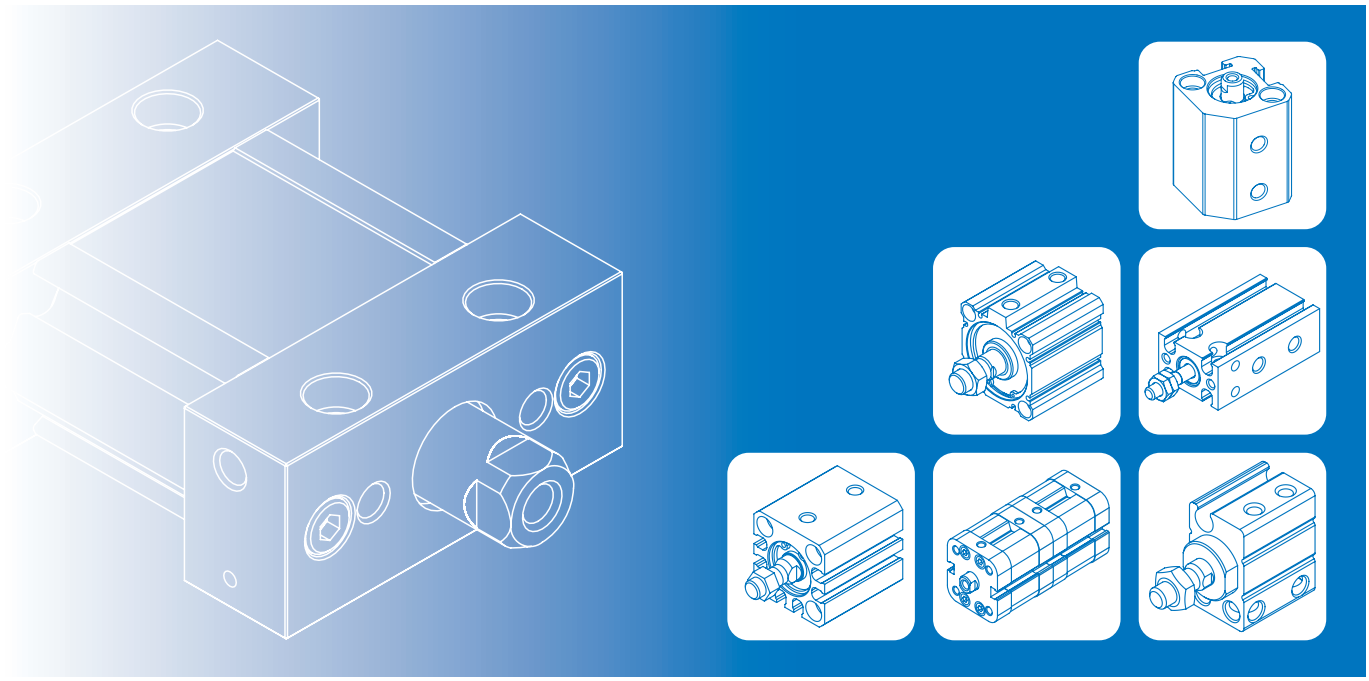
COMPACT CYLINDER



COMPACT CYLINDER

	MCJA	ø12~ø100 2-2
		Multiple Position 2-14
		Back to Back Type 2-17
	MCJQ2	ø12~ø25 2-20
F	**MCJQ**	ø12~ø100 2-23
		Multiple Position 2-48
	MCKJQ	ø12~ø40 No Rotation 2-53
	MCJI	ø20~ø100 2-59
		Multiple Position 2-67

PLATE OVAL CYLINDER

	MCJU	ø25~ø63 2-70

MULTI-MOUNT CYLINDER

F	**MCFA**	ø6~ø32 2-76
F	**MCFB**	ø6~ø20 2-82

F Fast delivery (11 & 12 style)

Our goal is to achieve 3-day lead time, if there is stock of component set. For more information, please go to our MINDMAN website (www.mindman.com.tw) and click on the "Component Set Inventory" button.

MCJA series

COMPACT CYLINDER

Special spec

Rod end shape

Technical data

Caution for safety
(Read before installing)



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.

Specification

Model	MCJA									
Acting type	Double acting / Single acting							Double acting		
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 perssure range (MPa) Double acting	0.05~1		0.03~1		0.02~1					
Operating perssure range (MPa) 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 (*)	RCE, RCE1, RDEP									

* RDEP only for tube I.D. ø12~ø50.

Order example

MCJA — 12 — 40 — 25 M — 10 — □

- MODEL
- 1: Single rod, 2: Double rod
- TUBE I.D.
- STROKE
- M: Magnet
- ADJUSTABLE STROKE * Only for STYLE 27/28.
- PORT THREAD
  Blank: M5×0.8 (for ø12~ø25)
  Blank: Rc thread
  G: G thread
  NPT: NPT thread (for ø32~ø100)

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

Double acting – Table for standard stroke

Tube I.D.	Stroke (mm)	Max. stroke
ø12,16	5,10,15,20,25,30	300
ø20,25,32,40,50,63,80	5,10,15,20,25,30,35,40,45,50	300
ø100	5,10,15,20,25,30,35,40,45,50	125

* Please contact us if the stroke is out of specification.

Single acting – Table for standard stroke

Tube I.D.	Stroke (mm)
ø12,16,20,25,32,40	5,10,15,20,25,30
ø50	5,10,15,20

* Please contact us if the stroke is out of specification.

Rod nut

Code	NUT
Mounting / Tube I.D.	
ø12	NUT-M5x0.8x4Hx8B
ø16	
ø20	NUT-M6x1.0x5Hx10B
ø25	NUT-M8x1.25x5Hx13B
ø32	NUT-M10x1.25x6Hx17B
ø40	NUT-M14x1.5x8Hx22B
ø50	NUT-M18x1.5x11Hx26B
ø63	
ø80	NUT-M22x1.5x13Hx32B
ø100	NUT-M26x1.5x14Hx35B

Flat washer kits

Code	WS
Fig / Tube I.D.	
ø12	WS-MCJA-12
ø16	WS-MCJA-16
ø20	WS-MCJA-20
ø25	WS-MCJA-25
ø32	WS-MCJA-32
ø40	WS-MCJA-40
ø50	WS-MCJA-50
ø63	WS-MCJA-63
ø80	WS-MCJA-80
ø100	WS-MCJA-100

Weight

Cylinder weight

Unit: g

Model	Basic weight MCJA-11	Basic weight (magnet) MCJA-11	Stroke 5 mm MCJA-11	Basic weight MCJA-12	Basic weight (magnet) MCJA-12	Stroke 5 mm MCJA-12
Tube I.D.						
ø12	43	45	6	41	43	6
ø16	60	65	8	57	63	8
ø20	84	92	11	79	87	11
ø25	101	114	14	106	120	14
ø32	170	187	16	155	173	16
ø40	274	300	23	235	261	23
ø50	448	479	32	384	415	32
ø63	635	699	40	571	634	40
ø80	1178	1275	61	1057	1153	61
ø100	2058	2231	83	1806	1980	83

* The weight is based on 5 mm stroke.

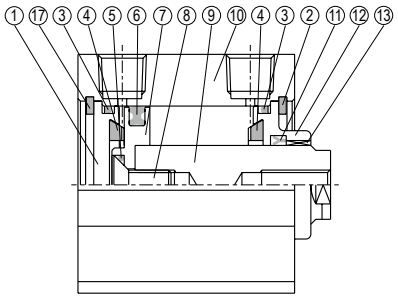
Accessories weight

Model	Rod nut
Tube I.D.	
ø12	1
ø16	1
ø20	2
ø25	4
ø32	8
ø40	18
ø50	32
ø63	32
ø80	56
ø100	56

MCJA-1* Inside structure & Parts list

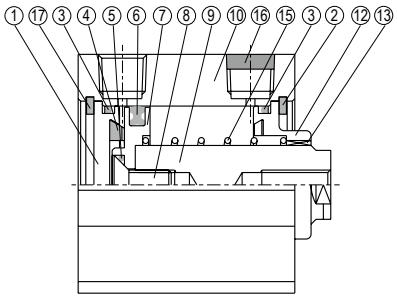
COMPACT CYLINDER

Double acting



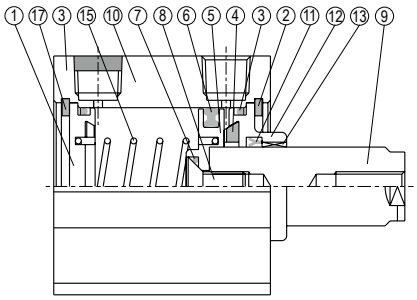
Single acting

Normally returned



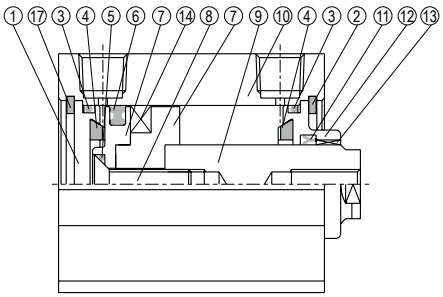
Single acting

Normally extended



Double acting

(with magnet)



Seal kit

	Rod packing		Piston packing		Cover ring	Piston gasket
Acting type	Double action normally extended	Normally returned	Double acting	Single acting	Double acting single acting	Double acting single acting
Q'y	1	0	1	1	2	1
ø12	KSYR-6	–	OPA-12	OPA-12	S-12	d4×w1
ø16	KSYR-6	–	OPA-16	OPA-16	S-14	d4×w1
ø20	KSYR-8	–	OPA-20	OPA-20	S-18	d6×w1
ø25	KSYR-10	–	OPA-25	OPA-25	S-22	d8×w1
ø32	KSYR-12	–	OPA-32	OPA-32	d28×w2	S-9
ø40	KSYR-16	–	OPA-40	OPA-40	S-36	S-9
ø50	KSYR-20	–	OPA-50	OPA-50	AS-31	S-16
ø63	KSYR-20	–	OPA-63	–	AS-35	S-16
ø80	ORA-25	–	OPA-80	–	AS-41	d20×w1
ø100	SDR-30	–	OPA-100	–	S-95	S-26

Material

No.	Part name \ Tube I.D.		12	16	20	25	32	40	50	63	80	100	Q'y	Component parts (inclusion)	Repair kits (inclusion)
1	Head cover		Aluminum alloy										1	●	
2	Snap ring (Front end)		*2	spring steel		*2		Spring steel					1	●	
3	Cover ring		NBR										2	●	●
4	Cushion packing		–		NBR								2	●	●
5	Piston gasket		NBR										1	●	●
6	Piston packing		NBR										1	●	●
7	Piston		Aluminum alloy										1	●	
8	Screw	With magnet	Stainless steel				SCM						1	●	
		Without magnet	SCM	Stainless steel			SCM						1	●	
9	Piston rod *1	With magnet	*2	Carbon steel									1		
		Without magnet	Carbon steel										1		
10	Body		Aluminum alloy										1		
11	Rod packing		NBR										1*3	●	●
12	Rod cover		Aluminum alloy										1	●	
13	Bush		–					Bearing alloy					1	●	
14	Magnet ring		Magnet material										1	●	
15	Spring		SWP							–			1	●	
16	Silencer		Brass							–			1	●	
17	Snap ring (Rear end)		Stainless steel					Spring steel					1	●	

*1. When customized material is bearing steel, only two-side across flat (wrench flat) is available.
*2. Stainless steel
*3. Single acting / Normally returned, Q'y=0.

Order example

Component parts

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

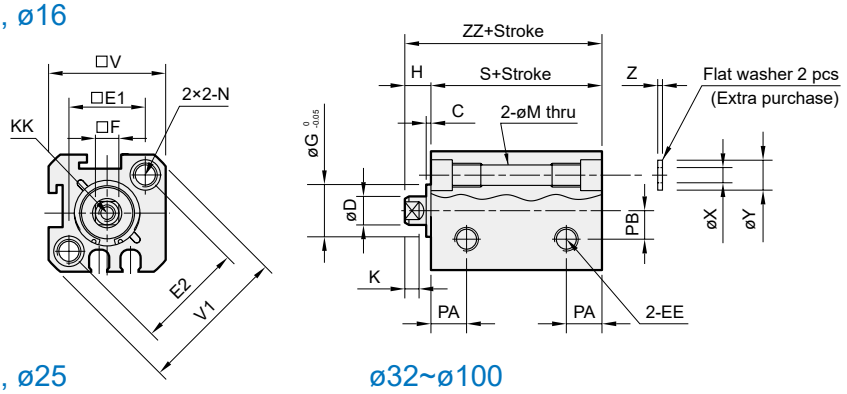
M: With magnet

Repair kits

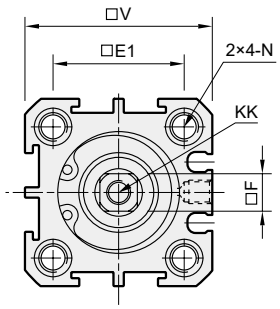
Tube I.D.	Repair kits
ø12	**PS-MCJA-12**
ø16	**PS-MCJA-16**
ø20	**PS-MCJA-20**
ø25	**PS-MCJA-25**
ø32	**PS-MCJA-32**
ø40	**PS-MCJA-40**
ø50	**PS-MCJA-50**
ø63	**PS-MCJA-63**
ø80	**PS-MCJA-80**
ø100	**PS-MCJA-100**

12

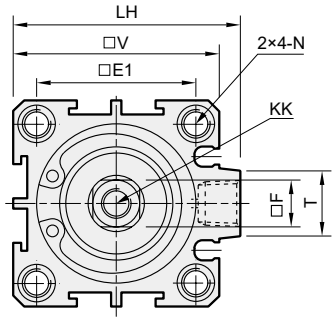
ø12, ø16

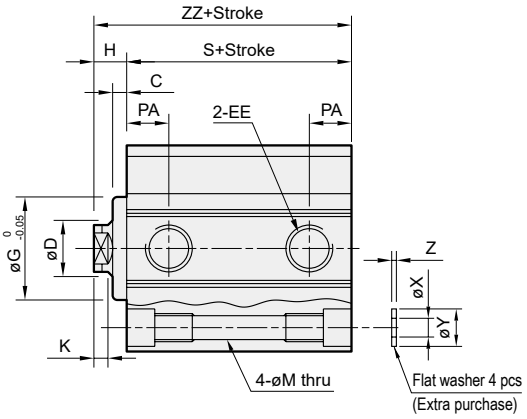


ø20, ø25



ø32~ø100





Long stroke

Without counter bore

With magnet type:
The stroke length must be over 100mm.
Without magnet type:
The stroke length must be over 110mm.

ø12, ø16



ø20~ø100



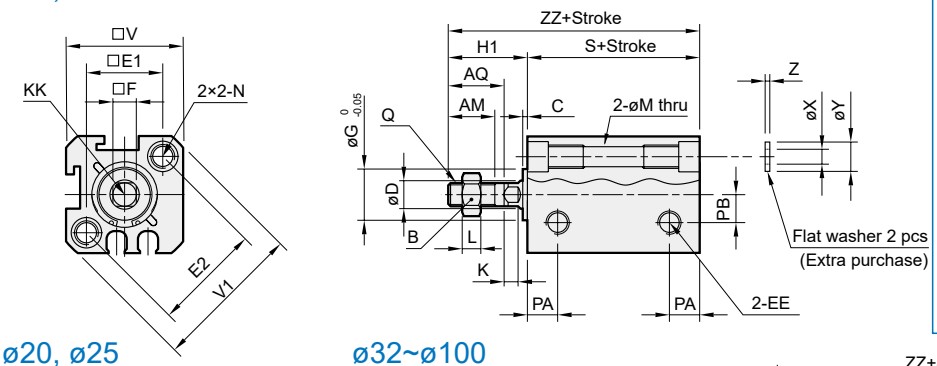
Code / Tube I.D.	C	D	EE	E1	E2	F	G	H	K	KK	LH	M	N	PA	PB
12	1	6	M5×0.8	16.3	23	5	11	5	3	M3×0.5×6depth	–	4.3	ø6.5×4.5depth, M5×0.8×7.5depth	6.5	6
16	1.5	6	M5×0.8	19.8	28	5	11	5.5	3	M3×0.5×6depth	–	4.3	ø6.5×4.5depth, M5×0.8×7.5depth	7	6.5
20	1.5	8	M5×0.8	24	–	6	15	5.5	3	M4×0.7×8depth	–	4.3	ø6.5×4.5depth, M5×0.8×7.5depth	7.5	–
25	2	10	M5×0.8	28	–	8	17	6	3	M5×0.8×10depth	–	5.1	ø9×7depth, M6×1.0×10depth	8	–
32	3	12	Rc1/8 (*1)	34	–	10	22	7	3	M6×1.0×12depth	48.5	5.1	ø9×7depth, M6×1.0×10depth	9	–
40	3	16	Rc1/8 (*1)	40	–	14	28	7	3	M8×1.25×12depth	56.5	6.9	ø10.5×8depth, M8×1.25×12depth	10	–
50	4	20	Rc1/4 (*2)	48	–	17	38	9	3	M10×1.5×15depth	70	6.9	ø11×8.5depth, M8×1.25×16.5depth	10	–
63	4	20	Rc1/4 (*2)	60	–	17	40	9	3	M10×1.5×15depth	83	6.9	ø11×8.5depth, M8×1.25×16.5depth	12	–
80	5	25	Rc3/8 (*3)	74	–	22	45	11	4	M14×1.5×20depth	102	10.5	ø14×10.5depth, M12×1.75×12depth	13	–
100	5	30	Rc3/8 (*3)	90	–	27	55	12	4	M18×1.5×20depth	122	12.3	ø18.5×13depth, M14×2×17depth	17	–

*1. Without magnet with stroke=5mm, EE=M5×0.8
*2. Without magnet with stroke=5mm, EE=Rc1/8
*3. Without magnet with stroke=5mm, EE=Rc1/4

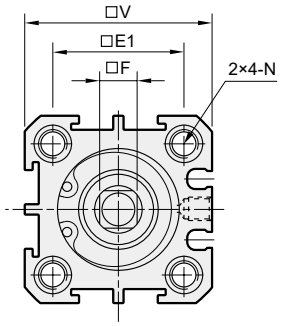
Code / Tube I.D.	T	V	V1	X	Y	Z	Without magnet		Magnet	
							S	ZZ	S	ZZ
12	–	25	32	3.2	6.3	1	17	22	27	32
16	–	29	38	3.2	6.3	1	18.5	24	28.5	34
20	–	34	–	3.2	6.3	1	19.5	25	29.5	35
25	–	40	–	4.2	7.8	1	21	27	31	37
32	14	44	–	4.2	7.8	1	24.5	31.5	34.5	41.5
40	14	52	–	6.2	10.3	1.6	26	33	36	43
50	19	62	–	6.2	10.8	1.6	28	37	38	47
63	20	75	–	6.2	10.8	1.6	32	41	42	51
80	27	94	–	8.2	13.8	1.6	41	52	51	62
100	26	114	–	10.2	17.3	2	51	63	61	73

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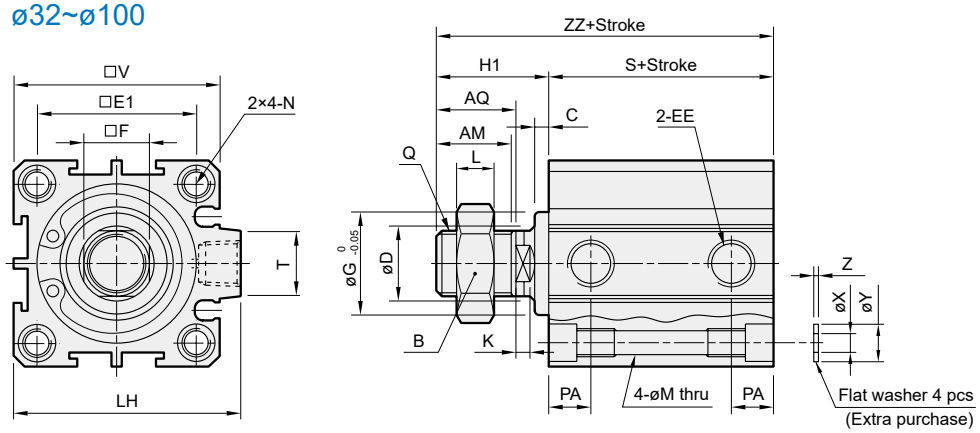
ø12, ø16



ø20, ø25



ø32~ø100



Long stroke

Without counter bore

With magnet type:
The stroke length must be over 100mm.
Without magnet type:
The stroke length must be over 110mm.

ø12, ø16



ø20~ø100



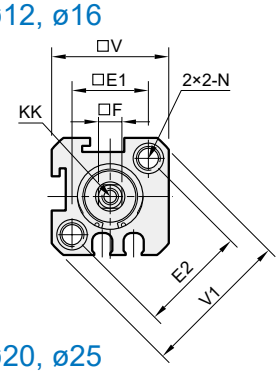
Code / Tube I.D.	AM	AQ	B	C	D	EE	E1	E2	F	G	H1	K	L	LH	M	N	PA	PB
12	10	12	8	1	6	M5×0.8	16.3	23	5	11	17	3	4	–	4.3	ø6.5×4.5depth, M5×0.8×7.5depth	6.5	6
16	10	12	8	1.5	6	M5×0.8	19.8	28	5	11	17.5	3	4	–	4.3	ø6.5×4.5depth, M5×0.8×7.5depth	7	6.5
20	13	15	10	1.5	8	M5×0.8	24	–	6	15	20.5	3	5	–	4.3	ø6.5×4.5depth, M5×0.8×7.5depth	7.5	–
25	15	17	13	2	10	M5×0.8	28	–	8	17	23	3	5	–	5.1	ø9×7depth, M6×1.0×10depth	8	–
32	15	18	17	3	12	Rc1/8 (*1)	34	–	10	22	25	3	6	48.5	5.1	ø9×7depth, M6×1.0×10depth	9	–
40	25	28	22	3	16	Rc1/8 (*1)	40	–	14	28	35	3	8	56.5	6.9	ø10.5×8depth, M8×1.25×12depth	10	–
50	25	28	26	4	20	Rc1/4 (*2)	48	–	17	38	37	3	11	70	6.9	ø11×8.5depth, M8×1.25×16.5depth	10	–
63	25	28	26	4	20	Rc1/4 (*2)	60	–	17	40	37	3	11	83	6.9	ø11×8.5depth, M8×1.25×16.5depth	12	–
80	30	33	32	5	25	Rc3/8 (*3)	74	–	22	45	44	4	13	102	10.5	ø14×10.5depth, M12×1.75×12depth	13	–
100	35	38	35	5	30	Rc3/8 (*3)	90	–	27	55	50	4	14	122	12.3	ø18.5×13depth, M14×2×17depth	17	–

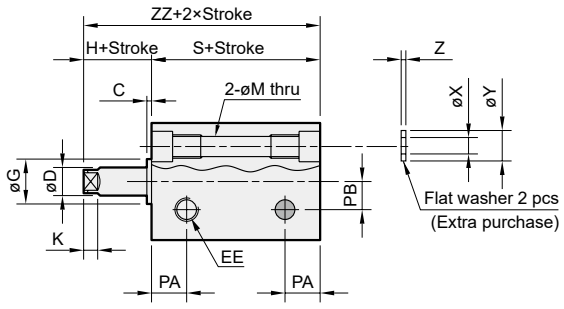
*1. Without magnet with stroke=5mm, EE=M5×0.8
*2. Without magnet with stroke=5mm, EE=Rc1/8
*3. Without magnet with stroke=5mm, EE=Rc1/4

Code / Tube I.D.	Q	T	V	V1	X	Y	Z	Without magnet		Magnet	
								S	ZZ	S	ZZ
12	M5×0.8	–	25	32	3.2	6.3	1	17	34	27	44
16	M5×0.8	–	29	38	3.2	6.3	1	18.5	36	28.5	46
20	M6×1.0	–	34	–	3.2	6.3	1	19.5	40	29.5	50
25	M8×1.25	–	40	–	4.2	7.8	1	21	44	31	54
32	M10×1.25	14	44	–	4.2	7.8	1	24.5	49.5	34.5	59.5
40	M14×1.5	14	52	–	6.2	10.3	1.6	26	61	36	71
50	M18×1.5	19	62	–	6.2	10.8	1.6	28	65	38	75
63	M18×1.5	20	75	–	6.2	10.8	1.6	32	69	42	79
80	M22×1.5	27	94	–	8.2	13.8	1.6	41	85	51	95
100	M26×1.5	26	114	–	10.2	17.3	2	51	101	61	111

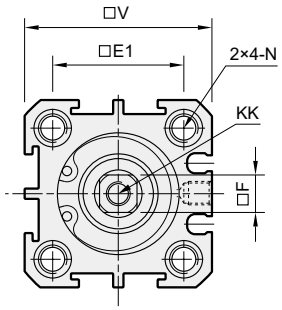
14

ø12, ø16

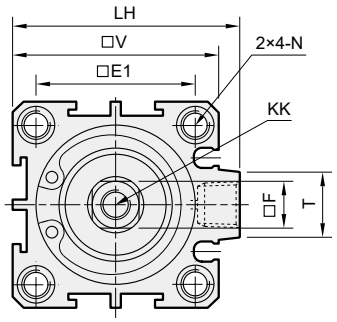


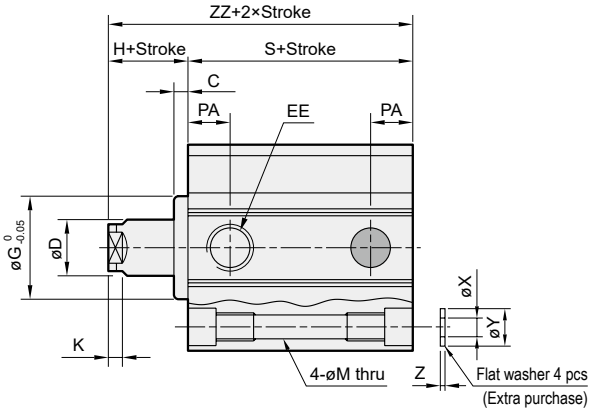


ø20, ø25



ø32~ø50





Long stroke
Without counter bore

With magnet type:
The stroke length must be over 100mm.
Without magnet type:
The stroke length must be over 110mm.

ø12, ø16



ø20~ø50



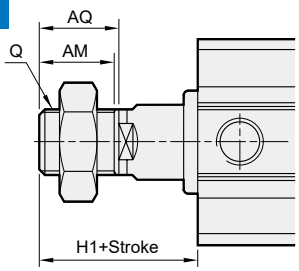
Single acting – Table for standard stroke

Tube I.D.	Stroke (mm)
ø12,16,20,25,32,40	5,10,15,20,25,30
ø50	5,10,15,20

* Please contact us if the stroke is out of specification.

13

Male thread



Code / Tube I.D.	AM	AQ	H1	Q
12	10	12	17	M5×0.8
16	10	12	17.5	M5×0.8
20	13	15	20.5	M6×1.0
25	15	17	23	M8×1.25
32	15	18	25	M10×1.25
40	25	28	35	M14×1.5
50	25	28	37	M18×1.5

Code / Tube I.D.	C	D	EE	E1	E2	F	G	H	K	KK	LH	M	N	PA	PB
12	1	6	M5×0.8	16.3	23	5	11	5	3	M3×0.5×6depth	–	4.3	ø6.5×4.5depth, M5×0.8×7.5depth	6.5	6
16	1.5	6	M5×0.8	19.8	28	5	11	5.5	3	M3×0.5×6depth	–	4.3	ø6.5×4.5depth, M5×0.8×7.5depth	7	6.5
20	1.5	8	M5×0.8	24	–	6	15	5.5	3	M4×0.7×8depth	–	4.3	ø6.5×4.5depth, M5×0.8×7.5depth	7.5	–
25	2	10	M5×0.8	28	–	8	17	6	3	M5×0.8×10depth	–	5.1	ø9×7depth, M6×1.0×10depth	8	–
32	3	12	Rc1/8	34	–	10	22	7	3	M6×1.0×12depth	48.5	5.1	ø9×7depth, M6×1.0×10depth	9	–
40	3	16	Rc1/8	40	–	14	28	7	3	M8×1.25×12depth	56.5	6.9	ø10.5×8depth, M8×1.25×12depth	10	–
50	4	20	Rc1/4 (*)	48	–	17	38	9	3	M10×1.5×15depth	70	6.9	ø11×8.5depth, M8×1.25×16.5depth	10	–

* Without magnet with stroke=5mm, EE=Rc1/8

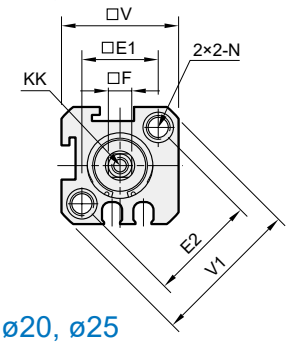
Code / Tube I.D.	T	V	V1	X	Y	Z
12	–	25	32	3.2	6.3	1
16	–	29	38	3.2	6.3	1
20	–	34	–	3.2	6.3	1
25	–	40	–	4.2	7.8	1
32	14	44	–	4.2	7.8	1
40	14	52	–	6.2	10.3	1.6
50	19	62	–	6.2	10.8	1.6

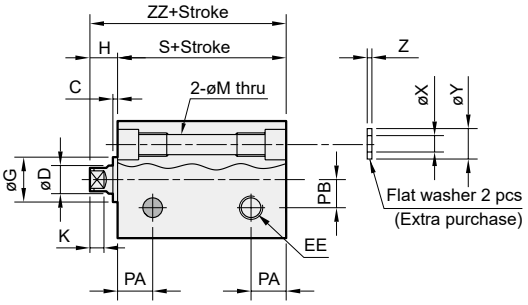
Code / Tube I.D.	Without magnet				Magnet			
	Stroke 5,10		Stroke 15~30		Stroke 5,10		Stroke 15~30	
	S	ZZ	S	ZZ	S	ZZ	S	ZZ
12	27	32	37	42	37	42	47	52
16	28.5	34	38.5	44	38.5	44	48.5	54
20	29.5	35	39.5	45	39.5	45	49.5	55
25	31	37	41	47	41	47	51	57
32	34.5	41.5	44.5	51.5	44.5	51.5	54.5	61.5
40	36	43	46	53	46	53	56	63

Code / Tube I.D.	Without magnet		Magnet	
	Stroke 5~20			
	S	ZZ	S	ZZ
50	28	37	38	47

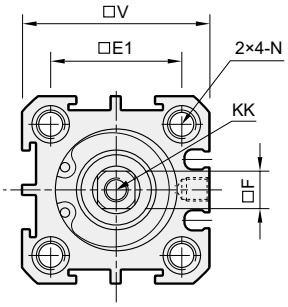
16

ø12, ø16

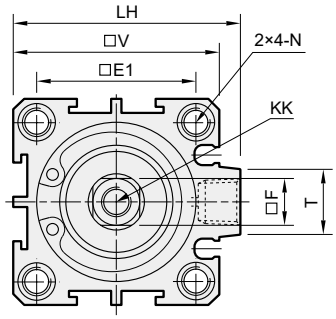


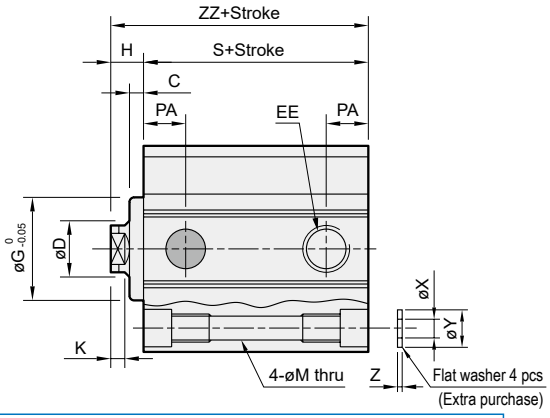


ø20, ø25



ø32~ø50





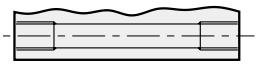
Long stroke
Without counter bore

With magnet type:
The stroke length must be over 100mm.
Without magnet type:
The stroke length must be over 110mm.

ø12, ø16



ø20~ø50



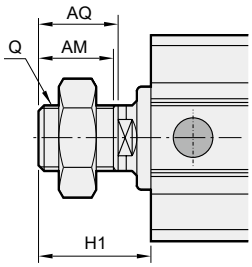
Single acting – Table for standard stroke

Tube I.D.	Stroke (mm)
ø12,16,20,25,32,40	5,10,15,20,25,30
ø50	5,10,15,20

* Please contact us if the stroke is out of specification.

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Male thread



Code / Tube I.D.	AM	AQ	H1	Q
12	10	12	17	M5×0.8
16	10	12	17.5	M5×0.8
20	13	15	20.5	M6×1.0
25	15	17	23	M8×1.25
32	15	18	25	M10×1.25
40	25	28	35	M14×1.5
50	25	28	37	M18×1.5

Code / Tube I.D.	C	D	EE	E1	E2	F	G	H	K	KK	LH	M	N	PA	PB
12	1	6	M5×0.8	16.3	23	5	11	5	3	M3×0.5×6depth	–	4.3	ø6.5×4.5depth, M5×0.8×7.5depth	6.5	6
16	1.5	6	M5×0.8	19.8	28	5	11	5.5	3	M3×0.5×6depth	–	4.3	ø6.5×4.5depth, M5×0.8×7.5depth	7	6.5
20	1.5	8	M5×0.8	24	–	6	15	5.5	3	M4×0.7×8depth	–	4.3	ø6.5×4.5depth, M5×0.8×7.5depth	7.5	–
25	2	10	M5×0.8	28	–	8	17	6	3	M5×0.8×10depth	–	5.1	ø9×7depth, M6×1.0×10depth	8	–
32	3	12	Rc1/8	34	–	10	22	7	3	M6×1.0×12depth	48.5	5.1	ø9×7depth, M6×1.0×10depth	9	–
40	3	16	Rc1/8	40	–	14	28	7	3	M8×1.25×12depth	56.5	6.9	ø10.5×8depth, M8×1.25×12depth	10	–
50	4	20	Rc1/4 (*)	48	–	17	38	9	3	M10×1.5×15depth	70	6.9	ø11×8.5depth, M8×1.25×16.5depth	10	–

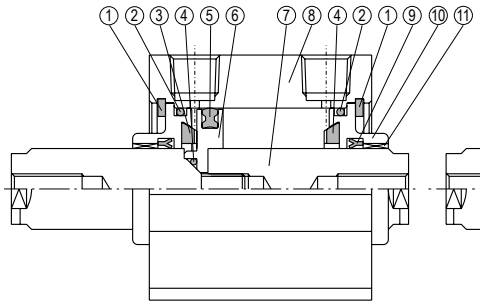
* Without magnet with stroke=5mm, EE=Rc1/8

Code / Tube I.D.	T	V	V1	X	Y	Z
12	–	25	32	3.2	6.3	1
16	–	29	38	3.2	6.3	1
20	–	34	–	3.2	6.3	1
25	–	40	–	4.2	7.8	1
32	14	44	–	4.2	7.8	1
40	14	52	–	6.2	10.3	1.6
50	19	62	–	6.2	10.8	1.6

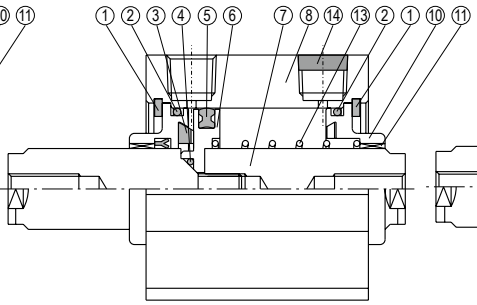
Code / Tube I.D.	Without magnet				Magnet			
	Stroke 5,10		Stroke 15~30		Stroke 5,10		Stroke 15~30	
	S	ZZ	S	ZZ	S	ZZ	S	ZZ
12	27	32	37	42	37	42	47	52
16	28.5	34	38.5	44	38.5	44	48.5	54
20	29.5	35	39.5	45	39.5	45	49.5	55
25	31	37	41	47	41	47	51	57
32	34.5	41.5	44.5	51.5	44.5	51.5	54.5	61.5
40	36	43	46	53	46	53	56	63

Code / Tube I.D.	Without magnet		Magnet	
	Stroke 5~20			
	S	ZZ	S	ZZ
50	28	37	38	47

Double acting

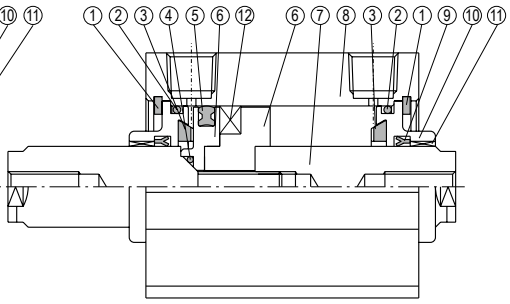


Single acting



Double acting

(with magnet)

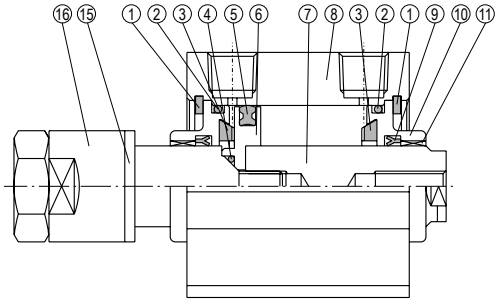


Seal kit

	Rod packing		Piston packing		Cover ring	Piston gasket
Acting type	Double acting	Single acting	Double acting	Single acting	Double acting / single acting	Double acting / single acting
Q'y	2	1	1	1	2	1
ø12	KSYR-6	KSYR-6	OPA-12	OPA-12	d11×w1	d4×w1
ø16	KSYR-6	KSYR-6	OPA-16	OPA-16	S-14	d4×w1
ø20	KSYR-8	KSYR-8	OPA-20	OPA-20	S-18	d6×w1
ø25	KSYR-10	KSYR-10	OPA-25	OPA-25	S-22	d6×w1
ø32	KSYR-12	KSYR-12	OPA-32	OPA-32	d28×w2	d8×w1
ø40	KSYR-16	KSYR-16	OPA-40	OPA-40	S-36	d11×w1
ø50	KSYR-20	KSYR-20	OPA-50	OPA-50	AS-31	S-14
ø63	KSYR-20	–	OPA-63	–	AS-35	S-14
ø80	ORA-25	–	OPA-80	–	AS-41	S-18
ø100	SDR-30	–	OPA-100	–	S-95	S-26

Double acting

Adjustable stroke



Material

No.	Tube I.D. / Part name	12	16	20	25	32	40	50	63	80	100	Q'y	Component parts (inclusion)	Repair kits (inclusion)
1	Snap ring (Front end)	*2	Spring steel		*2		Spring steel					2	●	
2	Cover ring	NBR										2	●	●
3	Cushion packing	–	NBR									2	●	●
4	Piston gasket	NBR										1	●	●
5	Piston packing	NBR										1	●	●
6	Piston	Aluminum alloy										1	●	
7	Piston rod *1 With magnet	Stainless steel			Carbon steel							2		
	Piston rod *1 Without magnet	*2	Carbon steel									2		
8	Body	Aluminum alloy										1		
9	Rod packing	NBR										2*3	●	●
10	Rod cover	Aluminum alloy										2	●	
11	Bush	–					Bearing alloy					2	●	
12	Magnet ring	Magnet material										1	●	
13	Spring	SWP							–			1	●	
14	Silencer	Brass							–			1	●	
15	Cushion packing	PU										1	●	
16	Adjustable nut	Carbon steel										1	●	

*1. When customized material is bearing steel, only two-side across flat (wrench flat) is available.
*2. Stainless steel
*3. Single acting type, Q'y=1

Order example

Component parts

Tube I.D.	Component parts
ø12	**CP-MCJA-2-12(M)**
ø16	**CP-MCJA-2-16(M)**
ø20	**CP-MCJA-2-20(M)**
ø25	**CP-MCJA-2-25(M)**
ø32	**CP-MCJA-2-32(M)**
ø40	**CP-MCJA-2-40(M)**
ø50	**CP-MCJA-2-50(M)**
ø63	**CP-MCJA-2-63(M)**
ø80	**CP-MCJA-2-80(M)**
ø100	**CP-MCJA-2-100(M)**

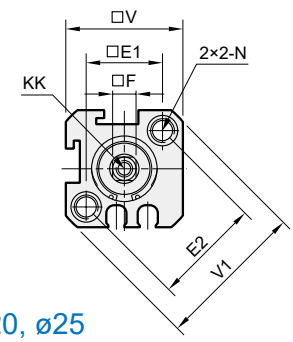
M: With magnet

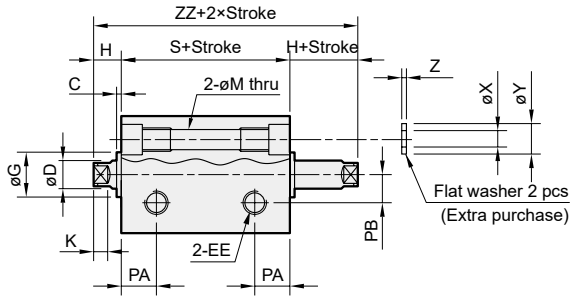
Repair kits

Tube I.D.	Repair kits
ø12	**PS-MCJA-2-12**
ø16	**PS-MCJA-2-16**
ø20	**PS-MCJA-2-20**
ø25	**PS-MCJA-2-25**
ø32	**PS-MCJA-2-32**
ø40	**PS-MCJA-2-40**
ø50	**PS-MCJA-2-50**
ø63	**PS-MCJA-2-63**
ø80	**PS-MCJA-2-80**
ø100	**PS-MCJA-2-100**

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ø12, ø16





Long stroke

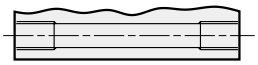
Without counter bore

With magnet type:
The stroke length must be over 100mm.
Without magnet type:
The stroke length must be over 110mm.

