

# MCKQI3 series

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



Special spec



Technical data



Caution for safety  
(Read before installing)



## Features

### ■ Hexagonal rod design & Non lubrication

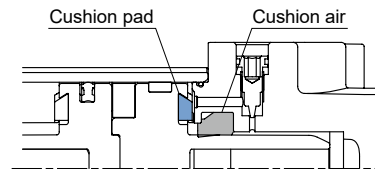
Cylinder with hexagonal rod design for non-rotating feature. Special housing and bushing enables self lubrication of piston rod.

### ■ 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 pressure 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	RDT, RQT , RCI	

## Order example

**MCKQI3 — 11 — 32 — 100M — T**

MODEL

TUBE I.D.

STROKE

M: Magnet

TYPE

STYLE

Code	Symbol	Description
1 1		Double acting / Male thread

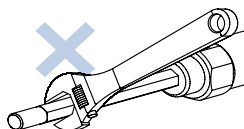
T: Add "T" when both M and TA / TB are selected.

\* When both magnet (M) and mounting accessories (TA or TB) are selected, please add the suffix "T" at the end of the model number.

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

## Caution

Please don't attempt to rotate the piston rod.



### Accessories & Connector

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

Code	Accessories  Factory-installed, not available for separate purchase or field assembly			Connector		
	TA	TB	TC	Y	I	YS (Y+Floating pin)
Mounting Tube I.D.						
ø32	<b>TC-Q3-32</b>			<b>Y-Q2-32</b>	<b>I-Q2-32</b>	<b>YS-Q2-32</b>
ø40	<b>TC-Q3-40</b>			<b>Y-Q2-40</b>	<b>I-Q2-40</b>	<b>YS-Q2-40</b>

### 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	<b>PIN-Q2-32-S</b>	<b>PIN-Q2-32-2-P</b>	<b>PIN-Q2-32-1-P</b>
ø40	<b>PIN-Q2-40-S</b>	<b>PIN-Q2-40-2-P</b>	<b>PIN-Q2-40-1-P</b>

### Order example of self-assembled

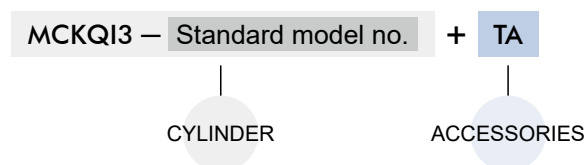
The tube I.D. ø40 of LB accessories, Y connector and pin.

No.	Order number	Qty
1	<b>LB-Q2-40</b>	2
2	<b>Y-Q2-40</b>	1
3	<b>PIN-Q2-40-2-P</b>	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

