

Standard: Double Acting Single Rod

Series CM2

ø20, ø25, ø32, ø40

How to Order

Mounting

B	Basic	T	Rear trunnion
L	Axial foot	E	Integrated clevis
F	Front flange	BZ	Boss-cut basic
G	Rear flange	FZ	Boss-cut front flange
C	Single clevis	UZ	Boss-cut front trunnion
D	Double clevis		
U	Front trunnion		

Piping

—	Screw-in
F	Built-in one-touch fitting

Cylinder stroke
Refer to p.1.4-4 for Standard Stroke Table.

Style

—	Air cylinder
H	Air-hydro cylinder

Cushion

—	Rubber bumper
A	Air cushion

* Air-hydro cylinder: rubber bumper only.

Standard CM2 **H** **L** **40** **F** — **150** **A** **J**

With auto switch CDM2 **H** **L** **40** **F** — **150** **A** **J** — **C73** **[]**

Air cylinder with auto switch

Bore size

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

Rod boot

—	Without rod boot
J	Nylon tarpaulin
K	Heat resistant tarpaulin

Number of auto switches

—	2
S	1
n	n

Applicable Auto Switches/Refer to p.5.3-2 for further information on auto switches.

Style	Special function	Electrical entry	Indicator	Wiring (Output)	Load voltage		Auto switch model	Lead wire* (m)				Applicable load	
					DC	AC		0.5 (—)	3 (L)	5 (Z)	None (N)		
Reed switch	—	Grommet	Yes	3 wire (NPN)	—	5V	C76	●	●	—	—	IC	—
							C73	●	●	●	—	—	Relay PLC
							C80	●	●	—	—	IC	—
							B53	●	●	●	—	—	PLC
							B54	●	●	●	—	—	—
							B64	●	●	●	—	—	—
							C73C	●	●	●	●	—	Relay PLC
							C80C	●	●	●	●	IC	—
							A33A	—	—	—	●	—	PLC
							A34A	—	—	—	●	—	—
Solid state switch	—	Grommet	Yes	3 wire (NPN)	—	5V, 12V	A44A	—	—	—	●	—	Relay PLC
							B59W	●	●	—	—	—	—
							H7A1	●	●	○	—	IC	—
							H7A2	●	●	○	—	—	—
							H7B	●	●	○	—	—	—
							H7C	●	●	●	●	—	—
							G39A	—	—	—	●	IC	—
							K39A	—	—	—	●	—	—
							H7NW	●	●	○	—	IC	Relay PLC
							H7PW	●	●	○	—	—	—
							H7BW	●	●	○	—	—	—
							H7BA	—	●	○	—	—	—
							G5NT	—	●	○	—	—	—
							H7NF	●	●	○	—	IC	—
							H7LF	●	●	○	—	—	—

Auto switch

—	Without auto switch (Built-in magnet)
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* Refer to the left table for selecting applicable auto switches.



* Lead wire length

0.5m : —

3m : L

5m : Z

None: N

e.g.) C80CZ, C80CN

* Solid state switches marked with "○" are manufactured upon receipt of order.

* Do not indicate symbol "N" for no lead wire on "D-A3□A", "A44A", "G39A" and "K39A".

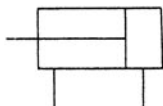
Standard: Double Acting Single Rod *Series CM2*



Integrated clevis style

JIS symbol

Double acting/Single rod



Made to Order

Refer to p.5.4-1 for made to order specifications for series CM2.

Specifications

Bore size (mm)	20	25	32	40
Style	Air cylinder			
Action	Double acting/Single rod			
Fluid	Air			
Proof pressure	1.5MPa			
Max. operating pressure	1.0MPa			
Min. operating pressure	0.05MPa			
Ambient and fluid temperature	Without auto switch: -10 to +70°C (No freezing) With auto switch: -10 to +60°C (No freezing)			
Lubrication	Non-lube			
Thread tolerance	JIS class 2			
Stroke tolerance	+1.4 0			
Piston speed	50 to 750mm/s			
Cushion	Rubber bumper			
Allowable kinetic energy	0.27J	0.4J	0.65J	1.2J

Standard Stroke

Bore size (mm)	Standard stroke(mm) ⁽¹⁾	Long stroke ⁽²⁾ (mm)	Max. stroke (mm)
20	25, 50, 75, 100, 125, 150 200, 250, 300	400	1000
25		450	1500
32		450	2000
40		500	2000



Note 1) Other intermediate strokes can be manufactured upon receipt of order.

Note 2) Long stroke applies to the axial foot style and the front flange style. If other mounting brackets are used or the length exceeds the long stroke limit, the stroke should be selected based on the stroke selection table. (Refer to Data on p.0-21.)