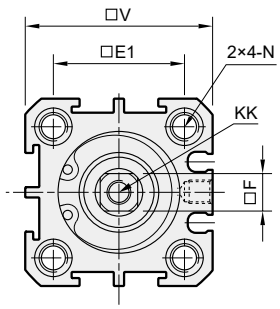
ø12, ø16



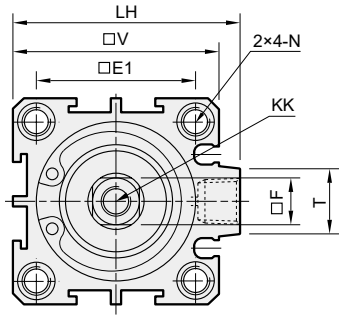
ø20~ø100

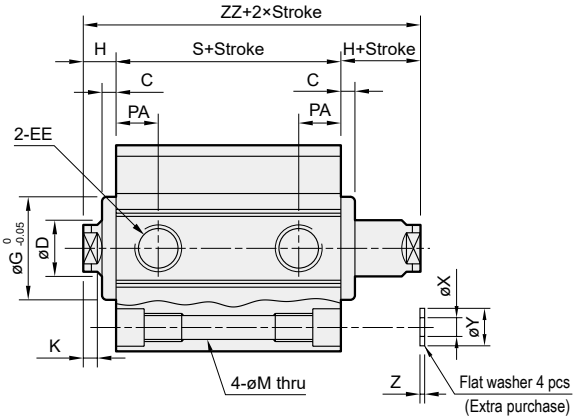


ø20, ø25



ø32~ø100



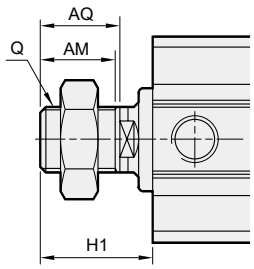


Code / Tube I.D.	AM	AQ	C	D	EE	E1	E2	F	G	H	H1	K
12	10	12	1	6	M5×0.8	16.3	23	5	11	5	17	3
16	10	12	1.5	6	M5×0.8	19.8	28	5	11	5.5	17.5	3
20	13	15	1.5	8	M5×0.8	24	–	6	15	5.5	20.5	3
25	15	17	2	10	M5×0.8	28	–	8	17	6	23	3
32	15	18	3	12	Rc1/8 (*1)	34	–	10	22	7	25	3
40	25	28	3	16	Rc1/8 (*1)	40	–	14	28	7	35	3
50	25	28	4	20	Rc1/4 (*2)	48	–	17	38	9	37	3
63	25	28	4	20	Rc1/4 (*2)	60	–	17	40	9	37	3
80	30	33	5	25	Rc3/8 (*3)	74	–	22	45	11	44	4
100	35	38	5	30	Rc3/8 (*3)	90	–	27	55	12	50	4

*1. Without magnet with stroke=5mm, EE=M5×0.8
*2. Without magnet with stroke=5mm, EE=Rc1/8
*3. Without magnet with stroke=5mm, EE=Rc1/4

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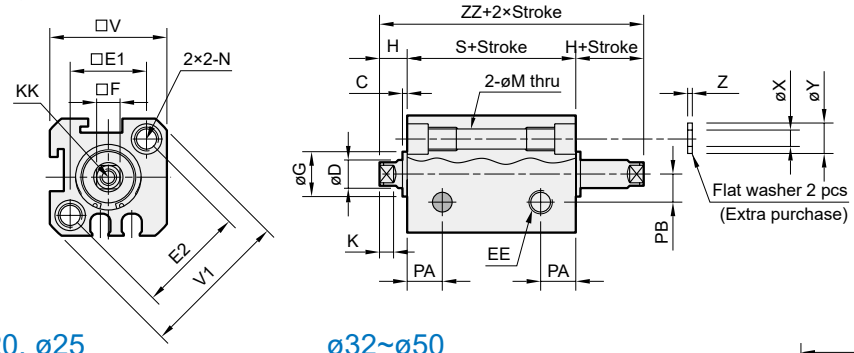
Male thread



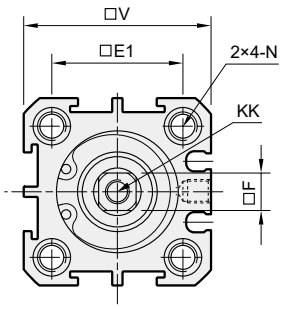
Code / Tube I.D.	KK	LH	M	N	PA	PB	Q	T	V	V1	X	Y	Z	Without magnet		Magnet	
														S	ZZ	S	ZZ
12	M3×0.5×6 dp	–	4.3	ø6.5×4.5 dp, M5×0.8×7.5 dp	6.5	6	M5×0.8	–	25	32	3.2	6.3	1	17	27	27	37
16	M3×0.5×6 dp	–	4.3	ø6.5×4.5 dp, M5×0.8×7.5 dp	7	6.5	M5×0.8	–	29	38	3.2	6.3	1	18.5	29.5	28.5	39.5
20	M4×0.7×8 dp	–	4.3	ø6.5×4.5 dp, M5×0.8×7.5 dp	7.5	–	M6×1.0	–	34	–	3.2	6.3	1	19.5	30.5	29.5	40.5
25	M5×0.8×10 dp	–	5.1	ø9×7 dp, M6×1.0×10 dp	8	–	M8×1.25	–	40	–	4.2	7.8	1	21	33	31	43
32	M6×1.0×12 dp	48.5	5.1	ø9×7 dp, M6×1.0×10 dp	9	–	M10×1.25	14	44	–	4.2	7.8	1	24.5	38.5	34.5	48.5
40	M8×1.25×12 dp	56.5	6.9	ø10.5×8 dp, M8×1.25×12 dp	10	–	M14×1.5	14	52	–	6.2	10.3	1.6	26	40	36	50
50	M10×1.5×15 dp	70	6.9	ø11×8.5 dp, M8×1.25×16.5 dp	10	–	M18×1.5	19	62	–	6.2	10.8	1.6	28	46	38	56
63	M10×1.5×15 dp	83	6.9	ø11×8.5 dp, M8×1.25×16.5 dp	12	–	M18×1.5	20	75	–	6.2	10.8	1.6	32	50	42	60
80	M14×1.5×20 dp	102	10.5	ø14×10.5 dp, M12×1.75×12 dp	13	–	M22×1.5	27	94	–	8.2	13.8	1.6	41	63	51	73
100	M18×1.5×20 dp	122	12.3	ø18.5×13 dp, M14×2×17 dp	17	–	M26×1.5	26	114	–	10.2	17.3	2	51	75	61	85

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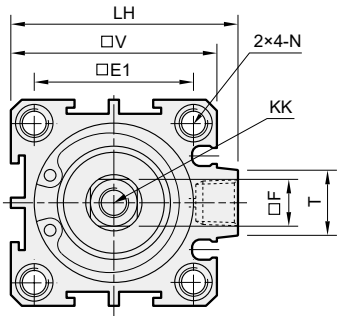
ø12, ø16

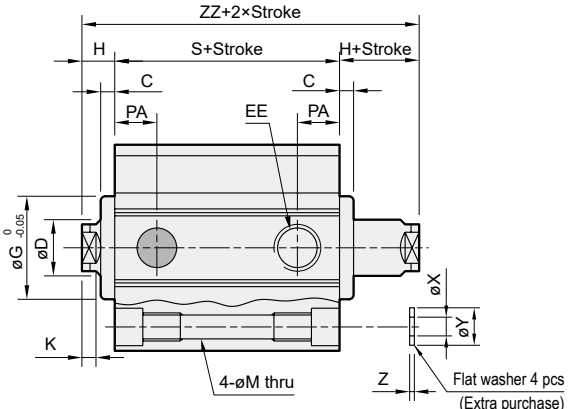


ø20, ø25



ø32~ø50





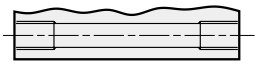
Long stroke
Without counter bore

With magnet type:
The stroke length must be over 100mm.
Without magnet type:
The stroke length must be over 110mm.

ø12, ø16



ø20~ø50



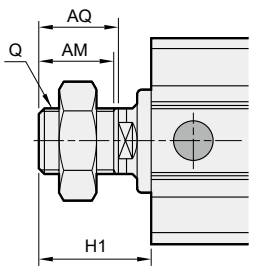
Single acting – Table for standard stroke

Tube I.D.	Stroke (mm)
ø12,16,20,25,32,40	5,10,15,20,25,30
ø50	5,10,15,20

* Please contact us if the stroke is out of specification.

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Male thread



Code / Tube I.D.	AM	AQ	H1	Q
12	10	12	17	M5×0.8
16	10	12	17.5	M5×0.8
20	13	15	20.5	M6×1.0
25	15	17	23	M8×1.25
32	15	18	25	M10×1.25
40	25	28	35	M14×1.5
50	25	28	37	M18×1.5

Code / Tube I.D.	C	D	EE	E1	E2	F	G	H	K	KK	LH	M	N	PA	PB
12	1	6	M5×0.8	16.3	23	5	11	5	3	M3×0.5×6depth	–	4.3	ø6.5×4.5depth, M5×0.8×7.5depth	6.5	6
16	1.5	6	M5×0.8	19.8	28	5	11	5.5	3	M3×0.5×6depth	–	4.3	ø6.5×4.5depth, M5×0.8×7.5depth	7	6.5
20	1.5	8	M5×0.8	24	–	6	15	5.5	3	M4×0.7×8depth	–	4.3	ø6.5×4.5depth, M5×0.8×7.5depth	7.5	–
25	2	10	M5×0.8	28	–	8	17	6	3	M5×0.8×10depth	–	5.1	ø9×7depth, M6×1.0×10depth	8	–
32	3	12	Rc1/8	34	–	10	22	7	3	M6×1.0×12depth	48.5	5.1	ø9×7depth, M6×1.0×10depth	9	–
40	3	16	Rc1/8	40	–	14	28	7	3	M8×1.25×12depth	56.5	6.9	ø10.5×8depth, M8×1.25×12depth	10	–
50	4	20	Rc1/4 (*)	48	–	17	38	9	3	M10×1.5×15depth	70	6.9	ø11×8.5depth, M8×1.25×16.5depth	10	–

* Without magnet with stroke=5mm, EE=Rc1/8

Code / Tube I.D.	T	V	V1	X	Y	Z
12	–	25	32	3.2	6.3	1
16	–	29	38	3.2	6.3	1
20	–	34	–	3.2	6.3	1
25	–	40	–	4.2	7.8	1
32	14	44	–	4.2	7.8	1
40	14	52	–	6.2	10.3	1.6
50	19	62	–	6.2	10.8	1.6

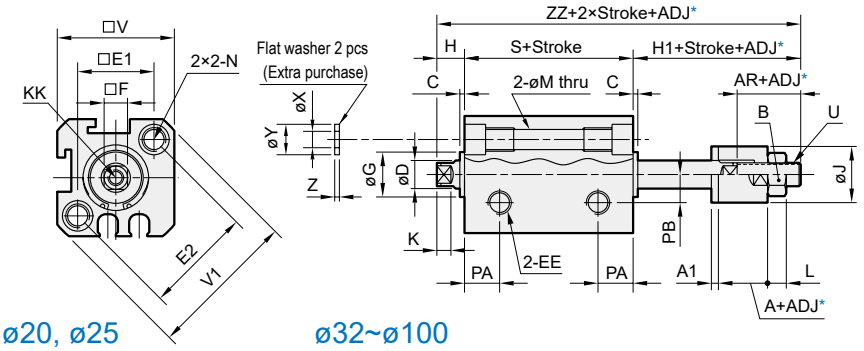
Code / Tube I.D.	Without magnet				Magnet			
	Stroke 5,10		Stroke 15~30		Stroke 5,10		Stroke 15~30	
	S	ZZ	S	ZZ	S	ZZ	S	ZZ
12	27	37	37	47	37	47	47	57
16	28.5	39.5	38.5	49.5	38.5	49.5	48.5	59.5
20	29.5	40.5	39.5	50.5	39.5	50.5	49.5	60.5
25	31	43	41	53	41	53	51	63
32	34.5	48.5	44.5	58.5	44.5	58.5	54.5	68.5
40	36	50	46	60	46	60	56	70

Code / Tube I.D.	Without magnet		Magnet	
	Stroke 5~20			
	S	ZZ	S	ZZ
50	28	46	38	56

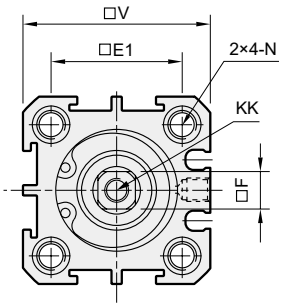
28

ø12, ø16

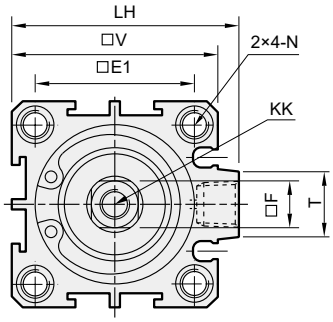
*ADJ: Adjustable stroke

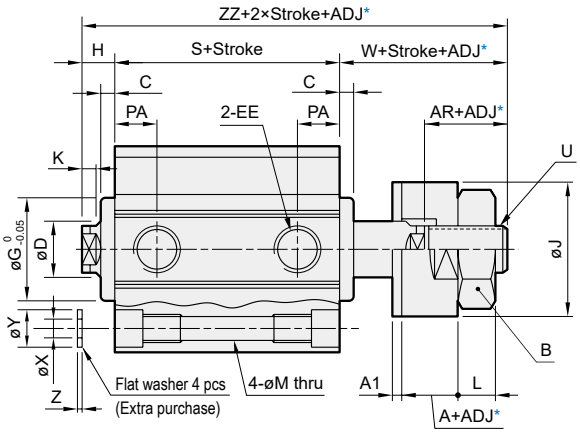


ø20, ø25



ø32~ø100





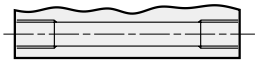
Long stroke
Without counter bore

With magnet type:
The stroke length must be over 100mm.
Without magnet type:
The stroke length must be over 110mm.

ø12, ø16



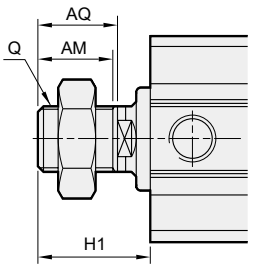
ø20, ø100



Code / Tube I.D.	A	AM	AQ	A1	AR	B	C	D	EE	E1	E2	F	G	H	H1	J	K	KK
12	13	10	12	2	16	8	1	6	M5×0.8	16.3	23	5	11	5	17	12	3	M3×0.5×6 dp
16	13	10	12	2	16.5	8	1.5	6	M5×0.8	19.8	28	5	11	5.5	17.5	12	3	M3×0.5×6 dp
20	15	13	15	2	19	13	1.5	8	M5×0.8	24	–	6	15	5.5	20.5	16	3	M4×0.7×8 dp
25	15	15	17	2	19.5	13	2	10	M5×0.8	28	–	8	17	6	23	16	3	M5×0.8×10 dp
32	12	15	18	2	18	17	3	12	Rc1/8 (*1)	34	–	10	22	7	25	20	3	M6×1.0×12 dp
40	12	25	28	2	20	19	3	16	Rc1/8 (*1)	40	–	14	28	7	35	30	3	M8×1.25×12 dp
50	15	25	28	2	22	24	4	20	Rc1/4 (*2)	48	–	17	38	9	37	40	3	M10×1.5×15 dp
63	15	25	28	2	22	24	4	20	Rc1/4 (*2)	60	–	17	40	9	37	40	3	M10×1.5×15 dp
80	20	30	33	3	33	32	5	25	Rc3/8 (*3)	74	–	22	45	11	44	50	4	M14×1.5×20 dp
100	20	35	38	3	33	32	5	30	Rc3/8 (*3)	90	–	27	55	12	50	50	4	M18×1.5×20 dp

*1. Without magnet with stroke=5mm, EE=M5×0.8
*2. Without magnet with stroke=5mm, EE=Rc1/8
*3. Without magnet with stroke=5mm, EE=Rc1/4

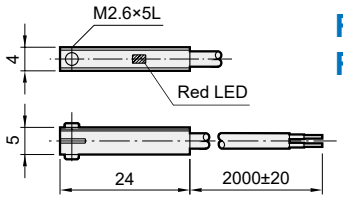
27 Male thread



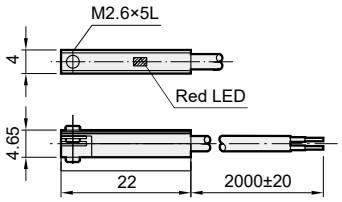
Code / Tube I.D.	L	LH	M	N	PA	PB	Q	T	U	V	V1	W	X	Y	Z	Without magnet		Magnet	
																S	ZZ	S	ZZ
12	4	–	4.3	ø6.5×4.5 dp, M5×0.8×7.5 dp	6.5	6	M5×0.8	–	M5×0.8	25	32	22.5	3.2	6.3	1	17	44.5	27	54.5
16	4	–	4.3	ø6.5×4.5 dp, M5×0.8×7.5 dp	7	6.5	M5×0.8	–	M5×0.8	29	38	23.5	3.2	6.3	1	18.5	47.5	28.5	57.5
20	5	–	4.3	ø6.5×4.5 dp, M5×0.8×7.5 dp	7.5	–	M6×1.0	–	M8×1.25	34	–	26	3.2	6.3	1	19.5	51	29.5	61
25	5	–	5.1	ø9×7 dp, M6×1.0×10 dp	8	–	M8×1.25	–	M8×1.25	40	–	27.2	4.2	7.8	1	21	54.2	31	64.2
32	6	48.5	5.1	ø9×7 dp, M6×1.0×10 dp	9	–	M10×1.25	14	M10×1.25	44	–	26	4.2	7.8	1	24.5	57.5	34.5	67.5
40	7	56.5	6.9	ø10.5×8 dp, M8×1.25×12 dp	10	–	M14×1.5	14	M12×1.25	52	–	28	6.2	10.3	1.6	26	61	36	71
50	8	70	6.9	ø11×8.5 dp, M8×1.25×16.5 dp	10	–	M18×1.5	19	M16×1.5	62	–	31	6.2	10.8	1.6	28	68	38	78
63	8	83	6.9	ø11×8.5 dp, M8×1.25×16.5 dp	12	–	M18×1.5	20	M16×1.5	75	–	31	6.2	10.8	1.6	32	72	42	82
80	13	102	10.5	ø14×10.5 dp, M12×1.75×12 dp	13	–	M22×1.5	27	M22×1.5	94	–	44	8.2	13.8	1.6	41	96	51	106
100	13	122	12.3	ø18.5×13 dp, M14×2×17 dp	17	–	M26×1.5	26	M22×1.5	114	–	44	10.2	17.3	2	51	107	61	117

Dimensions

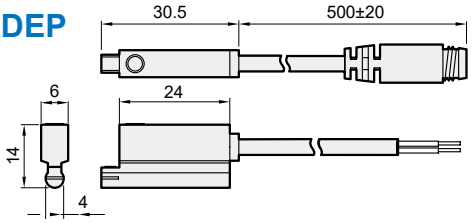
RCE



RCE1 RNE

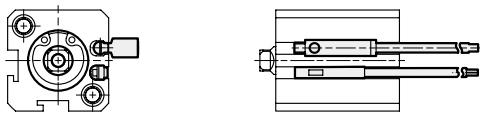


RDEP

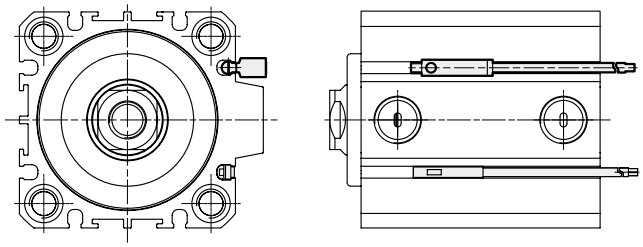


Installation of sensor switch

ø12~ø40



ø50~ø100



Order example

RCE1 — □

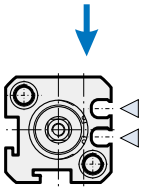
MODEL
RCE / RCE1 (**C**: Reed switch)
RNE (**N**: Solid state switch)
RDEP (Solid state switch)

WIRE LENGTH
1M: L=1000m
2M: L=2000m
QD: M8 3Pin connector
EQD: M8 3Pin connector

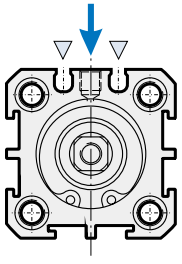
Description

▽ **RCE, RCE1, RDEP** switch ↓ **Port**

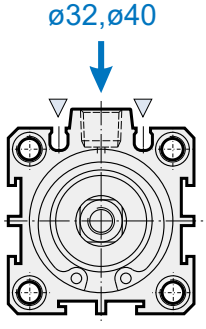
ø12,ø16



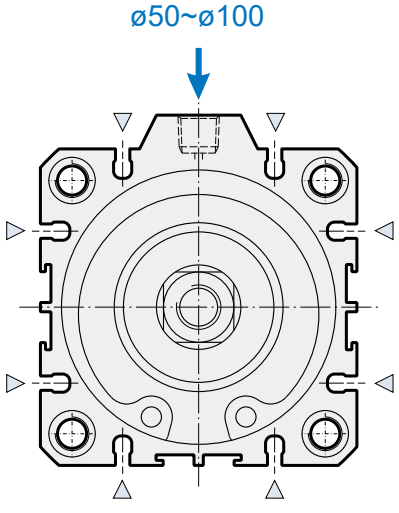
ø20,ø25



ø32,ø40



ø50~ø100



Special spec

Rod end shape

Technical data

Caution for safety
(Read before installing)



Features

Two-stage stroke: Two compact cylinders with same I.D. but different strokes length are connected to achieve two-stage stroke.

Specification

Model	MCJA-3*									
Acting type	Double acting / Single acting							Double acting		
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 perssure range (MPa) Double acting	0.05~1		0.03~1		0.02~1					
Operating perssure range (MPa) Single acting	0.2~1		0.15~1		0.1~1			–		
Proof pressure	1.5 MPa									
Ambient temperature	-5~+60°C (No freezing)									
Available speed range	50~500 mm/sec									
Sensor switch (*)	RCE, RCE1, RDEP									

* RDEP only for tube I.D. ø12~ø50.

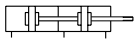
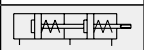
Order example

MCJA — 32 — 40 — 10×25 M — □

- MCJA — MODEL
- 32 — **3**: Multiple position
- 40 — TUBE I.D.
- 10×25 — (*) STROKE1×STROKE2
  - Stroke 1: First stroke
  - Stroke 2: Total stroke
- M — **M**: Magnet
- □ — PORT THREAD
  - Blank: M5×0.8 (for ø12~ø25)
  - Blank: Rc thread
  - **G**: G thread
  - **NPT**: NPT thread (for ø32~ø100)

* The total stroke must be greater than the first stroke.

STYLE

Code		Symbol	Description
3	1		Double acting / Male thread
3	2		Double acting / Female thread
3	5		Single acting / Normally returned male thread
3	6		Single acting / Normally returned female thread

Double acting – Table for standard stroke

Tube I.D.	Stroke (mm)	Max. stroke (mm)	
		First	Total
ø12,16	5,10,15,20,25,30	130	300
ø20,25,32 ø40,50,63,80	5,10,15,20,25,30,35,40,45,50	130	300
ø100	5,10,15,20,25,30,35,40,45,50	120	125

* Please contact us if the stroke is out of specification.

Flat washer kits

WS — MCJA — 3 — 40

- WS — FLAT WASHER
- MCJA — MODEL
- 3 — MULTIPLE POSITION
- 40 — TUBE I.D.

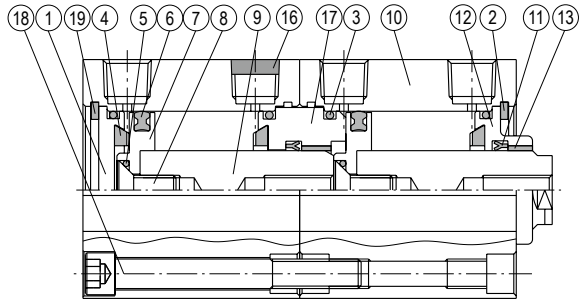
* Only for tube I.D. ø20~ø100.

Single acting – Table for standard stroke

Tube I.D.	Stroke (mm)
ø12,16,20,25,32,40	5,10,15,20,25,30
ø50	5,10,15,20

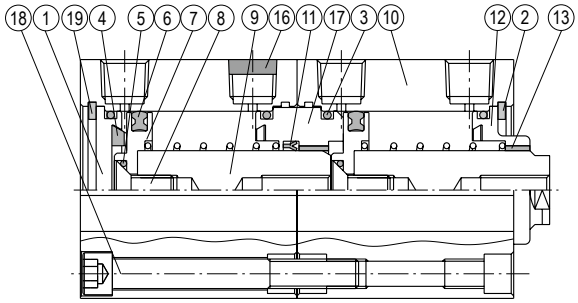
* Please contact us if the stroke is out of specification.

Double acting



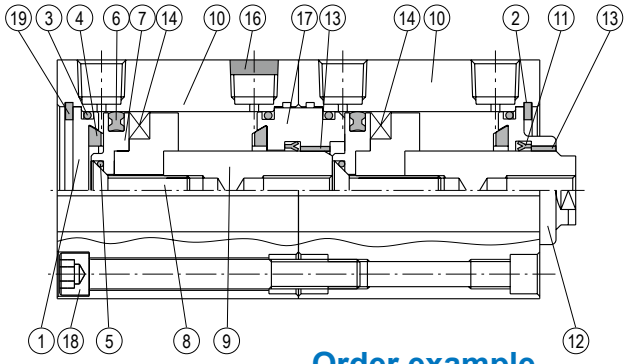
Single acting

Normally returned



Double acting

(with magnet)



Seal kit

	Rod packing		Piston packing		Cover ring	Piston gasket
Acting type	Double acting	Normally returned	Double acting	Single acting	Double acting single acting	Double acting single acting
Q'y	2	1	2	2	4	2
ø12	KSYR-6	KSYR-6	OPA-12	OPA-12	S-12	d4×w1
ø16	KSYR-6	KSYR-6	OPA-16	OPA-16	S-14	d4×w1
ø20	KSYR-8	KSYR-8	OPA-20	OPA-20	S-18	d6×w1
ø25	KSYR-10	KSYR-10	OPA-25	OPA-25	S-22	d8×w1
ø32	KSYR-12	KSYR-12	OPA-32	OPA-32	d28×w2	S-9
ø40	KSYR-16	KSYR-16	OPA-40	OPA-40	S-36	S-9
ø50	KSYR-20	KSYR-20	OPA-50	OPA-50	AS-31	S-16
ø63	KSYR-20	–	OPA-63	–	AS-35	S-16
ø80	ORA-25	–	OPA-80	–	AS-41	d20×w1
ø100	SDR-30	–	OPA-100	–	S-95	S-26

Material

No.	Part name \ Tube I.D.		12	16	20	25	32	40	50	63	80	100	Q'y	Component parts (inclusion)	Repair kits (inclusion)
1	Head cover		Aluminum alloy										1	●	
2	Snap ring (Front end)		*2	Spring steel		*2		Spring steel					1	●	
3	Cover ring		NBR										4	●	●
4	Cushion packing		–	NBR									4	●	●
5	Piston gasket		NBR										2	●	●
6	Piston packing		NBR										2	●	●
7	Piston		Aluminum alloy										2	●	
8	Screw	With magnet	Stainless steel				SCM						2	●	
		Without magnet	SCM	Stainless steel			SCM						2	●	
9	Piston rod *1	With magnet	*2	Carbon steel									2		
		Without magnet	Carbon steel										2		
10	Body		Aluminum alloy										2		
11	Rod packing		NBR										2*3	●	●
12	Rod cover		Aluminum alloy										1	●	
13	Bush		–					Bearing alloy					2	●	
14	Magnet ring		Magnet material										2	●	
15	Spring		SWP							–			2	●	
16	Silencer		Brass							–			1	●	
17	Center cover		Aluminum alloy										1	●	
18	Bolt		SCM										2		
19	Snap ring (Rear end)		Stainless steel					Spring steel					1	●	

*1. When customized material is bearing steel, only two-side across flat (wrench flat) is available.
*2. Stainless steel
*3. Single acting / Normally returned, Q'y=1

Order example

Component parts

Tube I.D.	Component parts
ø12	**CP-MCJA-3-12(M)**
ø16	**CP-MCJA-3-16(M)**
ø20	**CP-MCJA-3-20(M)**
ø25	**CP-MCJA-3-25(M)**
ø32	**CP-MCJA-3-32(M)**
ø40	**CP-MCJA-3-40(M)**
ø50	**CP-MCJA-3-50(M)**
ø63	**CP-MCJA-3-63(M)**
ø80	**CP-MCJA-3-80(M)**
ø100	**CP-MCJA-3-100(M)**

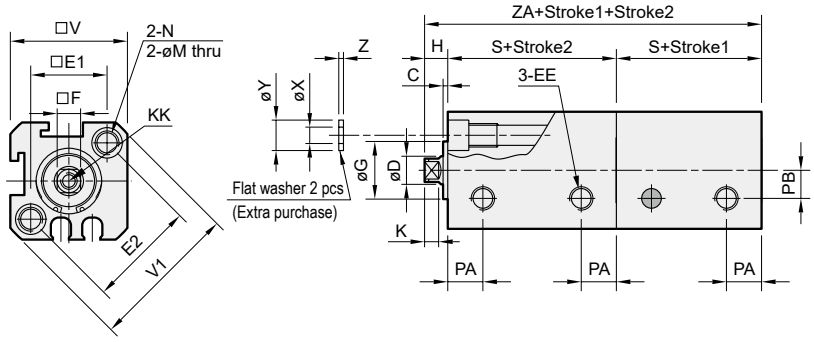
M: With magnet

Repair kits

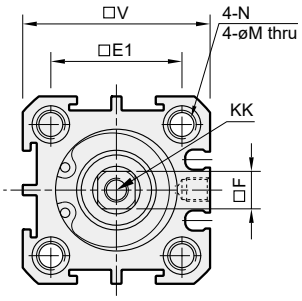
Tube I.D.	Repair kits
ø12	**PS-MCJA-3-12**
ø16	**PS-MCJA-3-16**
ø20	**PS-MCJA-3-20**
ø25	**PS-MCJA-3-25**
ø32	**PS-MCJA-3-32**
ø40	**PS-MCJA-3-40**
ø50	**PS-MCJA-3-50**
ø63	**PS-MCJA-3-63**
ø80	**PS-MCJA-3-80**
ø100	**PS-MCJA-3-100**

32

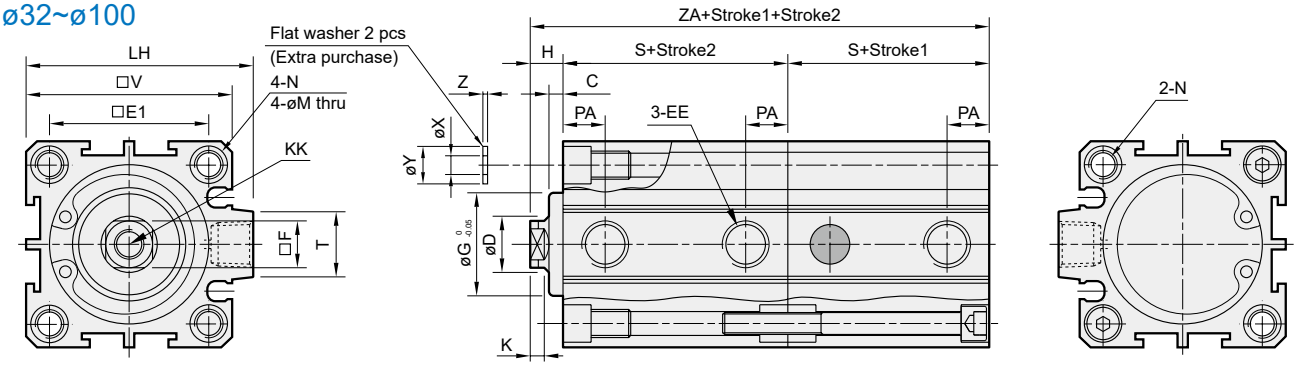
ø12, ø16



ø20, ø25



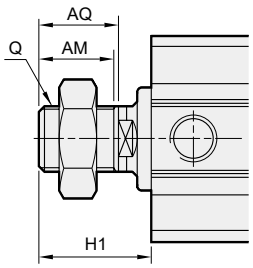
ø32~ø100



*Stroke 1: First stroke Stroke 2: Total stroke

Code / Tube I.D.	AM	AQ	C	D	EE	E1	E2	F	G	H	H1	K
12	10	12	1	6	M5×0.8	16.3	23	5	11	5	17	3
16	10	12	1.5	6	M5×0.8	19.8	28	5	11	5.5	17.5	3
20	13	15	1.5	8	M5×0.8	24	–	6	15	5.5	20.5	3
25	15	17	2	10	M5×0.8	28	–	8	17	6	23	3
32	15	18	3	12	Rc1/8 (*1)	34	–	10	22	7	25	3
40	25	28	3	16	Rc1/8 (*1)	40	–	14	28	7	35	3
50	25	28	4	20	Rc1/4 (*2)	48	–	17	38	9	37	3
63	25	28	4	20	Rc1/4 (*2)	60	–	17	40	9	37	3
80	30	33	5	25	Rc3/8 (*3)	74	–	22	45	11	44	4
100	35	38	5	30	Rc3/8 (*3)	90	–	27	55	12	50	4

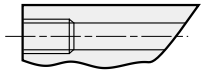
31 Male thread



Long stroke
Without counter bore

With magnet type:
The stroke length must be over 100mm.
Without magnet type:
The stroke length must be over 110mm.

ø12~ø100



*1. Without magnet with stroke=5mm, EE=M5×0.8
*2. Without magnet with stroke=5mm, EE=Rc1/8
*3. Without magnet with stroke=5mm, EE=Rc1/4

Code / Tube I.D.	KK	LH	M	N	PA	PB	Q	T	V	V1	X	Y	Z	Without magnet		Magnet	
														S	ZA	S	ZA
12	M3×0.5×6depth	–	4.3	ø6.5×4.5depth, M5×0.8×7.5depth	6.5	6	M5×0.8	–	25	32	3.2	6.3	1	17	39	27	59
16	M3×0.5×6depth	–	4.3	ø6.5×4.5depth, M5×0.8×7.5depth	7	6.5	M5×0.8	–	29	38	3.2	6.3	1	18.5	42.5	28.5	62.5
20	M4×0.7×8depth	–	4.3	ø6.5×4.5depth, M5×0.8×7.5depth	7.5	–	M6×1.0	–	34	–	3.2	6.3	1	19.5	44.5	29.5	64.5
25	M5×0.8×10depth	–	5.1	ø9×7depth, M6×1.0×10depth	8	–	M8×1.25	–	40	–	4.2	7.8	1	21	48	31	68
32	M6×1.0×12depth	48.5	5.1	ø9×7depth, M6×1.0×10depth	9	–	M10×1.25	14	44	–	4.2	7.8	1	24.5	56	34.5	76
40	M8×1.25×12depth	56.5	6.9	ø10.5×8depth, M8×1.25×12depth	10	–	M14×1.5	14	52	–	6.2	10.3	1.6	26	59	36	79
50	M10×1.5×15depth	70	6.9	ø11×8.5depth, M8×1.25×16.5depth	10	–	M18×1.5	19	62	–	6.2	10.8	1.6	28	65	38	85
63	M10×1.5×15depth	83	6.9	ø11×8.5depth, M8×1.25×16.5depth	12	–	M18×1.5	20	75	–	6.2	10.8	1.6	32	73	42	93
80	M14×1.5×20depth	102	10.5	ø14×10.5depth, M12×1.75×12depth	13	–	M22×1.5	27	94	–	8.2	13.8	1.6	41	93	51	113
100	M18×1.5×20depth	122	12.3	ø18.5×13depth, M14×2×17depth	17	–	M26×1.5	26	114	–	10.2	17.3	2	51	114	61	134

MCJA series Back to back type

COMPACT CYLINDER

Special spec

Rod end shape

Technical data

Caution for safety
(Read before installing)



Specification

Model	MCJA-4*									
Acting type	Double acting / Single acting							Double acting		
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 perssure range (MPa) Double acting	0.05~1		0.03~1		0.02~1					
Operating perssure range (MPa) Single acting	0.2~1		0.15~1		0.1~1			–		
Proof pressure	1.5 MPa									
Ambient temperature	-5~+60°C (No freezing)									
Available speed range	50~500 mm/sec									
Sensor switch (*)	RCE, RCE1, RDEP									

* RDEP only for tube I.D. ø12~ø50.

Order example

MCJA — 42 — 40 — 25×25 M — □

- MODEL
- **4**: Back to back type
- TUBE I.D.
- STROKE1×STROKE2
  Stroke 1: First stroke
  Stroke 2: Second stroke
- **M**: Magnet
- PORT THREAD
  Blank: M5×0.8 (for ø12~ø25)
  Blank: Rc thread
  G: G thread
  NPT: NPT thread (for ø32~ø100)

STYLE

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

Double acting – Table for standard stroke

Tube I.D.	Stroke (mm)	Max. stroke (mm)	
		First	Second
ø12,16	5,10,15,20,25,30	130	300
ø20,25,32 ø40,50,63,80	5,10,15,20,25,30,35,40,45,50	130	300
ø100	5,10,15,20,25,30,35,40,45,50	125	125

* Please contact us if the stroke is out of specification.

Single acting – Table for standard stroke

Tube I.D.	Stroke (mm)
ø12,16,20,25,32,40	5,10,15,20,25,30
ø50	5,10,15,20

* Please contact us if the stroke is out of specification.

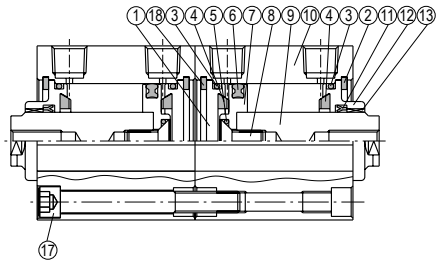
Flat washer kits

WS — MCJA — 3 — 40

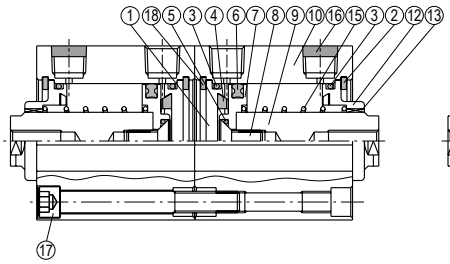
- FLAT WASHER
- MODEL
- MULTIPLE POSITION
- TUBE I.D.

* Use the same kits with MCJA multiple position.
* Only for tube I.D. ø20~ø100.

