



The external dimensions and the related things about auto switches are the same as standard type, double acting, single rod. For Series CM2, refer to Best Pneumatics Vol. 6.

Low Speed Cylinder Double Acting, Single Rod Series **CM2X** ø20, ø25, ø32, ø40

How to Order

Mounting style

B	Basic style	T	Head side trunnion style
L	Axial foot style	E	Clevis integrated style
F	Rod side flange style	BZ	Boss-cut basic style
G	Head side flange style	FZ	Boss-cut rod side flange style
C	Single clevis style	UZ	Boss-cut rod side trunnion style
D	Double clevis style		
U	Rod side trunnion style		

Standard stroke
Refer to "Standard Stroke" on page 10-3-15.

Without auto switch **CM2X** **L** **40** **150**

With auto switch **CDM2X** **L** **40** **150** **H7BW** **□**

Built-in magnet

Low speed cylinder

Bore size

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

Number of auto switches

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

Auto switch

Nil	Without auto switch (Built-in magnet)
------------	---------------------------------------

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

Applicable Auto Switch/Refer to page 10-20-1 for further information on auto switches.

Type	Special function	Electrical entry	Indicator light	Wiring (Output)	Load voltage		Auto switch model	Lead wire length (m)*				Pre-wire connector	Applicable load								
					DC	AC		0.5 (Nil)	3 (L)	5 (Z)	None (N)										
Reed switch	—	Grommet	Yes	3-wire (NPN equivalent)	—	5 V	—	C76	●	●	—	—	—	IC circuit	—						
				Connector	2-wire	24 V	12 V	100 V	—	C73	●	●	●	—	—	—	Relay, PLC				
		100 V, 200 V						—	B54	●	●	●	—								
		—						—	C73C	●	●	●	●	—	PLC						
		100 V, 200 V						—	A33A	—	—	—	●	—							
		DIN terminal		2-wire	24 V	12 V	100 V, 200 V	—	—	A34A	—	—	—	●	—	Relay, PLC					
A44A	—		—							—	●	—									
Solid state switch	—	Grommet	Yes	3-wire (NPN)	24 V	5 V, 12 V	—	B59W	●	●	—	—	—	—	Relay, PLC						
				3-wire (PNP)				H7A1	●	●	○	—	○								
		Connector		2-wire				12 V	H7A2	●	●	○	—			○					
									H7B	●	●	○	—			○					
		Terminal conduit		3-wire (NPN)				5 V, 12 V	12 V	—	—	—	H7C			●	●	●	●	—	—
													G39A			—	—	—	●	—	
		DIN terminal		2-wire				24 V	12 V	—	—	—	K39A			—	—	—	●	—	—
													H7NW			●	●	○	—	○	
		Grommet		3-wire (NPN)				5 V, 12 V	12 V	—	—	—	H7PW			●	●	○	—	○	—
													H7BW			●	●	○	—	○	
		Water resistant (2-color indication)		2-wire				12 V	—	—	—	—	H7BA			—	●	○	—	○	—
													H7NF			●	●	○	—	○	
With diagnostic output (2-color indication)	4-wire (NPN)	5 V, 12 V	—	—	—	—							—								

* Lead wire length symbols: 0.5 m Nil (Example) C73C
 3 m L (Example) C73CL
 5 m Z (Example) C73CZ
 None N (Example) C73CN

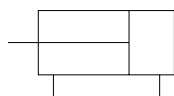
* Solid state switches marked with "○" are produced upon receipt of order.
 * Do not indicate suffix "N" for no lead wire on D-A3□A/A44A/G39A/K39A models.

- Since there are other applicable auto switches than listed, refer to Best Pneumatics Vol. 6 for details.
- For details about auto switches with pre-wire connector, refer to page 10-20-66.

Low Speed Cylinder Double Acting, Single Rod Series CM2X



JIS Symbol
Double acting
Single rod



Standard Stroke

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

Note) Other intermediate strokes can be manufactured upon receipt of order.

⚠ Precautions

Be sure to read before handling. For Safety Instructions and Actuator Precautions, refer to pages 10-24-3 to 10-24-6.

Operating Precautions

⚠ Warning

1. Do not rotate the cover.

- When installing a cylinder or screwing a pipe fitting into the port, the coupling portion of the cover could break if the cover rotated.

⚠ Caution

1. Be careful of the snap ring to pop out.

- When replacing the rod seal, take care that the snap ring does not spring out while you are removing it.

Maintenance

⚠ Caution

1. 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.
25	CM2X25-PS	
32	CM2X32-PS	Grease pack (10 g): 1 pc.
40	CM2X40-PS	

2. Grease pack

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

Grease pack
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	
Piping	Screw-in type	ø20 to ø32: Rc 1/8, ø40: Rc 1/4
Lubrication	Not required (Non-lube)	
Thread tolerance	JIS Class 2	
Stroke length tolerance	+1.4 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.

Bore size (mm)	20	25	32	40
Axial foot *	CM-L020B	CM-L032B	CM-L040B	
Flange	CM-F020B	CM-F032B	CM-F040B	
Single clevis	CM-C020B	CM-C032B	CM-C040B	
Double clevis (with pin) **	CM-D020B	CM-D032B	CM-D040B	
Trunnion (with nut)	CM-T020B	CM-T032B	CM-T040B	

* When ordering foot bracket, order 2 pieces per cylinder.

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

Auto Switch Mounting Bracket Part No.

Auto switch model	Bore size (mm)			
	20	25	32	40
D-C7/C8, D-H7	BM2-020	BM2-025	BM2-032	BM2-040
D-B5/B6, D-G5	BA2-020	BA2-025	BA2-032	BA2-040
D-A3□A/A44A, D-G39A/K39A	BM3-020	BM3-025	BM3-032	BM3-040

Mounting Style and Accessory

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

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 snap ring are shipped together with double clevis and double knuckle joint. (ø40 is cotter pin.)