

Low Speed Cylinder

Double Acting, Single Rod

Series CM2X

ø20, ø25, ø32, ø40

How to Order

Mounting style

B	Basic style
L	Axial foot style
F	Rod side flange style
G	Head side flange style
C	Single clevis style
D	Double clevis style
U	Rod side trunnion style

T	Head side trunnion style
E	Clevis integrated style
BZ	Boss-cut basic style
FZ	Boss-cut rod side flange style
UZ	Boss-cut rod side trunnion style

Cylinder stroke (mm)
Refer to "Standard Stroke" on page 1149.

With auto switch
With auto switch (Built-in magnet)
Low speed cylinder

CM2X L 40 - 150

CDM2X L 40 - 150 - M9BW

Thread type

Nil	Rc
TN	NPT
TF	G

Number of auto switches

Nil	2 pcs.
S	1 pc.
n	n pcs.

Bore size

20	20 mm
25	25 mm
32	32 mm
40	40 mm

Auto switch

Nil	Without auto switch
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Built-in Magnet Cylinder Model
If a built-in magnet cylinder without an auto switch is required, there is no need to enter the symbol for the auto switch.
(Example) CDM2XF32-100

*** For the applicable auto switch model, refer to the table below.**

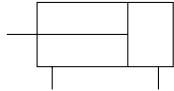
Applicable Auto Switch/Refer to pages 1719 to 1827 for further information on auto switches.

Type	Special function	Electrical entry	Indicator light	Wiring (Output)	Load voltage		Auto switch model	Lead wire (m)					Pre-wired connector	Applicable load		
					DC	AC		0.5 (Nil)	1 (M)	3 (L)	5 (Z)	None (N)				
Solid state switch	—	Grommet	Yes	3-wire (NPN)	24 V	5 V, 12 V	—	M9N	●	●	●	○	—	○	IC circuit	Relay, PLC
		3-wire (PNP)				M9P		●	●	●	○	—	○			
		Connector		2-wire		12 V		M9B	●	—	●	○	—	○	—	
				H7C		●		—	●	●	—	—				
	Diagnostic indication (2-color)	Grommet		3-wire (NPN)	5 V, 12 V	G39A	—	—	—	—	●	—	IC circuit			
				2-wire	12 V	K39A	—	—	—	—	●	—	—			
				3-wire (NPN)	5 V, 12 V	M9NW	●	●	●	○	—	○	IC circuit			
				3-wire (PNP)		M9PW	●	●	●	○	—	○				
	With diagnostic output (2-color)	Grommet		2-wire	12 V	M9BW	●	●	●	○	—	○	—			
				4-wire (NPN)	5 V, 12 V	H7NF	●		●	○	—	○	IC circuit			
Reed switch	—	Grommet	Yes	3-wire (Equiv. NPN)	—	5 V	—	A96	●	—	●	—	—	—	IC circuit	Relay, PLC
			No	2-wire	24 V	12 V	100 V	A93	●	—	●	—	—	—	—	
			100 V or less				A90	●	—	●	—	—	—	IC circuit		
			100 V, 200 V				B54	●	—	●	●	—	—	—		
		200 V or less	B64				●	—	●	—	—	—				
		Connector	Yes				—	C73C	●	—	●	●	●		—	
			No				24 V or less	C80C	●	—	●	●	●	—		
		Terminal conduit	Yes				—	A33A	—	—	—	—	●	—	—	PLC
							100 V, 200 V	A34A	—	—	—	—	●	—		
				A44A	—	—	—	—	—	●	—					
		DIN terminal		—	B59W	●	—	●	—	—	—	Relay, PLC				
		Diagnostic indication (2-color)	Grommet	—	—	—	—	—	—	—						

- * Lead wire length symbols: 0.5 m Nil (Example) M9NW
1 m M (Example) M9NWM
3 m L (Example) M9NWL
5 m Z (Example) M9NWX
None N (Example) H7CN
- * Solid state auto switches marked with "○" are produced upon receipt of order.
* D-A9□V□/M9□V□/M9□WV□/M9□A(V)L types cannot be mounted.
* Do not add the suffix (N) indicating "no lead wire" to the part numbers of models D-A3□A, A44A, G39A and K39A.
- * In addition to the models in the above table, there are some other auto switches that are applicable. For more information, refer to page 1161.
* Refer to pages 1784 and 1785 for details of auto switches with a pre-wired connector.
* D-A9□/M9□/M9□W auto switches are shipped together (not assembled). (Only auto switch mounting brackets are assembled before shipped.)



JIS Symbol
Double acting
Single rod



Standard Stroke

Bore size (mm)	Standard stroke (mm)
20	25, 50, 75, 100, 125, 150 200, 250, 300
25	
32	
40	

* Manufacture of intermediate strokes at 1 mm intervals is possible. (Spacers are not used.)