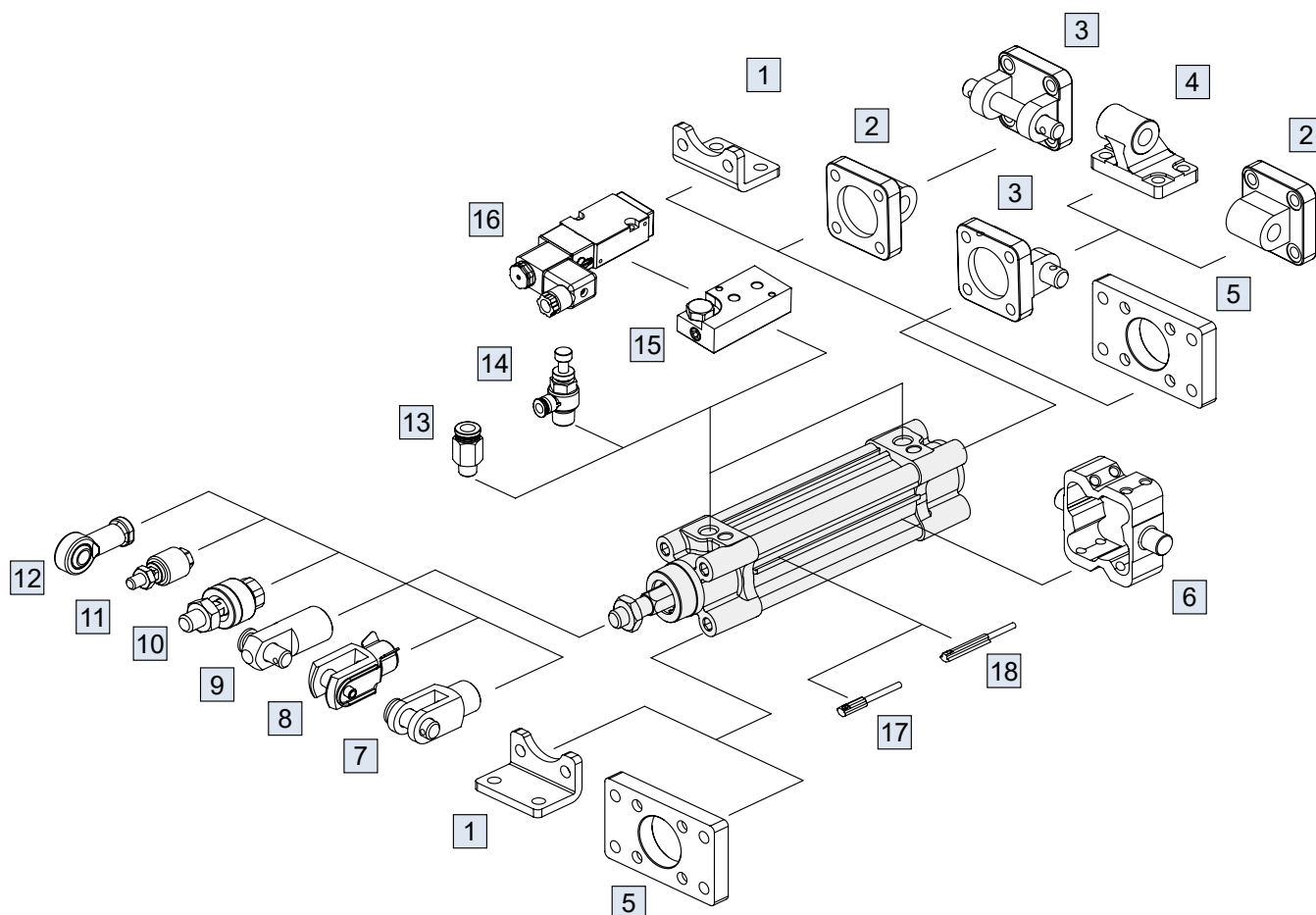
Cylinders and accessories are distinguished by the symbol " + ".



### 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 link
1	Mounting accessories LB	Carbon steel	<a href="#">🔗</a>
2	Mounting accessories CA	Cast iron	<a href="#">🔗</a>
	Mounting accessories CA2	Aluminum alloy	<a href="#">🔗</a>
3	Mounting accessories CB+PIN	Cast iron / *1	<a href="#">🔗</a> , <a href="#">🔗</a>
	Mounting accessories CB2+PIN	Aluminum alloy	<a href="#">🔗</a> , <a href="#">🔗</a>
4	Mounting accessories CDB	Cast iron	<a href="#">🔗</a>
	Mounting accessories CDB2	Aluminum alloy	<a href="#">🔗</a>
5	Mounting accessories FAC/FBC	Carbon steel	<a href="#">🔗</a>
	Mounting accessories FAC2/FBC2	Aluminum alloy	<a href="#">🔗</a>
6	Mounting accessories TA/TB/TC	Cast iron	<a href="#">🔗</a>
7	Accessories Y+PIN	Cast iron / *1	<a href="#">🔗</a>
8	Accessories YS (Y+Floating pin)	Carbon steel	<a href="#">🔗</a>

No.	Accessories	Material	Page link
9	Accessories I+PIN	Carbon steel	<a href="#">🔗</a>
10	Floating joint MFC	Carbon steel	<a href="#">🔗</a>
11	Floating joint MFCS	Carbon steel	<a href="#">🔗</a>
12	Female rod ends PHS	Carbon steel	<a href="#">🔗</a>
13	Fitting PC (PISCO)	—	<a href="#">🔗</a>
14	Speed controller JSC (PISCO)	—	<a href="#">🔗</a>
15	Cylinder link seats MVSN-300-C *3	Aluminum alloy	<a href="#">🔗</a>
16	Solenoid valve MVSN-220 *3	—	<a href="#">🔗</a> , <a href="#">🔗</a>
17	Sensor switch R*T	—	<a href="#">🔗</a>
18	Sensor switch RCI	—	<a href="#">🔗</a>

\*1. PIN material is carbon steel. \*2. Bronze alloy.

