MCKQI3 series

ISO 15552 **STANDARD** PROFILE **CYLINDER** WITH NON-ROTATING ROD

Features

■ Hexagonal rod design & Non lubrication

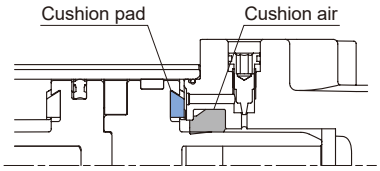
Cylinder with hexagonal rod design for non-rotating feature.
Special housing and bushing enables self lubrication of piston rod.

■ High quality long service life

Hard anodised aluminium cylinder tubes offer high corrosion resistance and low internal friction.

■ Low noise level

Add cushion pad to reduce impact sound and vibration.



■ ISO 15552 standard specification

Conforms to ISO 15552 specification, make worldwide interchangeability.

■ Easy to insert reed switch

With four grooves on the tube, proximity and reed sensors can be easily inserted into any position.

Table for standard stroke

Tube I.D.	Stroke (mm)	Max. stroke (mm)
ø32,40	50,75,100,125,150, 175,200,300,400,500	700

* Intermediate stroke are available, please contact us.

Tightening torque

Tube I.D.	Rod thread	Tightening torque (kgf·cm)
ø32	M10×1.25	190
ø40	M12×1.25	330

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

Specification

Model	MCKQI3	
Tube I.D. (mm)	32	40
Medium	Air	
Operating perssure range	0.05~1 MPa	
Proof pressure	1.5 MPa	
Ambient temperature	-5~+60°C (No freezing)	
Available speed range	50~500 mm/sec	
Rod non-rotating accuracy	±0.5°	
Allowable rotational torque	2.5 kgf-cm	4.5 kgf-cm
Sensor switch	RCI (Please refer to page 8-14)	

Order example

MCKQI3 — 11 — 32 — 100M — T

MODEL

STYLE

Code		Symbol	Description
1	1		Double acting / Male thread

TUBE I.D.

STROKE

M: Magnet

TYPE

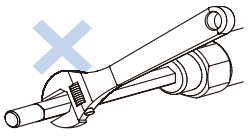
T: With magnet, TA/TB is assembled

* Tube, piston rod and tie rod are extended, and an extra piston is added.

* Order example for special specification, refer to page 0-7.
* **Rc** or **NPT** thread are also available, please contact us.

⚠ Caution

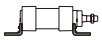
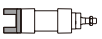
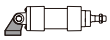
Please don't attempt to rotate the piston rod.



MCKQI3 Order example of accessories

ISO 15552 **STANDARD** PROFILE **CYLINDER** WITH NON-ROTATING ROD

Accessories & Connector

	Accessories						Rod nut
Code	**LB** (Purchase 2 pcs)	**CA**	**CB**	**CDB** (Purchase CB+PIN)	**FAC**	**FBC**	**NUT**
Mounting / Tube I.D.							
ø32	**LB-Q2-32**	**CA-Q2-32**	**CB-Q2-32**	**CDB-Q2-32**	**FAC-Q2-32**		**NUT-M10x1.25x5Hx17B**
ø40	**LB-Q2-40**	**CA-Q2-40**	**CB-Q2-40**	**CDB-Q2-40**	**FAC-Q2-40**		**NUT-M12x1.25x6Hx19B**

	Accessories ⚠ Factory assembled and shipped (self-assembled is not recommended)			Connector		
Code	**TA**	**TB**	**TC**	**Y**	**I**	**YS** (Y+Floating pin)
Mounting / Tube I.D.						
ø32	**TC-Q3-32**			**Y-Q2-32**	**I-Q2-32**	**YS-Q2-32**
ø40	**TC-Q3-40**			**Y-Q2-40**	**I-Q2-40**	**YS-Q2-40**

Pin

Applicable	YS connector	Y&I connector	CA&CB accessories
Code	**PIN-S**	**PIN-Y-P** (with split pin)	**PIN-CB-P** (with split pin)
Fig / Tube I.D.			
ø32	**PIN-Q2-32-S**	**PIN-Q2-32-2-P**	**PIN-Q2-32-1-P**
ø40	**PIN-Q2-40-S**	**PIN-Q2-40-2-P**	**PIN-Q2-40-1-P**

Order example of self-assembled

The tube I.D. ø40 of LB accessories, Y connector and pin.

No.	Order number	Qty
1	**LB-Q2-40**	2
2	**Y-Q2-40**	1
3	**PIN-Q2-40-2-P**	1

* To order accessories/ connectors/ pin separately, please place orders separately according to the order codes in the above table.

Order example of factory assembled

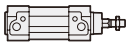
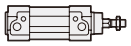
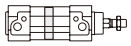
⚠ Cylinders and accessories are distinguished by the symbol " + ".

