

Metal Seal

Lateral Load Resisting Low Friction Cylinder Series *MQM*

ø6, ø10, ø16, ø20, ø25

How to Order

MQM L B 10 - 15 D

Lateral load resisting low friction specification

Type

L Lateral load resisting type (Built-in ball bushing)

Mounting

B	Basic type
L	Foot type
F	Rod side flange type
G	Head side flange type (Except for ø6)
C <small>Note 1)</small>	Single clevis type (Non-integrated type)
D <small>Note 2)</small>	Double clevis type

Note 1) Bore size: 20, 25 mm only

* Mounting brackets are included when shipped, but unassembled. (Except for clevis type.)

Note 2) ø6, ø10, ø16 Integrated type
ø20, ø25 Non-integrated type

Bore size

6	6 mm
10	10 mm
16	16 mm
20	20 mm
25	25 mm

Action

D Double acting

Cylinder stroke

Bore size (mm)	Standard stroke (mm)
6	15, 30, 45, 60
10	15, 30, 45, 60, 75, 100
16	15, 30, 45, 60, 75, 100
20	15, 30, 45, 60, 75, 100
25	15, 30, 45, 60, 75, 100

* Strokes are available in 1mm increments by installing spacers in standard stroke cylinders.

Function

Nil	Standard type
H <small>Note)</small>	High speed/High frequency type (Without fixed orifice)

Note) Except for 6 mm bore size.

Port thread type

Nil	M thread	ø6 to ø16
	Rc	
TN	NPT	ø20, ø25
TF	G	

* The MQM series is not auto switch capable.

Mounting Style/Accessories

Mounting bracket		B: Basic	L: Foot	F: Rod side flange	G: Head side flange	C: Single clevis	D: Double clevis	Note
Standard	Mounting nut <small>Note 1)</small>	● (1 pc.)	● (2 pcs.)	● (1 pc.)	● (1 pc.)	— <small>Note 1)</small>	— <small>Note 2)</small>	
	Rod end nut	●	●	●	●	●	●	
	Clevis pin	—	—	—	—	—	●	
Option	T-bracket	—	—	—	—	—	●	With pin

Note 1) Mounting nut is not included with the integral clevis, single clevis and double clevis types.

Note 2) Pin and retaining ring are packed with the double clevis type.

Mounting Bracket Part No.

Bore size (mm)	Foot <small>Note 1)</small>	Flange	Single clevis	Double clevis (with pin) <small>Note 2)</small>	T-bracket <small>Note 3)</small>
6	CJK-L016B	CJK-F016B	—	—	CJ-T010B
10	MQM-L010		—	—	
16	MQM-L016	CLJ-F016B	—	—	CJ-T016B
20	CM-L020B	CM-F020B	CM-C020B	CM-D020B	—
25	CM-L032B	CM-F032B	CM-C032B		—

Note 1-1) Bore size 6 mm:

1 foot bracket is included.

When ordering foot brackets, order 1 piece per a cylinder unit.

Note 1-2) Bore size other than 6 mm (10, 16, 20 and 25 mm) (Same as Series CM):

2 foot brackets and 1 mounting nut (1 set) are used for a cylinder unit.

When ordering foot brackets, order 2 pieces per a cylinder unit (shipped as a set).

Note 2) Clevis pin and retaining ring are included in package.

Note 3) T-bracket is applicable to the double clevis type (D).

REA

REB

REC

C□Y

C□X

MQ

RHC

RZQ

D-□

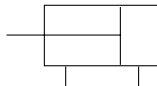
-X□

Individual
-X□



Symbol

Double acting, Single rod



Specifications

Bore size (mm)		6	10	16	20	25
Seal construction		Metal seal				
Action		Double acting, Single rod				
Fluid		Air				
Proof pressure		1.05 MPa				
Maximum operating pressure		0.7 MPa				
Minimum operating pressure <small>Note 1)</small>	Standard type	0.02MPa	0.005 MPa			
	H (High speed/ High frequency type)	—	0.01 MPa			
Ambient and fluid temperature		-10 to 80°C				
Cushion		Rubber bumper (Standard)				
Lubrication <small>Note 2)</small>		Not required (Non-lube)				
Stroke length tolerance		+1.0 0				
Piston speed <small>Note 3)</small>	Standard type	0.5 to 1000 mm/s (Refer to page 1191.)				
	H (High speed/ High frequency type)	—	5 to 3000 mm/s (Refer to page 1191.)			
Total allowable leakage	Supply pressure 0.1 MPa	150 cm ³ /min or less		250 cm ³ /min or less		300 cm ³ /min or less
	Supply pressure 0.3 MPa	800 cm ³ /min or less		1000 cm ³ /min or less		1200 cm ³ /min or less
	Supply pressure 0.5 MPa	1500 cm ³ /min or less		2500 cm ³ /min or less		3000 cm ³ /min or less

Note 1) Value when horizontal. (Use clean, dry, and nonfreezing air) However, as the stroke increases, it will likely be affected by the mass of its moving parts and the pressure will likely increase by approx. 0.003 to 0.005 MPa due to an offset load from the mass of the rod.

Note 2) Refer to precautions on page 1189 regarding lubrication.

Note 3) Control low speed actuation with differential pressure and a speed controller, etc. (Refer to recommended circuit examples on page 1169 for further details.)

Mass: Standard Type, High Speed/High Frequency Type

Unit: g

Bore size (mm)	Cylinder stroke (mm)					
	15	30	45	60	75	100
6	52.5	60.7	68.9	77.1	—	—
10	92.4	102.7	113.0	123.3	133.6	143.9
16	152.4	175.2	198.0	220.8	243.6	266.4
20	349.8	392.6	435.4	478.2	521.0	563.8
25	460.8	510.0	559.2	608.4	657.6	706.8

Theoretical Output

OUT IN

Unit: N

Bore size (mm)	Rod size (mm)	Direction	Piston area (mm ²)	Operating pressure (MPa)						
				0.1	0.2	0.3	0.4	0.5	0.6	0.7
6	4	IN	15.7	1.6	3.2	4.7	6.3	7.9	9.4	11.0
		OUT	28.3	2.8	5.7	8.5	11.3	14.2	17.0	19.8
10	4	IN	66.0	6.6	13.2	19.8	26.4	33.0	39.6	46.2
		OUT	78.5	7.9	15.7	23.6	31.4	39.3	47.1	55.0
16	5	IN	181.4	18.1	36.3	54.4	72.6	90.7	108.8	127.0
		OUT	201.1	20.1	40.2	60.3	80.4	100.6	120.7	140.8
20	8	IN	263.9	26.4	52.8	79.2	105.6	132.0	158.3	184.7
		OUT	314.2	31.4	62.8	94.3	125.7	157.1	188.5	219.9
25	10	IN	412.3	41.2	82.5	123.7	164.9	206.2	247.4	288.6
		OUT	490.9	49.1	98.2	147.3	196.4	245.5	294.5	343.6