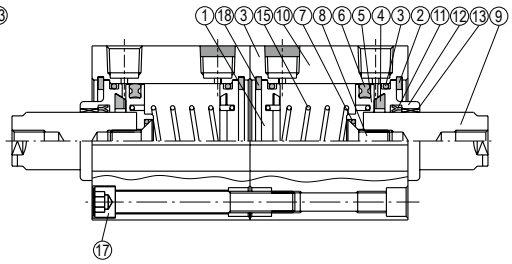
Double acting



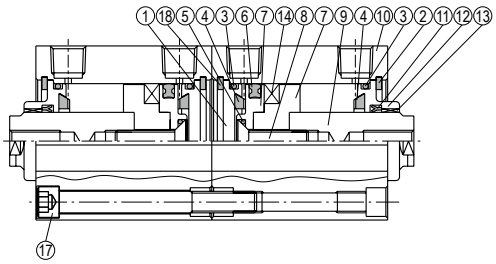
Single acting
Normally returned



Single acting
Normally extended



Double acting
(with magnet)



Seal kit

	Rod packing			Piston packion		Cover ring	Piston gasket
Acting type	Double acting	Normally returned	Normally extended	Double acting	Single acting	Double acting single acting	Double acting single acting
Qty.	2	0	2	2	2	4	2
ø12	KSYR-6	–	KSYR-6	OPA-12	OPA-12	S-12	d4×w1
ø16	KSYR-6	–	KSYR-6	OPA-16	OPA-16	S-14	d4×w1
ø20	KSYR-8	–	KSYR-8	OPA-20	OPA-20	S-18	d6×w1
ø25	KSYR-10	–	KSYR-10	OPA-25	OPA-25	S-22	d8×w1
ø32	KSYR-12	–	KSYR-12	OPA-32	OPA-32	d28×w2	S-9
ø40	KSYR-16	–	KSYR-16	OPA-40	OPA-40	S-36	S-9
ø50	KSYR-20	–	KSYR-20	OPA-50	OPA-50	AS-31	S-16
ø63	KSYR-20	–	–	OPA-63	–	AS-35	S-16
ø80	ORA-25	–	–	OPA-80	–	AS-41	d20×w1
ø100	SDR-30	–	–	OPA-100	–	S-95	S-26

Material

No.	Part name \ Tube I.D.		12	16	20	25	32	40	50	63	80	100	Q'y	Component parts (inclusion)	Repair kits (inclusion)
1	Head cover		Aluminum alloy										2	●	
2	Snap ring (Front end)		*2 Spring steel			*2 Spring steel							2	●	
3	Cover ring		NBR										4	●	●
4	Cushion packing		–	NBR									4	●	●
5	Piston gasket		NBR										2	●	●
6	Piston packing		NBR										2	●	●
7	Piston		Aluminum alloy										2	●	
8	Screw	With magnet	Stainless steel				SCM						2	●	
		Without magnet	SCM	Stainless steel			SCM						2	●	
9	Piston rod *1	With magnet	*2	Carbon steel									2		
		Without magnet	Carbon steel										2		
10	Body		Aluminum alloy										2		
11	Rod packing		NBR										2*3	●	●
12	Rod cover		Aluminum alloy										2	●	
13	Bush		–				Bearing alloy						2	●	
14	Magnet ring		Magnet material										2	●	
15	Spring		SWP							–			2	●	
16	Silencer		Brass							–			2	●	
17	Bolt		SCM										2		
18	Snap ring (Rear end)		Stainless steel				Spring steel						2	●	

*1. When customized material is bearing steel, only two-side across flat (wrench flat) is available.
*2. Stainless steel
*3. Single acting / Normally returned, Q'y=0

Order example

Component parts

Tube I.D.	Component parts
ø12	**CP-MCJA-4-12(M)**
ø16	**CP-MCJA-4-16(M)**
ø20	**CP-MCJA-4-20(M)**
ø25	**CP-MCJA-4-25(M)**
ø32	**CP-MCJA-4-32(M)**
ø40	**CP-MCJA-4-40(M)**
ø50	**CP-MCJA-4-50(M)**
ø63	**CP-MCJA-4-63(M)**
ø80	**CP-MCJA-4-80(M)**
ø100	**CP-MCJA-4-100(M)**

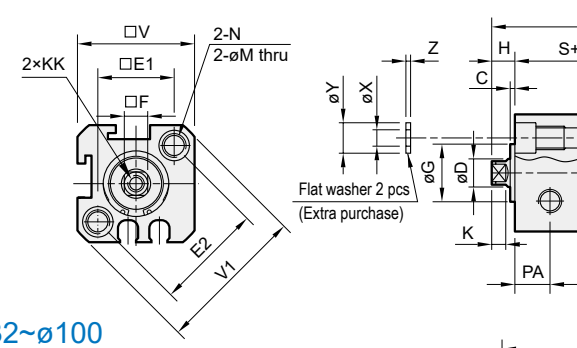
M: With magnet

Repair kits

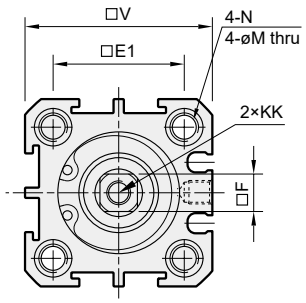
Tube I.D.	Repair kits
ø12	**PS-MCJA-4-12**
ø16	**PS-MCJA-4-16**
ø20	**PS-MCJA-4-20**
ø25	**PS-MCJA-4-25**
ø32	**PS-MCJA-4-32**
ø40	**PS-MCJA-4-40**
ø50	**PS-MCJA-4-50**
ø63	**PS-MCJA-4-63**
ø80	**PS-MCJA-4-80**
ø100	**PS-MCJA-4-100**

42

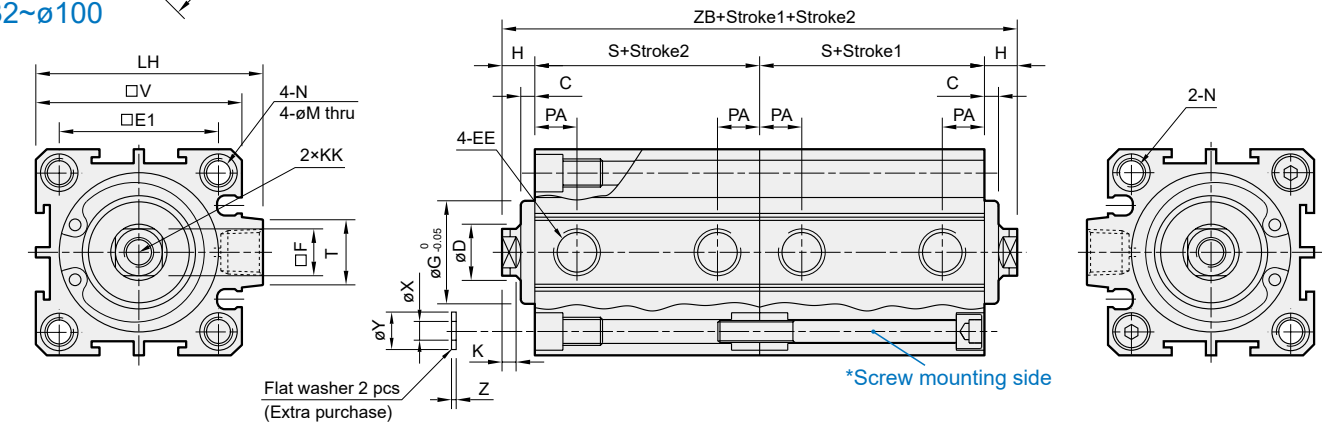
ø12,ø16



ø20,ø25



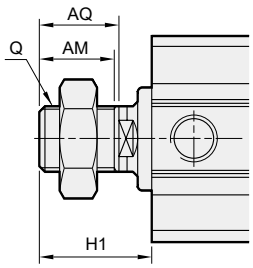
ø32~ø100



*Stroke 1: First stroke Stroke 2: Second stroke

Code / Tube I.D.	AM	AQ	C	D	EE	E1	E2	F	G	H	H1	K
12	10	12	1	6	M5×0.8	16.3	23	5	11	5	17	3
16	10	12	1.5	6	M5×0.8	19.8	28	5	11	5.5	17.5	3
20	13	15	1.5	8	M5×0.8	24	–	6	15	5.5	20.5	3
25	15	17	2	10	M5×0.8	28	–	8	17	6	23	3
32	15	18	3	12	Rc1/8 (*1)	34	–	10	22	7	25	3
40	25	28	3	16	Rc1/8 (*1)	40	–	14	28	7	35	3
50	25	28	4	20	Rc1/4 (*2)	48	–	17	38	9	37	3
63	25	28	4	20	Rc1/4 (*2)	60	–	17	40	9	37	3
80	30	33	5	25	Rc3/8 (*3)	74	–	22	45	11	44	4
100	35	38	5	30	Rc3/8 (*3)	90	–	27	55	12	50	4

41 Male thread

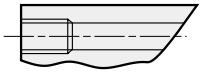


Long stroke

Without counter bore

With magnet type:
The stroke length must be over 100mm.
Without magnet type:
The stroke length must be over 110mm.

ø12~ø100



*1. Without magnet with stroke=5mm, EE=M5×0.8
*2. Without magnet with stroke=5mm, EE=Rc1/8
*3. Without magnet with stroke=5mm, EE=Rc1/4

Code / Tube I.D.	KK	LH	M	N	PA	PB	Q	T	V	V1	X	Y	Z	Without magnet		Magnet	
														S	ZB	S	ZB
12	M3×0.5×6depth	–	4.3	ø6.5×4.5depth, M5×0.8×7.5depth	6.5	6	M5×0.8	–	25	32	3.2	6.3	1	17	44	27	64
16	M3×0.5×6depth	–	4.3	ø6.5×4.5depth, M5×0.8×7.5depth	7	6.5	M5×0.8	–	29	38	3.2	6.3	1	18.5	48	28.5	68
20	M4×0.7×8depth	–	4.3	ø6.5×4.5depth, M5×0.8×7.5depth	7.5	–	M6×1.0	–	34	–	3.2	6.3	1	19.5	50	29.5	70
25	M5×0.8×10depth	–	5.1	ø9×7depth, M6×1.0×10depth	8	–	M8×1.25	–	40	–	4.2	7.8	1	21	54	31	74
32	M6×1.0×12depth	48.5	5.1	ø9×7depth, M6×1.0×10depth	9	–	M10×1.25	14	44	–	4.2	7.8	1	24.5	63	34.5	83
40	M8×1.25×12depth	56.5	6.9	ø10.5×8depth, M8×1.25×12depth	10	–	M14×1.5	14	52	–	6.2	10.3	1.6	26	66	36	86
50	M10×1.5×15depth	70	6.9	ø11×8.5depth, M8×1.25×16.5depth	10	–	M18×1.5	19	62	–	6.2	10.8	1.6	28	74	38	94
63	M10×1.5×15depth	83	6.9	ø11×8.5depth, M8×1.25×16.5depth	12	–	M18×1.5	20	75	–	6.2	10.8	1.6	32	82	42	102
80	M14×1.5×20depth	102	10.5	ø14×10.5depth, M12×1.75×12depth	13	–	M22×1.5	27	94	–	8.2	13.8	1.6	41	104	51	124
100	M18×1.5×20depth	122	12.3	ø18.5×13depth, M14×2×17depth	17	–	M26×1.5	26	114	–	10.2	17.3	2	51	126	61	146

MCJQ2 series

COMPACT CYLINDER

Rod end shape

Technical data

Caution for safety
(Read before installing)



Features

- Ultra Compact, light weight and space saving cylinder.
- Single and double acting available.
- Ideal for use in machinery where space is limited and incorporating sensor groove which enables flush fitting of sensors.
- Magnetic as standard.

Specification

Model	MCJQ2	
Acting type	Double acting	
Tube I.D. (mm)	12,16	20,25
Port size	M5×0.8	
Medium	Air	
Operating perssure range	0.07~1 MPa	0.05~1 MPa
Proof pressure	1.5 MPa	
Ambient temperature	-5°C~+60°C (No freezing)	
Available speed range	50~500 mm/sec	
Sensor switch	RCB	

Order example

MCJQ2 — 12 — 20 — 25 M

MODEL | **1**: Single rod | TUBE I.D. | STROKE | **M**: Magnet * Magnetic as standard

STYLE

Code		Symbol	Description
1	**1**		Double acting / Male thread
1	**2**		Double acting / Female thread

Table for standard stroke

Tube I.D.	Standard stroke
ø12, 16	5,10,15,20,25,30
ø20, 25	5,10,15,20,25,30,35,40,45,50

* Please contact us if the stroke is out of specification.

Cylinder weight

Unit: g

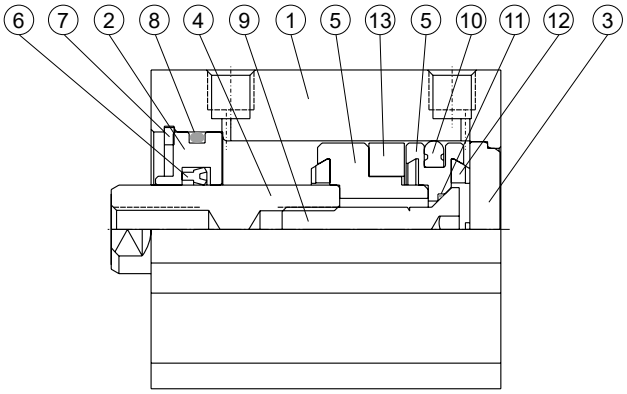
Model	Basic weight **MCJQ2-11**	Stroke 5mm **MCJQ2-11**	Basic weight **MCJQ2-12**	Stroke 5mm **MCJQ2-12**
Tube I.D.				
ø12	40	7	39	7
ø16	63	9	60	9
ø20	86	11	80	11
ø25	126	14	113	14

Flat washer kits

WS — MCJQ2 — 20

FLAT WASHER | MODEL | TUBE I.D.

Double acting
(with magnet)



Material

No.	Part name	Material	Note	Q'y	Repair kits (inclusion)
1	Body	Aluminum alloy	Hard anodized	1	
2	Rod cover	Aluminum bearing alloy	Anodized	1	
3	End cover	Aluminum alloy	Anodized	1	
4	Piston rod	Stainless steel		1	
5	Piston	Aluminum alloy	Anodized	1	
6	Rod packing	NBR		1	●
7	Snap ring	Stainless steel		1	
8	Cover ring	NBR		1	●
9	Piston bolt	Stainless steel		1	
10	Piston packing	NBR		1	●
11	Piston gasket	NBR		1	●
12	Cushion packing	NBR		2	●
13	Magnet	Magnet		1	

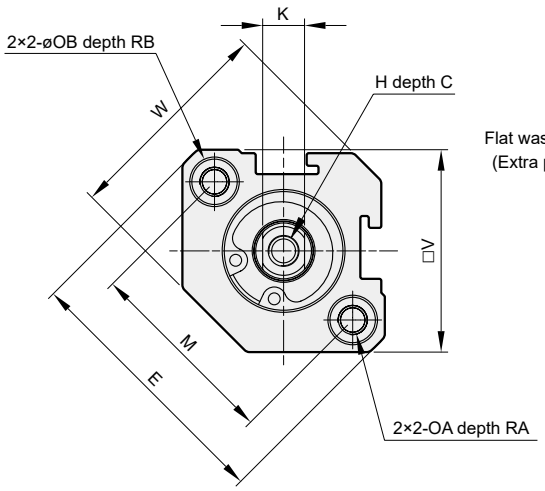
Order example
Repair kits

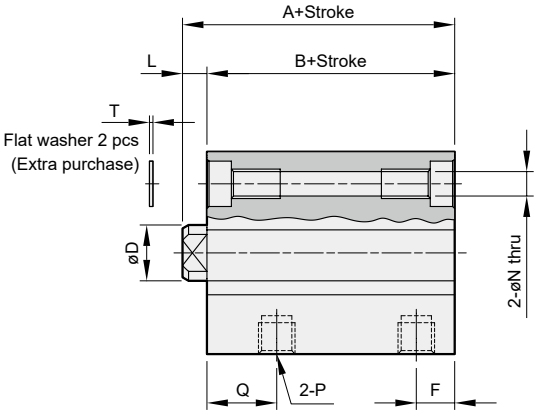
Tube I.D.	Repair kits
ø12	**PS-MCJQ2-12**
ø16	**PS-MCJQ2-16**
ø20	**PS-MCJQ2-20**
ø25	**PS-MCJQ2-25**

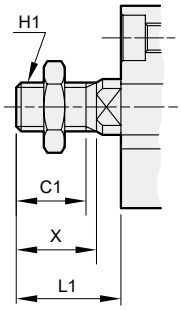
Seal kit

	Rod packing	Piston packing	Cover ring	Piston gasket
Acting type	Double acting			
Tube I.D. / Q'y	1	1	2	1
ø12	KSYR-6	OPA-12	S-11	d4×w1
ø16	KSYR-8	OPA-16	S-14	d4×w1
ø20	KSYR-10A	OPA-20	S-18	d6×w1
ø25	KSYR-12	OPA-25	S-22.4	d8×w1

12





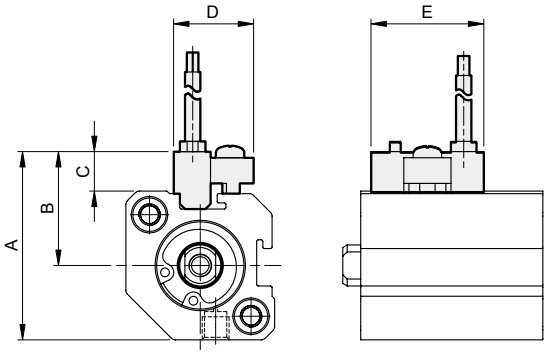


11 Male thread

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

Code / Tube I.D.	Stroke range	A	B	C	D	E	F	H	K	L	M	N	OA	RA	OB	RB	T	P	Q	V	W
12	5~30	31.5	28	6	6	32	6.5	M3×0.5	5	3.5	22	3.5	M4×0.7	7	6.5	3.5	0.5	M5×0.8	11	25	28
16	5~30	34	30.5	8	8	38	5.5	M4×0.7	6	3.5	28	3.5	M4×0.7	7	6.5	3.5	0.5	M5×0.8	10	29	31
20	5~50	36	31.5	10	10	47	5.5	M5×0.8	8	4.5	36	5.5	M6×1.0	10	9	7	1	M5×0.8	10.5	36	30
25	5~50	37.5	32.5	12	12	52	5.5	M6×1.0	10	5	40	5.5	M6×1.0	10	9	7	1	M5×0.8	11	40	35

Installation of sensor switch



Order example

RCB – □

MODEL
RCB (**C**: Reed switch)
RNB (**N**: Solid state switch)

WIRE LENGTH
1M: L=1000m
2M: L=2000m
QD: M8 3Pin connector
EQD: M8 3Pin connector

Code / Tube I.D.	A	B	C	D	E
12	33	20.5	8	16	22
16	37	22.5	8	16	22
20	42.5	24	5.5	16	22
25	46	26	6	16	22

Special spec
Rod end shape
Technical data
Caution for safety
(Read before installing)



Features

- All products use counterbore and thread installation design without any fixed frame to meet the space saving requirements.
- Anodised aluminum tubes provie better corrosion and abrasion resistance.
- The assembly grooves are designed around the body to make the sensor easier to install and fix.
- Compact assembly groove design make the sensors enable to flush mount and can save space.
- Sensors can be mounted on any one of three faces for 12 and 16 bore and on four faces for 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 perssure 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 (*2)	RCE,RCE1	(*1)		●	●	●	●	●	●	●	●
	RDEP	●	●	–	●	–	●	●	●	●	●

*1. ø12, ø16: only applicable to RDE and RDE1E.
*2. RCE, RCE1, RDEP specification.

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

* Please contact us if the stroke is out of specification.

Order example

MCJQ – 12 – 20 – 25 M – 10 – F – G

- MODEL — **1**: Single rod, **2**: Double rod
- TUBE I.D.
- STROKE
- **M**: Magnet
- ADJUSTABLE STROKE — * Only for STYLE 27/28.
- TYPE
- PORT THREAD — Blank: M5×0.8 (for ø12~ø25); Blank: Rc thread, **G**: G thread, **NPT**: NPT thread (for ø32~ø100)

STYLE

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

TYPE

Code	Description	
Blank	Standard	
F	Rear flange (for standard stroke)	
L*	Piston rod extended to 10 mm (for standard stroke)	For adding LB accessories or single rod cylinder with FAC accessories
LA		For double rod cylinders with FAC accessories

* L type not applicable to MCJQ-27/28 adjustable stroke type, if required, please contact us.

Accessories

	Accessories					Rod nut
Code	LB* (Purchase 2 pcs)	CB	FAC*	FBC	RF	NUT
Mounting / Tube I.D.						
ø12	LB-J1-12	CB-J1-12	FAC-J1-12		RF-J1-12	NUT-M5x0.8x4Hx8B
ø16	LB-J1-16	CB-J1-16	FAC-J1-16		RF-J1-16	NUT-M6x1.0x5Hx10B
ø20	LB-J1-20	CB-J1-20	FAC-J1-20		RF-J1-20	NUT-M8x1.25x5Hx13B
ø25	LB-J1-25	CB-J1-25	FAC-J1-25		RF-J1-25	NUT-M10x1.25x6Hx17B
ø32	LB-J1-32	CB-J1-32	FAC-J1-32		RF-J1-32	NUT-M14x1.5x8Hx22B
ø40	LB-J1-40	CB-J1-40	FAC-J1-40		RF-J1-40	
ø50	LB-J1-50	CB-J1-50	FAC-J1-50		RF-J1-50	NUT-M18x1.5x11Hx26B
ø63	LB-J1-63	CB-J1-63	FAC-J1-63		RF-J1-63	
ø80	LB-J1-80	CB-J1-80	FAC-J1-80		RF-J1-80	NUT-M22x1.5x13Hx32B
ø100	LB-J1-100	CB-J1-100	FAC-J1-100		RF-J1-100	NUT-M26x1.5x14Hx35B

* Standard stroke LB and FAC must be used with the L type (as the piston rod needs to be extended by 10 mm).

Pin

Applicable	CB accessories
Code	PIN-CB-P (With snap ring)
Fig / Tube I.D.	
ø12	PIN-J1-12-1-P
ø16	PIN-J1-16-1-P
ø20	PIN-J1-20-1-P
ø25	PIN-J1-25-1-P
ø32	PIN-J1-32-1-P
ø40	
ø50	PIN-J1-50-1-P
ø63	
ø80	PIN-J1-80-1-P
ø100	PIN-J1-100-1-P

Flat washer kits

Code	WS
Fig / Tube I.D.	
ø12	WS-MCJQ-12
ø16	WS-MCJQ-16
ø20	WS-MCJQ-20
ø25	WS-MCJQ-25
ø32	WS-MCJQ-32
ø40	WS-MCJQ-40
ø50	WS-MCJQ-50
ø63	WS-MCJQ-63
ø80	WS-MCJQ-80
ø100	WS-MCJQ-100

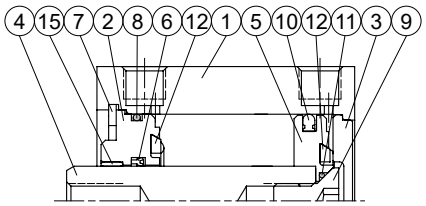
Order example of self-assembled

The tube I.D. ø40 of LB accessories with stroke 25mm.

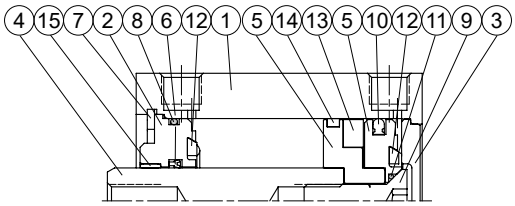
No.	Order number	Qty
1	LB-J1-40	2
2	MCJQ-12-40-25-L	1

* To order accessories/cylinder, please place orders separately according to the order codes in the above table.
Please refer to the previous page for the cylinder ordering method.

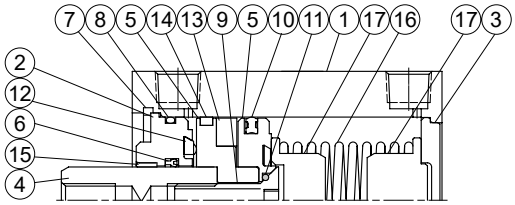
Double acting



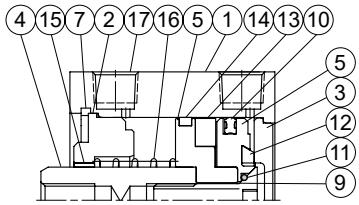
Double acting (with magnet)



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	Q'y	Repair kits (inclusion)
1	Body	Aluminum alloy										1	
2	Rod cover	Aluminum alloy										1	
3	End cover	Aluminum alloy										1	
4	Piston rod	Carbor steel										1	
5	Piston	Aluminum alloy										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	—				Resin						1	
15	Bush	—				Bearing alloy						1	
16	Spring	SWP							—			1	
17	Spring holder	Aluminum alloy						—				2	

Order example

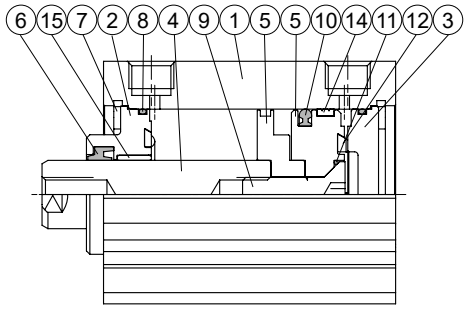
Repair kits

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**

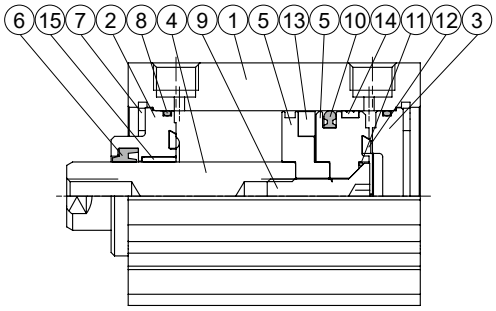
Seal kit

	Rod packing		Piston packing		Cover ring		Piston gasket
Acting type	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
ø12	KSYR-6	—	OPA-12	OPA-12	S-11	—	d4×w1
ø16	KSYR-8	—	OPA-16	OPA-16	S-14	—	d5×w1
ø20	KSYR-10A	—	OPA-20	OPA-20	S-18	—	d6×w1
ø25	KSYR-12	—	OPA-25	OPA-25	S-22,4	—	d8×w1
ø32	KSYR-16	—	OPA-32	OPA-32	S-28	—	S-9
ø40	KSYR-16	—	OPA-40	OPA-40	S-36	—	S-10
ø50	KSYR-20	—	OPA-50	OPA-50	S-46	—	S-16
ø63	KSYR-20	—	OPA-63	—	S-60	—	S-16
ø80	ORA-25	—	OPA-80	—	G-75	—	d20×w1
ø100	ORA-30	—	OPA-100	—	G-95	—	S-26

Long stroke



Long stroke
(with magnet)



Long stroke – Material

No.	Tube I.D. / Part name	12	16	20	25	32	40	50	63	80	Q'y	Component parts (inclusion)	Repair kits (inclusion)
1	Body	Aluminum alloy									1		
2	Rod cover	Aluminum alloy									1	●	
3	End cover	Aluminum alloy									1	●	
4	Piston rod	Carbor steel									1		
5	Piston	Aluminum alloy									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	Resin									1	●	
15	Bush	–					Bearing alloy				1	●	

Long stroke – Seal kit

	Rod packing	Piston packing	Cover ring		Piston gasket
Acting type	Double acting				
Q'y	1	1	2		1
ø12	KSYR-6	OPA-12	S-11		d4×w1
ø16	KSYR-8	OPA-16	S-14		d5×w1
ø20	KSYR-10A	OPA-20	S-18		d6×w1
ø25	KSYR-12	OPA-25	S-22		d8×w1
ø32	KSYR-16	OPA-32	d28×w2		S-9
ø40	ORA-16	OPA-40	S-36		S-10
ø50	ORA-20	OPA-50	S-46		S-16
ø63	ORA-20	OPA-63	S-60		S-16
ø80	ORA-25	OPA-80	AS-41	G-75	d20×w1

Order example

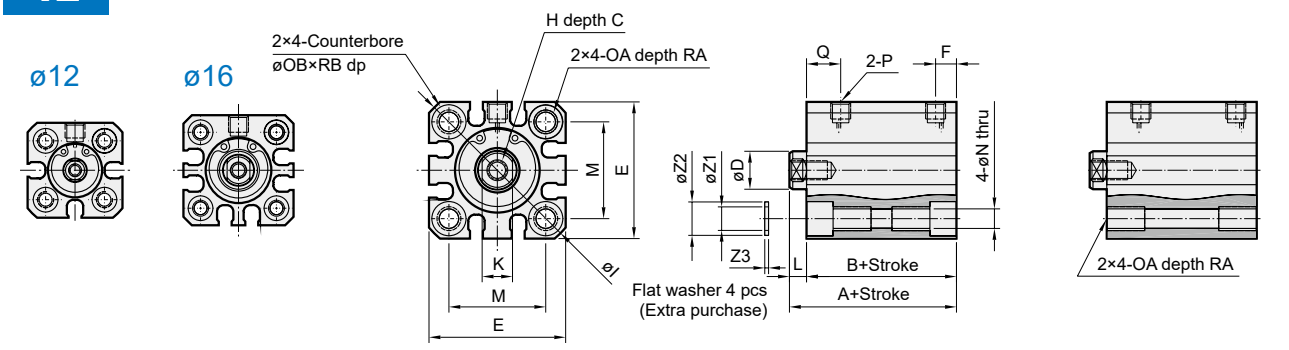
Component parts / Repair kits

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**

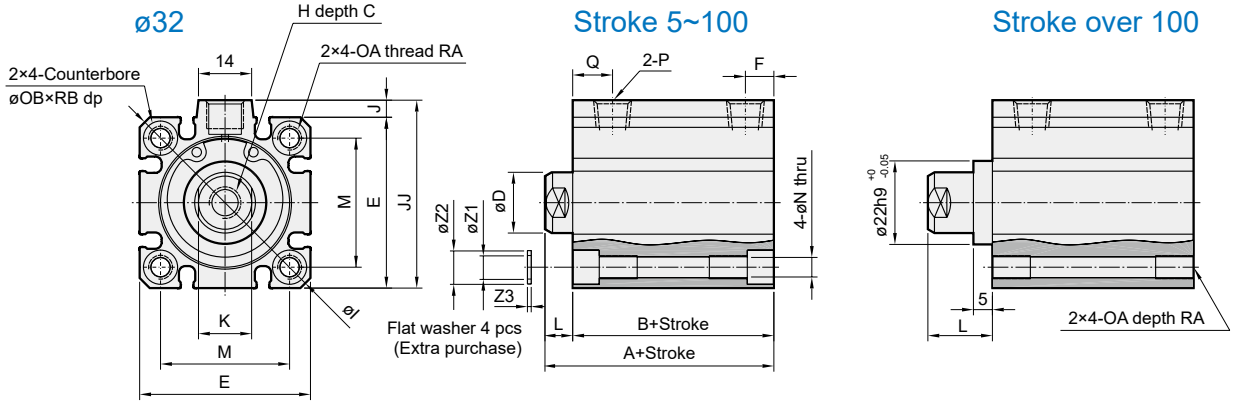
M: With magnet

12

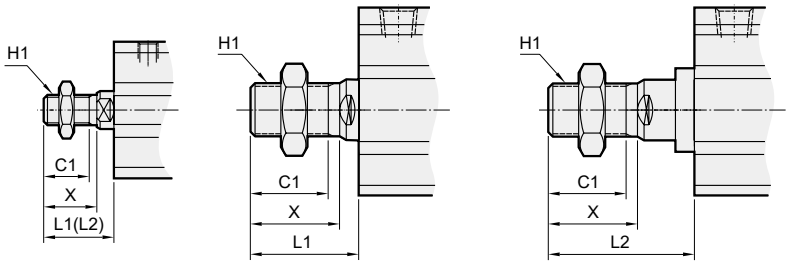
ø12 ø16 ø20, ø25 Stroke 5~100 Stroke over 100



ø32 Stroke 5~100 Stroke over 100



ø12~25 ø32 for stroke 5~100 ø32 for stroke over 100



11 Male thread

Code / Tube I.D.	C1	H1	L1*1,2	L2*1	X
12	9	M5×0.8	14 (24)	24	10.5
16	10	M6×1.0	15.5 (25.5)	25.5	12
20	12	M8×1.25	18.5 (28.5)	28.5	14
25	15	M10×1.25	22.5 (32.5)	32.5	17.5
32	20.5	M14×1.5	28.5 (38.5)	38.5	23.5

*1. L1: Standard stroke, L2: Long stroke
*2. ( ) Dimensions for piston rod extended "L" type.

ø12~25

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 A	Without magnet B	Magnet A	Magnet B	F	L*2	Stroke range	A	B	F	L																	
12	5~30	20.5	17	25.5	22	5	3.5 (13.5)	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	25.5	22	5	3.5 (13.5)	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	34	29.5	5.5	4.5 (14.5)	51~200	55.5	41	9	14.5	7	10	36	M5×0.8	47	8	25.5	5.5	M6×1.0	9	M5×0.8	9	10	7	6.2	8.8	1
25	5~50	27.5	22.5	37.5	32.5	5.5	5 (15)	51~300	59	44	11	15	12	12	40	M6×1.0	52	10	28	5.5	M6×1.0	9	M5×0.8	11	10	7	6.2	8.8	1

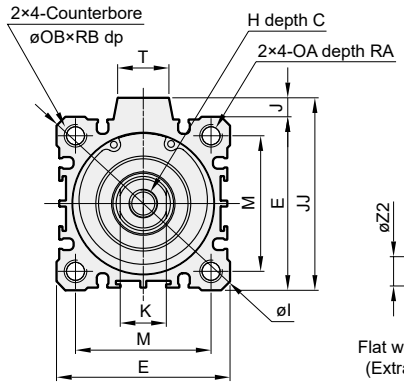
ø32

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 A	Without magnet B	Magnet A	Magnet B	F	L*2	Q	Stroke range	A	B	F	L	Q																		
32	5~50	30	23	40	33	7.5*1	7 (17)	10.5*1	101 ~300	62.5	45.5	12.5	17	12.5	*1 Rc1/8	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 (17)	10.5																								

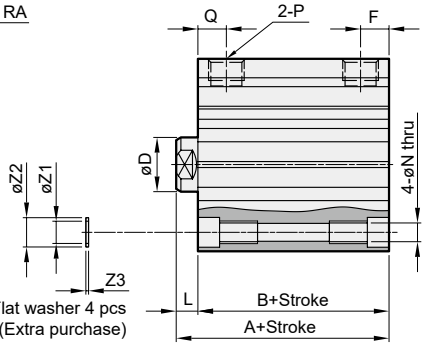
*1. Without magnet with stroke=5mm, P=M5×0.8, Q=11.5, F=5.5 *2. ( ) Dimensions for piston rod extended "L" type.

12

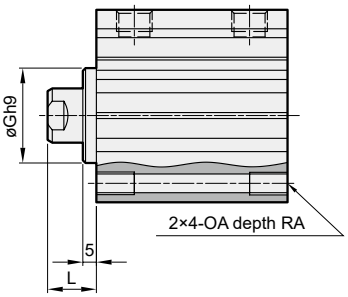
ø50~ø100



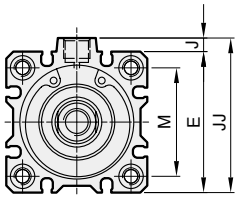
Stroke 5~100



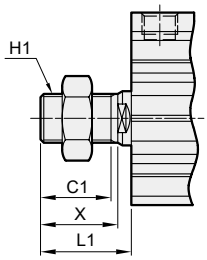
Stroke over 100



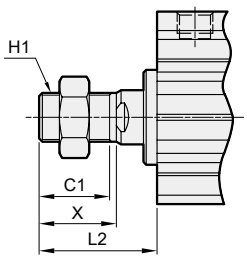
ø40



ø40~ø100
(Stroke 5~100)



ø40~ø80
(Stroke over 100)



11 Male thread

Code / Tube I.D.	C1	H1	L1*1,2	L2*1	X
40	20.5	M14×1.5	28.5 (38.5)	38.5	23.5
50	26	M18×1.5	33.5 (43.5)	43.5	28.5
63	26	M18×1.5	33.5 (43.5)	43.5	28.5
80	32.5	M22×1.5	43.5 (53.5)	53.5	35.5
100	32.5	M26×1.5	43.5 (53.5)	–	35.5

*1. L1: Standard stroke, L2: Long stroke
*2. ( ) Dimensions for piston rod extended "L" type.

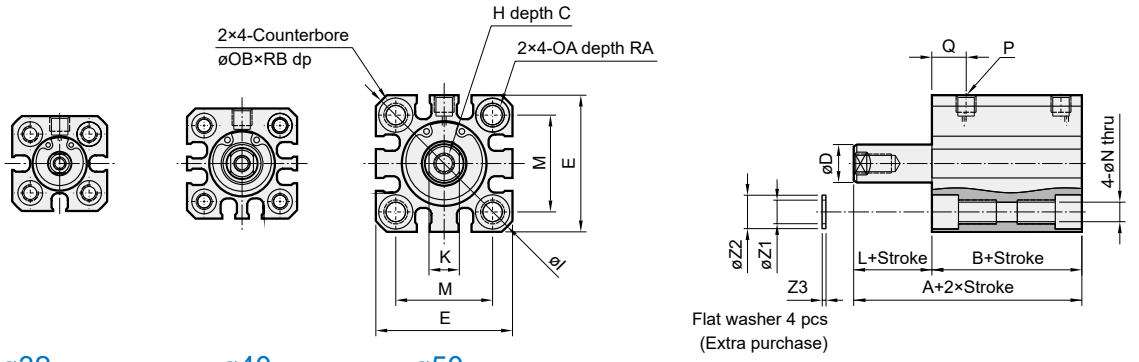
Code / Tube I.D.	Standard stroke								Long stroke					
	Stroke range	Without magnet		Magnet		F	L*4	Q	Stroke range	A	B	F	L	Q
		A	B	A	B									
40	5~50	36.5	29.5	46.5	39.5	8	7 (17)	11	125~300	72	55	14	17	14
	51~100	46.5	39.5											
50	5~50	38.5	30.5	48.5	40.5	10.5*1	8 (18)	10.5*1	125~300	73.5	55.5	14	18	14
	51~100	48.5	40.5											
63	5~50	44	36	54	46	10.5	8 (18)	15	125~300	75	57	16.5	18	16.5
	51~100	54	46											
80	5~50	53.5	43.5	63.5	53.5	12.5	10 (20)	16	125~300	86	66	19	20	19
	51~100	63.5	53.5											
100	5~50	65	53	75	63	13	12 (22)	23	–					
	51~100	75	63											

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

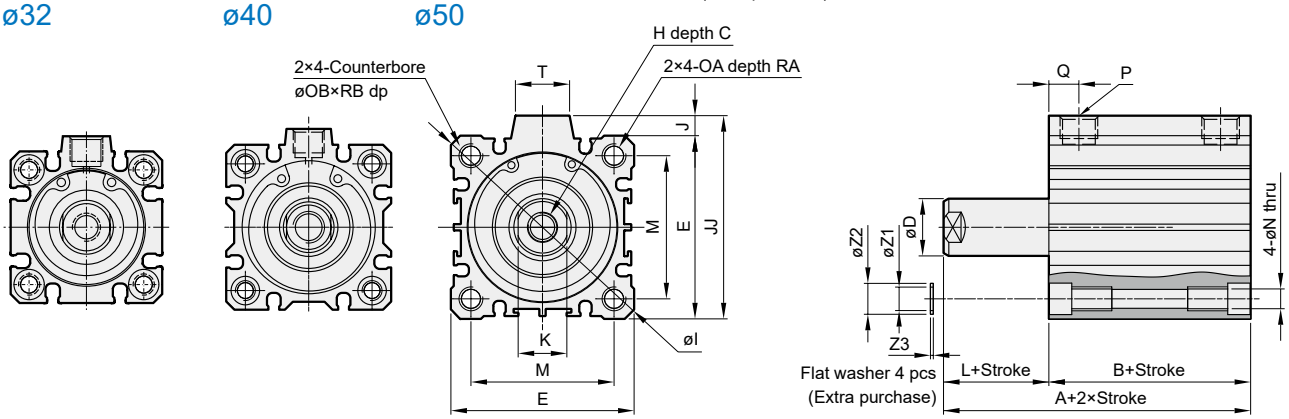
*1. Without magnet with stroke=5mm, P=Rc1/8, Q=12, F=8
*2. Without magnet with stroke=5mm, P=Rc1/8
*3. Without magnet with stroke=5mm, P=Rc1/4
*4. ( ) Dimensions for piston rod extended "L" type.

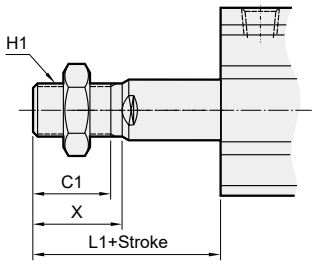
14

ø12 ø16 ø20, ø25



ø32 ø40 ø50





13 Male thread

Code / Tube I.D.	C1	H1	L1*	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
40	20.5	M14×1.5	28.5 (38.5)	23.5
50	26	M18×1.5	33.5 (43.5)	28.5

* L1: Standard stroke
* ( ) Dimensions for piston rod extended "L" type.

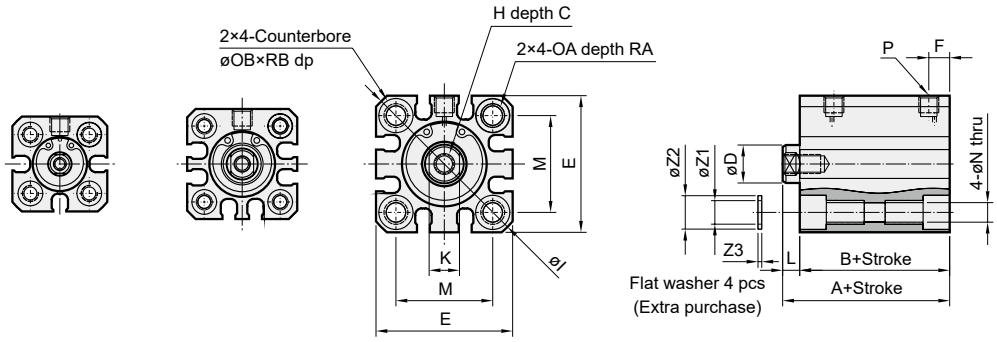
Note: The value **B** of ø12~ø40 type is greater then double acting type.