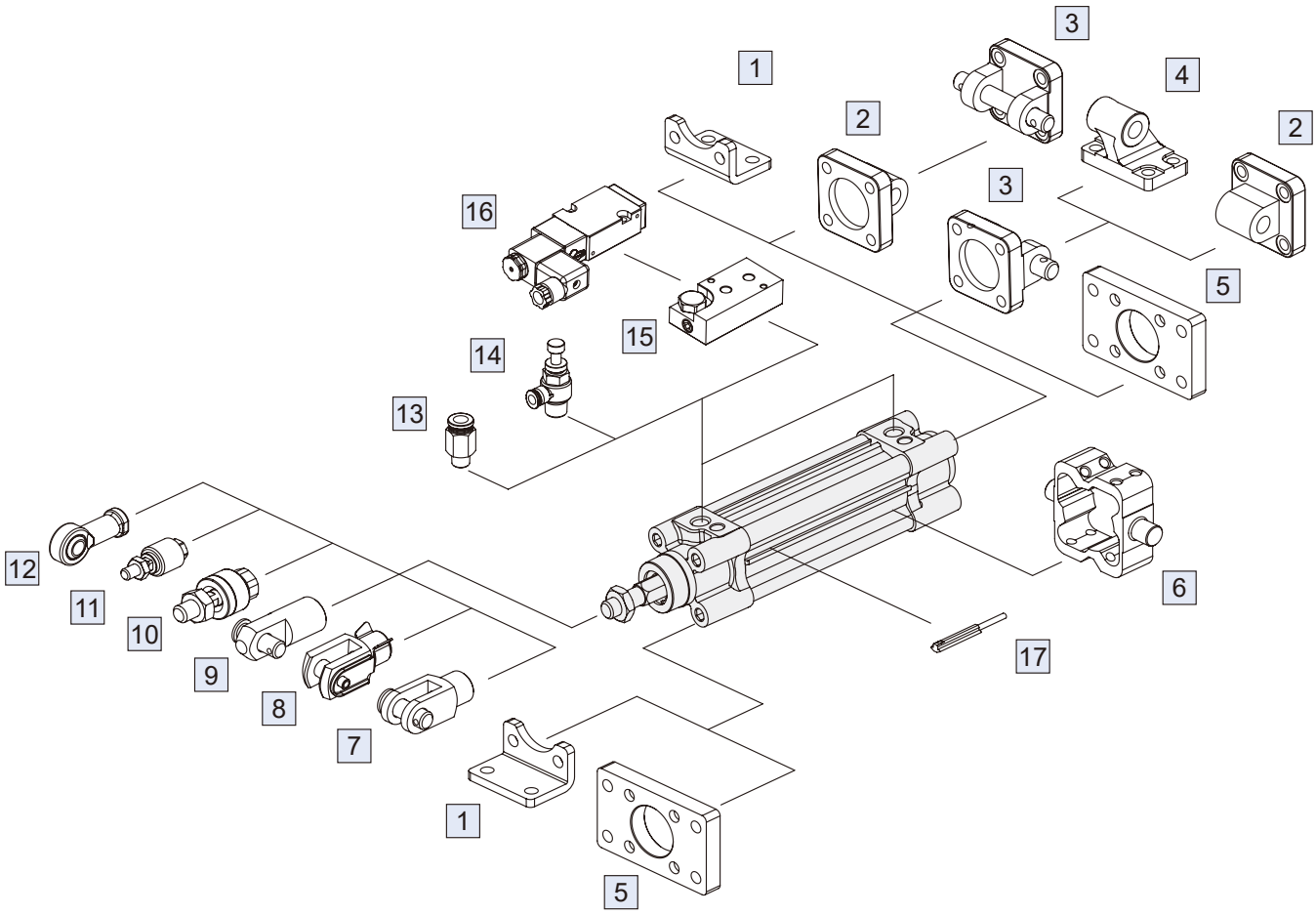
MCKQI3 — Standard model no. + TA

CYLINDER ACCESSORIES

Cylinder weight

Unit: kg

Model	Basic weight	Basic weight (magnet)	Stroke 25 mm
Tube I.D.			
ø32	0.507	0.513	0.065
ø40	0.758	0.770	0.088



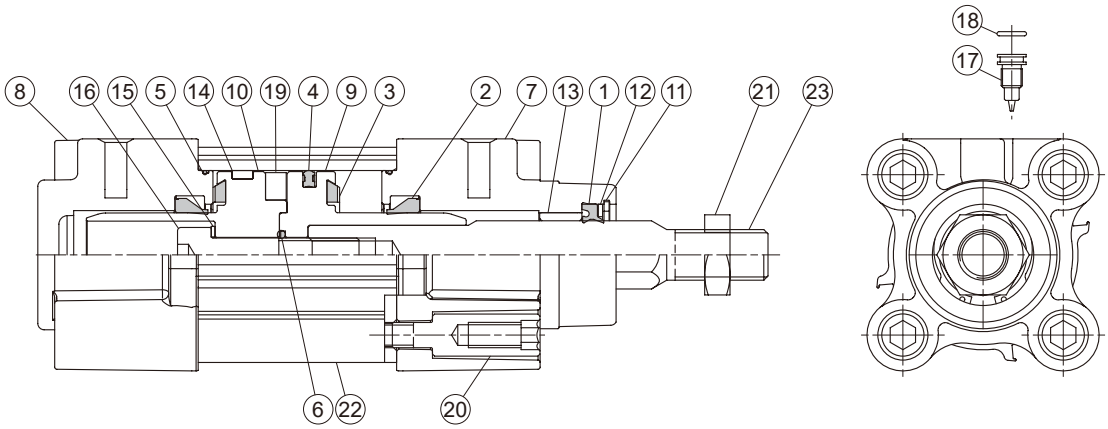
No.	Accessories	Material	Page
1	Mounting accessories LB	Carbon steel	1-83
2	Mounting accessories CA	Cast iron	1-86
	Mounting accessories CA2	Aluminum alloy	1-87
3	Mounting accessories CB+PIN	Cast iron / *1	1-86, 57
	Mounting accessories CB2+PIN	Aluminum alloy	1-87, 57
4	Mounting accessories CDB	Cast iron	1-86
	Mounting accessories CDB2	Aluminum alloy	1-87
5	Mounting accessories FAC/FBC	Carbon steel	1-84
	Mounting accessories FAC2/FBC2	Aluminum alloy	1-85
6	Mounting accessories TA/TB/TC	Cast iron	1-88
7	Accessories Y+PIN	Cast iron / *1	1-57
8	Accessories YS (Y+Floating pin)	Carbon steel	1-57

No.	Accessories	Material	Page
9	Accessories I+PIN	Carbon steel	1-57
10	Floating joint MFC	Carbon steel	8-2
11	Floating joint MFCS	Carbon steel	8-5
12	Female rod ends PHS	Carbon steel	8-7
13	Fitting PC (PISCO)	–	8-3 (Vol.1)
14	Speed controller JSC (PISCO)	–	8-15 (Vol.1)
15	Cylinder link seats MVSN-300-C *3	Aluminum alloy	1-69 (Vol.1)
16	Solenoid valve MVSN-220 / 300 *3	–	1-65, 67 (Vol.1)
17	Sensor switch RCI	–	8-14

*1. PIN material is carbon steel. *2. Bronze alloy.
*3. Only for tube I.D. ø40.