\*3. Only for tube I.D. ø40.

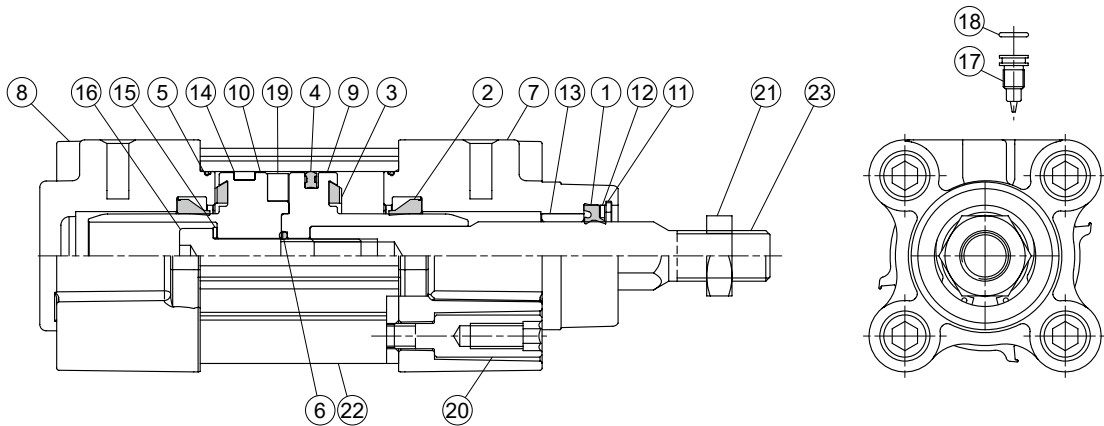
\*4. Accessories dimensions (No.1~9) please refer to MCQI3 series [🔗](#).

# MCKQI3 Inside structure & Parts list / Dimensions



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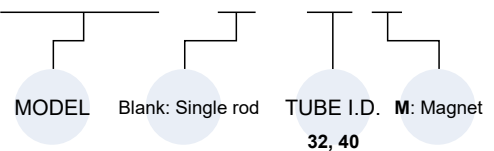
## Material

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

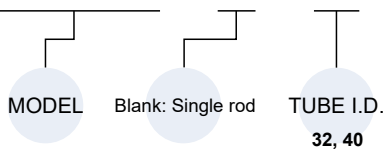
CP – MCKQI3 – □ – 40 M



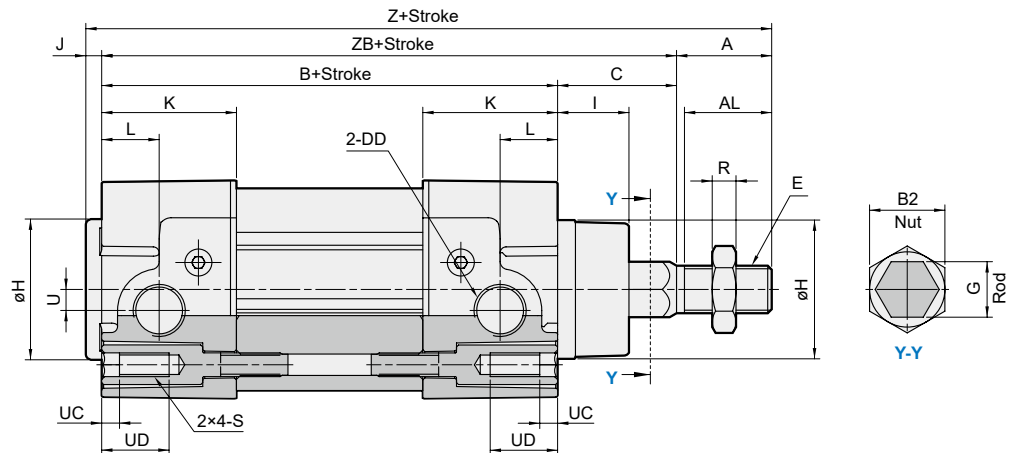
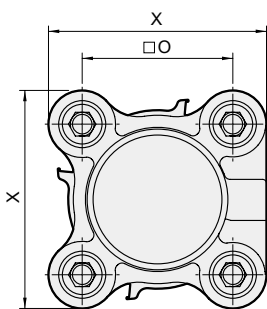
\* Rc or NPT thread are also available, please contact us.