Code / Tube I.D.	Standard stroke					C	D	E	H	I	J	JJ	K	L*2	M	N	OA	OB	P	Q	RA	RB	T	Z1	Z2	Z3
	Stroke range	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 (13.5)	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 (13.5)	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 (14.5)	25.5	5.5	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 (15)	28	5.5	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 (17)	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 (17)	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 (18)	50	6.5	M8×1.25	11	Rc1/4 *1	10.5 *1	14	8	19	8.2	10.8	1

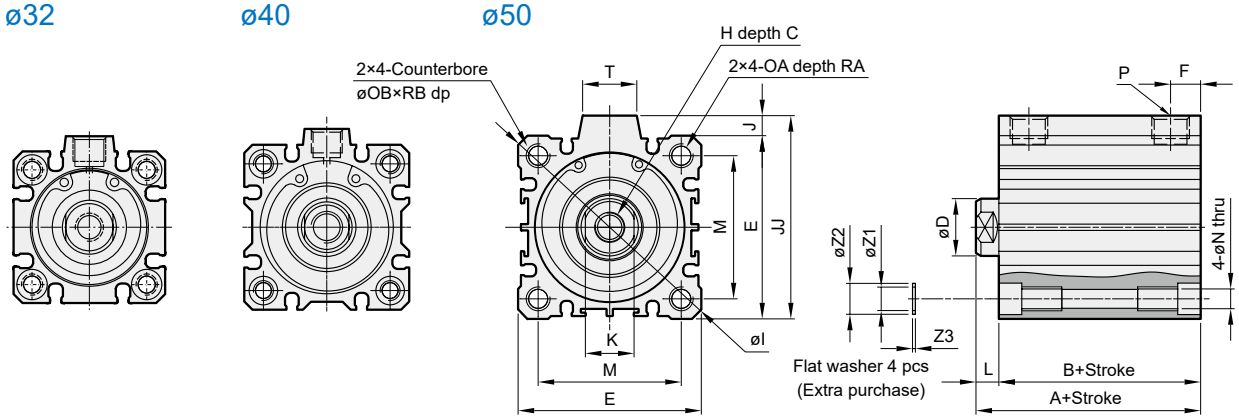
*1. Without magnet with stroke=5mm, P=Rc1/8, Q=12
*2. ( ) Dimensions for piston rod extended "L" type.

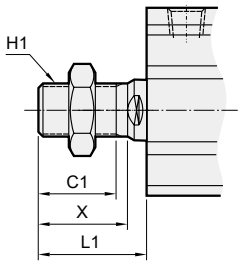
16

ø12 ø16 ø20, ø25



ø32 ø40 ø50





15 Male thread

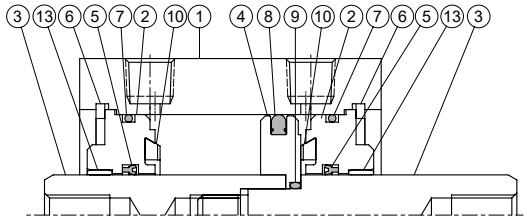
Code / Tube I.D.	C1	H1	L1*	X
12	9	M5×0.8	14 (24)	10.5
16	10	M6×1.0	15.5 (25.5)	12
20	12	M8×1.25	18.5 (28.5)	14
25	15	M10×1.25	22.5 (32.5)	17.5
32	20.5	M14×1.5	28.5 (38.5)	23.5
40	20.5	M14×1.5	28.5 (38.5)	23.5
50	26	M18×1.5	33.5 (43.5)	28.5

* L1: Standard stroke
* ( ) Dimensions for piston rod extended "L" type.

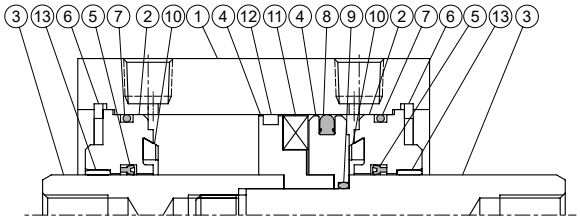
Code / Tube I.D.	Standard stroke: Stroke range	Without magnet: A	Without magnet: B	Magnet: A	Magnet: B	C	D	E	F	H	I	J	JJ	K	L*3	M	N	OA	OB	P	RA	RB	T	Z1	Z2	Z3
12	5,10	20.5	17	25.5	22	6	6	25	5	M3×0.5	32	–	–	5	3.5 (13.5)	15.5	3.5	M4×0.7	6.5	M5×0.8	7	4	–	4.2	6.3	0.5
16	5,10	20.5	17	25.5	22	8	8	29	5	M4×0.7	38	–	–	6	3.5 (13.5)	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 (14.5)	25.5	5.5	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 (15)	28	5.5	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 *1	M8×1.25	60	4.5	49.5	14	7 (17)	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 (17)	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 *2	M10×1.5	86	7	71	17	8 (18)	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
*3. ( ) Dimensions for piston rod extended "L" type.

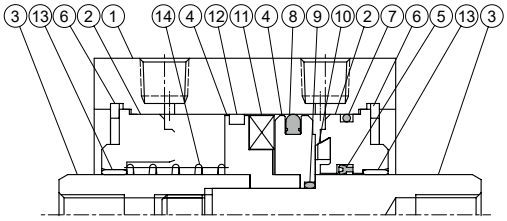
Double acting



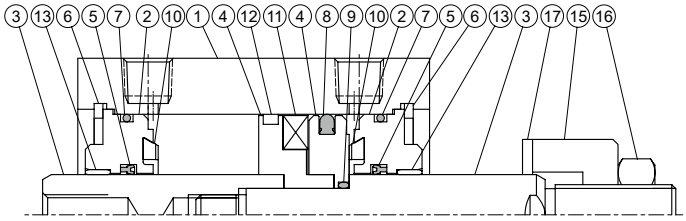
Double acting (with magnet)



Single acting



Adjustable stroke



Material

No.	Part name \ Tube I.D.	12	16	20	25	32	40	50	63	80	100	Q'y	Component parts (inclusion)	Repair kits (inclusion)
1	Body	Aluminum alloy										1		
2	Rod cover	Aluminum alloy										2	●	
3	Piston rod With magnet	Stainless steel				Carbor steel						2		
	Piston rod Without magnet	*1	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	–				Resin						1	●	
13	Bush	–					Bearing alloy					2	●	
14	Spring	SWP						–				1	●	
15	Adjustble nut	Carbor steel										1	●	
16	Hexagon nut	Carbor steel										1	●	
17	Cushion packing	PU										1	●	

*1. Stainless steel *2. Single acting (Q'y=1 pc)

Seal kit

	Rod packing		Piston packing		Cover ring		Piston gasket
Acting type	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
ø12	KSYR-6	KSYR-6	OPA-12	OPA-12	S-11	S-11	d4×w1
ø16	KSYR-8	KSYR-8	OPA-16	OPA-16	S-14	S-14	d6×w1
ø20	KSYR-10A	KSYR-10A	OPA-20	OPA-20	S-18	S-18	d6×w1
ø25	KSYR-12	KSYR-12	OPA-25	OPA-25	S-22	S-22	S-9
ø32	KSYR-16	KSYR-16	OPA-32	OPA-32	d28×w2	d28×w2	d11×w1
ø40	KSYR-16	KSYR-16	OPA-40	OPA-40	S-36	S-36	S-10
ø50	KSYR-20	KSYR-20	OPA-50	OPA-50	S-46	S-46	S-16
ø63	KSYR-20	–	OPA-63	–	S-60	–	S-14
ø80	ORA-25	–	OPA-80	–	G-75	–	d20×w1
ø100	ORA-30	–	OPA-100	–	G-95	–	S-24

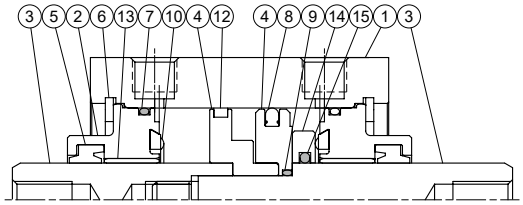
Order example

Component parts / Repair kits

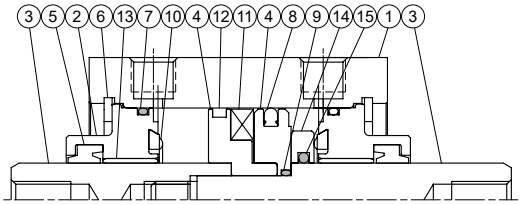
Tube I.D.	Component parts	Repair kits
ø12	**CP-MCJQ-2-12(M)**	**PS-MCJQ-2-12**
ø16	**CP-MCJQ-2-16(M)**	**PS-MCJQ-2-16**
ø20	**CP-MCJQ-2-20(M)**	**PS-MCJQ-2-20**
ø25	**CP-MCJQ-2-25(M)**	**PS-MCJQ-2-25**
ø32	**CP-MCJQ-2-32(M)**	**PS-MCJQ-2-32**
ø40	**CP-MCJQ-2-40(M)**	**PS-MCJQ-2-40**
ø50	**CP-MCJQ-2-50(M)**	**PS-MCJQ-2-50**
ø63	**CP-MCJQ-2-63(M)**	**PS-MCJQ-2-63**
ø80	**CP-MCJQ-2-80(M)**	**PS-MCJQ-2-80**
ø100	**CP-MCJQ-2-100(M)**	**PS-MCJQ-2-100**

M: With magnet

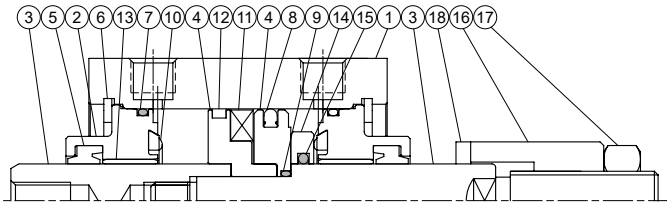
Double acting



Double acting (with magnet)



Adjustable stroke



Long stroke – Material

No.	Tube I.D. / Part name		12	16	20	25	32	40	50	63	80	Q'y	Component parts (inclusion)	Repair kits (inclusion)
1	Body		Aluminum alloy									1		
2	Rod cover		Aluminum alloy									2	●	
3	Piston rod	With magnet	Stainless steel				Carbor steel					2		
		Without magnet	*1	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		–					Resin				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	●	

*1. Stainless steel

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
ø12	KSYR-6	OPA-12	S-11	d4×w1	–
ø16	KSYR-8	OPA-16	S-14	d5×w1	–
ø20	KSYR-10A	OPA-20	S-18	d6×w1	–
ø25	KSYR-12	OPA-25	S-22	S-9	–
ø32	KSYR-16	OPA-32	d28×w2	d11×w1	P-16
ø40	ORA-16	OPA-40	S-36	S-10	P-16
ø50	ORA-20	OPA-50	S-46	S-16	P-20
ø63	ORA-20	OPA-63	S-60	S-14	P-20
ø80	ORA-25	OPA-80	G-75	S-18	S-25

Order example

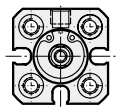
Component parts / Repair kits

Tube I.D.	Component parts	Repair kits
ø12	**CPL-MCJQ-2-12(M)**	**PSL-MCJQ-2-12**
ø16	**CPL-MCJQ-2-16(M)**	**PSL-MCJQ-2-16**
ø20	**CPL-MCJQ-2-20(M)**	**PSL-MCJQ-2-20**
ø25	**CPL-MCJQ-2-25(M)**	**PSL-MCJQ-2-25**
ø32	**CPL-MCJQ-2-32(M)**	**PSL-MCJQ-2-32**
ø40	**CPL-MCJQ-2-40(M)**	**PSL-MCJQ-2-40**
ø50	**CPL-MCJQ-2-50(M)**	**PSL-MCJQ-2-50**
ø63	**CPL-MCJQ-2-63(M)**	**PSL-MCJQ-2-63**
ø80	**CPL-MCJQ-2-80(M)**	**PSL-MCJQ-2-80**

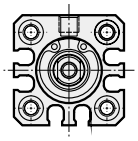
M: With magnet

22

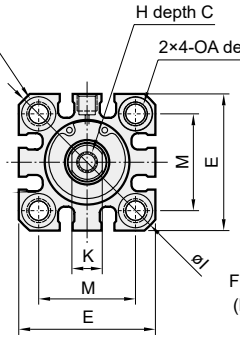
ø12



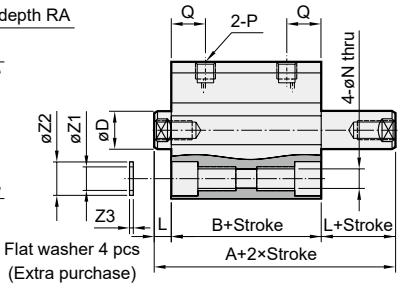
ø16



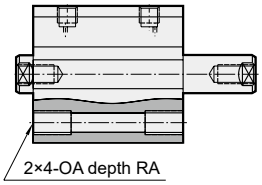
ø20, ø25



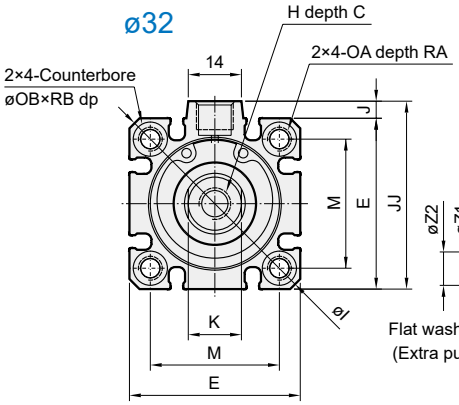
Stroke 5~100



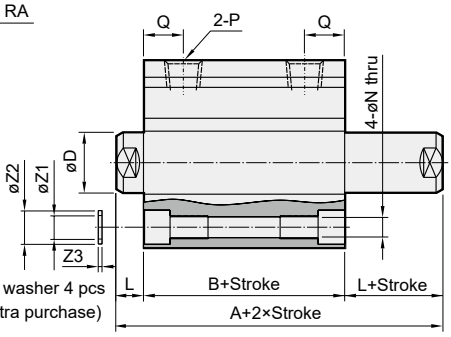
Stroke over 100



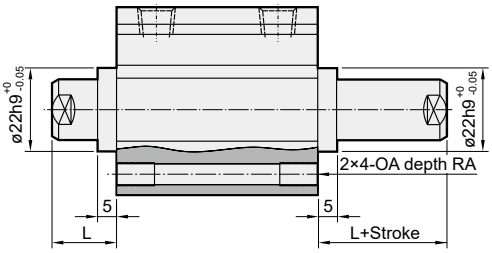
ø32



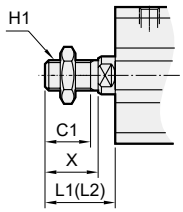
Stroke 5~100



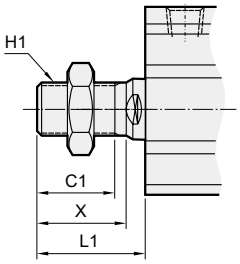
Stroke over 100



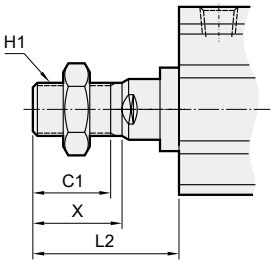
ø12~25



ø32 for stroke 5~100



ø32 for stroke over 100



21 Male thread

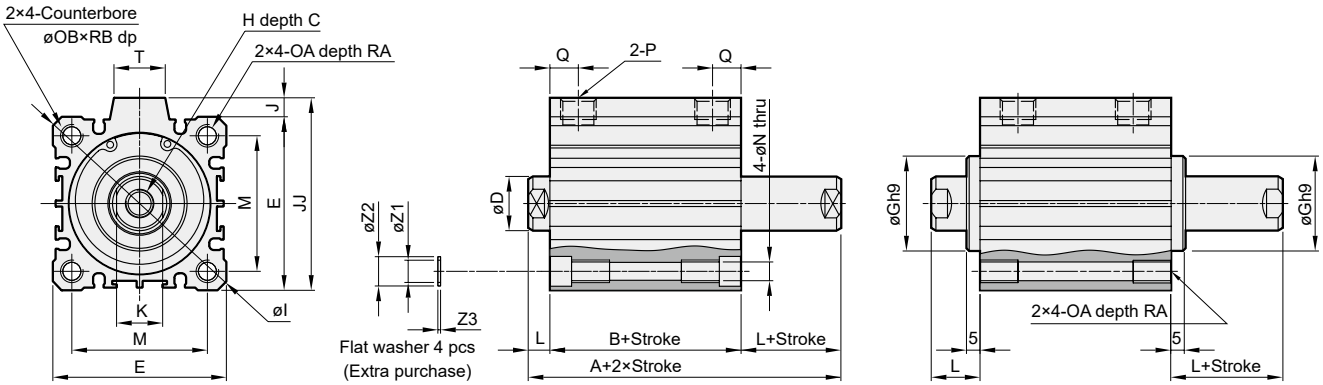
Code / Tube I.D.	C1	H1	L1*1,2	L2*1	X
12	9	M5×0.8	14 (24)	24	10.5
16	10	M6×1.0	15.5 (25.5)	25.5	12
20	12	M8×1.25	18.5 (28.5)	28.5	14
25	15	M10×1.25	22.5 (32.5)	32.5	17.5
32	20.5	M14×1.5	28.5 (38.5)	38.5	23.5

*1. L1: Standard stroke, L2: Long stroke
*2. ( ) Dimensions for L type that both sides piston rod are extended.
For LA type that single side piston rod is extended.

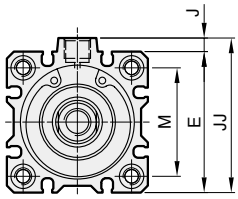
Code / Tube I.D.	Standard stroke						Long stroke				C	D	E	H	I	J	JJ	K	M	N	OA	OB	P	Q	RA	RB	Z1	Z2	Z3
	Stroke range	Without magnet A	Without magnet B	Magnet A	Magnet B	L*2	Stroke range	A	B	L																			
12	5~30	29	22	34	27	3.5 (13.5)	31~100	59	32	13.5	6	6	25	M3×0.5	32	–	–	5	15.5	3.5	M4×0.7	6.5	M5×0.8	7.5	7	4	4.2	6.3	0.5
16	5~30	29	22	34	27	3.5 (13.5)	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	45	36	4.5 (14.5)	51~200	70	41	14.5	7	10	36	M5×0.8	47	–	–	8	25.5	5.5	M6×1.0	9	M5×0.8	9	10	7	6.2	8.8	1
25	5~50	39	29	49	39	5 (15)	51~300	74	44	15	12	12	40	M6×1.0	52	–	–	10	28	5.5	M6×1.0	9	M5×0.8	11	10	7	6.2	8.8	1
32	5~50	44.5	30.5	54.5	40.5	7 (17)	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	54.5	40.5	7 (17)																							

*1. Without magnet with stroke=5mm, P=M5×0.8
*2. ( ) dimensions for L type that both sides piston rod are extended.
For LA type that single side piston rod is extended.

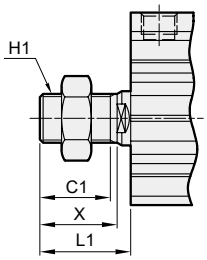
22 ø50~ø100



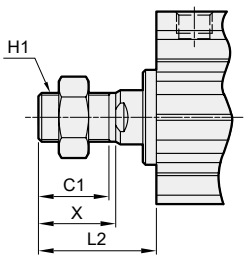
ø40



ø40~ø100 (Stroke 5~100)



ø40~ø80 (Stroke over 100)



21 Male thread

Code / Tube I.D.	C1	H1	L1*1,2	L2*1	X
40	20.5	M14×1.5	28.5 (38.5)	38.5	23.5
50	26	M18×1.5	33.5 (43.5)	43.5	28.5
63	26	M18×1.5	33.5 (43.5)	43.5	28.5
80	32.5	M22×1.5	43.5 (53.5)	53.5	35.5
100	32.5	M26×1.5	43.5 (53.5)	–	35.5

*1. L1: Standard stroke, L2: Long stroke
*2. ( ) dimensions for L type that both sides piston rod are extended.
For LA type that single side piston rod is extended.

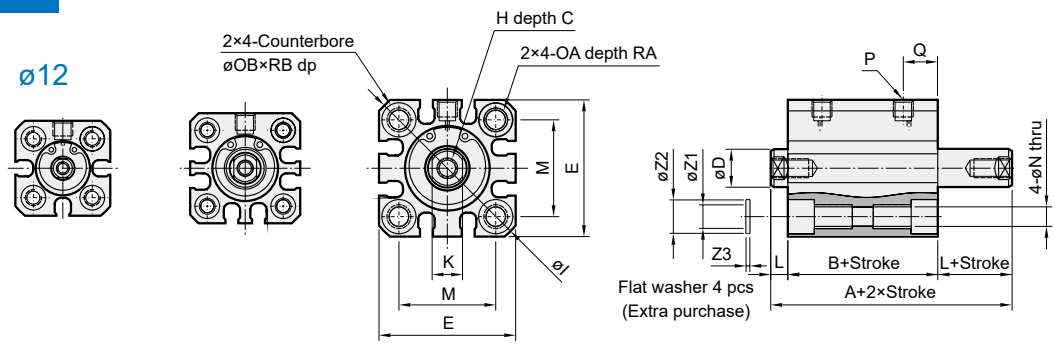
Code / Tube I.D.	Standard stroke							Long stroke				
	Stroke range	Without magnet A	Without magnet B	Magnet A	Magnet B	L*3	Q	Stroke range	A	B	L	Q
40	5~50	54	40	64	50	7 (17)	14	101~300	89	55	17	14
	51~100	64	50									
50	5~50	56.5	40.5	66.5	50.5	8 (18)	14	101~300	91.5	55.5	18	14
	51~100	66.5	50.5									
63	5~50	58	42	68	52	8 (18)	15.5	101~300	93	57	18	16.5
	51~100	68	52									
80	5~50	71	51	81	61	10 (20)	18	101~300	106	66	20	19
	51~100	81	61									
100	5~50	84.5	60.5	94.5	70.5	12 (22)	22	–				
	51~100	94.5	70.5									

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

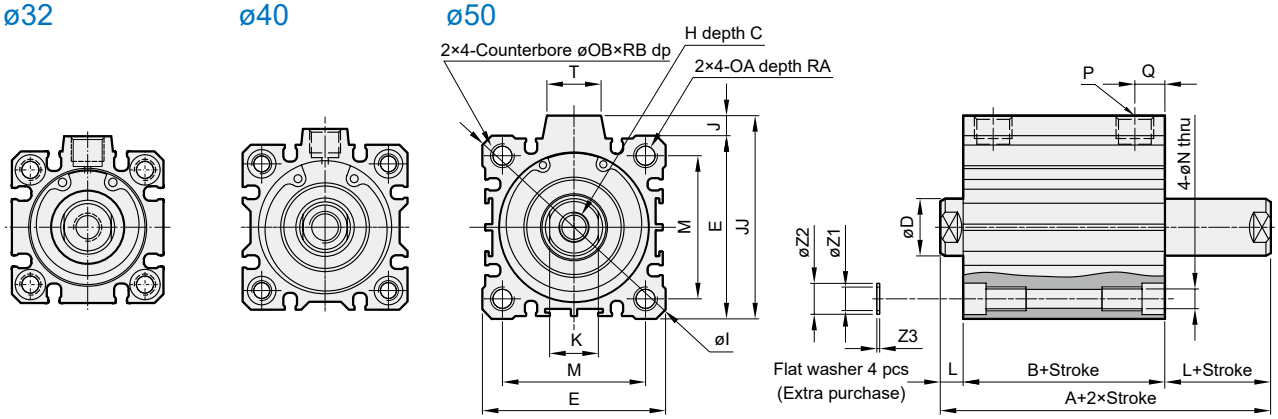
*1. Without magnet with stroke=5mm, P=Rc1/8
*2. Without magnet with stroke=5mm, P=Rc1/4
*3. ( ) dimensions for L type that both sides piston rod are extended.
For LA type that single side piston rod is extended.

24

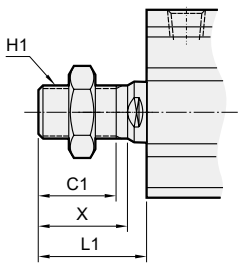
ø12 ø16 ø20, ø25



ø32 ø40 ø50



23 Male thread



Code / Tube I.D.	C1	H1	L1*	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
40	20.5	M14×1.5	28.5 (38.5)	23.5
50	26	M18×1.5	33.5 (43.5)	28.5

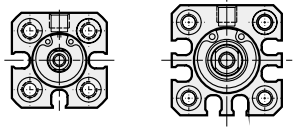
* L1: Standard stroke
* ( ) Dimensions for L type that both sides piston rod are extended.
For LA type that piston rod retracted side is extended.

Code / Tube I.D.	Standard stroke					C	D	E	H	I	J	JJ	K	L*2	M	N	OA	OB	P	Q	RA	RB	T	Z1	Z2	Z3
	Stroke range	Without magnet		Magnet																						
		A	B	A	B																					
12	5,10	29	22	34	27	6	6	25	M3×0.5	32	–	–	5	3.5 (13.5)	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 (13.5)	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 (14.5)	25.5	5.5	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 (15)	28	5.5	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 (17)	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 (17)	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 (18)	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
*2. ( ) Dimensions for L type that both sides piston rod are extended. For LA type that piston rod retracted side is extended.

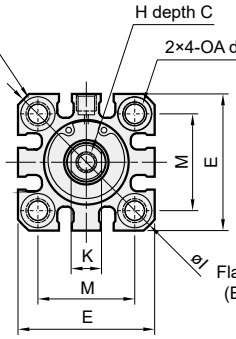
28

ø12

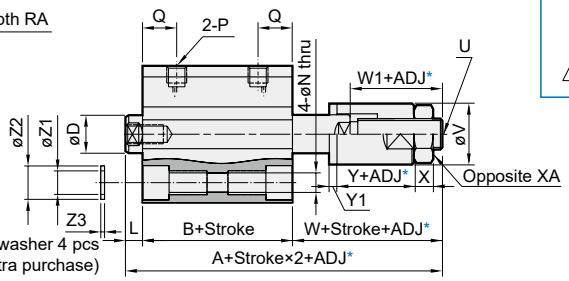


ø16

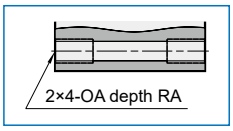
ø20, ø25



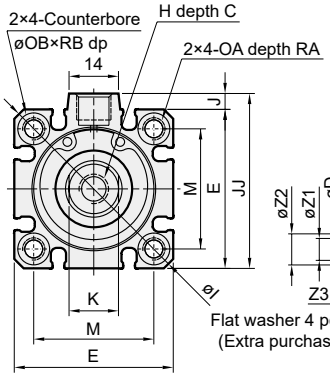
Stroke 5~100



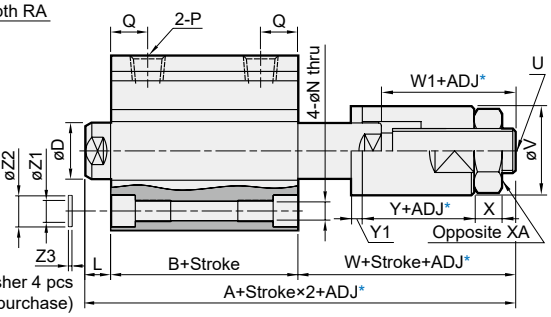
Stroke over 100



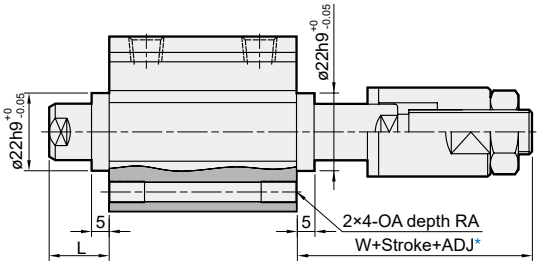
ø32



Stroke 5~100

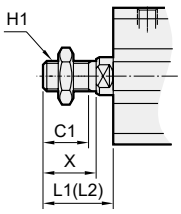


Stroke over 100

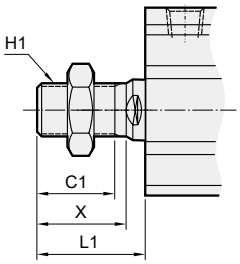


* ADJ: Adjustable stroke

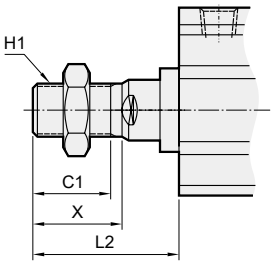
ø12~25



ø32 for stroke 5~100



ø32 for stroke over 100



27 Male thread

Code / Tube I.D.	C1	H1	L1*1,2	L2*1	X
12	9	M5×0.8	14 (24)	24	10.5
16	10	M6×1.0	15.5 (25.5)	25.5	12
20	12	M8×1.25	18.5 (28.5)	28.5	14
25	15	M10×1.25	22.5 (32.5)	32.5	17.5
32	20.5	M14×1.5	28.5 (38.5)	38.5	23.5

*1. L1: Standard stroke, L2: Long stroke
*2. ( ) Dimensions for piston rod extended "LA" type.

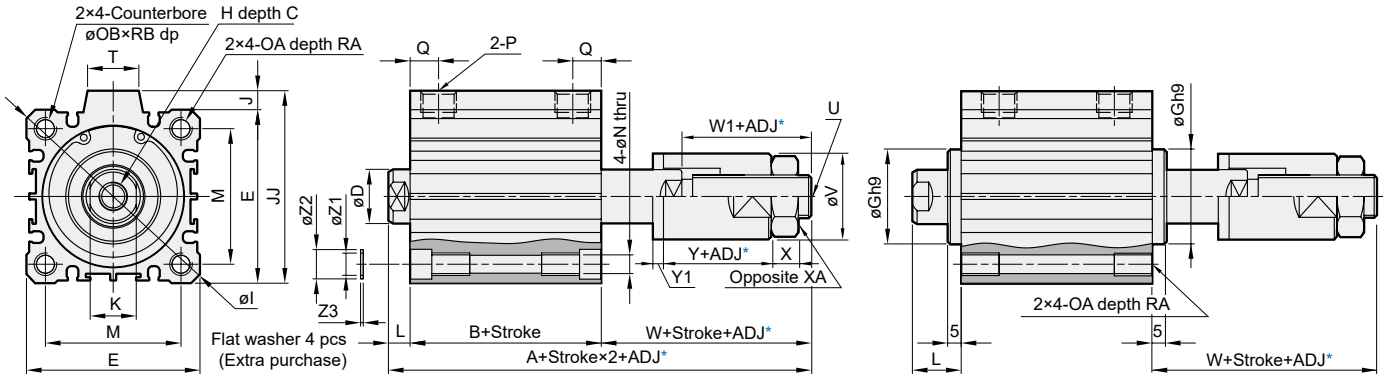
Code / Tube I.D.	Standard stroke							Long stroke				
	Stroke range	Without magnet A	Without magnet B	Magnet A	Magnet B	L*2	W	Stroke range	A	B	L	W
12	5~30	45.5	22	50.5	27	3.5 (13.5)	20	31~100	65.5	32	13.5	20
16	5~30	49	22	54	27	3.5 (13.5)	23.5	31~100	69	32	13.5	23.5
20	5~50	54.3	26	64.3	36	4.5 (14.5)	23.8	51~200	79.3	41	14.5	23.8
25	5~50	56.5	29	66.5	39	5 (15)	22.5	51~300	81.5	44	15	22.5
32	5~50	60.9	30.5	70.9	40.5	7 (17)	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
*2. ( ) Dimensions for piston rod extended "LA" type.

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	5.5	M6×1.0	9	M5×0.8	9
25	12	12	40	M6×1.0	52	–	–	10	28	5.5	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

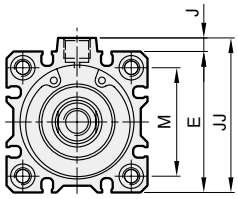
Code / Tube I.D.	RA	RB	U	V	W1	X	XA	Y	Y1	Z1	Z2	Z3
12	7	4	M5×0.8	12	16	4	8	13	2	4.2	6.3	0.5
16	7	4	M8×1.25	16	19	5	13	15	2	4.2	6.3	0.5
20	10	7	M8×1.25	16	19	5	13	15	2	6.2	8.8	1
25	10	7	M10×1.25	20	18	6	17	12	2	6.2	8.8	1
32	10	7	M12×1.25	30	19	7	19	12	2	6.2	8.8	1

28 ø50~ø100 Stroke 5~100 Stroke over 100

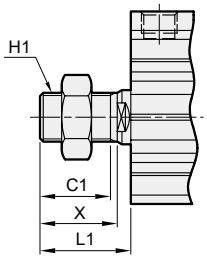


* ADJ: Adjustable stroke

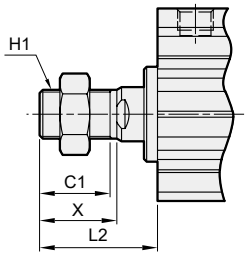
ø40



ø40~ø100 (Stroke 5~100)



ø40~ø80 (Stroke over 100)



27 Male thread

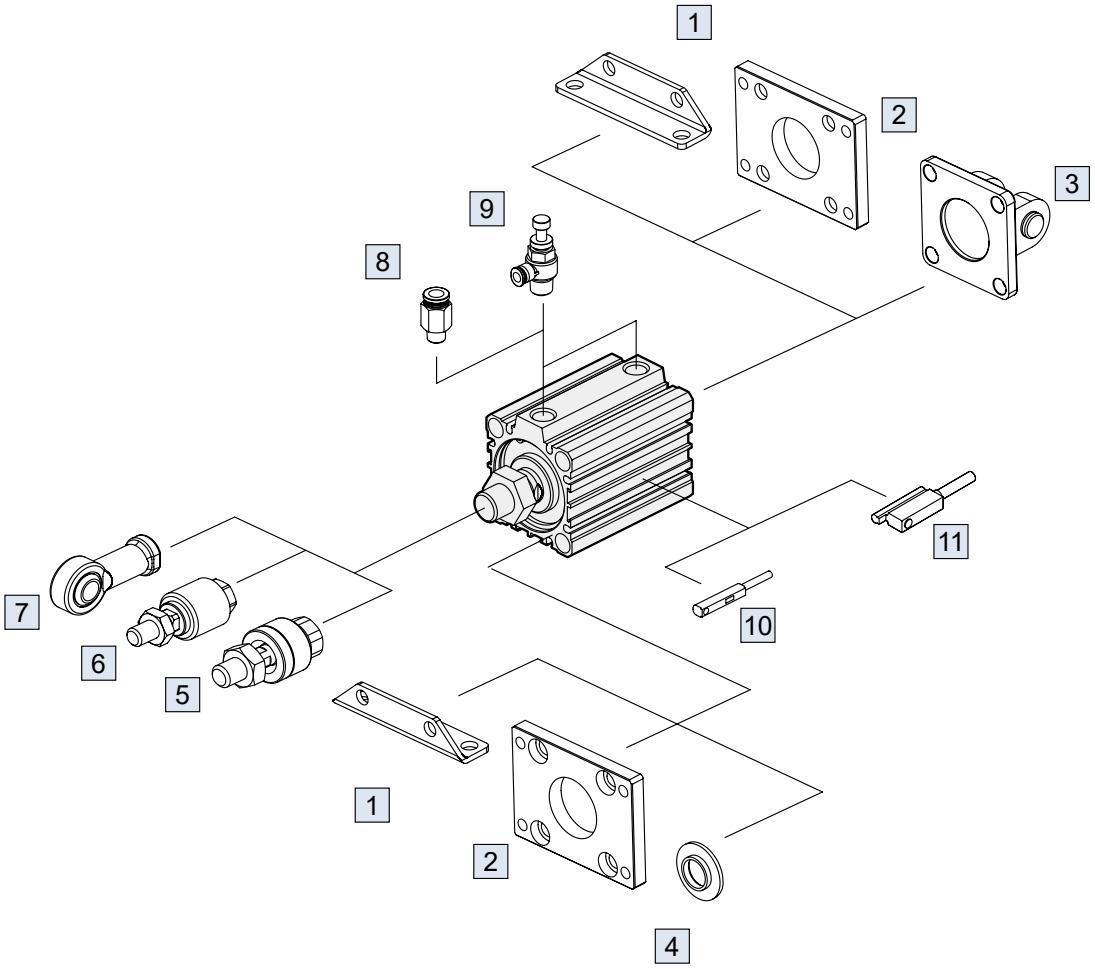
Code / Tube I.D.	C1	H1	L1*1,2	L2*1	X
40	20.5	M14×1.5	28.5 (38.5)	38.5	23.5
50	26	M18×1.5	33.5 (43.5)	43.5	28.5
63	26	M18×1.5	33.5 (43.5)	43.5	28.5
80	32.5	M22×1.5	43.5 (53.5)	53.5	35.5
100	32.5	M26×1.5	43.5 (53.5)	–	35.5

*1. L1: Standard stroke, L2: Long stroke
*2. ( ) Dimensions for piston rod extended "LA" type.

Code / Tube I.D.	Standard stroke								Long stroke					
	Stroke range	Without magnet A	Without magnet B	Magnet A	Magnet B	L*3	Q	W	Stroke range	A	B	L	Q	W
40	5~50	71	40	81	50	7 (17)	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 (18)	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 (18)	15.5	30	101~300	110	57	18	16.5	35
	51~100	90	52											
80	5~50	100	51	110	61	10 (20)	18	39	101~300	130	66	20	19	44
	51~100	110	61											
100	5~50	111	60.5	121	70.5	12 (22)	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
*3. ( ) Dimensions for piston rod extended "LA" type.

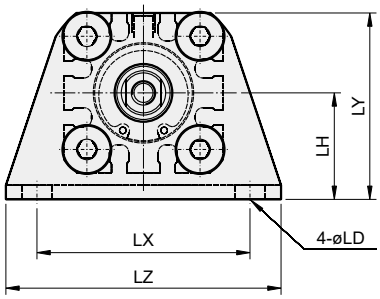


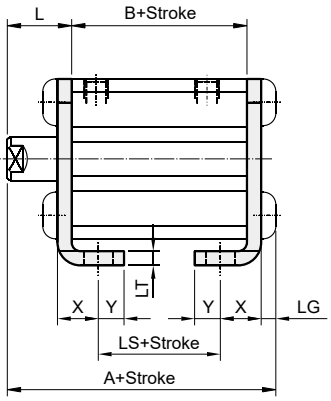
No.	Accessories	Material	Page link
1	Mounting accessories LB	Carbon steel	
2	Mounting accessories FAC/FBC	Carbon steel	
3	Mounting accessories CB+PIN	Cast iron / *	
4	Mounting accessories RF	Aluminum	
5	Floating joint MFC	Carbon steel	
6	Floating joint MFCS	Carbon steel	
7	Female rod ends PHS	Carbon steel	
8	Fitting PC (PISCO)	–	
9	Speed controller JSC (PISCO)	–	
10	Sensor switch RCE/RCE1	–	
11	Sensor switch RDEP	–	

* Material of PIN and ø12, ø16 CB accessories are carbon steel.