MCKQI3 Inside structure & Parts list / Dimensions

ISO 15552 **STANDARD** PROFILE **CYLINDER** WITH NON-ROTATING ROD



Material

No.	Part name	Material	Q'y	Component parts (inclusion)	Repair kits (inclusion)
1	Rod packing	NBR	1	●	●
2	Cushion packing	NBR	2	●	●
3	Cushion pad	NBR	2	●	●
4	Piston packing	NBR	1	●	●
5	O-ring	NBR	2	●	●
6	O-ring	NBR	1	●	●
7	Rod cover	Aluminum alloy	1	●	
8	Head cover	Aluminum alloy	1	●	
9	Piston-R	Aluminum alloy	1	●	
10	Piston-H	Aluminum alloy	1	●	
11	Snap ring	Spring steel	1	●	
12	Washer	Carbon steel	1	●	
13	Bush	Bearing alloy	1	●	
14	Wear ring	Resin	1	●	
15	Washer	Carbon steel	1	●*	
16	Bolt	Carbon steel	1	●	
17	Needle valve	Copper alloy	2	●	
18	O-ring	NBR	2	●	
19	Magnet ring	Magnet material	1	●	
20	Screw	Carbon steel	8	●	
21	Rod nut	Carbon steel	1	●	
22	Cylinder tube	Aluminum alloy	1		
23	Piston rod	Stainless steel	1		

* Only for ø40.

■ Order example of component parts

CP — MCKQI3 — □ — 40 M

- MODEL
- Blank: Single rod
- TUBE I.D. **32, 40**
- **M**: Magnet

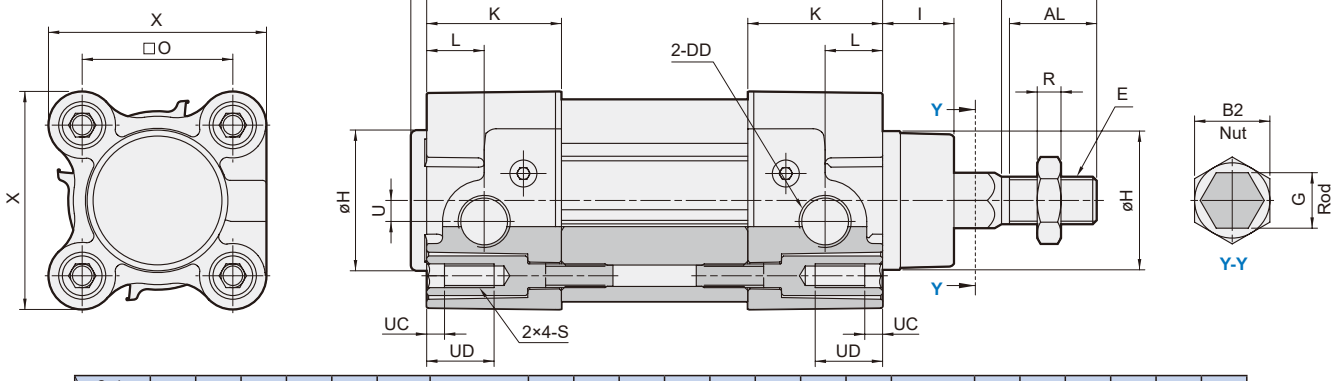
* **Rc** or **NPT** thread are also available, please contact us.

■ Order example of repair kits

PS — MCKQI3 — □ — 40

- MODEL
- Blank: Single rod
- TUBE I.D. **32, 40**

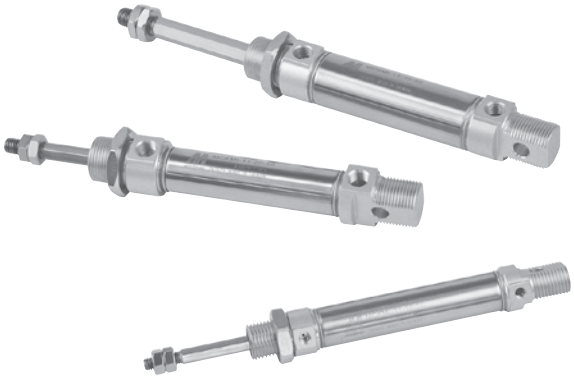
Dimensions



Code / Tube I.D.	A	AL	B	B2	C	DD	E	G	H	I	J	K	L	O	R	S	U	UC	UD	X	Z	ZB
32	22	19.5	94	17	26	G1/8	M10×1.25	12	30	15	4	30.5	20	32.5	5	M6×1.0	4.5	4.5	16	47	146	120
40	24	22	105	19	30	G1/4	M12×1.25	14	35	18	4	34	14.5	38	6	M6×1.0	5.3	4.5	16	55	163	135

MCKMI series

ISO 6432 **MINIATURE CYLINDER** WITH NON-ROTATING ROD



Features

- ISO 6432 standard.
- Stainless steel rod and tube for good corrsion resistance.
- Comprehensive types of mounting accessories available.
- Hexagonal rod design provides rod non-rotaion function.
- Magnetic as standard.