## Order example of repair kits

PS – MCKQI3 – □ – 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

# MCQI3 / MCKQI3 Solenoid valve link seats $\varnothing 40, \varnothing 50$



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## Order example

**MCQI3** — As standard order example — **VR** — **4E2C** — **6A** — **AC110** — **L**

MODEL  
MCQI3  
MCKQI3

SOLENOID VALVE  
LINK SEATS

VR: Installed on the front cover  
VH: Installed on the back cover

4 way (5 port)

E1: Single solenoid  
E2: Double solenoid

C: Closed center  
P: Pressure center  
R: Exhaust center  
(Only for  
MVSN-300-4E2)

PORT  
SIZE

6A: G1/8  
(Only for  
MVSN-220)  
8A: G1/4

VOLTAGE

AC220V(50/60)Hz  
AC110V(50/60)Hz  
DC24V

ELECTRIC CONNECTION

Standard	
Blank	DIN terminal
L	DIN terminal with LED indicator
E	Explosion protection
Power saving (for DC24V)	
KL	DIN terminal with LED indicator

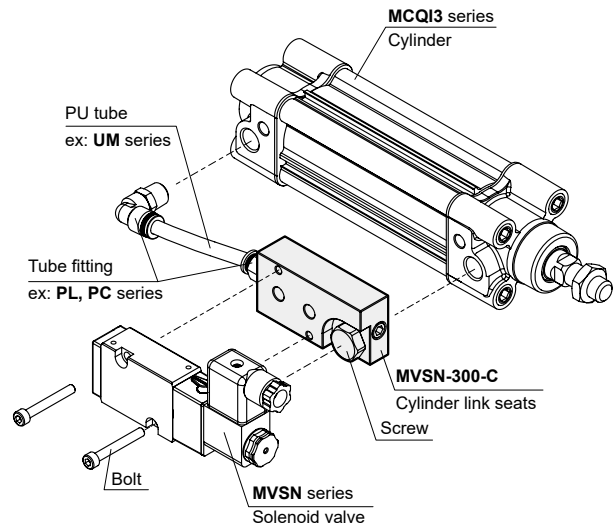
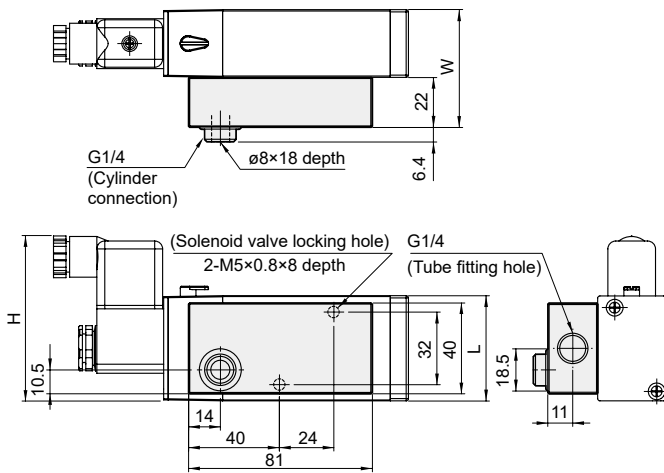
\* MC(K)QI3- $\varnothing 40$  (for MVSN-220 valve )

\* MCQI3- $\varnothing 50$  (for MVSN-300 valve )

## MVSN-300-C

Solenoid valve link seats

## Mounting of solenoid valve link seats



Code Model	H	W	L	Cylinder type
MVSN-220	70	44.3	40	MCQV3 / MCQI3 / MCKQI3 $\varnothing 40$
MVSN-300	73	52	46.4	MCQV3 / MCQI3 $\varnothing 50$