⚠ Precautions

Be sure to read before handling.
Refer to front matters 42 and 43 for Safety Instructions and pages 3 to 11 for Actuator and Auto Switch Precautions.

Operating Precautions

⚠ Warning

- Do not rotate the cover.**
 - When installing a cylinder or screwing a pipe fitting into the port, take care that the cover could break if the cover rotated.

⚠ Caution

- Be careful of the retaining ring to pop out.**
 - When replacing the rod seal, take care that the retaining ring does not spring out while you are removing it.

Maintenance

⚠ Caution

- Replacement parts/Seal kit**
Order it in accordance with the bore size.

Bore size (mm)	Kit no.	Contents
20	CM2X20-PS	Rod seal: 1 pc. Grease pack (10 g): 1 pc.
25	CM2X25-PS	
32	CM2X32-PS	
40	CM2X40-PS	

- Grease pack**

When maintenance requires only grease, use the following part numbers to order.

Grease pack part no.:

GR-L-005 (5 g)
GR-L-010 (10 g)
GR-L-150 (150 g)

Specifications

Bore size (mm)	20	25	32	40
Type	Pneumatic			
Action	Double acting, Single rod			
Fluid	Air			
Proof pressure	1.5 MPa			
Maximum operating pressure	1.0 MPa			
Minimum operating pressure	0.025 MPa			
Ambient and fluid temperature	Without auto switch: -10 to 70°C (No freezing) With auto switch: -10 to 60°C (No freezing)			
Cushion	Rubber bumper			
Lubrication	Not required (Non-lube)			
Stroke length tolerance	+1.4 mm 0			

Piston Speed

Bore size (mm)	20	25	32	40
Piston speed (mm/s)	0.5 to 300			
Allowable kinetic energy (J)	0.27	0.4	0.65	1.2

Mounting Bracket Part No.

Mounting bracket	Minimum order	Bore size (mm)				Description (when ordering a minimum number)
		20	25	32	40	
Axial foot*	2	CM-L020B	CM-L032B	CM-L040B		Foot 2 pcs., Mounting nut 1 pc.
Flange	1	CM-F020B	CM-F032B	CM-F040B		Flange 1 pc., Mounting nut 1 pc.
Single clevis**	1	CM-C020B	CM-C032B	CM-C040B		Single clevis 1 pc., Liner 3 pcs.
Double clevis (with pin)***	1	CM-D020B	CM-D032B	CM-D040B		Double clevis 1 pc., Liner 3 pcs., Clevis pin 1 pc., Retaining ring 2 pcs.
Trunnion (with nut)	1	CM-T020B	CM-T032B	CM-T040B		Trunnion 1 pc., Trunnion nut 1 pc.

* When ordering foot brackets, order 2 pieces per cylinder unit.

** Three liners are included in the clevis bracket for adjusting an angle when mounting it.

*** Clevis pin and retaining ring (cotter pin for ø40) are shipped together.

Mounting Style and Accessory

	Accessory	Standard equipment			Option		
		Mounting nut	Rod end nut	Clevis pin	Single knuckle joint	Double (3) knuckle joint	Clevis (4) bracket
Mounting							
Basic style	● (1 pc.)	●	—	●	●	—	—
Axial foot style	● (2)	●	—	●	●	—	—
Rod side flange style	● (1)	●	—	●	●	—	—
Head side flange style	● (1)	●	—	●	●	—	—
Clevis integrated style	— Note 1)	●	—	●	●	●	—
Single clevis style	— Note 1)	●	—	●	●	—	—
Double clevis style (3)	— Note 1)	●	● Note 5)	●	●	—	—
Rod side trunnion style	● (1) Note 2)	●	—	●	●	—	—
Head side trunnion style	● (1) Note 2)	●	—	●	●	—	—
Boss-cut basic style	● (1)	●	—	●	●	—	—
Boss-cut flange style	● (1)	●	—	●	●	—	—
Boss-cut trunnion style	● (1)	●	—	●	●	—	—

Note 1) Mounting nut is not equipped with clevis integrated style, single clevis style and double clevis style.

Note 2) Trunnion nuts are attached for rod side trunnion and head side trunnion styles.

Note 3) Pin and retaining ring are shipped together with double clevis and double knuckle joint. (ø40 is cotter pin.)

Note 4) Pins and retaining rings are packed with clevis brackets.

Note 5) Retaining rings (cotter pins for ø40) are included in the clevis pins.

REA

REB

REC

C□Y

C□X

MQ

RHC

RZQ

D-□

-X□

Individual
-X□