Table for standard stroke

Tube I.D.	Stroke (mm)	Max. stroke (mm)
ø16	15,25,50,75,100,125,150,200	500
ø20	↑ 250,300	300
ø25		500

* Intermediate stroke are available, please contact us.

Tightening torque

Tube I.D.	Rod thread	Tightening torque (kgf·cm)
ø16	M6×1.0	41
ø20	M8×1.25	100
ø25	M10×1.25	190

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

Specification

Model		MCKMI		
Tube I.D. (mm)		16	20	25
Port size		M5×0.8	G1/8	
Medium		Air		
Operating perssure range		0.06~0.7 MPa		
Proof pressure		1 MPa		
Lubricator		Not required		
Ambient temperature		-5°C~+60°C (No freezing)		
Available speed range		50~750 mm/sec		
Max. allowable kinetic energy (J)	Cushion pad	0.09	0.27	0.4
	Cushion air	—	0.66	0.97
Rod non-rotating accuracy		±1°	±0.7°	
Allowable rotational torque		0.4 kgf-cm	2.0 kgf-cm	2.5 kgf-cm
Sensor switch (band) (*1)		RCM(BM16)	RCM(BM20)	RCM(BM25)

*1. RCM specification, Please refer to page 8-16.
*2. The cylinder is allowed little leakage. Before the cylinder is sale, it has passed the standard of leakage test.
*3. For precautions, please refer to page 3-2.

Order example

MCKMI — 11 — 20 — 100 — A — N

- MODEL
- **1**: Single rod
- TUBE I.D.
- STROKE
- TYPE
  - Blank: Standard
  - **N**: Non-pivot type (end-plain)
- STYLE

Code		Symbol	Description
1	1		Double acting / Male thread

- Blank: Cushion pad (Unadjustable)
- **A**: Cushion air (Adjustable) ⚠ (Only for ø20, 25)

⚠ Caution

● For (**A**) Cushion air (Adjustable) (Fig.1)

1. To adjust a cushion needle, please slowly turn the needle valve from the fully closed status to the required status which needs to be within 2.5 turns.
2. If the needle valve loosen excessively, the buffer doesn't take effect and the lifetime of cylinder would be shortened.

● Please don't attempt to rotate the piston rod. (Fig.2)

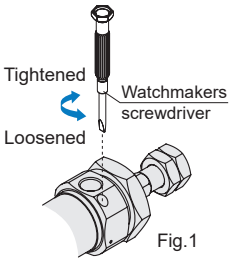


Fig.1

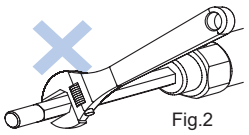
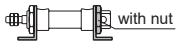
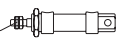
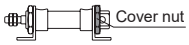
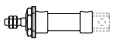
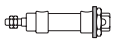
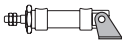
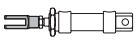
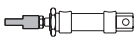
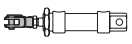


Fig.2

Accessories & Connector

	Accessories			
Code	**LB** (LB×2, with cover nut ×1)	**LB** (LB×1, without cover nut)	**NUT**	
Cover type	Standard type	Non-pivot type (N)	–	
Mounting / Tube I.D.	 with nut		Rod nut 	 Cover nut
ø16	**LB-M3-12x2**	**LB-M3-12**	**NUT-M6x1.0x5Hx10B**	**NUT-M16x1.5x6Hx22B**
ø20	**LB-M3-20x2**	**LB-M3-20**	**NUT-M8x1.25x5Hx13B**	**NUT-M22x1.5x6Hx30B**
ø25			**NUT-M10x1.25x6Hx17B**	

	Accessories			Connector		
Code	**FA**	**FB**	**SDB** (with pin×1 + snap ring×2)	**Y**	**I**	**YS** (Y+Floating pin)
Cover type	All applicable	Standard type	Standard type	All applicable		
Mounting / Tube I.D.						
ø16	**FA-M3-12**		**SDB-M3-12**	**Y-M3-12**	**I-M3-12**	**YS-M3-16**
ø20	**FA-M3-20**		**SDB-M3-20**	**Y-M3-20**	**I-M3-20**	**YS-M3-20**
ø25				**Y-Q2-32**	**I-Q2-32**	**YS-Q2-32**

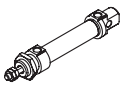
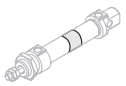
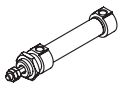
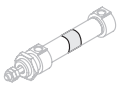
* **Y**, **I**, **YS**, consulte la página 3-14.

Pin

Applicable	YS connector	Y&I connector	SDB connector
Code	**PIN-S**	**PIN-Y-P** (with split pin / snap ring)	**PIN-SDB-P** (with snap ring)
Fig / Tube I.D.		 ø16 ø20,ø25	
ø16	**PIN-M3-16-S**	**PIN-M3-12-2-P**	**PIN-M3-12-1-P**
ø20	**PIN-M3-20-S**	**PIN-M3-20-2-P**	**PIN-M3-20-1-P**
ø25	**PIN-Q2-32-S**	**PIN-Q2-32-2-P**	

Cylinder weight

Unit: g

Model	Basic weight **MCKMI**	Stroke 25mm **MCKMI**	Basic weight **MCKMI-*-N**	Stroke 25mm **MCKMI-*-N**
Tube I.D.				
ø16	69	13.0	62	13.0
ø20	126	20.3	116	20.3
ø25	168	28.7	153	28.7