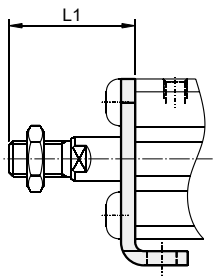
LB

Female thread





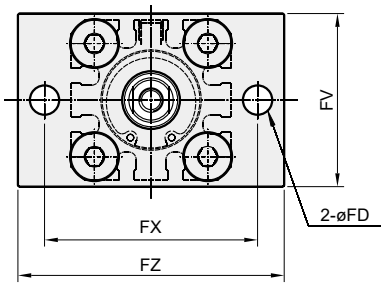
Male thread

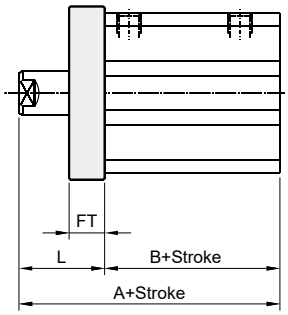


Code / Tube I.D.	Standard stroke							Long stroke				L	L1	LD	LG	LH	LT	LX	LY	LZ	X	Y
	Stroke range	Without magnet			Magnet			Stroke range	A	B	LS											
		A	B	LS	A	B	LS															
12	5~30	35.3	17	5	40.3	22	10	35~100	50.3	32	20	13.5	24	4.5	2.8	17	2	34	29.5	44	8	4.5
16	5~30	35.3	17	5	40.3	22	10	35~100	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

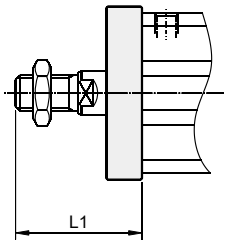
FAC

Female thread





Male thread

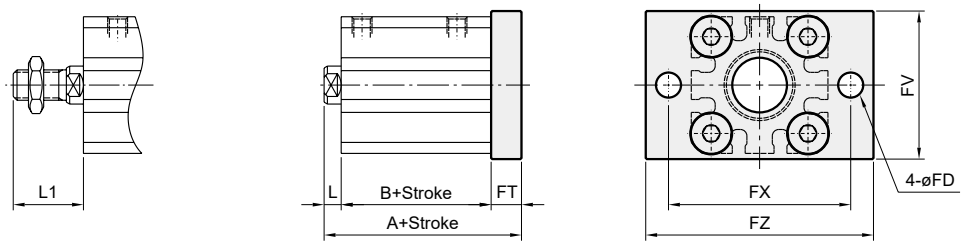


Code / Tube I.D.	Standard stroke					Long stroke			FD	FT	FV	FX	FZ	L	L1
	Stroke range	Without magnet		Magnet		Stroke range	A	B							
		A	B	A	B										
12	5~30	30.5	17	35.5	22	35~100	45.5	32	4.5	5.5	25	45	55	13.5	24
16	5~30	30.5	17	35.5	22	35~100	45.5	32	4.5	5.5	30	45	55	13.5	25.5
20	5~50	34	19.5	44	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

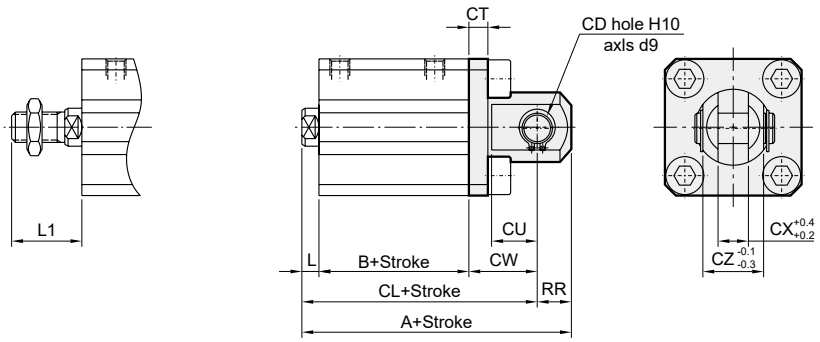


Code / Tube I.D.	Standard stroke									Long stroke					FD	FT	FV	FX	FZ
	Stroke range	Without magnet				Magnet				Stroke range	A	B	L	L1					
		A	B	L	L1	A	B	L	L1										
12	5~30	26	17	3.5	14	31	22	3.5	14	35~100	51	32	13.5	24	4.5	5.5	25	45	55
16	5~30	26	17	3.5	15.5	31	22	3.5	15.5	35~100	51	32	13.5	25.5	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

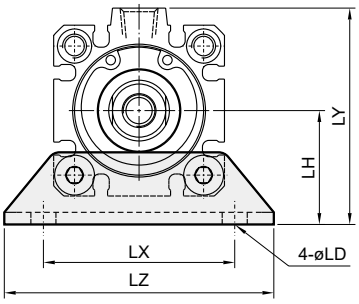


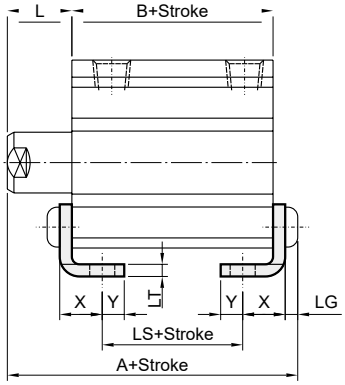
Code / Tube I.D.	Standard stroke										Long stroke						CD	CT	CU	CW	CX	CZ	RR
	Stroke range	Without magnet					Magnet				Stroke range	A	B	CL	L	L1							
		A	B	CL	L	L1	A	B	CL	L	L1													
12	5~30	40.5	17	34.5	3.5	14	45.5	22	39.5	3.5	14	35~100	65.5	32	59.5	13.5	24	5	4	7	14	5	10	6
16	5~30	41.5	17	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

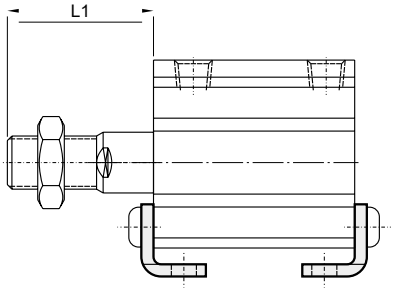
Standard stroke

Female thread



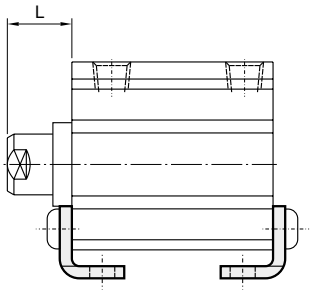


Male thread

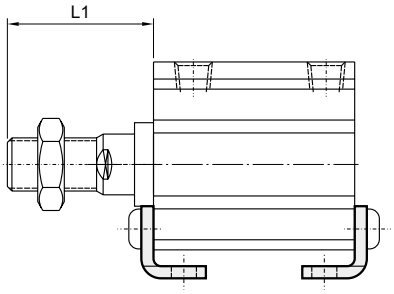


Long stroke

Female thread



Male thread

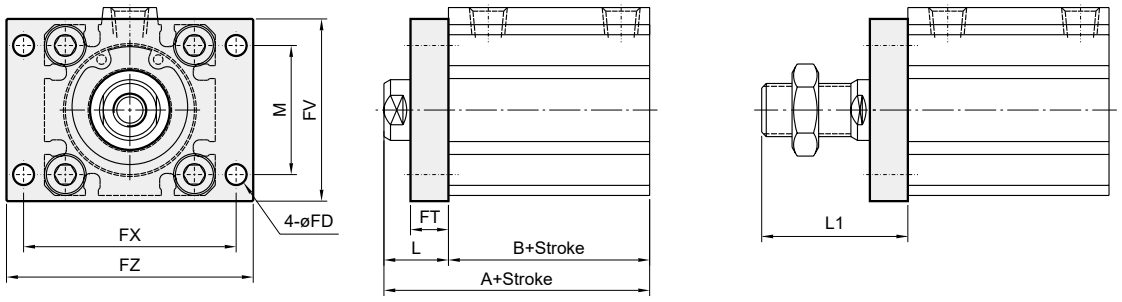


Code / Tube I.D.	Standard stroke							Long stroke				L	L1	LD	LG	LH	LT	LX	LY	LZ	X	Y
	Stroke range	Without magnet			Magnet			Stroke range	A	B	LS											
		A	B	LS	A	B	LS															
32	5~50	47.2	23	7	57.2	33	17	125~300	69.7	45.5	29.5	17	38.5	6.6	4	30	3.2	57	57	71	11.2	5.8
	75,100	57.2	33	17																		
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

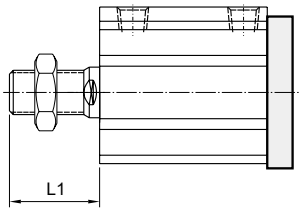


Code / Tube I.D.	Standard stroke					Long stroke			FD	FT	FV	FX	FZ	L	L1	M
	Stroke range	Without magnet		Magnet		Stroke range	A	B								
		A	B	A	B											
32	5~50	40	23	50	33	125~300	62.5	45.5	5.5	8	48	56	65	17	38.5	34
	75,100	50	33													
40	5~50	46.5	29.5	56.5	39.5	125~300	72	55	5.5	8	54	62	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													

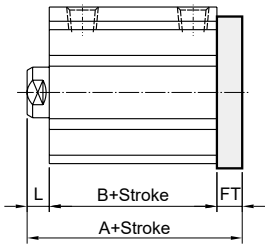
FBC

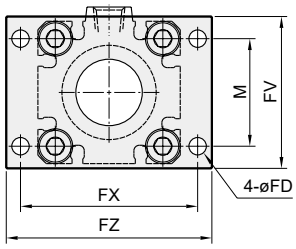
Standard stroke

Male thread



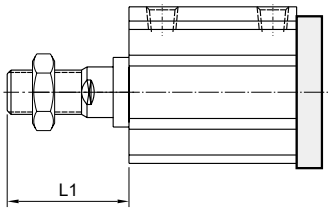
Female thread



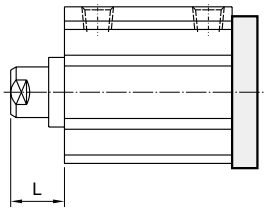


Long stroke

Male thread



Female thread

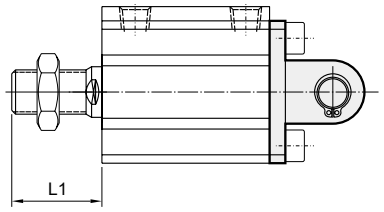


Code / Tube I.D.	Standard stroke							Long stroke					FD	FT	FV	FX	FZ	M
	Stroke range	Without magnet		Magnet		L	L1	Stroke range	A	B	L	L1						
		A	B	A	B													
32	5~50	38	23	48	33	7	28.5	125~300	70.5	45.5	17	38.5	5.5	8	48	56	65	34
	75,100	48	33															
40	5~50	44.5	29.5	54.5	39.5	7	28.5	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															

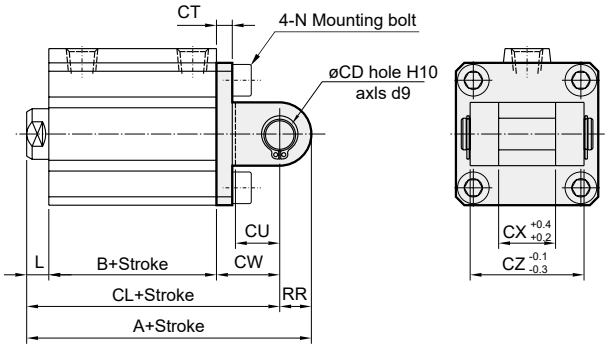
CB

Standard stroke

Male thread

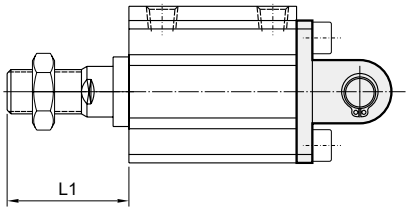


Female thread

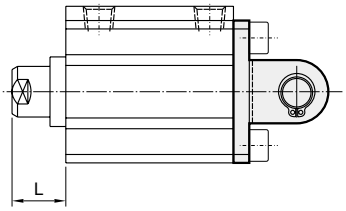


Long stroke

Male thread

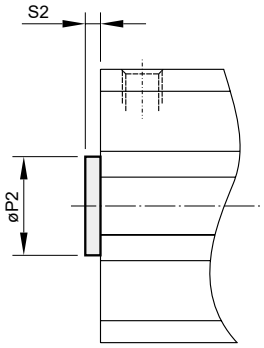


Female thread



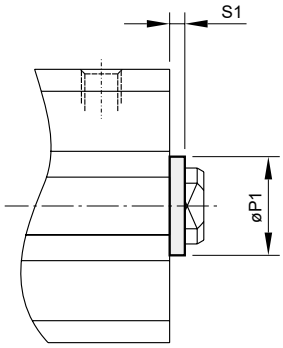
Code / Tube I.D.	Standard stroke									Long stroke						CD	CT	CU	CW	CX	CZ	N	RR
	Stroke range	Without magnet			Magnet			L	L1	Stroke range	A	B	CL	L	L1								
		A	B	CL	A	B	CL																
32	5~50	60	23	50	70	33	60	7	28.5	125~300	92.5	45.5	82.5	17	38.5	10	5	14	20	18	36	M6×1.0	10
	75,100	70	33	60																			
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



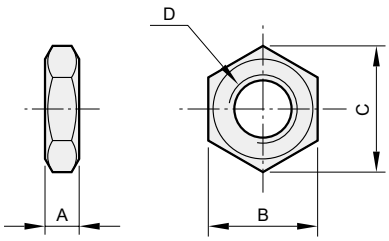
Code / Tube I.D.	P2 h9	S2
12	6	1.5
16	10	1.5
20	13	2
25	15	2
32	21	2
40	28	2
50	35	2
63	35	2
80	43	2
100	59	2

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

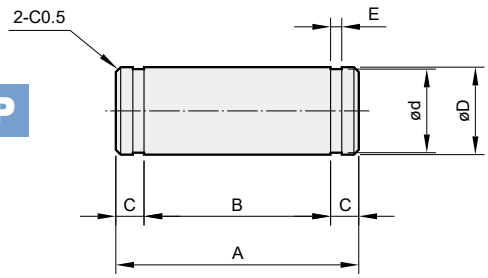
Rod front nut



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

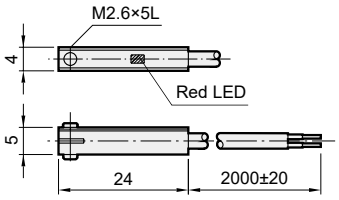
P



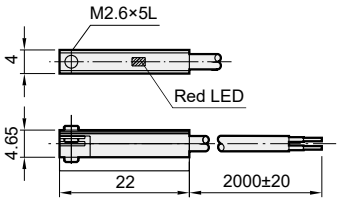
Code / Tube I.D.	A	B	C	øD d9	ød	E	Snap ring
12	14.6	10.2	2.2	5 -0.03 -0.06	4.8 0 -0.04	0.7 +0.10 0	STW-5
16	16.6	12.2	2.2	5 -0.03 -0.06	4.8 0 -0.04	0.7 +0.10 0	STW-5
20	21	16.2	2.4	8 -0.04 -0.08	7.6 0 -0.06	0.9 +0.10 0	STW-8
25	25.6	20.2	2.7	10 -0.04 -0.08	9.6 0 -0.06	1.15 +0.14 0	STW-10
32,40	41.6	36.2	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

Dimensions

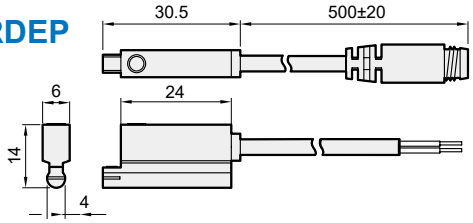
RCE



RCE1 RNE

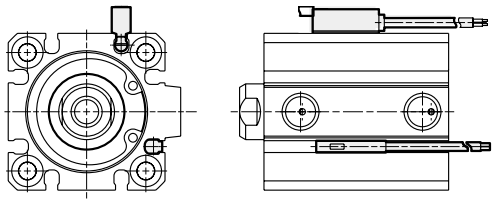


RDEP

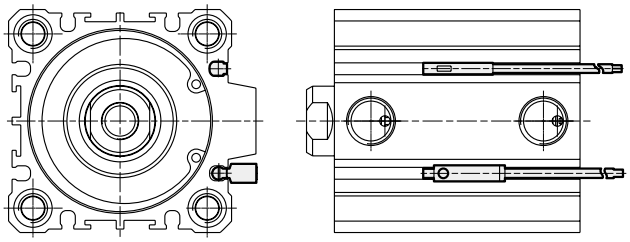


Installation of sensor switch

ø12~ø40



ø50~ø100



Order example

RCE1 — □

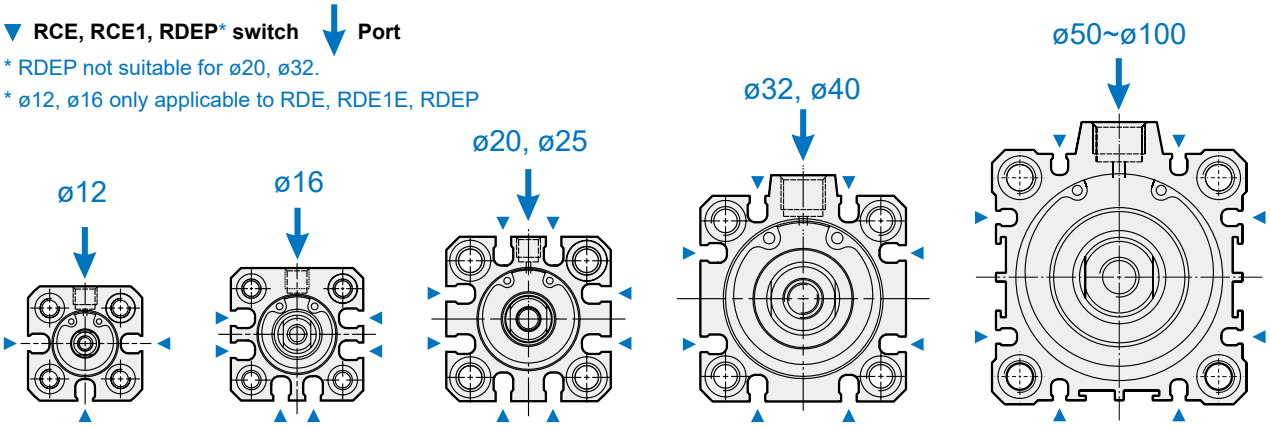
MODEL
RCE / RCE1 (**C**: Reed switch)
RNE (**N**: Solid state switch)
RDEP (Solid state switch)

WIRE LENGTH
1M: L=1000m
2M: L=2000m
QD: M8 3Pin connector
EQD: M8 3Pin connector

Description

▼ **RCE, RCE1, RDEP*** **switch** ↓ **Port**

* RDEP not suitable for ø20, ø32.
* ø12, ø16 only applicable to RDE, RDE1E, RDEP



Cylinder weight

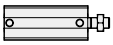
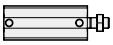
Standard stroke

Unit: g

Model		Basic weight MCJQ-11	Basic weight (magnet) MCJQ-11	Stroke 5 mm MCJQ-11	Basic weight MCJQ-12	Basic weight (magnet) MCJQ-12	Stroke 5 mm MCJQ-12
Tube I.D.	Stroke range (mm)						
ø12	5~30	22	31	7	19	28	7
ø16	5~30	33	42	8	28	37	8
ø20	5~50	55	82	13	48	75	13
ø25	5~50	92	140	16	75	123	16
ø32	5~50	129	215	22	109	166	22
	51~100	206	215	22	157	166	22
ø40	5~50	226	315	24	184	266	24
	51~100	298	315	24	249	266	24
ø50	5~50	367	500	35	317	409	35
	51~100	476	500	35	386	409	35
ø63	5~50	530	714	41	446	622	41
	51~100	685	714	41	594	622	41
ø80	5~50	1032	1278	65	904	1109	65
	51~100	1240	1278	65	1072	1109	65
ø100	5~50	1864	2278	90	1679	2030	90
	51~100	2230	2278	90	1982	2030	90

Long stroke

Unit: g

Model		Basic weight MCJQ-11	Basic weight (magnet) MCJQ-11	Stroke 5 mm MCJQ-11	Basic weight MCJQ-12	Basic weight (magnet) MCJQ-12	Stroke 5 mm MCJQ-12
Tube I.D.	Stroke range (mm)						
ø12	31~100	46	47	7	43	44	7
ø16	31~100	68	70	8	63	65	8
ø20	51~200	116	120	13	106	110	13
ø25	51~300	172	180	16	153	161	16
ø32	101~300	287	295	22	238	247	22
ø40	101~300	409	426	24	360	377	24
ø50	101~300	658	682	35	566	589	35
ø63	101~300	852	881	41	760	789	41
ø80	101~300	1531	1568	65	1398	1436	65

Accessories weight

Unit: g

Model	LB	CB	FAC/FBC	F	RF	Pin	Nut
Tube I.D.							
ø12	51	31	56	1	1	2	1
ø16	60	37	67	2	1	3	2
ø20	145	61	135	3	1	8	4
ø25	166	94	153	4	2	16	6
ø32	107	136	165	9	3	25	18
ø40	125	171	203	17	9	25	18
ø50	209	331	357	28	16	61	32
ø63	296	538	547	52	30	61	32
ø80	586	1034	1046	107	52	127	56
ø100	960	1765	1328	175	82	214	56

Special spec

Rod end shape

Technical data

Caution for safety
(Read before installing)



Features

Two-stage stroke: Two compact cylinders with same I.D. but different strokes length are connected to achieve two-stage stroke.

Specification

Model		MCJQ-3*									
Acting type		Double acting									
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 perssure range (MPa)		0.07~1	0.05~1								
Proof pressure		1.5 MPa									
Ambient temperature		-5°C~+60°C (No freezing)									
Available speed range		50~500 mm/sec									
Sensor switch (*2)	RCE, RCE1	(*1)	●	●	●	●	●	●	●	●	
	RDEP	●	●	–	●	–	●	●	●	●	●

*1. ø12, ø16: only applicable to RDE and RDE1E.
*2. RCE, RCE1, RDEP specification.

Order example

MCJQ — 32 — 20 — 10×25 M — F — G

- MODEL
- 3: Multiple position
- TUBE I.D.
- (*) STROKE1×STROKE2
  - Stroke 1: First stroke
  - Stroke 2: Total stroke
- M: Magnet
- TYPE
- PORT THREAD
  - Blank: M5×0.8 (for ø12~ø25)
  - Blank: Rc thread
  - **G**: G thread
  - **NPT**: NPT thread (for ø32~ø100)

STYLE

Code		Symbol	Description
3	1		Double acting / Male thread
3	2		Double acting / Female thread

* The total stroke must be greater than the first stroke.

TYPE

Code	Description
Blank	Standard
F	Rear flange
L	Piston rod extended to 10 mm (for standard stroke for STROKE2). For adding FAC accessories

Flat washer kits

WS — MCJQ — 3 — 20

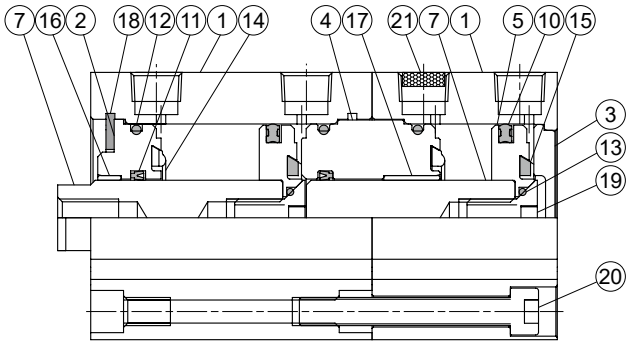
- FLAT WASHER
- MODEL
- MULTIPLE POSITION
- TUBE I.D.

Table for standard stroke

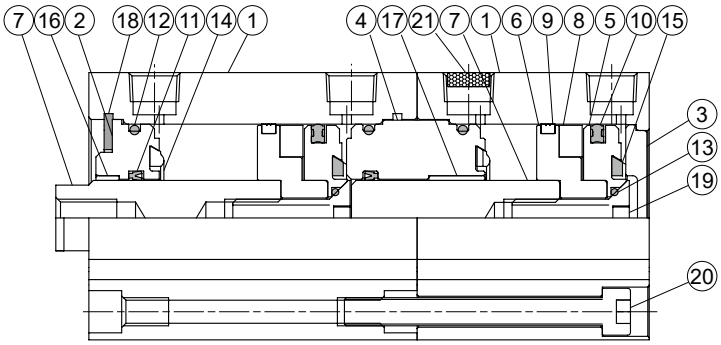
Tube I.D.	Stroke 1	Stroke2	
	Standard stroke	Standard stroke	Long stroke (mm)
ø12,16	5,10,15,20,25,30	5,10,15,20,25,30	35,40,45,50,75,100
ø20	5,10,15,20,25,30, 35,40,45,50	5,10,15,20,25,30, 35,40,45,50	75,100,125,150,175,200
ø25			75,100,125,150,175,200,250,300
ø32~80	5,10,15,20,25,30, 35,40,45,50,75,100	5,10,15,20,25,30, 35,40,45,50,75,100	125,150,175,200,250,300
ø100			–

* Please contact us if the stroke is out of specification.

Double acting



Double acting (with magnet)



Material

No.	Tube I.D. / Part name	12	16	20	25	32	40	50	63	80	100	Q'y	Component parts (inclusion)	Repair kits (inclusion)
1	Body #1, #2	Aluminum alloy										1		
2	Rod cover	Aluminum alloy										1	●	
3	End cover	Aluminum alloy										1	●	
4	Center cover	Aluminum alloy										1	●	
5	Piston (Without magnet)	Aluminum alloy										2	●	
6	Piston (With magnet)	Aluminum alloy										2	●	
7	Piston rod #1, #2	Carbor steel										1		
8	Magnet ring	Magnet										2	●	
9	Wear ring	–				Resin						2	●	
10	Piston packing	NBR										2	●	●
11	Rod packing	NBR										2	●	●
12	Cover ring	NBR										3	●	●
13	Piston gasket	NBR										2	●	●
14	Cushion packing	NBR										2	●	●
15	Cushion packing	NBR										2	●	●
16	Bush #1	–					Bearing alloy					1	●	
17	Bush #2	–		Bearing alloy								1	●	
18	Snap ring	Stainless steel					Spring steel					1	●	
19	Piston bolt	Stainless steel					SCM					2	●	
20	Bolt	SUS		SCM								2		
21	Silencer	Brass										1	●	

Order example

Component parts

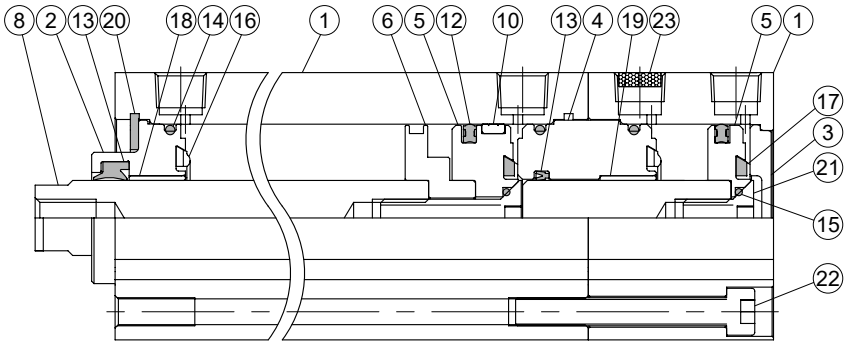
Tube I.D.	Component parts
ø12	**CP-MCJQ-3-12(M)**
ø16	**CP-MCJQ-3-16(M)**
ø20	**CP-MCJQ-3-20(M)**
ø25	**CP-MCJQ-3-25(M)**
ø32	**CP-MCJQ-3-32(M)**
ø40	**CP-MCJQ-3-40(M)**
ø50	**CP-MCJQ-3-50(M)**
ø63	**CP-MCJQ-3-63(M)**
ø80	**CP-MCJQ-3-80(M)**
ø100	**CP-MCJQ-3-100(M)**

M: With magnet

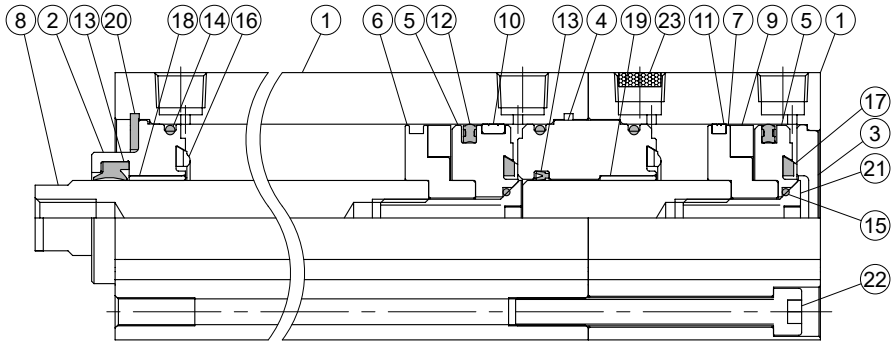
Repair kits

Tube I.D.	Repair kits
ø12	**PS-MCJQ-3-12**
ø16	**PS-MCJQ-3-16**
ø20	**PS-MCJQ-3-20**
ø25	**PS-MCJQ-3-25**
ø32	**PS-MCJQ-3-32**
ø40	**PS-MCJQ-3-40**
ø50	**PS-MCJQ-3-50**
ø63	**PS-MCJQ-3-63**
ø80	**PS-MCJQ-3-80**
ø100	**PS-MCJQ-3-100**

Double acting



Double acting (with magnet)



Material

No.	Tube I.D. / Part name	12	16	20	25	32	40	50	63	80	Q'y	Component parts (inclusion)	Repair kits (inclusion)
1	Body #1, #2	Aluminum alloy									1		
2	Rod cover	Aluminum alloy									1	●	
3	End cover	Aluminum alloy									1	●	
4	Center cover	Aluminum alloy									1	●	
5	Piston #1, #2	Aluminum alloy									1	●	
6	Piston #1 With magnet	Aluminum alloy									1	●	
7	Piston #2 With magnet	Aluminum alloy									1	●	
8	Piston rod #1, #2	Carbor steel									1		
9	Magnet ring	Magnet									2	●	
10	Wear ring #1	Resin									1	●	
11	Wear ring #2	–				Resin					1	●	
12	Piston packing	NBR									2	●	●
13	Rod packing #1, #2	NBR									1	●	●
14	Cover ring	NBR									3	●	●
15	Piston gasket	NBR									2	●	●
16	Cushion packing	NBR									2	●	●
17	Cushion packing	NBR									2	●	●
18	Bush #1	–					Bearing alloy				1	●	
19	Bush #2	–		Bearing alloy							1	●	
20	Snap ring	Stainless steel					Spring steel				1	●	
21	Piston bolt	Stainless steel					SCM				2	●	
22	Bolt	SUS		SCM							2		
23	Silencer	Brass									1	●	

Order example

Component parts

Tube I.D.	Component parts
ø12	**CPL-MCJQ-3-12(M)**
ø16	**CPL-MCJQ-3-16(M)**
ø20	**CPL-MCJQ-3-20(M)**
ø25	**CPL-MCJQ-3-25(M)**
ø32	**CPL-MCJQ-3-32(M)**
ø40	**CPL-MCJQ-3-40(M)**
ø50	**CPL-MCJQ-3-50(M)**
ø63	**CPL-MCJQ-3-63(M)**
ø80	**CPL-MCJQ-3-80(M)**

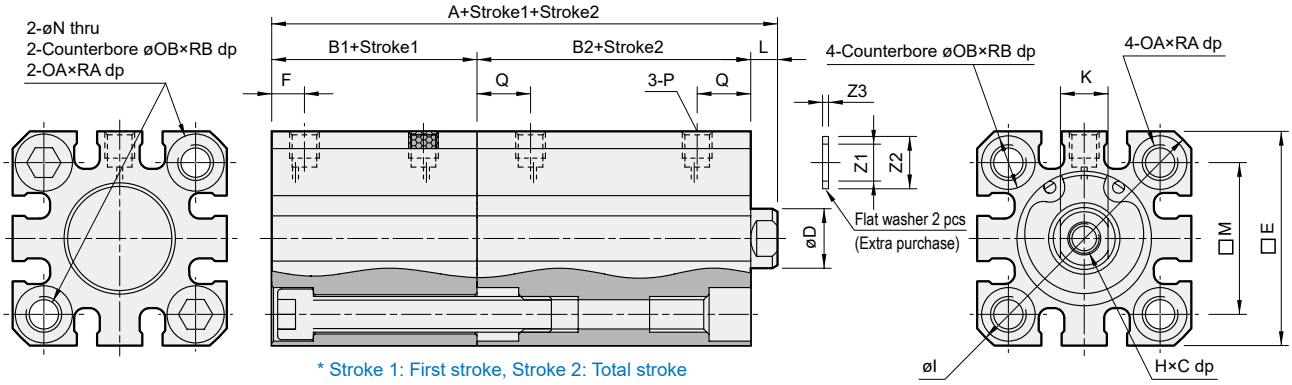
M: With magnet

Repair kits

Tube I.D.	Repair kits
ø12	**PSL-MCJQ-3-12**
ø16	**PSL-MCJQ-3-16**
ø20	**PSL-MCJQ-3-20**
ø25	**PSL-MCJQ-3-25**
ø32	**PSL-MCJQ-3-32**
ø40	**PSL-MCJQ-3-40**
ø50	**PSL-MCJQ-3-50**
ø63	**PSL-MCJQ-3-63**
ø80	**PSL-MCJQ-3-80**

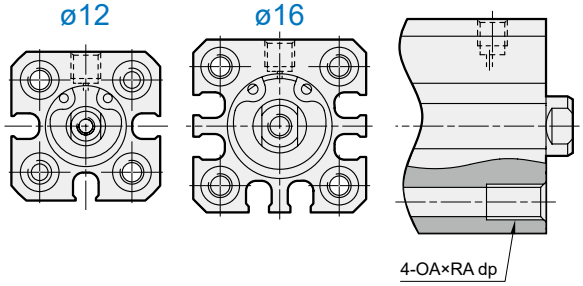
32

ø20, ø25 Total stroke 5~100

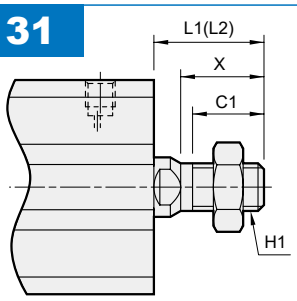


* Stroke 1: First stroke, Stroke 2: Total stroke

ø12 ø16 for total stroke over 101



31



Male thread

Code / Tube I.D.	C1	H1	L1*1,2	L2*1	X
12	9	M5×0.8	14 (24)	24	10.5
16	10	M6×1.0	15.5 (25.5)	25.5	12
20	12	M8×1.25	18.5 (28.5)	28.5	14
25	15	M10×1.25	22.5 (32.5)	32.5	17.5

*1. L1: Total stroke (Standard stroke)
L2: Total stroke (Long stroke)
*2. ( ) Dimensions for piston rod extended "L" type.

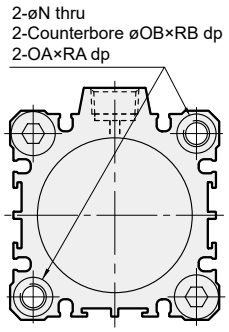
Code / Tube I.D.	First stroke			Total stroke										
	Standard stroke			Standard stroke						Long stroke				
	Stroke range	Without magnet B1	Magnet B1	Stroke range	Without magnet A	Without magnet B2	Magnet A	Magnet B2	L*	Stroke range	Without magnet A	Magnet A	B2	L
12	5~30	17	22	5~30	42.5	22	52.5	27	3.5 (13.5)	31~100	62.5	67.5	32	13.5
16	5~30	17	22	5~30	42.5	22	52.5	27	3.5 (13.5)	31~100	62.5	67.5	32	13.5
20	5~50	19.5	29.5	5~50	50	26	70	36	4.5 (14.5)	51~200	75	85	41	14.5
25	5~50	22.5	32.5	5~50	56.5	29	76.5	39	5 (15)	51~300	81.5	91.5	44	15

Code / Tube I.D.	C	D	E	F	H	I	K	M	N	OA	OB	P	Q	RA	RB	Z1	Z2	Z3
12	6	6	25	5	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	8	8	29	5	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	7	10	36	5.5	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	12	12	40	5.5	M6×1.0	52	10	28	5.4	M6×1.0	9	M5×0.8	11	10	7	6.2	8.8	1

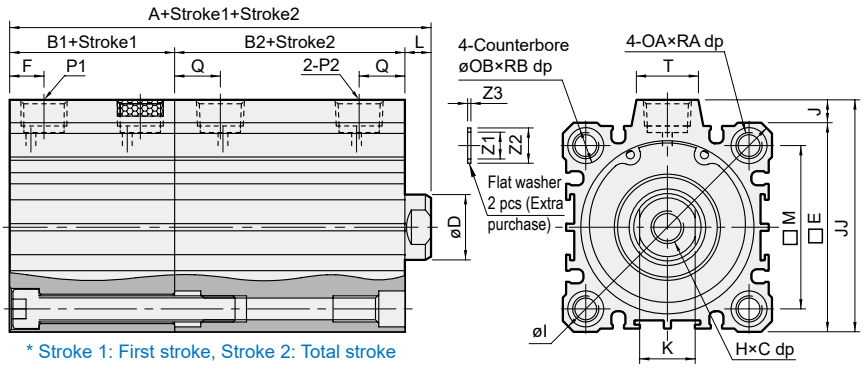
* ( ) Dimensions for piston rod extended "L" type.

32

ø50~ø100

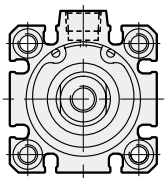


Total stroke 5~100

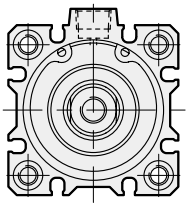


* Stroke 1: First stroke, Stroke 2: Total stroke

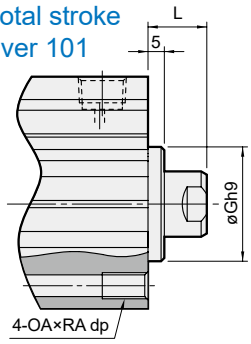
ø32



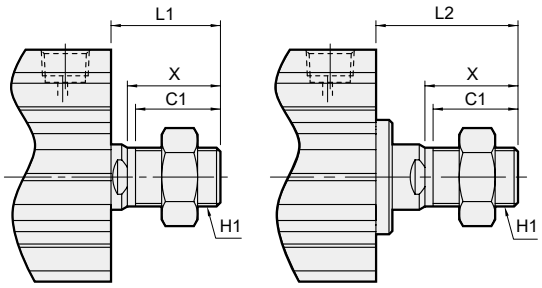
ø40



for total stroke over 101



ø32~ø100 (Total stroke 5~100) ø32~ø80 (Total stroke over 101)



Code / Tube I.D.	First stroke			Total stroke												
	Standard stroke			Standard stroke							Long stroke					
	Stroke range	Without B1	Magnet B1	Stroke range	Without magnet A	Without magnet B2	Magnet A	Magnet B2	L*5	Q	Stroke range	Without A	Magnet A	B2	L	Q
32	5~50	23	33	5~50	60.5	30.5	80.5	40.5	7 (17)	12.5	101~300	85.5	95.5	45.5	17	12.5
	51~100	33		51~100	70.5	40.5						95.5				
	51~100	33		51~100	80.5	40.5										
40	5~50	29.5	39.5	5~50	76.5	40	96.5	50	7 (17)	14		101.5	111.5	55	17	14
	51~100	39.5		51~100	86.5	50						111.5				
				51~100	96.5	50										
50	5~50	30.5	40.5	5~50	79	40.5	99	50.5	8 (18)	14		104	114	55.5	18	14
	51~100	40.5		51~100	89	50.5						114				
				51~100	99	50.5										
63	5~50	36	46	5~50	86	42	106	52	8 (18)	15.5		111	121	57	18	16.5
	51~100	46		51~100	96	52						121				
				51~100	106	52										
80	5~50	43.5	53.5	5~50	104.5	51	124.5	61	10 (20)	18		129.5	139.5	66	20	19
	51~100	53.5		51~100	114.5	61						139.5				
				51~100	124.5	61										
100	5~50	53	63	5~50	125.5	60.5	145.5	70.5	12 (22)	22	–					
	51~100	63		51~100	135.5	70.5										
				51~100	145.5	70.5										

31

Male thread

Code / Tube I.D.	C1	H1	L1*1,2	L2*1	X
32	20.5	M14×1.5	28.5 (38.5)	38.5	23.5
40	20.5	M14×1.5	28.5 (38.5)	38.5	23.5
50	26	M18×1.5	33.5 (43.5)	43.5	28.5
63	26	M18×1.5	33.5 (43.5)	43.5	28.5
80	32.5	M22×1.5	43.5 (53.5)	53.5	35.5
100	32.5	M26×1.5	43.5 (53.5)	–	35.5

*1. L1: Total stroke (Standard stroke)
L2: Total stroke (Long stroke)
*2. ( ) Dimensions for piston rod extended "L" type.

Code / Tube I.D.	C	D	E	F	G h9	H	I	J	JJ	K	M	N	OA	OB	P1	P2	RA	RB	T	Z1	Z2	Z3
32	13	16	45	7.5*1	22 +0 -0.052	M8×1.25	60	4.5	49.5	14	34	5.5	M6×1.0	9	Rc1/8*1	Rc1/8*1	10	7	14	6.2	8.8	1
40	13	16	52	8	28 +0 -0.052	M8×1.25	70	5	57	14	40	5.5	M6×1.0	9	Rc1/8	Rc1/8	10	7	14	6.2	8.8	1
50	15	20	64	10.5*2	35 +0 -0.062	M10×1.5	86	7	71	17	50	6.6	M8×1.25	11	Rc1/4*2	Rc1/4	14	8	19	8.2	10.8	1
63	15	20	77	10.5	35 +0 -0.062	M10×1.5	103	7	84	17	60	9	M10×1.5	14	Rc1/4*3	Rc1/4*3	18	10.5	19	10.2	13.8	1
80	21	25	98	12.5	43 +0 -0.062	M16×2.0	132	6	104	22	77	11	M12×1.75	17.5	Rc3/8*4	Rc3/8*4	22	13.5	26	12.2	17.3	2
100	27	30	117	13	–	M20×2.5	156	6.5	123.5	27	94	11	M12×1.75	17.5	Rc3/8*4	Rc3/8*4	22	13.5	26	12.2	17.3	2

*1. First stroke without magnet=5mm, P1=M5×0.8, F=5.5,
Total stroke without magnet=5mm, P1=P2=M5×0.8, F=5.5
*2. First stroke or total stroke without magnet=5mm, P1=Rc1/8, F=8
*3. First stroke without magnet=5mm, P1=Rc1/8, Total stroke without magnet=5mm, P1=P2=Rc1/8
*4. First stroke without magnet=5mm, P1=Rc1/4, Total stroke without magnet=5mm, P1=P2=Rc1/4
*5. ( ) Dimensions for piston rod extended "L" type.

