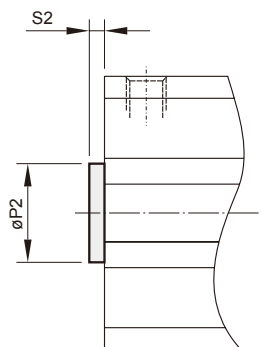
Male thread

Female thread



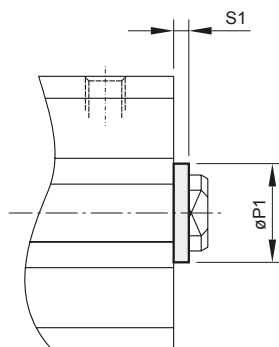
Code	Standard stroke										Long stroke												
	Stroke range	Without magnet			Magnet			L	L1	Stroke range	A	B	CL	L	L1	CD	CT	CU	CW	CX	CZ	N	RR
		A	B	CL	A	B	CL																
32	5~50	60	23	50	70	33	60	7	28.5	125~300	92.5	45.5	82.5	17	38.5	10	5	14	20	18	36	M6×1.0	10
	75,100	70	33	60																			
40	5~50	68.5	29.5	58.5	78.5	39.5	68.5	7	28.5	125~300	104	55	94	17	38.5	10	6	14	22	18	36	M6×1.0	10
	75,100	78.5	39.5	68.5																			
50	5~50	80.5	30.5	66.5	90.5	40.5	76.5	8	33.5	125~300	115.5	55.5	101.5	18	43.5	14	7	20	28	22	44	M8×1.25	14
	75,100	90.5	40.5	76.5																			
63	5~50	88	36	74	98	46	84	8	33.5	125~300	119	57	105	18	43.5	14	8	20	30	22	44	M10×1.5	14
	75,100	98	46	84																			
80	5~50	109.5	43.5	91.5	119.5	53.5	101.5	10	43.5	125~300	142	66	124	20	53.5	18	10	27	38	28	56	M12×1.75	18
	75,100	119.5	53.5	101.5																			
100	5~50	132	53	110	142	63	120	12	43.5	125~300	—	—	—	—	—	22	13	31	45	32	64	M12×1.75	22
	75,100	142	63	120																			

F Rear flange



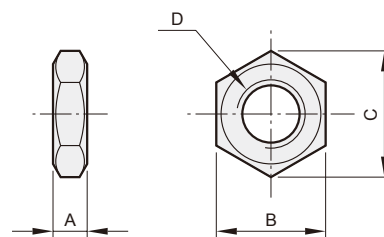
Code Tube I.D.	P2 ^{h9}	S2
12	6	1.5
16	10	1.5
20	13	2
25	15	2
32	21	2
40	28	2
50	35	2
63	35	2
80	43	2
100	59	2

RF



Code Tube I.D.	P1 ^{h9}	S1
12	15	1.5
16	20	1.5
20	13	2
25	15	2
32	21	2
40	28	2
50	35	2
63	35	2
80	43	2
100	59	2

Rod front nut

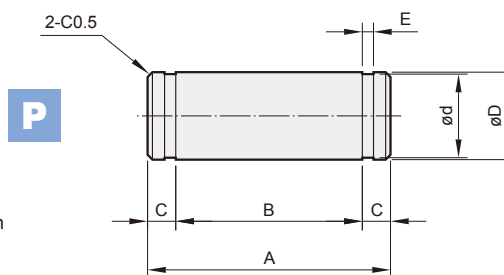
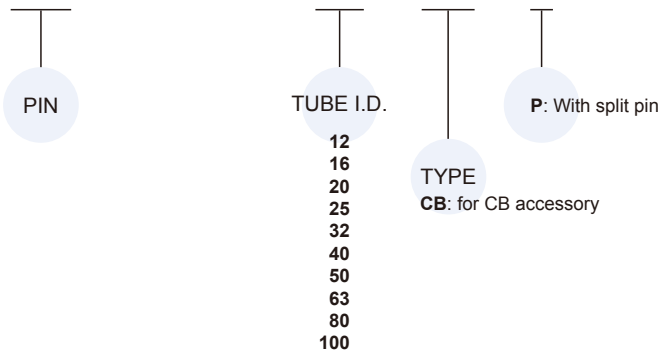


Code Tube I.D.	A	B	C	D
12	4	8	9.2	M5×0.8
16	5	10	11.5	M6×1.0
20	5	13	15	M8×1.25
25	6	17	19.6	M10×1.25
32,40	8	22	25.4	M14×1.5
50,63	11	27	31.4	M18×1.5
80	13	32	37	M22×1.5
100	16	41	47.3	M26×1.5

Pin for CB

Order example

PIN — MCJQ — 20 — CB — P



Code Tube I.D.	A	B	C	ϕD^{g9}	ϕd	E	Snap ring
12	14.6	10.2	2.2	5 ^{-0.03/-0.06}	4.8 ^{0/-0.04}	0.7 ^{+0.10/0}	STW-5
16	16.6	12.2	2.2	5 ^{-0.03/-0.06}	4.8 ^{0/-0.04}	0.7 ^{+0.10/0}	STW-5
20	21	16.2	2.4	8 ^{-0.04/-0.08}	7.6 ^{0/-0.06}	0.9 ^{+0.10/0}	STW-8
25	25.6	20.2	2.7	10 ^{-0.04/-0.08}	9.6 ^{0/-0.06}	1.15 ^{+0.14/0}	STW-10
32,40	41.6	36.2	2.7	10 ^{-0.04/-0.08}	9.6 ^{0/-0.09}	1.15 ^{+0.14/0}	STW-10
50,63	50.6	44.2	3.2	14 ^{-0.05/-0.10}	13.4 ^{0/-0.11}	1.15 ^{+0.14/0}	STW-14
80	64	56.2	3.9	18 ^{-0.05/-0.10}	17.0 ^{0/-0.11}	1.35 ^{+0.14/0}	STW-18
100	72	64.2	3.9	22 ^{-0.07/-0.12}	21.0 ^{0/-0.21}	1.35 ^{+0.14/0}	STW-22