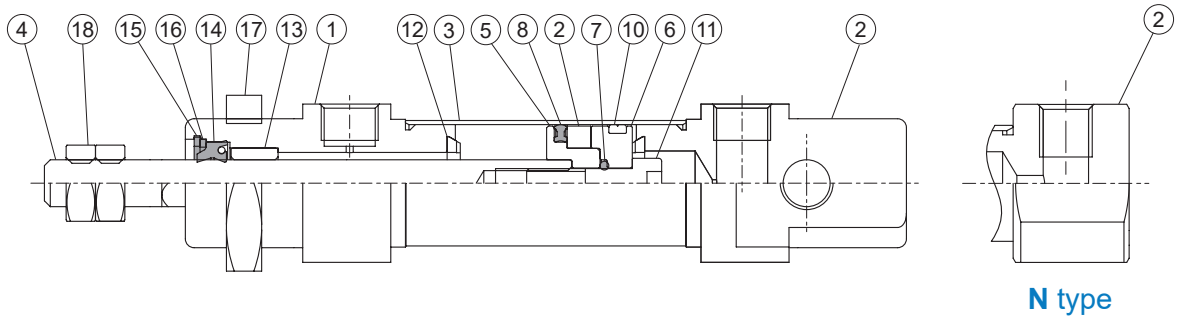
MCKMI Inside structure & Parts list

ISO 6432 **MINIATURE CYLINDER** WITH NON-ROTATING ROD

mindman

Cushion pad Unadjustable

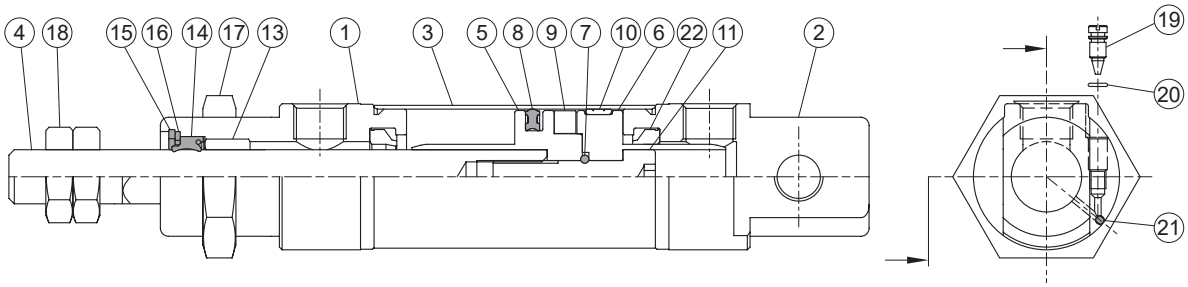
ø16~ø25



N type

Cushion air Adjustable

ø20, ø25



Material

No.	Cushion		Part name	Tube I.D.			Q'y	Component parts (inclusion)	
	Pad	Air		16	20	25		Pad	Air
1	●	●	Rod cover	Aluminum alloy			1	●	●
2	●	●	Head cover	Aluminum alloy			1	●	●
3	●	●	Tube	Stainless steel			1		
4	●	●	Piston rod	Stainless steel			1		
5	●	●	Piston-R	Aluminum alloy			1	●	●
6	●	●	Piston-H	Aluminum alloy			1	●	●
7	●	●	Piston gasket	NBR			1	●	●
8	●	●	Piston packing	NBR			1	●	●
9	●	●	Magnet ring	Magnet material			1	●	●
10	●	●	Wear ring	Resin			1	●	●
11	●	●	Piston bolt	SCM			1	●	●
12	●	●	Cushion gasket	NBR	TPU		2	●	●
13	●	●	Rod bush	Bearing alloy			1	●	●
14	●	●	Rod packing	NBR			1	●	●
15	●	●	Snap ring	Spring steel			1	●	●
16	●	●	Washer	Carbon steel			1	●	●
17	●	●	Tie nut	Carbon steel			1	●	●
18	●	●	Rod front nut	Carbon steel			2	●	●
19		●	Needle valve	Stainless steel			2		●
20		●	Needle valve packing	NBR			2		●
21		●	Steel ball	Stainless steel			2		●
22		●	Cushion packing	NBR			2		●

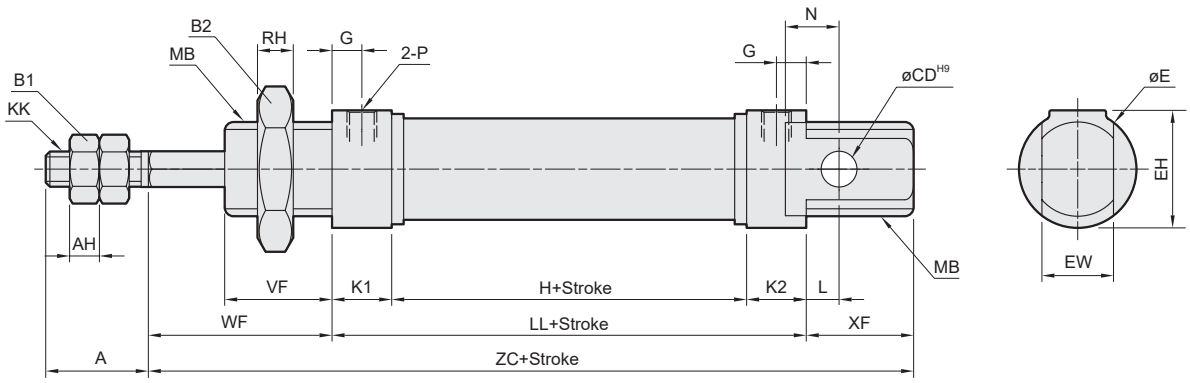
Order example

Component parts

Tube I.D.	Cushion pad
ø16	**CP-MCKMI-16**
ø20	**CP-MCKMI-20**
ø25	**CP-MCKMI-25**

Tube I.D.	Cushion air
ø16	**CP-MCKMI-16A**
ø20	**CP-MCKMI-20A**
ø25	**CP-MCKMI-25A**