MCKJQ series

COMPACT CYLINDER WITH NON-ROTATING ROD

Special spec

Technical data

Caution for safety
(Read before installing)



Features

- The profile designs are based on MCJQ.
- Hexagonal rods for non-rotating feature.
- Anodised aluminum tubes provide better corrosion and abrasion resistance.
- Stainless Steel rods for better corrosion resistance.

Specification

Model		MCKJQ					
Acting type		Double acting					
Tube I.D. (mm)		12	16	20	25	32	40
Port size		M5×0.8				Rc1/8	
Medium		Air					
Operating perssure range		0.1~1 MPa		0.8~1 MPa		0.6~1 MPa	
Proof pressure		1.5 MPa					
Ambient temperature		-5°C~+60°C (No freezing)					
Available speed range		50~500 mm/sec					
Rod non-rotating accuracy		±1°	±0.7°		±0.5°		
Allowable rotational torque (kgf-cm)		0.4	2	2.5		4.5	
Sensor switch (*2)	RCE, RCE1	(*1)		●	●	●	●
	RDEP	●	●	–	●	–	●

*1. ø12, ø16: only applicable to RDE and RDE1E.
*2. RCE, RCE1, RDEP specification.
*3. The cylinder is allowed little leakage. Before delivery, it has passed the standard of leakage test.

Table for stroke

Tube I.D.	Standard stroke	Long stroke
ø12, 16	5,10,15,20,25,30	–
ø20, 25 (*1)	5,10,15,20,25,30,35,40,45,50	75,100
ø32, 40	↑ 75, 100	–

*1. Using long stroke type body when the cylinder stroke is longer than 51 mm.
*2. Please contact us if the stroke is out of specification.

Tightening torque

Tube I.D.	Rod thread	Tightening torque (kgf·cm)
ø12	M5×0.8	22.8
ø16	M6×1.0	41
ø20	M8×1.25	100
ø25	M10×1.25	190
ø32,40	M14×1.5	540

* Make sure the tightening torque of rod thread does not exceed the value above.
* The tolerance of tightening torque is ±5%.

Order example

MCKJQ – 12 – 20 – 25 M – F – G

MODEL **1**: Single rod

TUBE I.D.

STROKE **M**: Magnet

PORT THREAD
Blank: M5×0.8
(for ø12~ø25)
Blank: Rc thread
G: G thread
NPT: NPT thread
(for ø32, ø40)

STYLE

Code		Symbol	Description
1	1		Double acting / Male thread
1	2		Double acting / Female thread

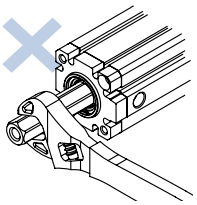
TYPE

Code	Description
Blank	Standard
F	Rear flange (for standard stroke)
L	Piston rod extended to 10 mm (for tube I.D. ø40 standard stroke). For adding LB and FAC accessories
N2*	Front mounting holes enlarged

* Please confirm the mounting method before purchase and contact us if it is A mounting method. (Refer to "Plate mounting methods").

Caution

Please don't attempt to rotate the piston rod.



Accessories

	Accessories			
Code	LB *1 (Purchase 2 pcs)	CB	FAC *1	FBC
Mounting / Tube I.D.				
ø40	LB-J1-40	CB-J1-40	FAC-J1-40	

*1. Within the standard stroke, LB and FAC must be used with the L type (as the piston rod needs to be extended by 10 mm). See previous page for stroke range.

*2. The mounting accessories only for tube I.D. ø40.

*3. Refer to MCJQ dimension.

Pin

Applicable	CB accessories
Code	PIN-CB-P (With snap ring)
Fig / Tube I.D.	
ø40	PIN-J1-32-1-P

Order example of self-assembled

The tube I.D. ø40 of LB accessories with stroke 25mm.

No.	Order number	Qty
1	LB-J1-40	2
2	MCKJQ-12-40-25-L	1

* To order accessories/cylinder, please place orders separately according to the order codes in the above table. Please refer to the previous page for the cylinder ordering method.

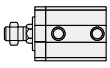
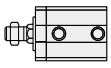
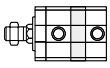
Rod nut

Code	NUT
Fig / Tube I.D.	
ø12	NUT-M5x0.8x4Hx8B
ø16	NUT-M6x1.0x5Hx10B
ø20	NUT-M8x1.25x5Hx13B
ø25	NUT-M10x1.25x6Hx17B
ø32	NUT-M14x1.5x8Hx22B
ø40	

Cylinder weight

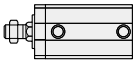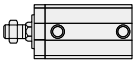
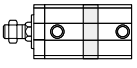
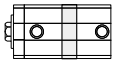
Standard stroke

Unit: g

Model		Basic weight MCKJQ-11	Basic weight (magnet) MCKJQ-11	Stroke 5mm MCKJQ-11	Basic weight MCKJQ-12	Basic weight (magnet) MCKJQ-12	Stroke 5mm MCKJQ-12
Tube I.D.	Stroke range (mm)						
ø12	5~30	38	46	7	36	44	7
ø16		55	66	9	50	61	9
ø20	5~50	100	130	14	93	123	14
ø25		150	189	18	137	176	18
ø32	5~100	231	283	22	200	252	22
ø40		250	315	23	219	284	23

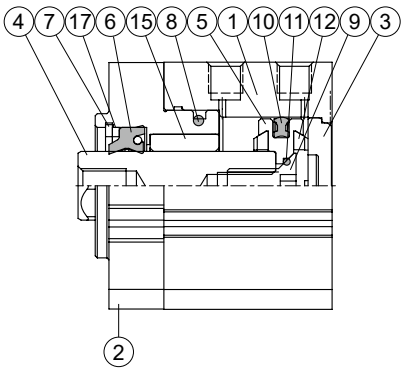
Long stroke

Unit: g

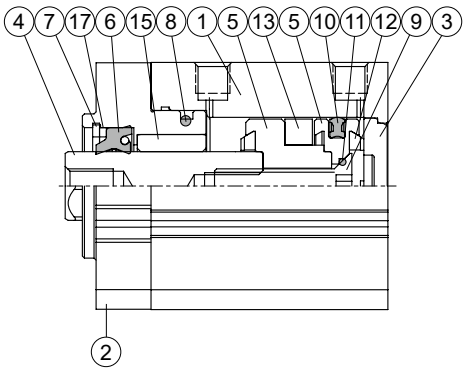
Model		Basic weight MCKJQ-11	Basic weight (magnet) MCKJQ-11	Stroke 5mm MCKJQ-11	Basic weight MCKJQ-12	Basic weight (magnet) MCKJQ-12	Stroke 5mm MCKJQ-12
Tube I.D.	Stroke range (mm)						
ø20	51 or more	308	312	14	301	305	14
ø25		398	407	16	390	399	16

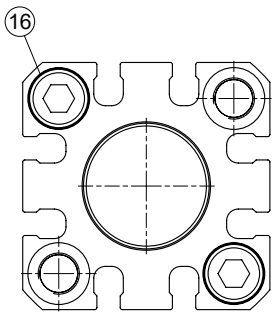
* The weight is based on 51 mm stroke.

Standard stroke ø12~ø32

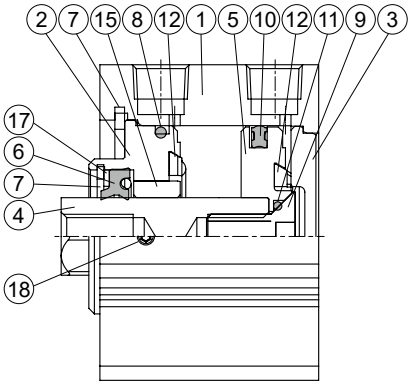


Standard stroke ø12~ø32 (with magnet)

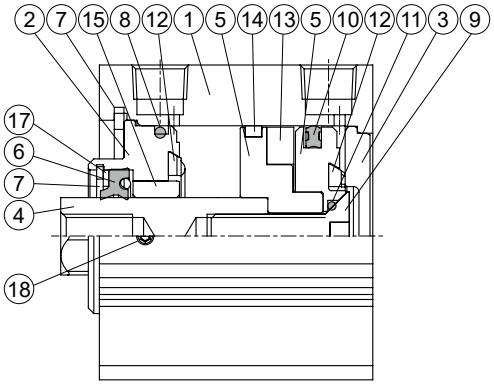




Standard stroke ø40



Standard stroke ø40 (with magnet)



Standard stroke – Material

No.	Tube I.D. / Part name	12	16	20	25	32	40	Q'y	Repair kits (inclusion)
1	Body	Aluminum alloy						1	
2	Rod cover	Aluminum alloy						1	
3	End cover	Aluminum alloy						1	
4	Piston rod	Stainless steel						1	
5	Piston	Aluminum alloy						1	
6	Rod packing	NBR						1	●
7	Snap ring	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 ring	Magnet						1	
14	Wear ring	–				Resin		1	
15	Bush	Bearing alloy						1	
16	Bolt	Carbon steel					–	2	
17	Washer	Carbon steel						1	
18	Set screw	–					*1	1	

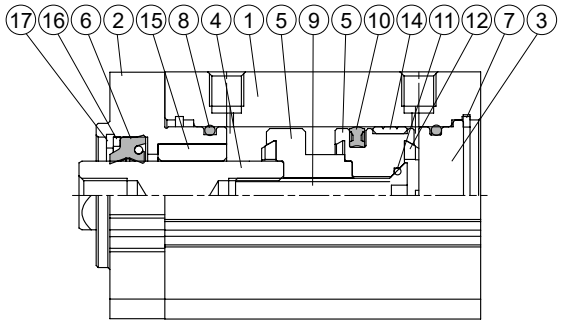
*1. Alloy steel

Order example

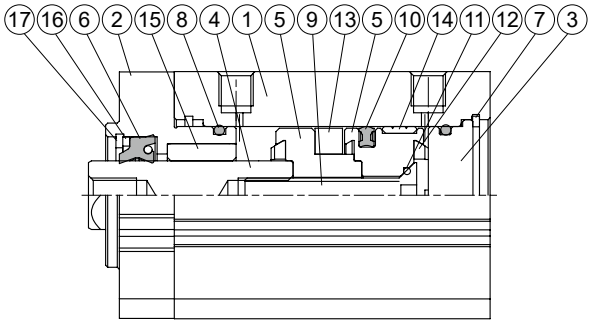
Repair kits

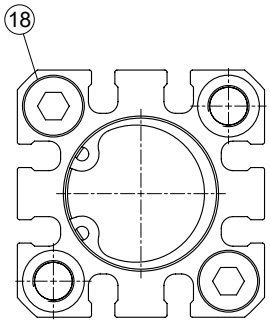
Tube I.D.	Repair kits
ø12	**PS-MCKJQ-12**
ø16	**PS-MCKJQ-16**
ø20	**PS-MCKJQ-20**
ø25	**PS-MCKJQ-25**
ø32	**PS-MCKJQ-32**
ø40	**PS-MCKJQ-40**

Long stroke ø20, ø25



Long stroke ø20, ø25
(with magnet)





Long stroke – Material

No.	Tube I.D. / Part name	Material	Q'y	Component parts (inclusion)	Repair kits (inclusion)
1	Body	Aluminum alloy	1		
2	Rod cover	Aluminum alloy	1	●	
3	End cover	Aluminum alloy	1	●	
4	Piston rod	Stainless steel	1		
5	Piston	Aluminum alloy	1	●	
6	Rod packing	NBR	1	●	●
7	Snap ring	Stainless steel	1	●	
8	Cover ring	NBR	2	●	●
9	Piston bolt	Stainless steel	1	●	
10	Piston packing	NBR	1	●	●
11	Piston gasket	NBR	1	●	●
12	Cushion packing	NBR	2	●	●
13	Magnet ring	Magnet	1	●	
14	Wear ring	Resin	1	●	
15	Bush	Bearing alloy	1	●	
16	Washer	Carbon steel	1	●	
17	Snap ring	Spring steel	1	●	
18	Bolt	Carbon steel	2		

Order example

Component parts

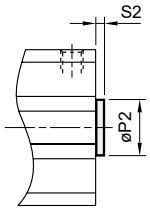
Tube I.D.	Component parts
ø20	**CPL-MCKJQ-20(M)**
ø25	**CPL-MCKJQ-25(M)**

M: With magnet

Repair kits

Tube I.D.	Repair kits
ø20	**PSL-MCKJQ-20**
ø25	**PSL-MCKJQ-25**

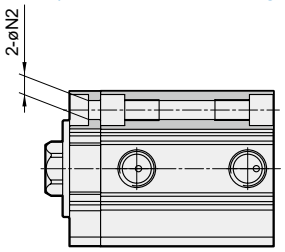
F Rear flange



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

N2 Front mounting holes enlarged

(Applicable mounting method A)



Code / Tube I.D.	N2
12	4.5
16	4.5
20	6.5
25	6.5
32	6.5

Plate mounting methods

⚠ Caution

Different mounting methods match different bolts and plate. Please confirm the mounting method before purchase.

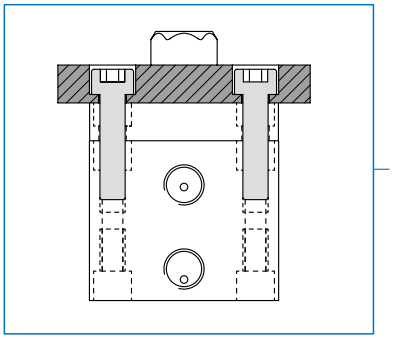
* The plates and bolts are prepared by the customers.

Bolt specification

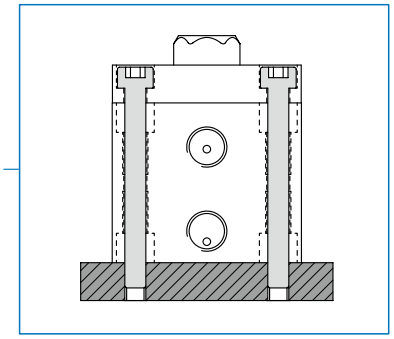
Tube I.D. / Mounting	ø12	ø16	ø20	ø25	ø32	ø40
A, C	M4×0.7	M4×0.7	M6×1.0	M6×1.0	M6×1.0	M6×1.0
B, D	M3×0.5	M3×0.5	M5×0.8	M5×0.8	M5×0.8	M5×0.8

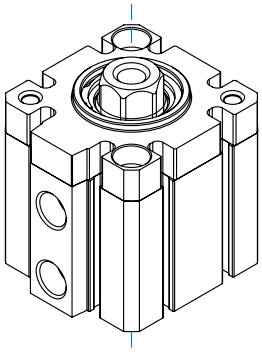
A The plate is in front and the bolt is mounted from the front. For ø12~ø32, when selecting mounting option A, the order code must be N2 type.

Order example: **MCKJQ-12-20-25M-N2**

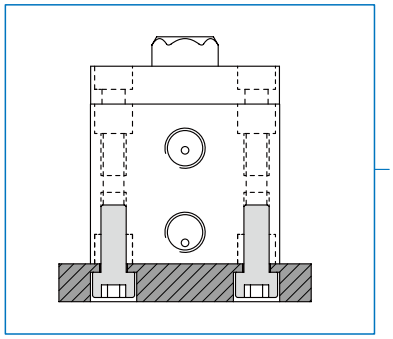


B The plate is in back and the bolt is mounted from the front.

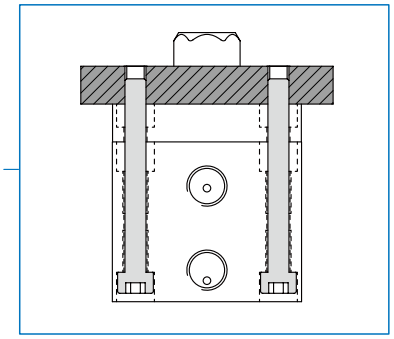




C The plate is in back and the bolt is mounted from the back.

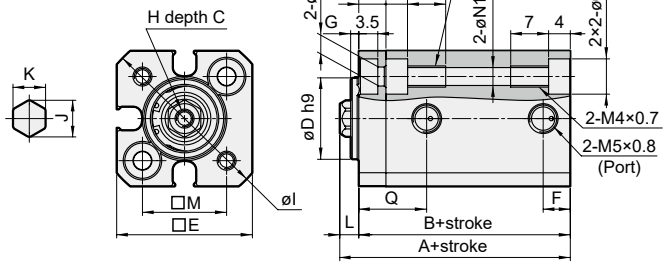


D The plate is in front and the bolt is mounted from the back.

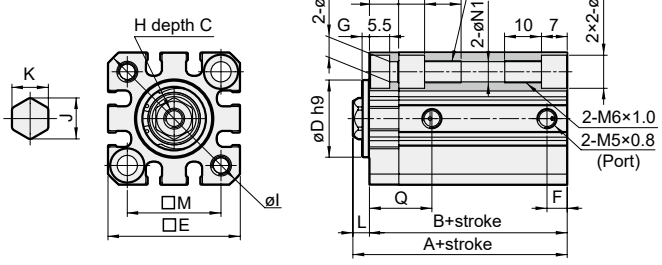


12

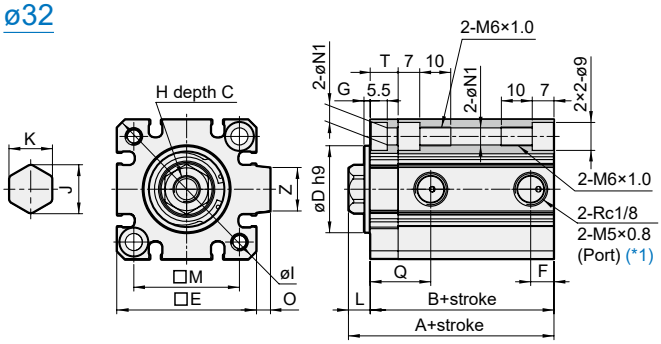
ø12, ø16



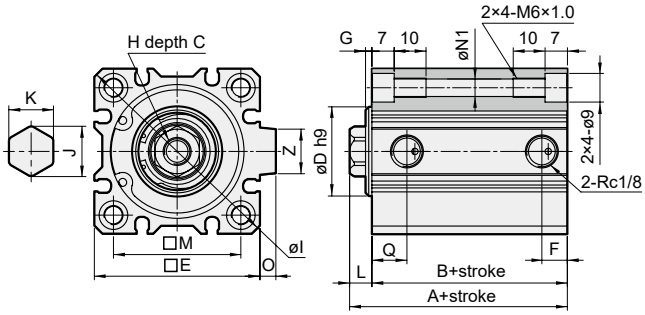
ø20, ø25



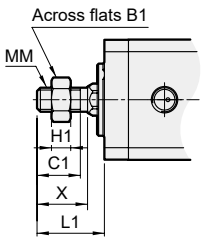
ø32



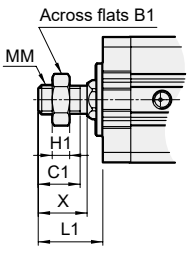
ø40



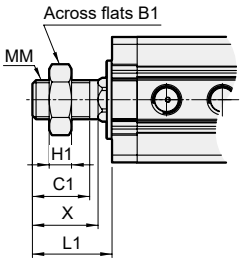
ø12, ø16



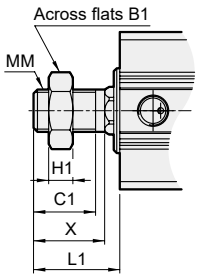
ø20, ø25



ø32



ø40



11 Male thread

Code / Tube I.D.	B1	C1	H1	L1*	MM	X
12	8	9	4	14	M5×0.8	10.5
16	10	10	5	15.5	M6×1.0	12
20	13	12	5	18.5	M8×1.25	14
25	17	15	6	22.5	M10×1.25	17.5
32	22	20.5	8	28.5	M14×1.5	23.5
40	22	20.5	8	28.5 (38.5)	M14×1.5	23.5

* ( ) Dimensions for piston rod extended "L" type.

Code / Tube I.D.	Standard stroke							Long stroke				C	D	E	F	G	H	I	J	K	L*2	M	N1	O	Q	T	Z
	Stroke range	Without magnet			Magnet			Stroke range	A	B	F																
		A	B	F	A	B	F																				
12	5~30	25.5	22	–	30.5	27	–	–	–	–	–	6	15 $^{0}_{-0.043}$	25	5	1.5	M3×0.5	32	6.74	6	3.5	15.5	3.5	–	12.5	5	–
16	5~30	27	23.5	–	32	28.5	–	–	–	–	–	8	19 $^{0}_{-0.052}$	29	5	1.5	M4×0.7	38	8.96	8	3.5	20	3.5	–	14	6.5	–
20	5~50	32	27.5	5.5	42	37.5	5.5	51~100	53.5	49	9	7	21 $^{0}_{-0.052}$	36	–	2	M5×0.8	47	11.24	10	4.5	25.5	5.5	–	17	8	–
25	5~50	35.5	30.5	5.5	45.5	40.5	5.5	51~100	57	52	11	12	22 $^{0}_{-0.052}$	40	–	2	M6×1.0	52	13.52	12	5	28	5.5	–	19	8	–
32	5~50	39	32	–	49	42	–	–	–	–	–	13	28 $^{0}_{-0.052}$	45	7.5*1	2	M8×1.25	60	15.76	14	7	34	5.5	4.5	19.5*1	9	14
	51~100	49	42	–	49	42	–	–	–	–	–	13	28 $^{0}_{-0.052}$	45	7.5*1	2	M8×1.25	60	15.76	14	7	34	5.5	4.5	19.5*1	9	14
40	5~50	36.5	29.5	–	46.5	39.5	–	–	–	–	–	13	28 $^{0}_{-0.052}$	52	8	2	M8×1.25	70	15.76	14	7(17)	40	5.5	5	11	–	14
	51~100	46.5	39.5	–	46.5	39.5	–	–	–	–	–	13	28 $^{0}_{-0.052}$	52	8	2	M8×1.25	70	15.76	14	7(17)	40	5.5	5	11	–	14

*1. Without magnet with stroke=5mm, Port size = M5×0.8, Q=20.5, F=5.5
*2. ( ) Dimensions for piston rod extended "L" type.

MCJI series

ISO 21287 **COMPACT CYLINDER**

Special spec

Technical data

Caution for safety
(Read before installing)



Features

- ISO 21287 standard.
- Wide range of bore sizes and strokes.
- Ultra compact, light weight and space saving.
- Sensor slots on RCI sides for flush mounting of proximity sensors.
- Magnetic as standard.

Specification

Model	MCJI	
Acting type	Double acting	
Tube I.D. (mm)	20,25	32,40,50,63,80,100
Port size	M5×0.8	G1/8
Medium	Air	
Operating perssure range	0.05~1 MPa	
Proof pressure	1.5 MPa	
Cushion	Rubber bumper	
Lubricator	Without lubrication	
Stroke length tolerance (*)	+0~+1.0 mm	
Ambient temperature	-5°C~+60°C (No freezing)	
Available speed range	50~500 mm/sec	
Sensor switch	RDT, RQT, RCI	

* Stroke length tolerance does not include the amount of bumper change.

Table for standard stroke

Tube I.D.	Stroke (mm)	Max. stroke
ø20,25	5,10,15,20,25,30,40,50,60,80,100,200	300
ø32,40	5,10,15,20,25,30,40,50,60,80,100,200,300	300
ø50,63	10,15,20,25,30,40,50,60,80,100,200,300,400	400
ø80,100	15,20,25,30,40,50,60,80,100,200,300,400,500	500

* Please contact us if the stroke is out of specification.

Order example

MCJI — 12 — 20 — 25

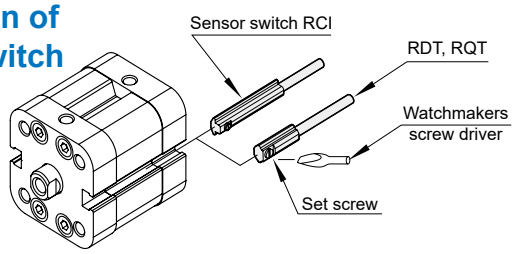
MODEL | 1: Single rod 2: Double rod | TUBE I.D. | STROKE

STYLE

Code		Symbol	Description
1	1		Double acting / Male thread
1	2		Double acting / Female thread

Code		Symbol	Description
2	1		Double rod / Male thread
2	2		Double rod / Female thread

Installation of sensor switch



Order example of mounting accessories

Code	LB (Purchase 2 pcs)	CA	CB	FAC	FBC	MP	ROD NUT
Mounting / Tube I.D.							
ø20	LB-J2-20	CA-J2-20	–	FAC-J2-20		MP-J2-20	NUT-M8x1.25x4Hx13B
ø25	LB-J2-25	CA-J2-25	–	FAC-J2-25		MP-J2-25	
ø32	LB-J2-32	CA-J2-32	CB-J2-32	FAC-J2-32		MP-J2-32	NUT-M10x1.25x5Hx17B
ø40	LB-J2-40	CA-J2-40	CB-J2-40	FAC-J2-40		MP-J2-40	
ø50	LB-J2-50	CA-J2-50	CB-J2-50	FAC-J2-50		MP-J2-50	NUT-M12x1.25x6Hx19B
ø63	LB-J2-63	CA-J2-63	CB-J2-63	FAC-J2-63		MP-J2-63	
ø80	LB-J2-80	CA-J2-80	CB-J2-80	FAC-J2-80		MP-J2-80	NUT-M16x1.5x8Hx24B
ø100	LB-J2-100	CA-J2-100	CB-J2-100	FAC-J2-100		MP-J2-100	

Pin

Applicable CA & CB accessories

Code	PIN-CB-P (With snap ring)
Fig / Tube I.D.	
ø20	–
ø25	–
ø32	PIN-J2-32-1-P
ø40	PIN-J2-40-1-P
ø50	PIN-J2-50-1-P
ø63	PIN-J2-63-1-P
ø80	PIN-J2-80-1-P
ø100	PIN-J2-100-1-P

Theoretic force

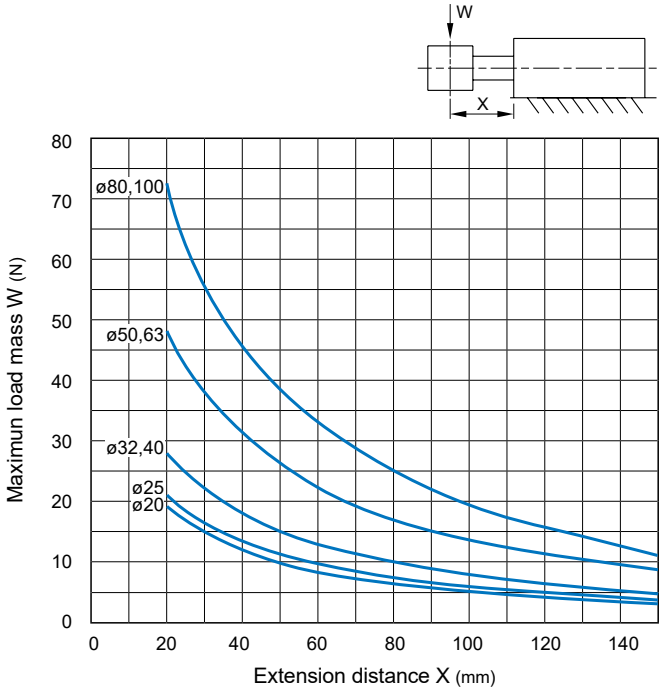


Unit: N

Tube I.D.	Acting direction	Operating perssure (MPa)		
		0.3	0.5	0.7
20	IN	69	116	162
	OUT	92	154	216
25	IN	121	202	283
	OUT	144	241	337
32	IN	203	339	475
	OUT	237	394	552
40	IN	337	561	785
	OUT	370	616	863
50	IN	519	864	1210
	OUT	578	963	1348
63	IN	858	1430	2003
	OUT	917	1529	2141
80	IN	1387	2311	3236
	OUT	1479	2466	3452
100	IN	2219	3698	5178
	OUT	2311	3852	5393

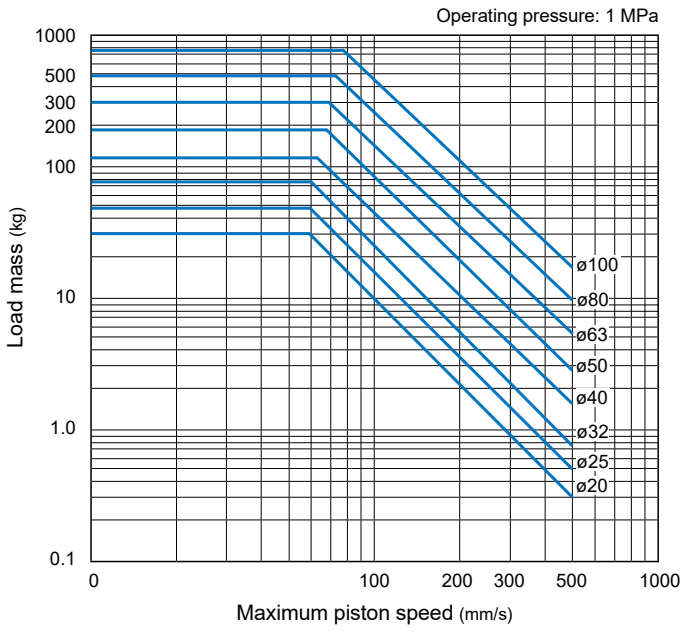
Allowable Lateral Load

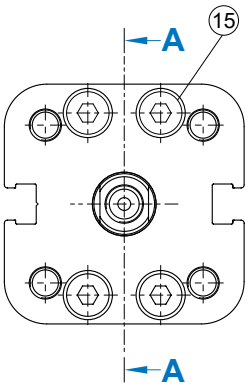
Please make sure to use the cylinder within allowable lateral load. Otherwise, the cylinder may be damaged or the life may be shortened.



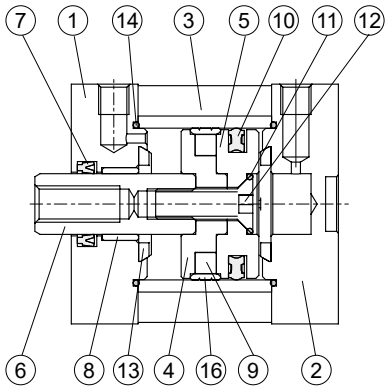
Allowable kinetic energy

Please make sure to use the cylinder within allowable kinetic energy. If it is used outside the range, it may cause excessive impact and damage the device.

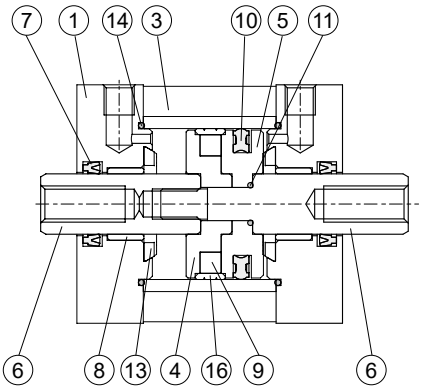




Single rod



Double rod



Material

No.	Part name	Material	Q'y		Component parts (inclusion)	Repair kits (inclusion)
			Single	Double		
1	Rod cover	Aluminum alloy	1	2	●	
2	End cover	Aluminum alloy	1	–	●	
3	Tube	Aluminum alloy	1	1		
4	Piston-R	Aluminum alloy	1	1	●	
5	Piston-H	Aluminum alloy	1	1	●	
6	Piston rod	*1	1	2		
7	Rod packing	NBR	1	1	●	●
8	Bush	Bearing alloy	1	1	●	
9	Magnet ring	Magnet material	1	1	●	
10	Piston packing	NBR	1	1	●	●
11	O-ring	NBR	1	1	●	●
12	Screw	Carbon steel	1	–	●	
13	Cushion	NBR	2	2	●	●
14	O-ring	NBR	2	2	●	●
15	Screw	Stainless steel	8	8	●	
16	Wear ring	Resin	1	1	●	

*1. Material ø20, ø25: Stainless steel; ø32~ø100: Medium carbon steel.

Order example

Component parts / Repair kits

Single rod

Tube I.D.	Component parts	Repair kits
ø20	**CP-MCJI-20**	**PS-MCJI-20**
ø25	**CP-MCJI-25**	**PS-MCJI-25**
ø32	**CP-MCJI-32**	**PS-MCJI-32**
ø40	**CP-MCJI-40**	**PS-MCJI-40**
ø50	**CP-MCJI-50**	**PS-MCJI-50**
ø63	**CP-MCJI-63**	**PS-MCJI-63**
ø80	**CP-MCJI-80**	**PS-MCJI-80**
ø100	**CP-MCJI-100**	**PS-MCJI-100**

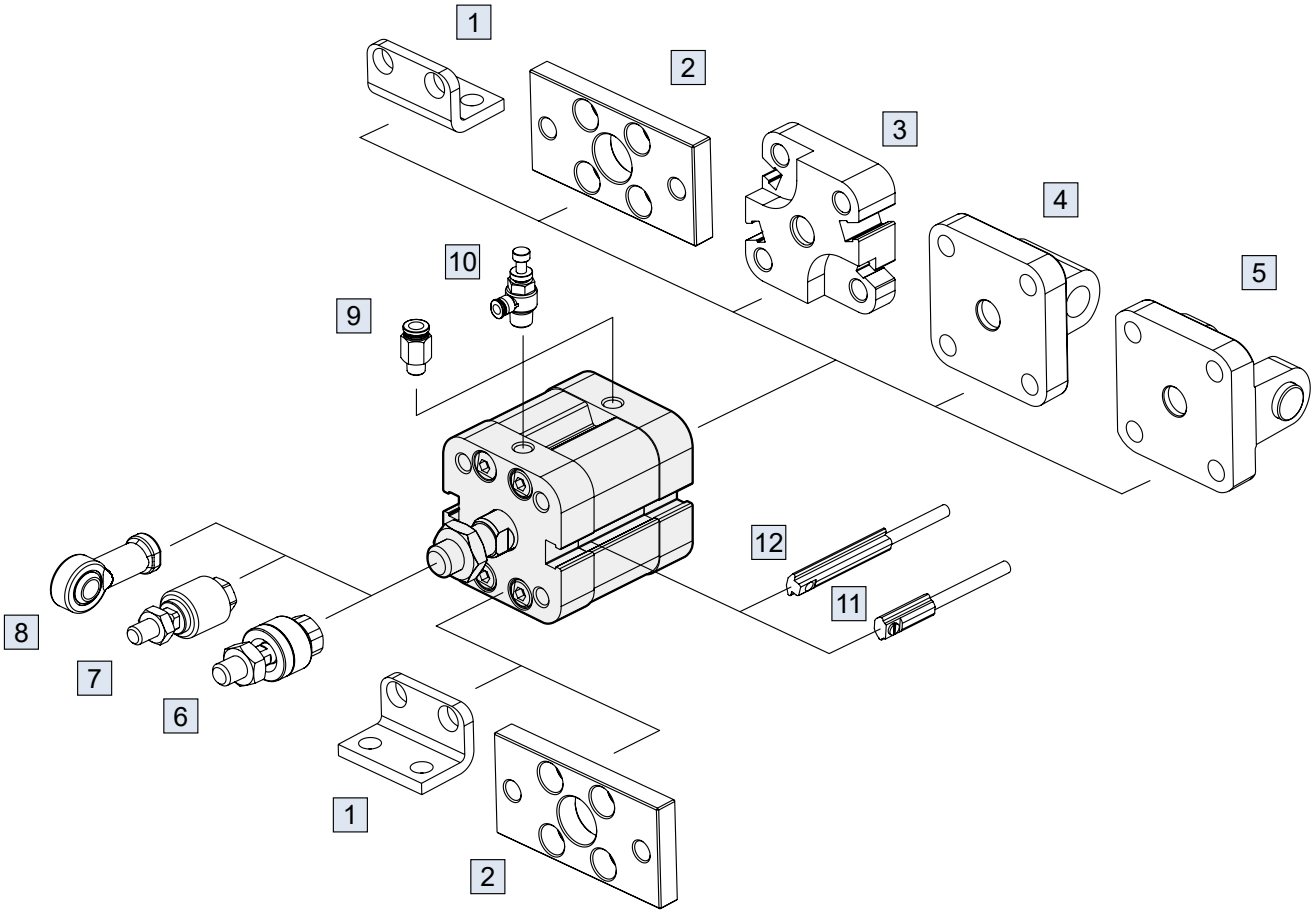
Double rod

Tube I.D.	Component parts	Repair kits
ø20	**CP-MCJI-2-20**	**PS-MCJI-2-20**
ø25	**CP-MCJI-2-25**	**PS-MCJI-2-25**
ø32	**CP-MCJI-2-32**	**PS-MCJI-2-32**
ø40	**CP-MCJI-2-40**	**PS-MCJI-2-40**
ø50	**CP-MCJI-2-50**	**PS-MCJI-2-50**
ø63	**CP-MCJI-2-63**	**PS-MCJI-2-63**
ø80	**CP-MCJI-2-80**	**PS-MCJI-2-80**
ø100	**CP-MCJI-2-100**	**PS-MCJI-2-100**

Cylinder weight

Unit: g

Model	Basic weight **MCJI-11**	Stroke 10mm **MCJI-11**	Basic weight **MCJI-12**	Stroke 10mm **MCJI-12**	**LB**	**FAC/FBC**	**MP**	**CA**	**CB**	**PIN** (CA & CB)	Nut
Tube I.D.											
ø20	121	14	108	14	76	126	28	66	N/A	N/A	3
ø25	147	18	135	18	88	159	37	82	N/A	N/A	3
ø32	238	24	214	24	106	206	60	174	160	31	7
ø40	322	32	291	32	140	268	89	260	248	51	7
ø50	493	46	455	46	242	492	129	403	390	58	9
ø63	703	48	667	48	288	635	182	634	576	119	9
ø80	1260	76	1190	76	567	1457	339	1149	1085	150	18
ø100	2140	92	2060	92	766	2033	568	1550	1623	285	18



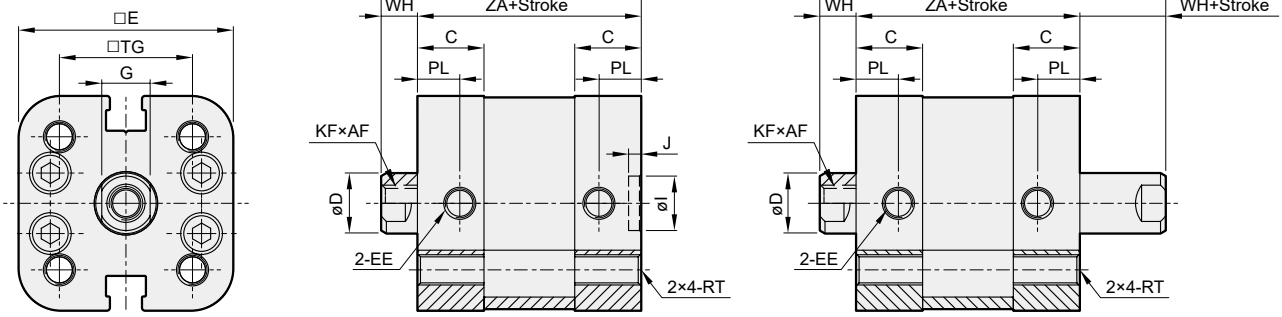
No.	Accessories	Material	Page link
1	Mounting accessories LB	Carbon steel	
2	Mounting accessories FAC/FBC	Carbon steel	
3	Mounting accessories MP	Aluminum	
4	Mounting accessories CA	Cast iron	
5	Mounting accessories CB+PIN	Cast iron / *	
6	Floating joint MFC	Carbon steel	
7	Floating joint MFCS	Carbon steel	
8	Female rod ends PHS	Carbon steel	
9	Fitting PC (PISCO)	–	
10	Speed controller JSC (PISCO)	–	
11	Sensor switch R*T	–	
12	Sensor switch RCI	–	

* Material of PIN is carbon steel.