11



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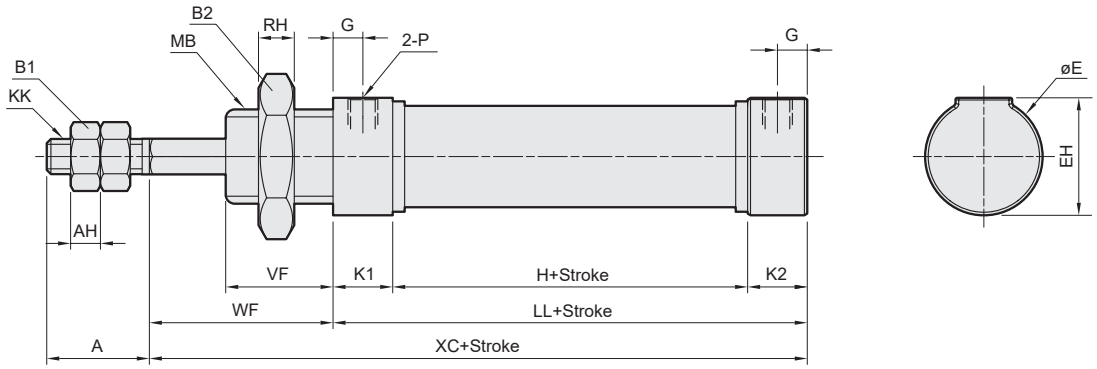
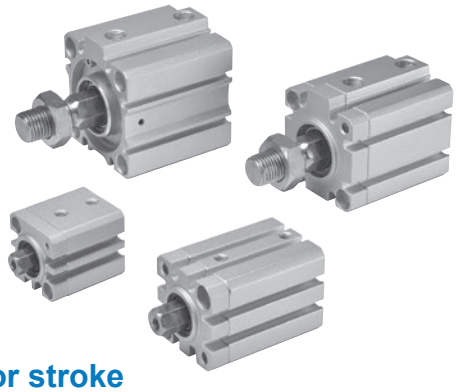


Code / Tube I.D.	A	AH	B1	B2	CD	E	EH	EW	G	H	KK	K1	K2	L	LL	MB	N	P	RH	VF
16	16	5	10	22	6	20	20	12 $^{-0.05}_{-0.4}$	5	34.5	M6×1	10	10	5.5	54.5	M16×1.5	9	M5×0.8	6	18
20	20	5	13	30	8	27	27	16 $^{-0.05}_{-0.4}$	8	38	M8×1.25	15	15	3	68	M22×1.5	12	G1/8	6	20
25	22	6	17	30	8	27	27	16 $^{-0.05}_{-0.4}$	7.5	37	M10×1.25	15	15	9	67	M22×1.5	12	G1/8	6	22

Code / Tube I.D.	WF	XC	XF	ZC
16	22	76.5	18	94.5
20	24	92	20	112
25	28	95	22	117

MCKJQ series

COMPACT CYLINDER WITH NON-ROTATING ROD



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)		●	●	●	●
Sensor switch (*2) RDEP	●	●	–	●	–	●

*1. ø12, ø16: only applicable to RDE and RDE1E.
*2. RCE, RCE1, RDEP specification, please refer to page 8-12, 13, 18.
*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

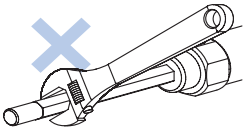
TYPE

Code	Description
Blank	Standard
F	Rear flange
L	Piston rod extended to 10 mm (for tube I.D. ø40 standard stroke). For adding LB and FAC accessories
N2[*1]	Front mounting holes enlarged

*1. Please confirm the mounting method before purchase and contact us if it is [A] mounting method. (refer to page 2-54 "Plate mounting methods").
*2. Order example for special specification, refer to page 0-7.

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. LB and FAC **cannot** be assembled with the standard cylinder.
If the accessories are required, 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.

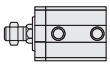
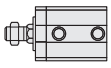
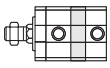
Rod nut

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

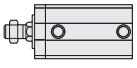
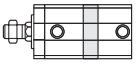
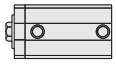
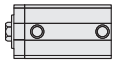
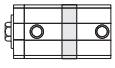
Standard stroke

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

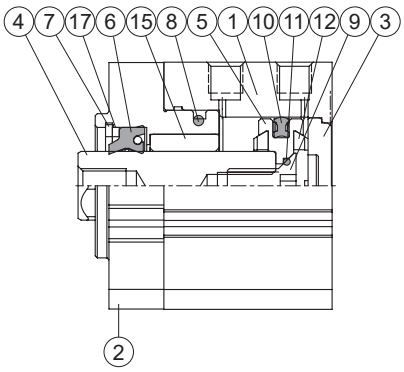
Long stroke

Unit: g

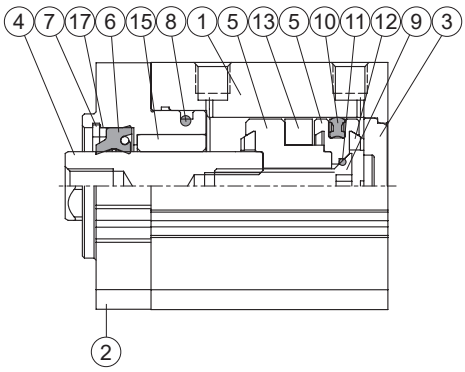
Model		Basic weight MCKJQ-11	Basic weight (magnet) MCKJQ-11	Stroke 5mm MCKJQ-11	Basic weight MCKJQ-12	Basic weight (magnet) MCKJQ-12	Stroke 5mm MCKJQ-12
Tube I.D.	Stroke range (mm)						
ø20	51 or more	308	312	14	301	305	14
ø25		398	407	16	390	399	16

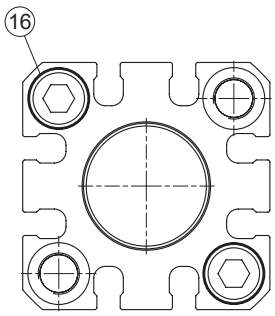
* The weight is based on 51 mm stroke.

Standard stroke ø12~ø32

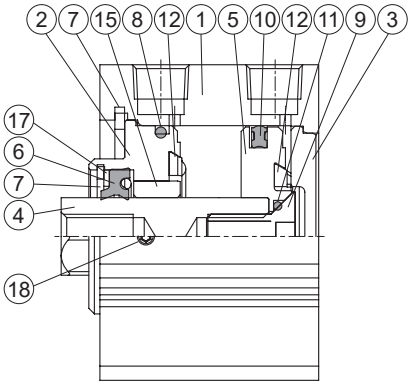


Standard stroke ø12~ø32 (with magnet)

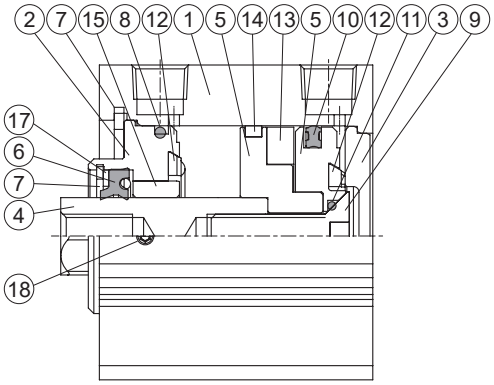




Standard stroke ø40



Standard stroke ø40 (with magnet)



Standard stroke – Material

No.	Tube I.D. / Part name	12	16	20	25	32	40	Note	Q'y	Repair kits (inclusion)
1	Body	Aluminum alloy						Hard anodized	1	
2	Rod cover	Aluminum alloy						Anodized	1	
3	End cover	Aluminum alloy						Anodized	1	
4	Piston rod	Stainless steel							1	
5	Piston	Aluminum alloy						ø12~32 Anodized	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	

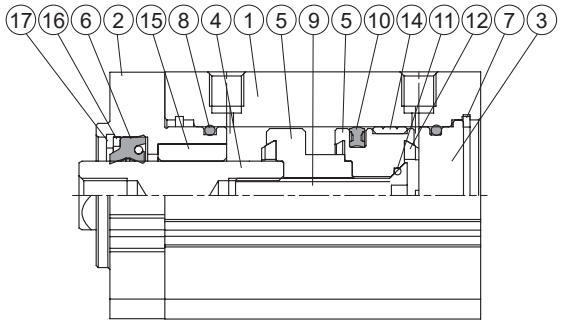
*1. Carbon steel

Order example

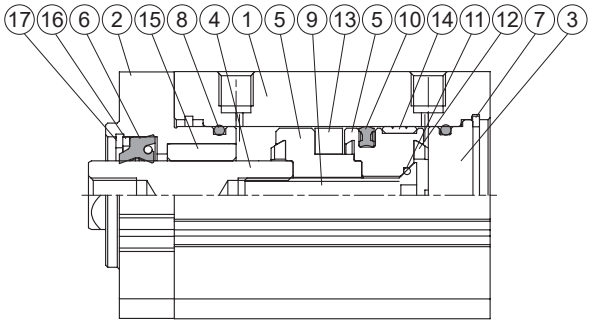
Repair kits

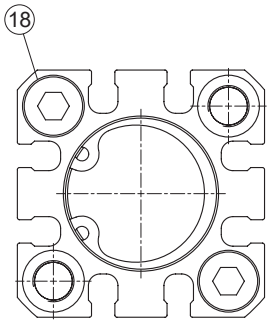
Tube I.D.	Repair kits
ø12	**PS-MCKJQ-12**
ø16	**PS-MCKJQ-16**
ø20	**PS-MCKJQ-20**
ø25	**PS-MCKJQ-25**
ø32	**PS-MCKJQ-32**
ø40	**PS-MCKJQ-40**

Long stroke ø20, ø25



Long stroke ø20, ø25
(with magnet)





Long stroke – Material

No.	Tube I.D. / Part name	Material	Note	Q'y	Component parts (inclusion)	Repair kits (inclusion)
1	Body	Aluminum alloy	Hard anodized	1		
2	Rod cover	Aluminum 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		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

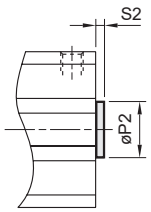
Tube I.D.	Component parts
ø20	**CPL-MCKJQ-20(M)**
ø25	**CPL-MCKJQ-25(M)**

M: With magnet

Repair kits

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

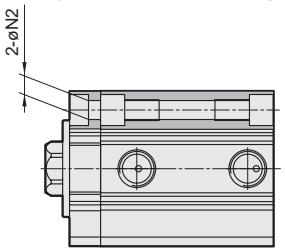
F Rear flange



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.

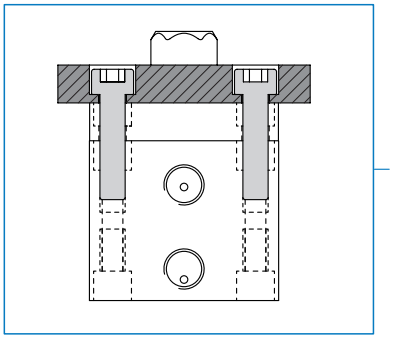
* The plates and bolts are prepared by the customers.