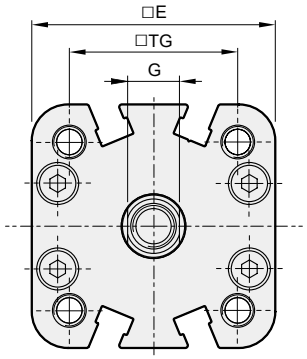
12 Single rod

22 Double rod

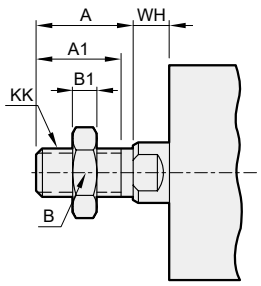
ø20~ø25



ø32~ø100



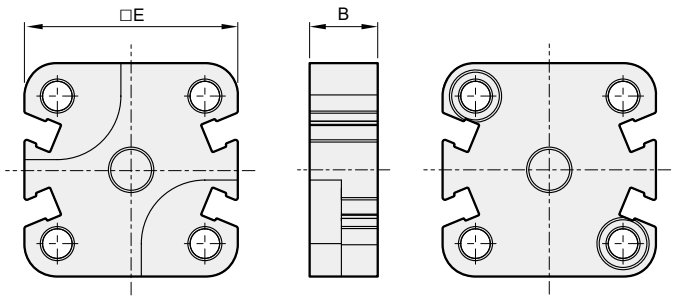
11 21 Male thread



Code / Tube I.D.	A	A1	B	B1	KK
20	16	14	13	4	M8×1.25
25	16	14	13	4	M8×1.25
32	19	17	17	5	M10×1.25
40	19	17	17	5	M10×1.25
50	22	20	19	6	M12×1.25
63	22	20	19	6	M12×1.25
80	28	26	24	8	M16×1.5
100	28	26	24	8	M16×1.5

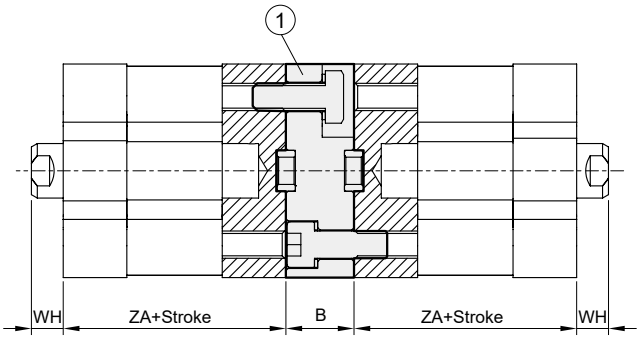
Code / Tube I.D.	AF	C	D	E	EE	G	WH	I	J	KF	PL	TG	RT	ZA	ZB	ZC
20	14	11	10	35.5	M5×0.8	8	6	9	2.1	M6×1.0	7	22	M5×0.8	37	43	49
25	14	11	10	39.5	M5×0.8	8	6	9	2.1	M6×1.0	7	26	M5×0.8	39	45	51
32	15	14	12	47.0	G1/8	10	7	9	2.1	M8×1.25	7.5	32.5	M6×1.0	44	51	58
40	15	14	12	54.5	G1/8	10	7	9	2.1	M8×1.25	7.5	38	M6×1.0	45	52	59
50	18	14	16	65.5	G1/8	14	8	12	2.6	M10×1.5	7.5	46.5	M8×1.25	45	53	61
63	18	14.5	16	75.5	G1/8	14	8	12	2.6	M10×1.5	7.5	56.5	M8×1.25	49	57	65
80	20	15.5	20	95.5	G1/8	17	10	12	2.6	M12×1.75	8	72	M10×1.5	54	64	74
100	20	18.5	20	113.5	G1/8	17	10	12	2.6	M12×1.75	9.5	89	M10×1.5	67	77	87

MP

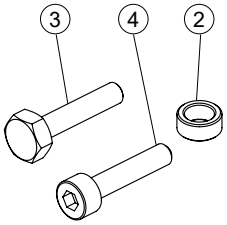


Code / Tube I.D.	B	E	WH	ZA	Max. overall stroke
20	13	35.5	6	37	600 mm
25	13	39.5	6	39	600 mm
32	15	47.0	7	44	800 mm
40	15	54.5	7	45	800 mm
50	15	65.5	8	45	800 mm
63	15	75.5	8	49	800 mm
80	17	95.5	10	54	1000 mm
100	19.5	113.5	10	67	1000 mm

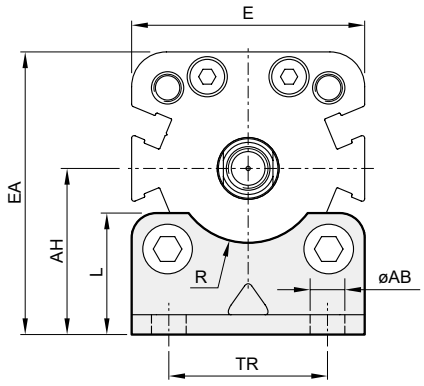
* The max. overall stroke length may not be exceeded when combining cylinders and multi-position kits.

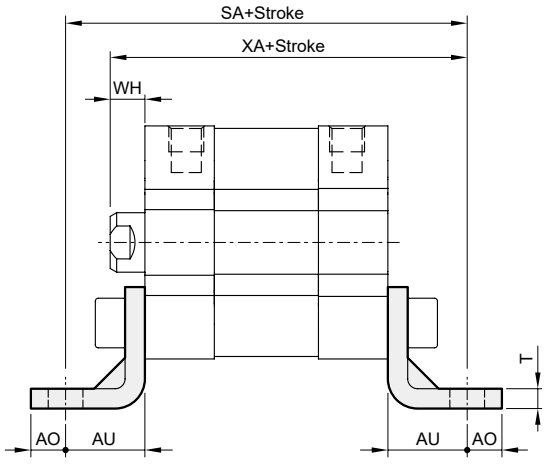


No.	Part name	Q'y
1	Connection block	1
2	Flange	2
3	Bolt	2
4	Bolt	2



LB

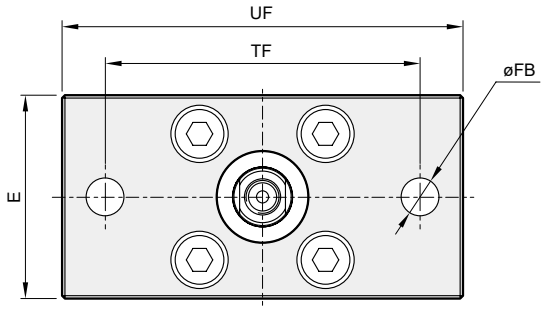


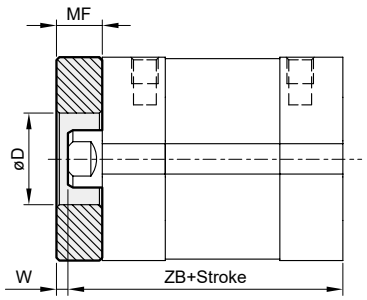


Code / Tube I.D.	AB	AH	AO	AU	E	EA	L	R	SA	T	TR	WH	XA
20	7	27	7	16	35.5	44.8	21	–	69	4	22	6	59
25	7	29	7	16	39.5	48.8	22	–	71	4	26	6	61
32	7	33.5	7	16	47.0	57.0	24.5	15	76	4	32	7	67
40	10	38	9	18	54.5	65.3	26	17.5	81	4	36	7	70
50	10	45	9	21	65.5	77.8	31	20	87	5	45	8	74
63	10	50	9	21	75.5	87.8	31	22.5	91	5	50	8	78
80	12	63	11	26	95.5	110.8	40	–	106	6	63	10	90
100	14.5	74	13	27	113.5	130.8	46	–	121	6	75	10	104

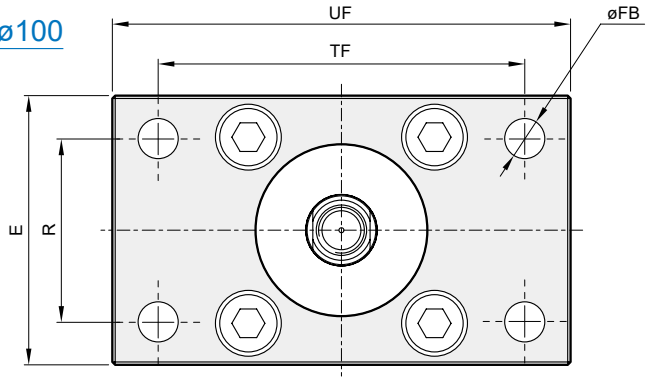
FAC

ø20~ø25





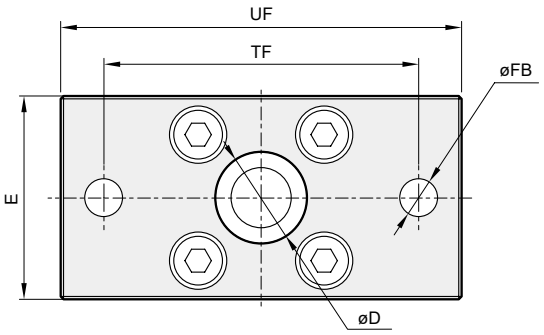
ø32~ø100

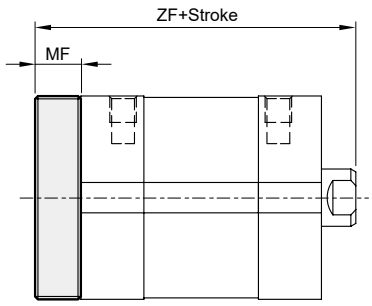


Code / Tube I.D.	D	E	FB	MF	R	TF	UF	W	ZB
20	16	35.5	6.6	8	–	55	70	2	43
25	16	39.5	6.6	8	–	60	76	2	45
32	30	47.0	7	10	32	64	80	3	51
40	35	54.5	9	10	36	72	90	3	52
50	40	65.5	9	12	45	90	110	4	53
63	45	75.5	9	12	50	100	120	4	57
80	45	95.5	12	16	63	126	150	6	64
100	55	113.5	14	16	75	150	175	6	77

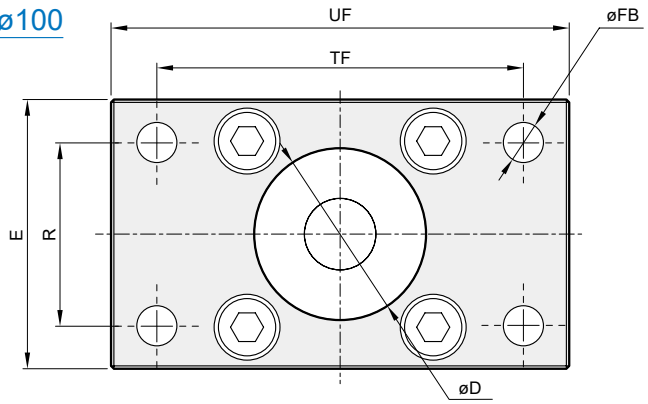
FBC

ø20~ø25



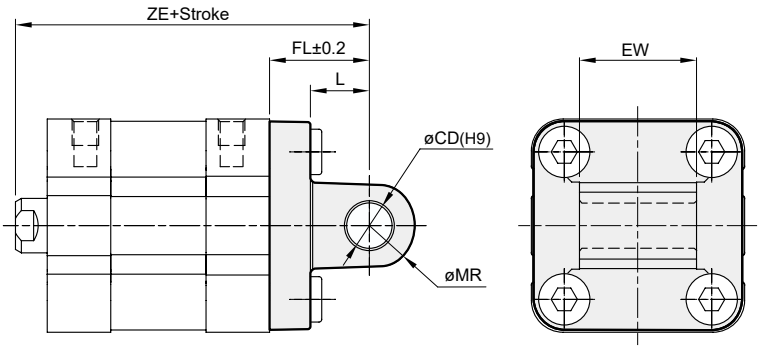


ø32~ø100



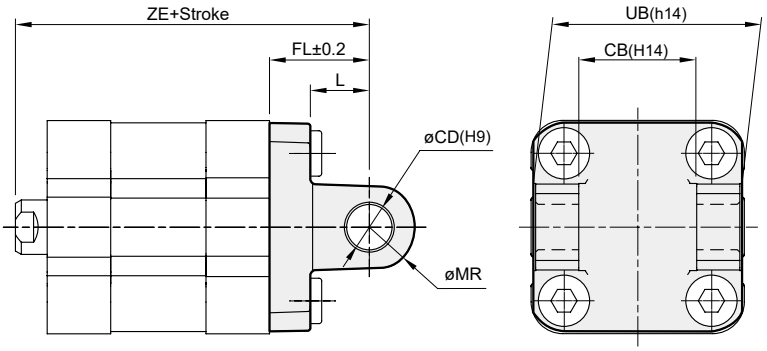
Code / Tube I.D.	D	E	FB	MF	R	TF	UF	ZF
20	16	35.5	6.6	8	–	55	70	51
25	16	39.5	6.6	8	–	60	76	53
32	30	47.0	7	10	32	64	80	61
40	35	54.5	9	10	36	72	90	62
50	40	65.5	9	12	45	90	110	65
63	45	75.5	9	12	50	100	120	69
80	45	95.5	12	16	63	126	150	80
100	55	113.5	14	16	75	150	175	93

CA



Code / Tube I.D.	CD	EW	FL	L	MR	ZE
20	8	16 h12	20	14	8	63
25	8	16 h12	20	14	8	65
32	10	25.8 $^{+0}_{-0.4}$	22	13	10	73
40	12	27.8 $^{+0}_{-0.4}$	25	16	12	77
50	12	31.8 $^{+0}_{-0.4}$	27	16	12	80
63	16	39.8 $^{+0}_{-0.4}$	32	21	16	89
80	16	49.8 $^{+0}_{-0.4}$	36	22	16	100
100	20	59.8 $^{+0}_{-0.4}$	41	30	21	118

CB

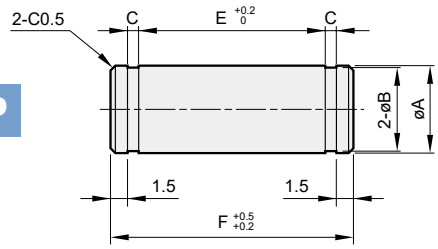


Code / Tube I.D.	CB	CD	FL	L	MR	UB	ZE
32	26	10	22	13	10	45	73
40	28	12	25	16	12	52	77
50	32	12	27	16	12	60	80
63	40	16	32	21	16	70	89
80	50	16	36	22	16	90	100
100	60	20	41	29	20	110	118

* ø20, ø25 without **CB** accessory.

PIN

P



Code / Tube I.D.	A(e8)	B	C	E	F	Snap ring
32	10	9.6	1.15	45.2	50.5	STW-10
40	12	11.5	1.15	52.2	57.5	STW-12
50	12	11.5	1.15	60.2	65.5	STW-12
63	16	15.2	1.15	70.2	75.5	STW-16
80	16	15.2	1.15	90.2	95.5	STW-16
100	20	19	1.35	110.3	116	STW-20

Special spec

Technical data

Caution for safety
(Read before installing)



Specification

Model	MCJI-3*	
Acting type	Double acting	
Tube I.D. (mm)	20,25	32,40,50,63,80,100
Port size	M5×0.8	G1/8
Medium	Air	
Operating perssure range	0.05~1 MPa	
Proof pressure	1.5 MPa	
Cushion	Rubber bumper	
Lubricator	Without lubrication	
Stroke length tolerance (*)	+0~+1.0 mm	
Ambient temperature	-5°C~+60°C (No freezing)	
Available speed range	50~500 mm/sec	
Sensor switch	RDT, RQT, RCI	

* Stroke length tolerance does not include the amount of bumper change.

Order example

MCJI — 32 — 40 — 20×25

- MODEL
- 3: Multiple position
- TUBE I.D.
- STROKE1×STROKE2
  - Stroke1: First stroke
  - Stroke2: Total stroke

STYLE

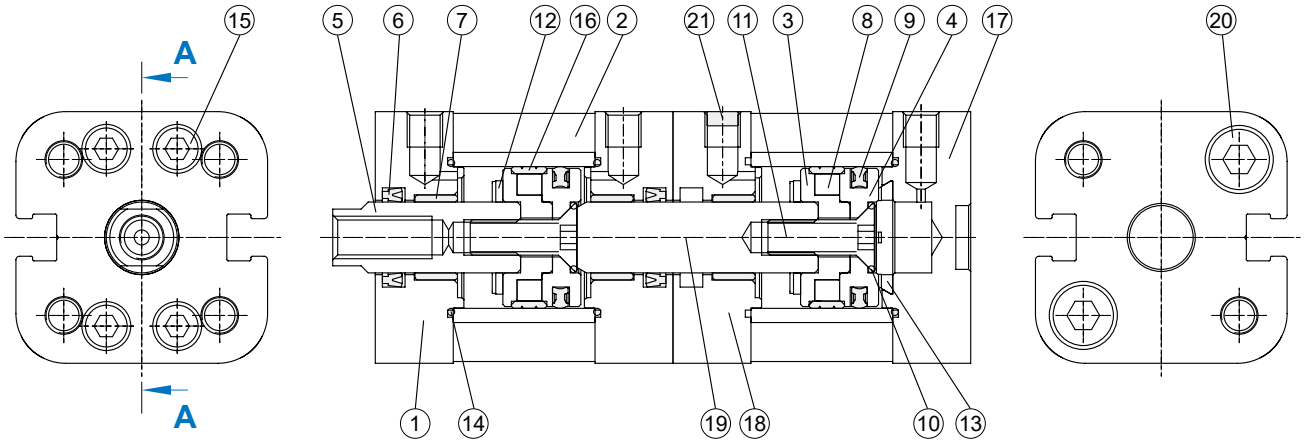
Code		Symbol	Description
3	1		Double acting / Male thread
3	2		Double acting / Female thread

Table for standard stroke

Tube I.D.	First stroke (mm)	Max. stroke
ø20,25	5,10,15,20,25,30,40,50,60,80,100	110
ø32,40	5,10,15,20,25,30,40,50,60,80,100	120
ø50,63	10,15,20,25,30,40,50,60,80,100,110,120	150
ø80,100	15,20,25,30,40,50,60,80,100,110,120	140

Tube I.D.	Total stroke (mm)	Max. stroke
ø20,25	5,10,15,20,25,30,40,50,60,80,100,200	300
ø32,40	5,10,15,20,25,30,40,50,60,80,100,200,300	300
ø50,63	10,15,20,25,30,40,50,60,80,100,200,300,400	400
ø80,100	15,20,25,30,40,50,60,80,100,200,300,400,500	500

* Please contact us if the stroke is out of specification.



A–A

Material

No.	Part name	Material	Q'y	Component parts (inclusion)	Repair kits (inclusion)
1	Rod cover	Aluminum alloy	2	●	
2	Tube	Aluminum alloy	2		
3	Piston-R	Aluminum alloy	2	●	
4	Piston-H	Aluminum alloy	2	●	
5	Piston rod	*1	1		
6	Rod packing	NBR	2	●	●
7	Bush	Bearing alloy	3	●	
8	Magnet ring	Magnet material	2	●	
9	Piston packing	NBR	2	●	●
10	O-ring	NBR	2	●	●
11	Screw	Carbon steel	2	●	
12	Cushion	NBR	2	●	●
13	Cushion	NBR	1	●	●
14	O-ring	NBR	3	●	●
15	Screw	Stainless steel	8	●	
16	Wear ring	Resin	2	●	
17	End cover	Aluminum alloy	1	●	
18	Center cover	Aluminum alloy	1	●	
19	Piston rod	*1	1		
20	Screw	Carbon steel	2		
21	Silencer	Brass	1	●	

*1. Material ø20, ø25: Stainless steel; ø32~ø100: Medium carbon steel.

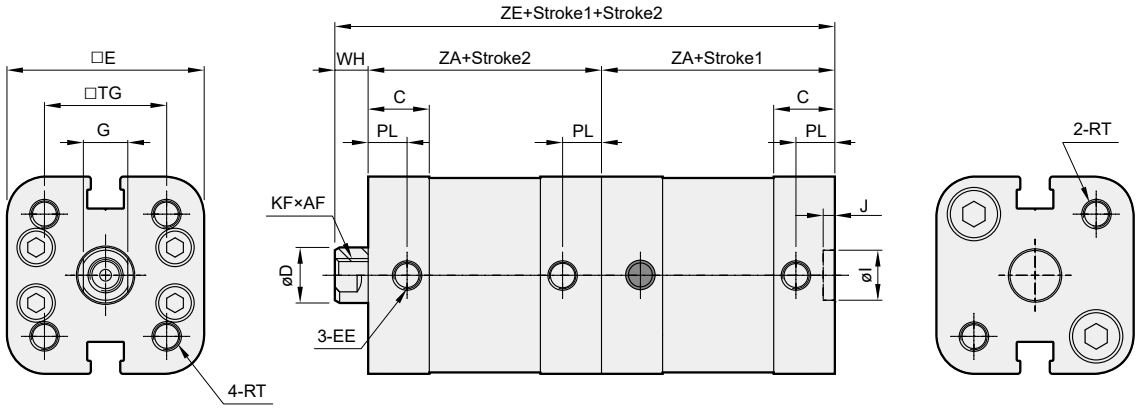
Order example

Component parts / Repair kits

Tube I.D.	Component parts	Repair kits
ø20	**CP-MCJI-3-20**	**PS-MCJI-3-20**
ø25	**CP-MCJI-3-25**	**PS-MCJI-3-25**
ø32	**CP-MCJI-3-32**	**PS-MCJI-3-32**
ø40	**CP-MCJI-3-40**	**PS-MCJI-3-40**
ø50	**CP-MCJI-3-50**	**PS-MCJI-3-50**
ø63	**CP-MCJI-3-63**	**PS-MCJI-3-63**
ø80	**CP-MCJI-3-80**	**PS-MCJI-3-80**
ø100	**CP-MCJI-3-100**	**PS-MCJI-3-100**

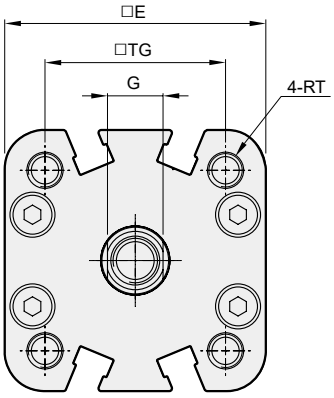
32

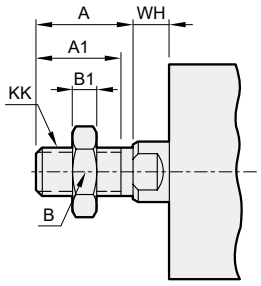
ø20, ø25



* Stroke1: First stroke, Stroke2: Total stroke.

ø32~ø100





31 Male thread

Code / Tube I.D.	A	A1	B	B1	KK
20	16	14	13	4	M8×1.25
25	16	14	13	4	M8×1.25
32	19	17	17	5	M10×1.25
40	19	17	17	5	M10×1.25
50	22	20	19	6	M12×1.25
63	22	20	19	6	M12×1.25
80	28	26	24	8	M16×1.5
100	28	26	24	8	M16×1.5

Code / Tube I.D.	AF	C	D	E	EE	G	WH	I	J	KF	PL	TG	RT	ZA	ZE
20	14	11	10	35.5	M5×0.8	8	6	9	2.1	M6×1.0	7	22	M5×0.8	37	80
25	14	11	10	39.5	M5×0.8	8	6	9	2.1	M6×1.0	7	26	M5×0.8	39	84
32	15	14	12	47.0	G1/8	10	7	9	2.1	M8×1.25	7.5	32.5	M6×1.0	44	95
40	15	14	12	54.5	G1/8	10	7	9	2.1	M8×1.25	7.5	38	M6×1.0	45	97
50	18	14	16	65.5	G1/8	14	8	12	2.6	M10×1.5	7.5	46.5	M8×1.25	45	98
63	18	14.5	16	75.5	G1/8	14	8	12	2.6	M10×1.5	7.5	56.5	M8×1.25	49	106
80	20	15.5	20	95.5	G1/8	17	10	12	2.6	M12×1.75	8	72	M10×1.5	54	118
100	20	18.5	20	113.5	G1/8	17	10	12	2.6	M12×1.75	9.5	89	M10×1.5	67	144

* Stroke1: First stroke, Stroke2: Total stroke.

MCJU series

PLATE OVAL CYLINDER (NON-ROTATION ROD)

Special spec

Technical data

Caution for safety
(Read before installing)



Features

- Plate type design for ultra compact, Oval piston design for space saving.
- Sensor slots on sides for flush mounting of proximity sensors.
- Magnetic as standard.

Specification

Model	MCJU				
Acting type	Double acting				
Tube I.D. (mm)	25	32	40	50	63
Port size	M5×0.8	Rc1/8		Rc1/4	
Medium	Air				
Operating perssure range	0.05~0.7 MPa				
Proof pressure	1.0 MPa				
Available speed range	50~500 mm/sec				
Cushion	Rubber bumper				
Lubricator	Without lubrication				
Stroke length tolerance (*)	+0~+1.5 mm				
Ambient temperature	-5°C~+60°C (No freezing)				
Sensor switch	RDC(V), RQC(V), RDFE(V), RDGV				

* Stroke length tolerance does not include the amount of bumper change.

Table for standard stroke

Tube I.D.	Stroke (mm)	Max. stroke
ø25,32,40 50,63	5,10,15,20,25,30,40,50,75, 100,200,250	300

* Please contact us if the stroke is out of specification.

Order example

MCJU — 12 — 25 — 25 — □

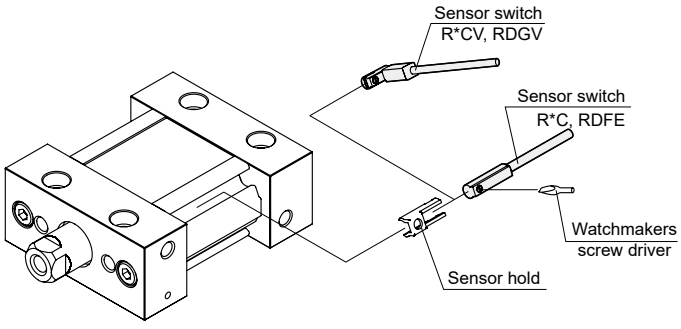
- MODEL
- STYLE
  - **1**: Single rod
- TUBE I.D.
- STROKE
- PORT THREAD
  - Blank: M5×0.8 (only for ø25)
  - Blank: Rc thread
  - **G**: G thread
  - **NPT**: NPT thread (only for ø32~ø63)

Code		Symbol	Description
1	1		Double acting / Male thread
1	2		Double acting / Female thread
2	1		Double rod / Male thread
2	2		Double rod / Female thread

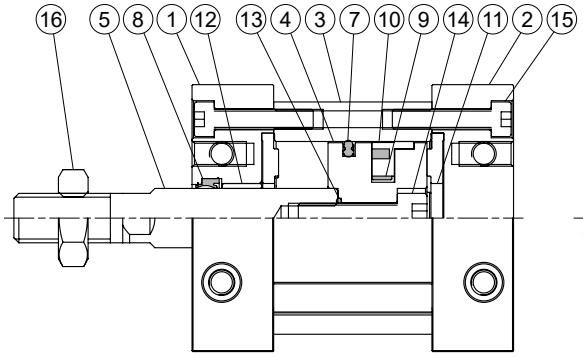
Order example of mounting accessories

Code	LB (Purchase 2 pcs)	FAC	FBC
Mounting / Tube I.D.			
ø25	**LB-J3-25**	**FAC-J3-25**	
ø32	**LB-J3-32**	**FAC-J3-32**	
ø40	**LB-J3-40**	**FAC-J3-40**	
ø50	**LB-J3-50**	**FAC-J3-50**	
ø63	**LB-J3-63**	**FAC-J3-63**	

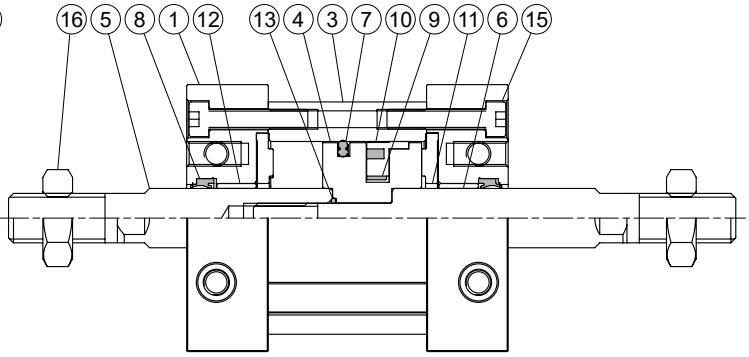
Installation of sensor switch



Single rod



Double rod



Material

No.	Part name	Material	Q'y / Style				Repair kits (inclusion)
			11	12	21	22	
1	Rod cover	Aluminum alloy	1		2		
2	End cover	Aluminum alloy	1		–		
3	Tube	Aluminum alloy	1				
4	Piston	Aluminum alloy	1				
5	Piston rod-R *1	Carbon steel	1				
6	Piston rod-H *1	Carbon steel	–		1		
7	Piston packing	HNBR	1				●
8	Rod packing	HNBR	1		2		●
9	Magnet	Magnet material	4				
10	Wear ring	Resin	1				
11	Cushion pad	TPU	2				
12	Bush	Bearing alloy	1		2		
13	O-ring	NBR	1				
14	Piston bolt	Stainless steel	1		–		
15	Bolt	Stainless steel	4				
16	Nut	Carbon steel	1	–	2	–	

*1. When customized material is bearing steel, only two-side across flat (wrench flat) is available.

Order example

Repair kits

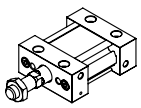
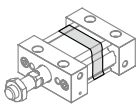
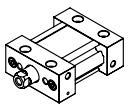
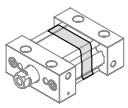
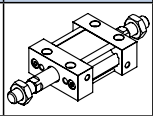
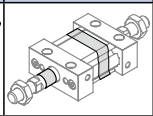
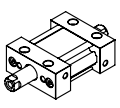
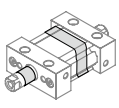
Tube I.D.	Repair kits
ø25	**PS-MCJU-25**
ø32	**PS-MCJU-32**
ø40	**PS-MCJU-40**
ø50	**PS-MCJU-50**
ø63	**PS-MCJU-63**

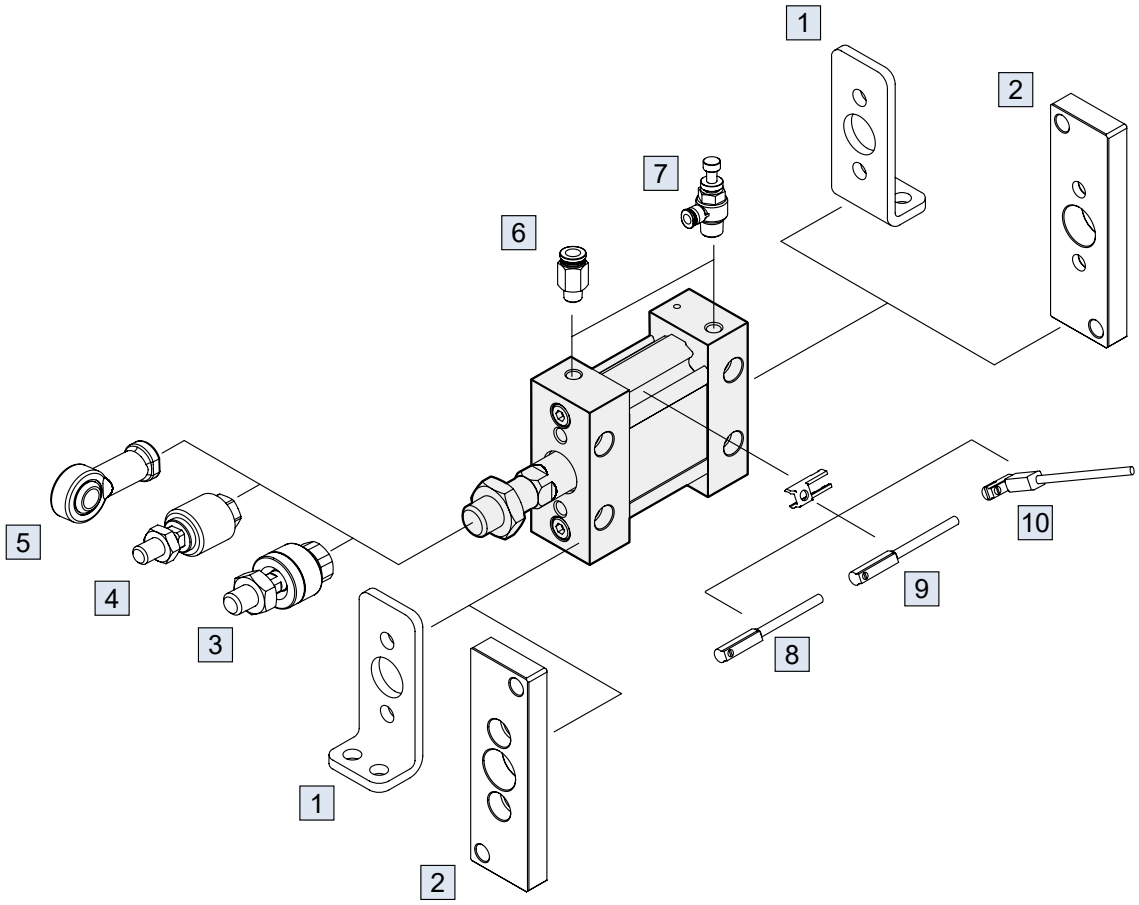
Accessories weight

Model	LB	FAC/FBC	Nut
Tube I.D.			
ø25	67	97	8
ø32	141	141	11
ø40	204	226	16
ø50	324	447	32
ø63	616	809	32

Cylinder weight

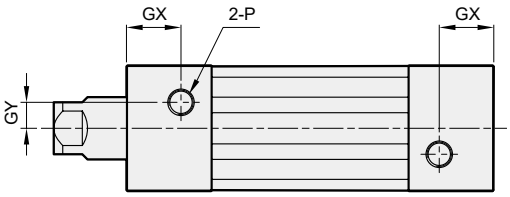
Unit: g

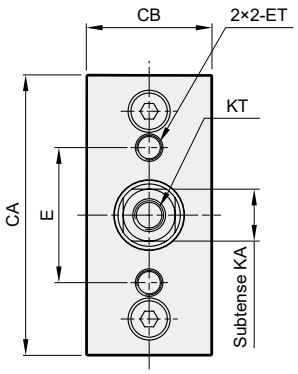
Model	Basic weight **MCJU-11**	Stroke 10mm **MCJU-11**	Basic weight **MCJU-12**	Stroke 10mm **MCJU-12**	Basic weight **MCJU-21**	Stroke 10mm **MCJU-21**	Basic weight **MCJU-22**	Stroke 10mm **MCJU-22**
Tube I.D.								
ø25	192	20	167	20	246	28	198	28
ø32	320	27	282	27	381	40	305	40
ø40	454	37	403	37	561	54	444	54
ø50	846	57	768	57	1060	83	842	83
ø63	1234	76	1157	76	1466	102	1248	102

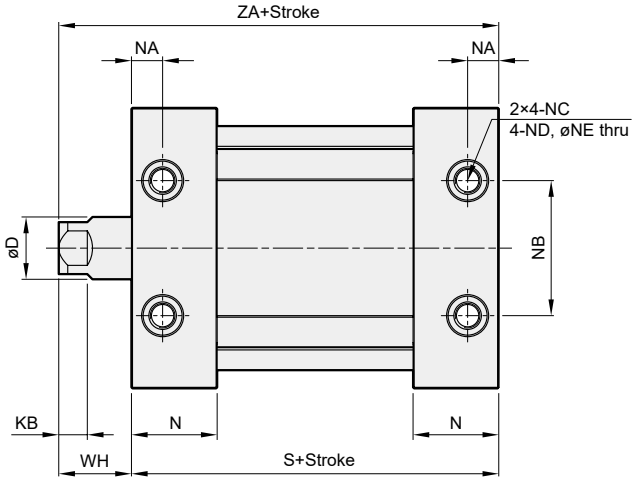


No.	Accessories	Material	Page link
1	Mounting accessories LB	Carbon steel	
2	Mounting accessories FAC/FBC	Carbon steel	
3	Floating joint MFC	Carbon steel	
4	Floating joint MFCS	Carbon steel	
5	Female rod ends PHS	Carbon steel	
6	Fitting PC (PISCO)	–	
7	Speed controller JSC (PISCO)	–	
8	Sensor switch R*C(V)	–	
9	Sensor switch RDFE	–	
10	Sensor switch RDGV	–	

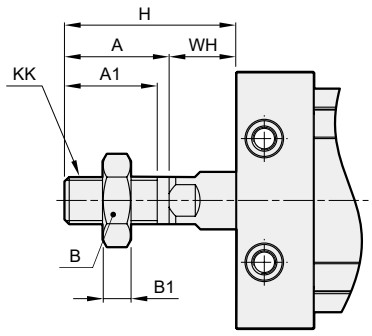
12

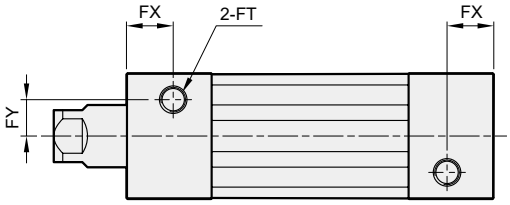






11 Male thread

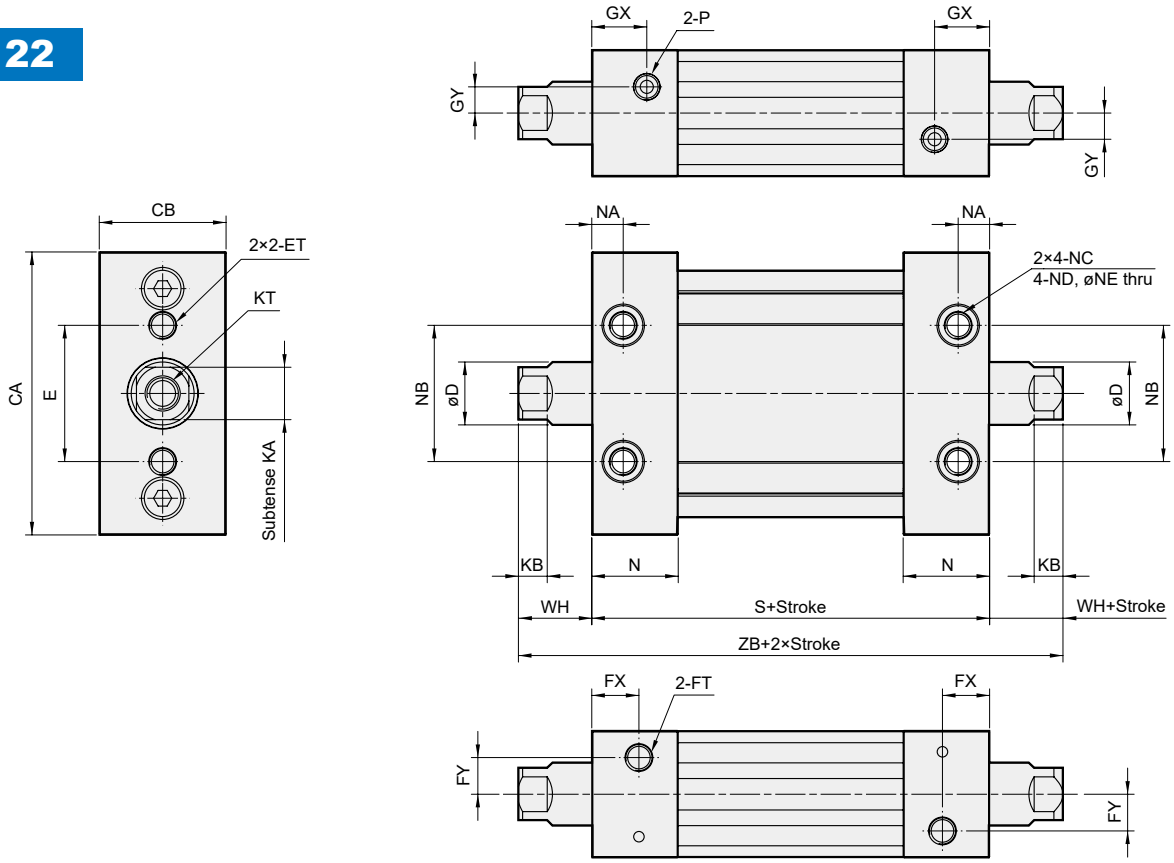




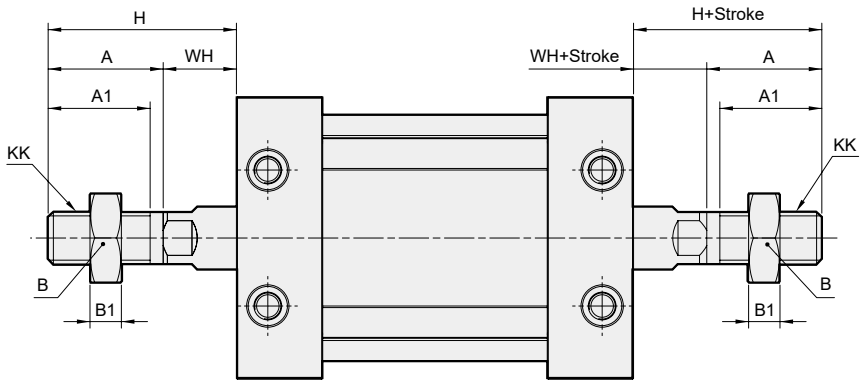
Code / Tube I.D.	A	A1	B	B1	CA	CB	D	E	ET	FT	FX	FY	GX	GY	H	KA	KB	KK
25	22	19.5	17	6	54	24.2	12	26	M5×0.8×11 dp	M5×0.8×7.5 dp	9	7	10.5	5	36	10	5.5	M10×1.25
32	26	23.5	19	7	68	28	14	42	M6×1.0×11 dp	M6×1.0×12 dp	6.5	8	9	5.5	40	12	5.5	M12×1.75
40	30	27	22	8	86	32	16	54	M8×1.25×11 dp	M8×1.25×13 dp	8	9	10	7	45	14	6	M14×1.5
50	35	32	26	11	104	39	20	64	M10×1.5×15 dp	M10×1.5×14.5 dp	10	9	11.5	8	53	18	7	M18×1.5
63	35	32	26	11	124	50	20	72	M12×1.75×15 dp	M12×1.75×18 dp	11	12	11.5	10	56	18	7	M18×1.5