Bolt specification

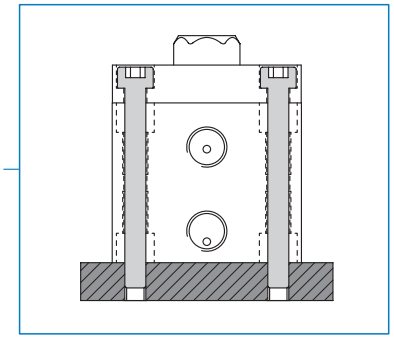
Tube I.D. / Mounting	ø12	ø16	ø20	ø25	ø32	ø40
A, C	M4×0.7	M4×0.7	M6×1.0	M6×1.0	M6×1.0	M6×1.0
B, D	M3×0.5	M3×0.5	M5×0.8	M5×0.8	M5×0.8	M5×0.8

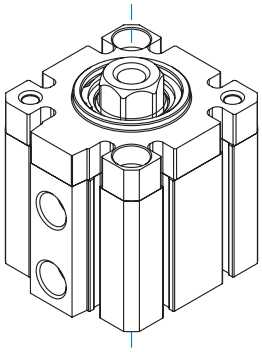
A The plate is in front and the bolt is mounted from the front. For ø12~ø32, when selecting mounting option A, the order code must be N2 type.

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

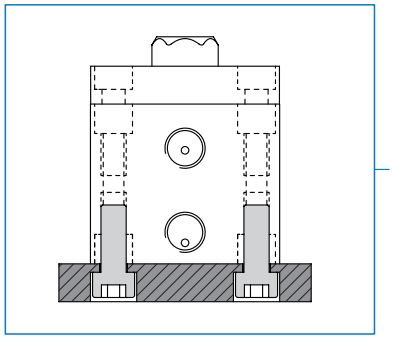


B The plate is in back and the bolt is mounted from the front.

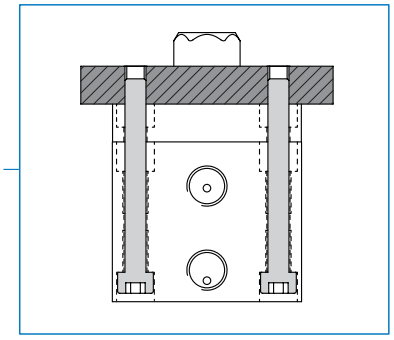




C The plate is in back and the bolt is mounted from the back.

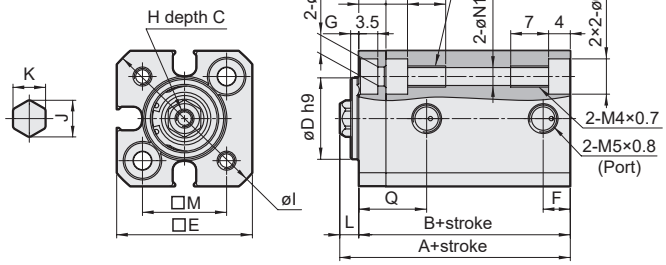


D The plate is in front and the bolt is mounted from the back.

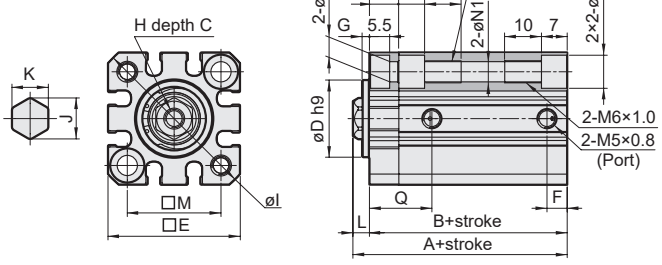


12

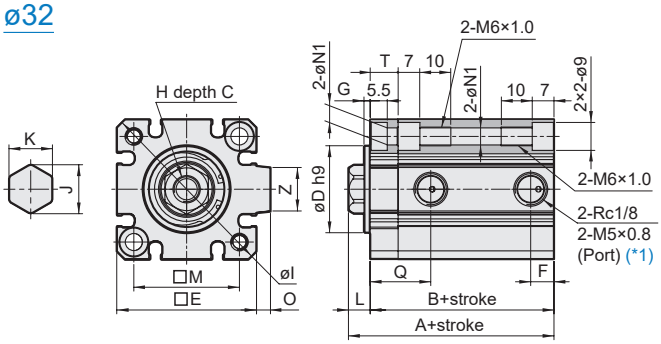
ø12, ø16



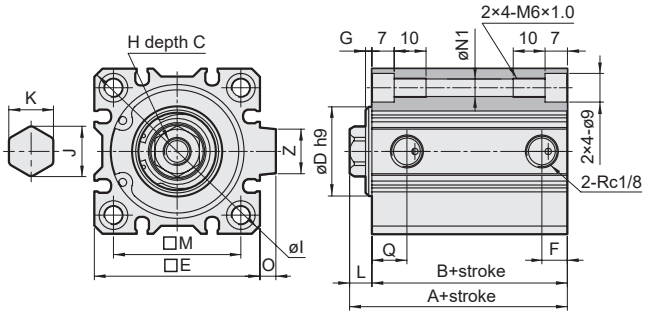
ø20, ø25



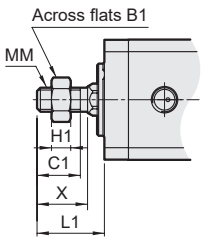
ø32



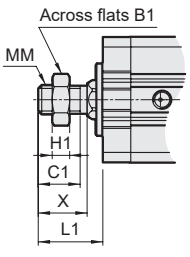
ø40



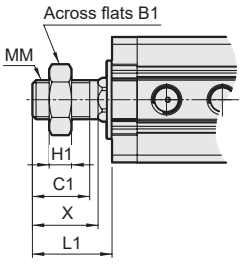
ø12, ø16



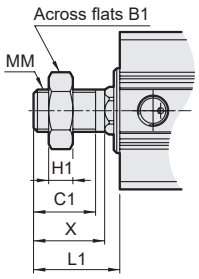
ø20, ø25



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.