Code / Tube I.D.	KT	N	NA	NB	NC	ND	NE	S	P	WH	ZA
25	M6×1.0×12 dp	16.5	6	26	sinkø7.5×4.5 dp	M5×0.8	4.2	55	M5×0.8	14	69
32	M8×1.25×13 dp	18	6.5	28	sinkø9×5.5 dp	M6×1.0	5.1	58	Rc1/8	14	72
40	M8×1.25×13 dp	18.5	8	36	sinkø10.5×6.5 dp	M8×1.25	6.7	60	Rc1/8	15	75
50	M10×1.5×15 dp	24	10	42	sinkø13.5×8.5 dp	M10×1.5	8.5	74	Rc1/4	18	92
63	M10×1.5×15 dp	24	11	46	sinkø17×10.5 dp	M12×1.75	10.2	75	Rc1/4	21	96

22



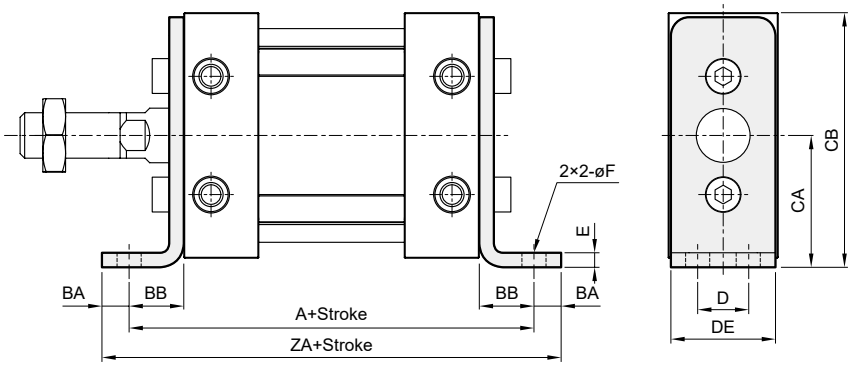
21 Male thread



Code / Tube I.D.	A	A1	B	B1	CA	CB	D	E	ET	FT	FX	FY	GX	GY	H	KA	KB	KK
25	22	19.5	17	6	54	24.2	12	26	M5×0.8×11 dp	M5×0.8×7.5 dp	9	7	10.5	5	36	10	5.5	M10×1.25
32	26	23.5	19	7	68	28	14	42	M6×1.0×11 dp	M6×1.0×12 dp	6.5	8	9	5.5	40	12	5.5	M12×1.75
40	30	27	22	8	86	32	16	54	M8×1.25×11 dp	M8×1.25×13 dp	8	9	10	7	45	14	6	M14×1.5
50	35	32	26	11	104	39	20	64	M10×1.5×15 dp	M10×1.5×14.5 dp	10	9	11.5	8	53	18	7	M18×1.5
63	35	32	26	11	124	50	20	72	M12×1.75×15 dp	M12×1.75×18 dp	11	12	11.5	10	56	18	7	M18×1.5

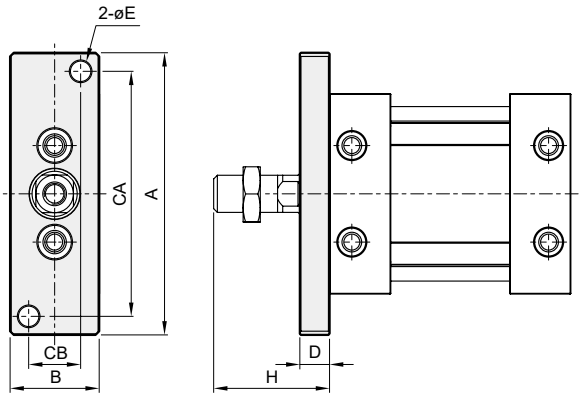
Code / Tube I.D.	KT	N	NA	NB	NC	ND	NE	S	P	WH	ZB
25	M6×1.0×12 dp	16.5	6	26	sinkø7.5×4.5 dp	M5×0.8	4.2	55	M5×0.8	14	83
32	M8×1.25×13 dp	18	6.5	28	sinkø9×5.5 dp	M6×1.0	5.1	58	Rc1/8	14	86
40	M8×1.25×13 dp	18.5	8	36	sinkø10.5×6.5 dp	M8×1.25	6.7	60	Rc1/8	15	90
50	M10×1.5×15 dp	24	10	42	sinkø13.5×8.5 dp	M10×1.5	8.5	74	Rc1/4	18	110
63	M10×1.5×15 dp	24	11	46	sinkø17×10.5 dp	M12×1.75	10.2	75	Rc1/4	21	117

LB



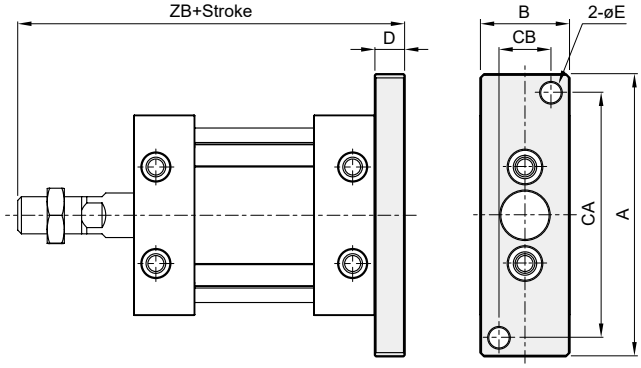
Code / Tube I.D.	A	BA	BB	CA	CB	D	DE	E	F	ZA
25	79	6	12	29	56	11	23	3.2	5.5	91
32	90	8	16	37	71	12	27	4.5	6.6	106
40	96	10	18	46	89	15	31	4.5	9	116
50	116	11	21	57	109	18	37	5	11	138
63	123	14	24	67	129	22	48	6	13.5	151

FAC



Code / Tube I.D.	A	B	CA	CB	D	E	H	ZB
25	76	24	66	14	8	5.5	36	99
32	94	28	82	16	8	7	40	106
40	118	32	102	18	9	9	45	114
50	144	39	126	22	12	11	53	139
63	168	50	148	30	14	13	56	145

FBC



MCFA series

MULTI-MOUNT CYLINDER

Technical data

Caution for safety
(Read before installing)



Features

Compact and space saving.

Specification

Model	MCFA					
Acting type	Double acting					
Tube I.D. (mm)	6	10	16	20	25	32
Port size	M5×0.8					Rc1/8
Medium	Air					
Max. operating perssure	0.7 MPa					
Min. operating perssure (MPa)	0.12	0.06		0.05		
Proof pressure	1 MPa					
Cushion	With rubber cushion pad					
Lubrication	Not required					
Ambient temperature	-5~+60°C (No freezing)					
Available speed range	50~500 mm/sec					
Sensor switch	RCE, RCE1, RDEP					

Order example

MCFA — 11 — 6 — 10M — K — □

- MODEL
- STYLE — **1**: Single rod, **2**: Double rod
- TUBE I.D.
- STROKE
- **M**: Magnet
- Blank: Standard, **K**: Non-rotating rod
- PORT THREAD — Blank: M5×0.8 (for ø6~ø25); Blank: Rc thread, **G**: G thread, **NPT**: NPT thread (for ø32)

Code		Symbol	Description
1	**1**		Double action / Male thread
2	**1**		Double rod / Male thread

Table for standard stroke

Tube I.D.	Stroke (mm)
ø6, 10, 16	5,10,15,20,25,30
ø20, 25, 32	5,10,15,20,25,30,40,50

Tightening torque

When mounting MCFA series,refer to the below table.

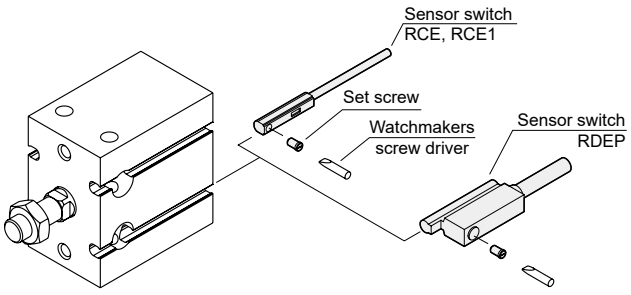
Tube I.D.	Hexagon socket head cap screw dia.(mm)	Proper tightening toque N.m[kgf.cm]
ø6, 10	M3	1.1 [11.2] ± 10%
ø16	M4	2.5 [25.5] ± 10%
ø20, 25	M5	5.0 [51.0] ± 10%
ø32	M6	8.0 [81.6] ± 10%

Cylinder weight

Unit: g

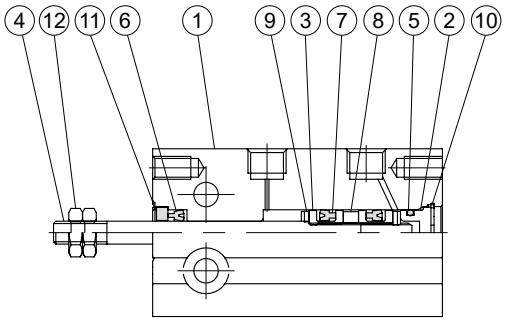
Model	Basic weight **MCFA-11**	Basic weight (magnet) **MCFA-11**	Stroke 5 mm **MCFA-11**
Tube I.D.			
ø6	20	18	3
ø10	32	31	3
ø16	42	58	6
ø20	90	118	10
ø25	161	202	17
ø32	268	330	26

Installation of sensor switch

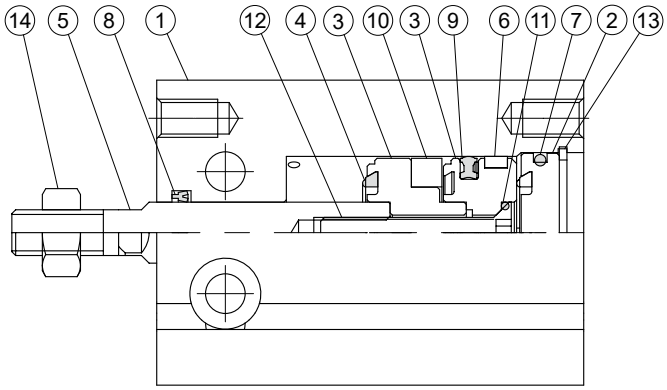


Double acting

ø6



ø10~ø32



Material

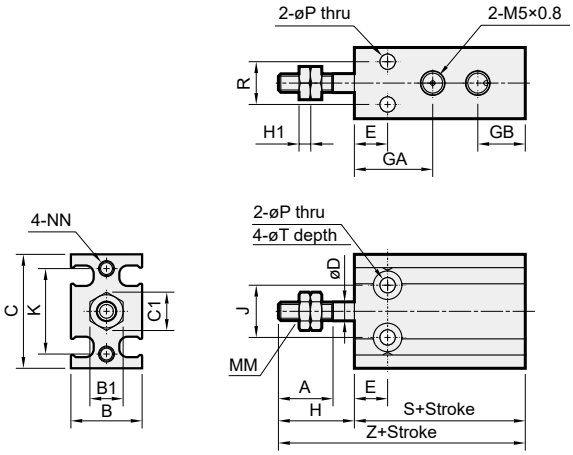
No.	Tube I.D. / Part name	6	Note
1	Body	Aluminum alloy	
2	Head cover	Aluminum alloy	
3	Piston	Aluminum alloy	
4	Rod	Stainless steel	
5	Cover ring	NBR	
6	Rod packing	NBR	
7	Piston packing	NBR	
8	Magnet ring	Magnet material	for with magnet
9	Cushion packing	PU	
10	Snap ring	Spring steel	
11	Fixed ring	Aluminum alloy	
12	Rod front nut	Carbon steel	

No.	Tube I.D. / Part name	10	16	20	25	32	Note
1	Body	Aluminum alloy					
2	Head cover	Aluminum alloy					
3	Piston	Aluminum alloy					
4	Cushion packing	NBR					
5	Rod *1	Stainless steel				*2	
6	Wear ring	Resin					
7	Cover ring	NBR					
8	Rod packing	NBR					
9	Piston packing	NBR					
10	Magnet ring	Magnet material					for with magnet
11	Piston gasket	–	NBR				
12	Piston bolt	–	SCM				for without magnet
		–	Stainless steel				for with magnet
13	Snap ring	Spring steel					
14	Rod front nut	Carbon steel					

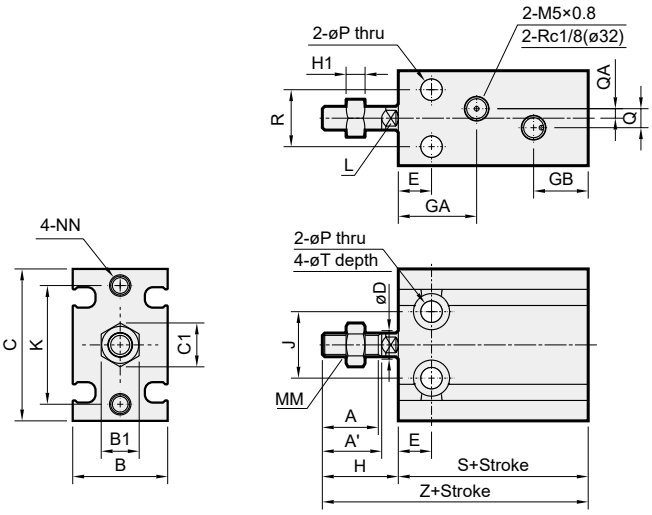
*1. When customized material is bearing steel, only two-side across flat (wrench flat) is available.
*2. Medium carbon steel

11

ø6, ø10



ø16~ø32



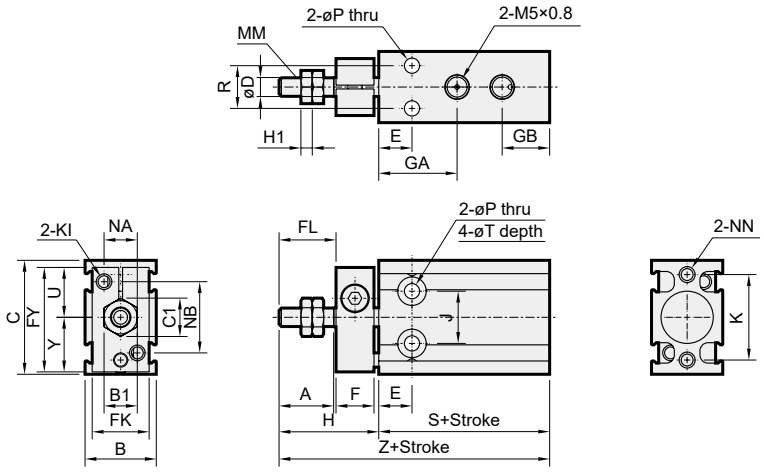
Code / Tube I.D.	A	A'	B	B1	C	C1	D	E	GA	GB	H	H1	J	K	L	MM	NN	P	Q	QA	R
6	7	–	13	5.5	22	6.4	3	7	15	10	13	1.8	10	17	–	M3×0.5	M3×0.5×5depth	3.2	–	–	7
10	10	–	15	7	24	8.1	4	7	16.5	10	16	2.4	11	18	–	M4×0.7	M3×0.5×5depth	3.2	–	–	9
16	11	12.5	20	8	32	9.2	6	7	16.5*	11.5	16	4	14	25	5	M5×0.8	M4×0.7×6depth	4.5	4	2	12
20	12	14	26	10	40	11.5	8	9	19	12.5	19	5	16	30	6	M6×1.0	M5×0.8×8depth	5.5	9	4.5	16
25	15.5	18	32	13	50	15.0	10	10	21.5	13	23	5	20	38	8	M8×1.25	M5×0.8×8depth	5.5	9	4.5	20
32	19.5	22	40	17	62	19.6	12	11	23	12.5	27	6	24	48	10	M10×1.25	M6×1.0×9depth	6.6	13.5	4.5	24

* Without magnet with stroke=5mm, GA=14.5mm.

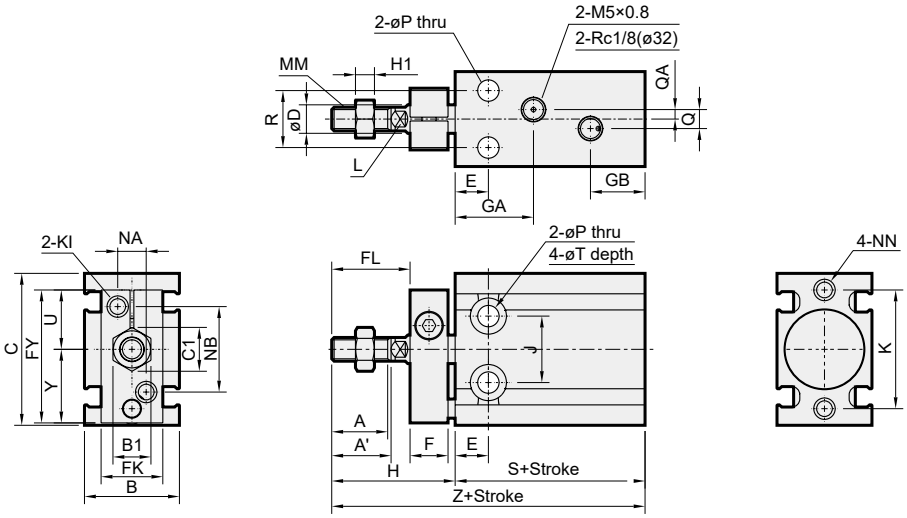
Code / Tube I.D.	T	Without magnet		Magnet	
		S	Z	S	Z
6	6×4.8depth	33	46	33	46
10	6×5depth	36	52	36	52
16	7.6×6.5depth	30	46	40	56
20	9.3×8depth	36	55	46	65
25	9.3×9depth	40	63	50	73
32	11×11.5depth	42	69	52	79

11

ø6, ø10



ø16~ø32



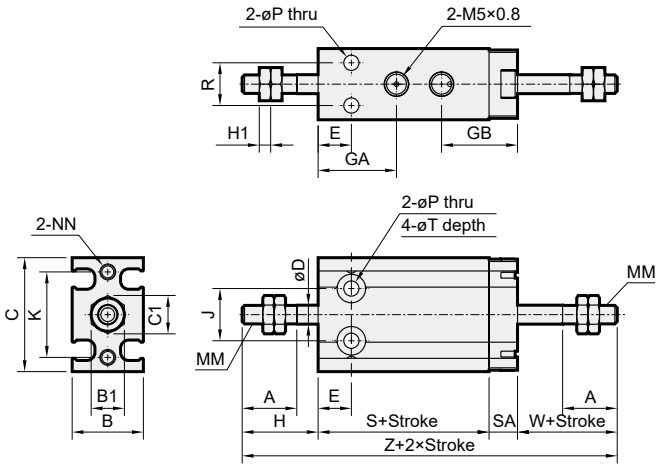
Code / Tube I.D.	A	A'	B	B1	C	C1	D	E	F	FL	FK	FY	GA	GB	H	H1	J	K	KI	L	MM	NA	NB
6	7	–	13	5.5	22	6.4	3	7	8	9	11	20.5	15	10	18	1.8	10	17	M3×0.5	–	M3×0.5	6	14
10	10	–	15	7	24	8.1	4	7	8	12	12	22	16.5	10	21	2.4	11	18	M3×0.5	–	M4×0.7	7	15
16	11	12.5	20	8	32	9.2	6	7	8	17	13	28	16.5*	11.5	26	4	14	25	M4×0.7	5	M5×0.8	6	18
20	12	14	26	10	40	11.5	8	9	8	20	16	33	19	12.5	29	5	16	30	M4×0.7	6	M6×1.0	8	20
25	15.5	18	32	13	50	15.0	10	10	10	22	20	43.5	21.5	13	33	5	20	38	M5×0.8	8	M8×1.25	10	28
32	19.5	22	40	17	62	19.6	12	11	12	29	24	51.5	23	12.5	42	6	24	48	M5×0.8	10	M10×1.25	12	32

* Without magnet with stroke=5mm, GA=14.5mm.

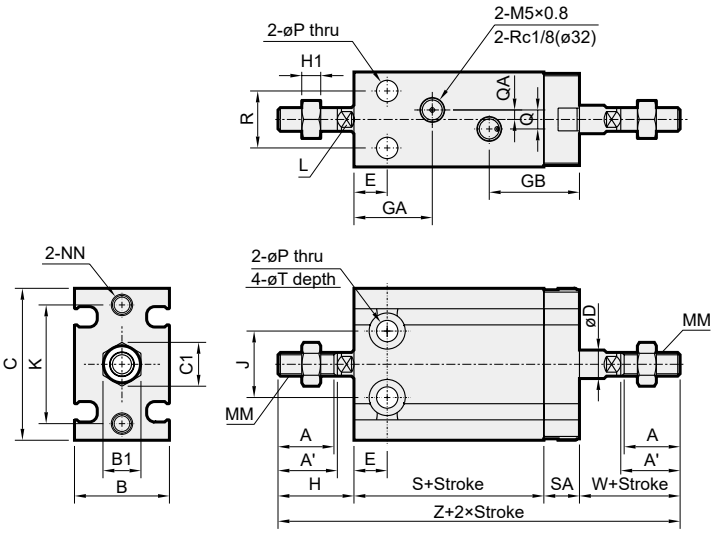
Code / Tube I.D.	NN	P	Q	QA	R	T	U	Y	Without magnet		Magnet	
									S	Z	S	Z
6	M3×0.5×5depth	3.2	–	–	7	6×4.8depth	10	10.5	33	51	33	51
10	M3×0.5×5depth	3.2	–	–	9	6×5depth	10.5	11.5	36	57	36	57
16	M4×0.7×6depth	4.5	4	2	12	7.6×6.5depth	12.5	15.5	30	56	40	66
20	M5×0.8×8depth	5.5	9	4.5	16	9.3×8depth	13.5	19.5	36	65	46	75
25	M5×0.8×8depth	5.5	9	4.5	20	9.3×9depth	19	24.5	40	73	50	83
32	M6×1.0×9depth	6.6	13.5	4.5	24	11×11.5depth	21	30.5	42	84	52	94

21

ø6, ø10



ø16~ø32



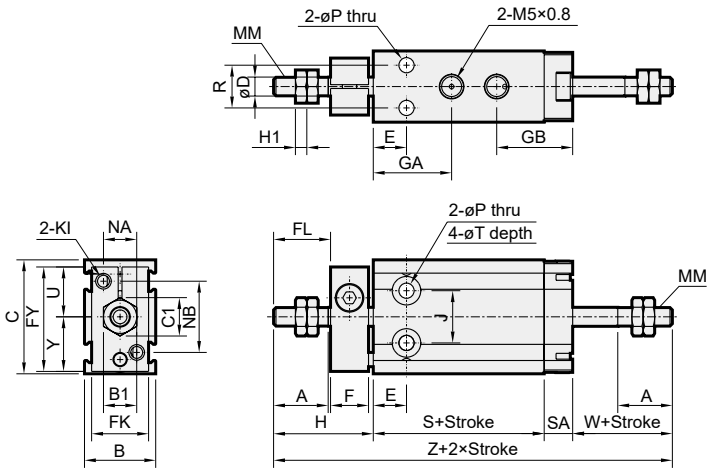
Code / Tube I.D.	A	A'	B	B1	C	C1	D	E	GA	GB	H	H1	J	K	L	MM	NN	P	Q	QA	R	SA
6	7	–	13	5.5	22	6.4	3	7	15	16	13	1.8	10	17	–	M3×0.5	M3×0.5×5depth	3.2	–	–	7	6
10	10	–	15	7	24	8.1	4	7	16.5	16	16	2.4	11	18	–	M4×0.7	M3×0.5×5depth	3.2	–	–	9	6
16	11	12.5	20	8	32	9.2	6	7	16.5*	19	16	4	14	25	5	M5×0.8	M4×0.7×6depth	4.5	4	2	12	7.5
20	12	14	26	10	40	11.5	8	9	19	21.5	19	5	16	30	6	M6×1.0	M5×0.8×8depth	5.5	9	4.5	16	9
25	15.5	18	32	13	50	15.0	10	10	21.5	22	23	5	20	38	8	M8×1.25	M5×0.8×8depth	5.5	9	4.5	20	9
32	19.5	22	40	17	62	19.6	12	11	23	22.5	27	6	24	48	10	M10×1.25	M6×1.0×9depth	6.6	13.5	4.5	24	10

* Without magnet with stroke=5mm, GA=14.5mm.

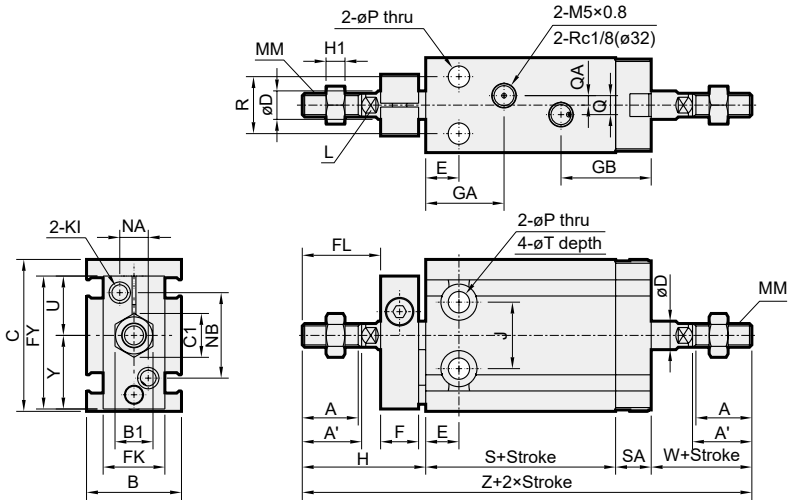
Code / Tube I.D.	T	W	Without magnet		Magnet	
			S	Z	S	Z
6	6×4.8depth	13	38	70	38	70
10	6×5depth	16	36	74	36	74
16	7.6×6.5depth	16	30	69.5	40	79.5
20	9.3×8depth	19	36	83	46	93
25	9.3×9depth	23	40	95	50	105
32	11×11.5depth	27	42	106	52	116

21

ø6, ø10



ø16~ø32



Code / Tube I.D.	A	A'	B	B1	C	C1	D	E	F	FL	FK	FY	GA	GB	H	H1	J	KI	L	MM	NA	NB	P	Q
6	7	–	13	5.5	22	6.4	3	7	8	9	11	20.5	15	16	18	1.8	10	M3×0.5	–	M3×0.5	6	14	3.2	–
10	10	–	15	7	24	8.1	4	7	8	12	12	22	16.5	16	21	2.4	11	M3×0.5	–	M4×0.7	7	15	3.2	–
16	11	12.5	20	8	32	9.2	6	7	8	17	13	28	16.5*	19	26	4	14	M4×0.7	5	M5×0.8	6	18	4.5	4
20	12	14	26	10	40	11.5	8	9	8	20	16	33	19	21.5	29	5	16	M4×0.7	6	M6×1.0	8	20	5.5	9
25	15.5	18	32	13	50	15.0	10	10	10	22	20	43.5	21.5	22	33	5	20	M5×0.8	8	M8×1.25	10	28	5.5	9
32	19.5	22	40	17	62	19.6	12	11	12	29	24	51.5	23	22.5	42	6	24	M5×0.8	10	M10×1.25	12	32	6.6	13.5

* Without magnet with stroke=5mm, GA=14.5mm.

Code / Tube I.D.	QA	R	SA	T	U	W	Y	Without magnet		Magnet	
								S	Z	S	Z
6	–	7	6	6×4.8depth	10	13	10.5	38	75	38	75
10	–	9	6	6×5depth	10.5	16	11.5	36	79	36	79
16	2	12	7.5	7.6×6.5depth	12.5	16	15.5	30	79.5	40	89.5
20	4.5	16	9	9.3×8depth	13.5	19	19.5	36	93	46	103
25	4.5	20	9	9.3×9depth	19	23	24.5	40	105	50	115
32	4.5	24	10	11×11.5depth	21	27	30.5	42	121	52	131

MCFB series

MULTI-MOUNT CYLINDER

Technical data

Caution for safety
(Read before installing)



Features

- Compact and space saving.
- Flush fitting sensor.

Specification

Model		MCFB					
Acting type		Single / Double			Double acting		
Tube I.D. (mm)		6	8	10	12	16	20
Port size		M3×0.5					M5×0.8
Medium		Air					
Max. operating perssure		0.7 MPa					
Min. operating perssure (MPa)	Single	0.3		0.2	–		
	Double	0.15		0.1	0.07		0.05
Proof pressure		1 MPa					
Lubrication		Not required					
Ambient temperature		-5~+60°C (No freezing)					
Available speed range		50~500 mm/sec					
Sensor switch (*)		RDC(V), RQC(V), RDFE(V), RDGV					

* Short stroke length (4, 6, 8mm) only use RDGV.

Order example

MCFB — S — 11 — 16 — 10M

- MODEL
- **S**: Axial mounting (Only for ø12,16,20); Blank: Both mounting
- **1**: Single rod
- STYLE (*)
- TUBE I.D.
- STROKE
- **M**: Magnet

* STYLE

Code		Symbol	Description
1	1		Double acting / Male thread
1	2		Double acting / Female thread
1	5		Single acting / Normally returned male thread
1	6		Single acting / Normally returned female thread

* Single acting only for ø6,ø8,ø10.
* Single acting without magnet type.

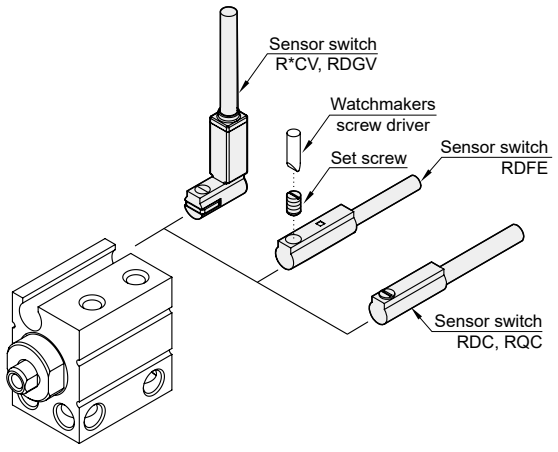
Double acting – Table for standard stroke

Tube I.D.	Stroke (mm)
ø6,8	4,6,8,10,15,20,25
ø10	4,6,8,10,15,20,30
ø12,16	5,10,15,20,25,30
ø20	5,10,15,20,25,30,35,40,45,50

Single acting – Table for standard stroke

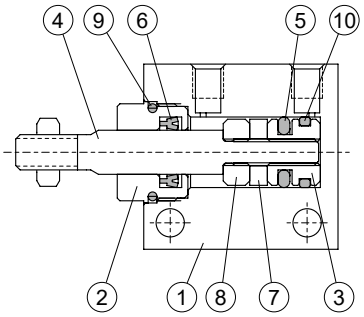
Tube I.D.	Stroke (mm)
ø6	4,6,8
ø8,10	4,6,8,10

Installation of sensor switch

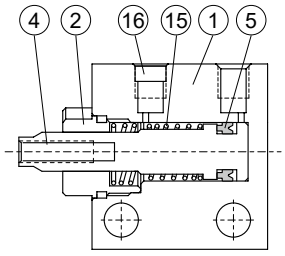


ø6, ø8, ø10

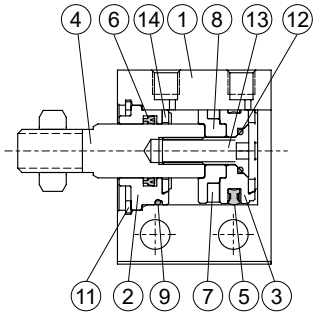
Double acting



Single acting



ø12, ø16, ø20



Material

No.	Part name	Material	Note	Q'y	Component parts (inclusion)	Repair kits (inclusion)
1	Body	Aluminum alloy		1		
2	Rod cover	Copper	ø12~20 use aluminum alloy	1	●	
3	Piston	Aluminum alloy		1	●	
4	Piston rod	Stainless steel		1		
5	Piston packing	NBR		1	●	●
6	Rod packing	NBR		1	●	●
7	Magnet ring	Magnet material	for with magnet	1	●	
8	Piston	Aluminum alloy	for with magnet	1	●	
9	Cover ring	NBR		1	●	●
10	Wear ring	Resin		1	●	
11	Snap ring	Spring steel		1	●	
12	Piston gasket	NBR	Only for ø20	1	●	●
13	Piston bolt	Stainless steel	Only for ø20	1	●	
14	Cushion packing	PU		2	●	●
15	Spring	Stainless steel		1	●	
16	Silencer	Brass		1	●	

Order example

Component parts

Tube I.D.	Component parts
ø6	**CP-MCFB-6(M)**
ø8	**CP-MCFB-8(M)**
ø10	**CP-MCFB-10(M)**
ø12	**CP-MCFB-12(M)**
ø16	**CP-MCFB-16(M)**
ø20	**CP-MCFB-20(M)**

* M: With magnet.

Repair kits

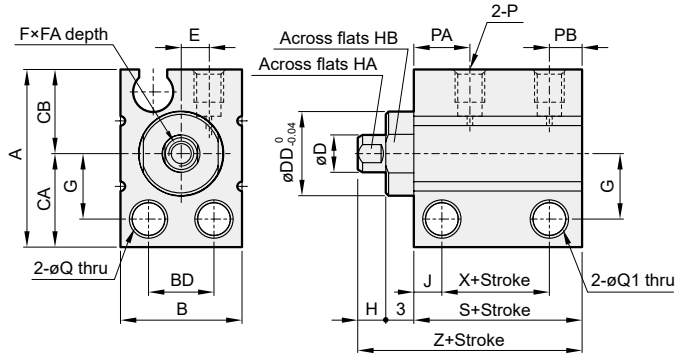
Tube I.D.	Repair kits
ø6	**PS-MCFB-6**
ø8	**PS-MCFB-8**
ø10	**PS-MCFB-10**
ø12	**PS-MCFB-12**
ø16	**PS-MCFB-16**
ø20	**PS-MCFB-20**

Seal kit

	Rod packing		Piston packing		Cover ring		Piston gasket	
Acting type	Double acting	Normally retruned	Double acting	Single acting	Double acting	Normally retruned	Double acting	Normally retruned
Tube I.D. / Q'y	1	0	1	1	1	0	1	0
ø6	KSYR-4	–	PP-6	KSYP-6	d7×w1	–	–	–
ø8	KSYR-5	–	PP-8	KSYP-8	d9×w1	–	–	–
ø10	KSYR-6	–	OPA-10	KSYP-10	d10×w1	–	–	–
ø12	KSYR-6	–	OPA-12	–	d10×w1	–	–	–
ø16	KSYR-8	–	OPA-16	–	d14×w1	–	–	–
ø20	KSYR-10	–	OPA-20	–	d18×w1	–	d6×w1	–

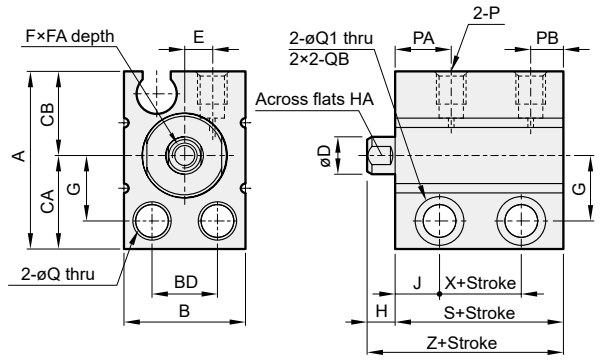
12 16

ø6, ø8, ø10



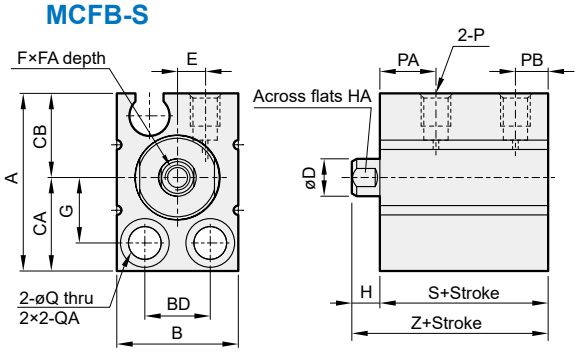
ø12, ø16, ø20

Both mounting

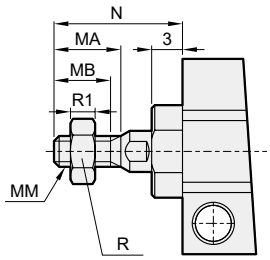


Axial mounting

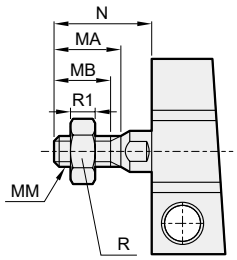
MCFB-S



ø6, ø8, ø10



ø12, ø16, ø20



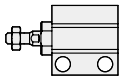
11 15 Male thread

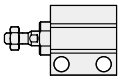
Code / Tube I.D.	MA	MB	MM	N	R	R1
6	6.5	5.5	M3×0.5	12.5	5.5	2.4
8	8.5	7	M4×0.7	14.5	7	3.2
10	10.5	9	M5×0.8	16.5	8	4
12	10.5	9	M5×0.8	14	8	4
16	12	10	M6×1.0	15.5	10	5
20	14	12	M8×1.25	18.5	13	5

Code / Tube I.D.	A	B	BD	CA	CB	D	DD	E	F	FA	G	H	HA	HB	J	P	PA	PB	Q	Q1	QA	QB	Without magnet			Magnet		
																							X	S	Z	X	S	Z
6	19	13	7	10	9	4	9	3	M2.5×0.45	5	7	3	3.5	8	3	M3×0.5	6	3.5	3.5	3.2	—	—	6.5	13	19	11.5	18	24
8	21	13	7	11	10	5	11	3	M3×0.5	6	8	3	4.5	10	3	M3×0.5	6	3.5	3.5	3.2	—	—						
10	22	13.5	7	11.5	10.5	6	12	3.2	M3×0.5	6	8.5	3	5	11	3	M3×0.5	6	3.5	3.5	3.2	—	—						
12	26.5	17	8	15.5	11	6	—	3.5	M3×0.5	6	11	3.5	5	—	6	M3×0.5	7.5	4	4.4	4.4	ø7.5×5.5dp	ø7.5×7dp	3.5	15.5	19	7.5	19.5	23
16	29.5	21	11.5	17	12.5	8	—	5.5	M4×0.7	8	12.5	3.5	6	—	6	M3×0.5	8.5	4	4.4	4.4	ø7.5×5.5dp	ø7.5×7dp	4	16.5	20	8.5	21	24.5
20	36	25	13.5	21	15	10	—	7	M5×0.8	7	15.5	4.5	8	—	7	M5×0.8	9	5.5	5.5	5.2	ø9.3×6.5dp	ø9.3×9dp	5.5	19.5	24	9.5	23.5	28

Cylinder weight

Unit: g

Model	MCFB-11 							
Tube I.D.	Stroke (mm)							
	4	6	8	10	15	20	25	30
ø6	15	16	18	19	22	25	28	–
ø8	19	20	22	23	26	29	33	–
ø10	21	22	24	25	29	32	36	39
Tube I.D.	Stroke (mm)							
	5	10	15	20	25	30	40	50
ø12	24	29	34	39	44	49	–	–
ø16	38	45	52	59	66	73	–	–
ø20	63	73	83	93	103	113	133	153

Model	MCFB-11 (With magnet) 							
Tube I.D.	Stroke (mm)							
	4	6	8	10	15	20	25	30
ø6	16	17	18	19	22	25	28	–
ø8	20	21	23	24	27	31	34	–
ø10	23	24	26	27	31	34	38	41
Tube I.D.	Stroke (mm)							
	5	10	15	20	25	30	40	50
ø12	27	32	37	42	47	52	–	–
ø16	42	49	56	63	70	77	–	–
ø20	68	78	88	98	108	118	138	158

Model	MCFB-12 							
Tube I.D.	Stroke (mm)							
	4	6	8	10	15	20	25	30
ø6	14	15	16	18	21	24	27	–
ø8	17	18	19	21	24	27	30	–
ø10	18	19	21	22	26	29	33	36
Tube I.D.	Stroke (mm)							
	5	10	15	20	25	30	40	50
ø12	21	26	31	36	41	46	–	–
ø16	31	38	45	52	59	66	–	–
ø20	52	62	72	82	92	102	122	142

Model	MCFB-12 (With magnet) 							
Tube I.D.	Stroke (mm)							
	4	6	8	10	15	20	25	30
ø6	15	16	17	18	21	24	27	–
ø8	18	19	20	22	25	28	31	–
ø10	20	21	23	24	28	31	35	38
Tube I.D.	Stroke (mm)							
	5	10	15	20	25	30	40	50
ø12	24	29	34	39	44	49	–	–
ø16	35	42	49	56	63	70	–	–
ø20	57	67	77	87	97	107	127	147