Minimum Strokes for Auto Switches Mounting

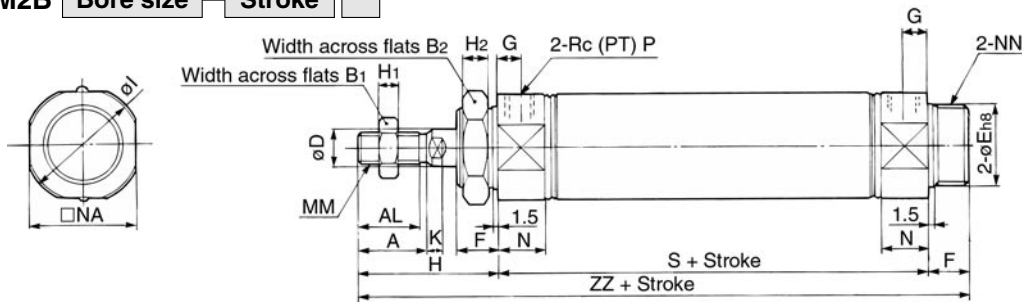
(mm)

Auto switch model	Number of switches				
	2		n		1
	On different surfaces	On the same surface	On different surfaces	On the same surface	
D-C7 D-C8	15	50	15+45 ($\frac{n-2}{2}$) (n=2, 4, 6...)	50+45(n-2)	10
D-H7□ D-H7□W D-H7BAL D-H7NF	15	60		60+45(n-2)	10
D-C73C D-C80C D-H7C	15	65	15+50 ($\frac{n-2}{2}$) (n=2, 4, 6...)	65+50(n-2)	10
D-H7LF	20	65	20+50 ($\frac{n-2}{2}$) (n=2, 4, 6...)		10
D-B5 D-B6	15	75	15+50 ($\frac{n-2}{2}$) (n=2, 4, 6...)	75+55(n-2)	10
D-B59W	20	75	20+50 ($\frac{n-2}{2}$) (n=2, 4, 6...)		15
D-A3□A D-G39A D-K39A D-A44A	35	100	35+30 (n-2)	100+100(n-2)	10

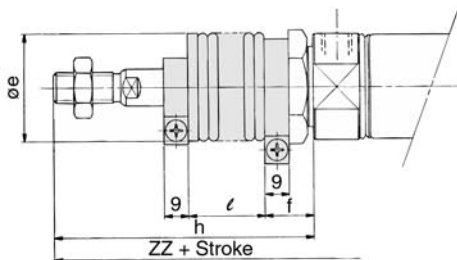
Standard: Double Acting Single Rod *Series CM2*

Basic (B)

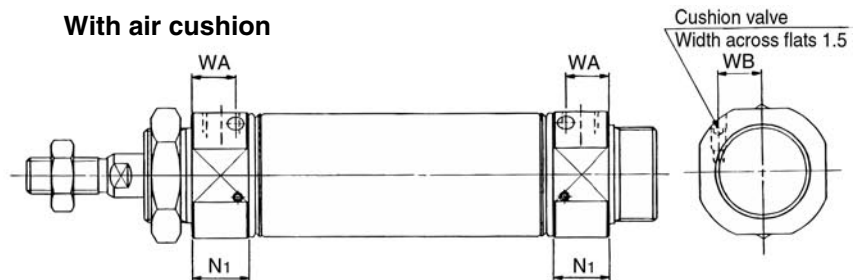
CM2B Bore size Stroke



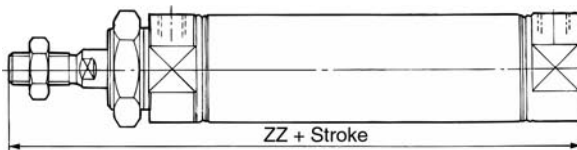
With rod boot



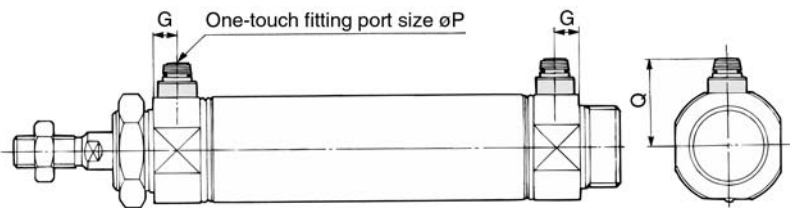
With air cushion



Boss-cut



Built-in One-touch fitting



Bore	Stroke range	A	AL	B ₁	B ₂	D	E	F	G	H	H ₁	H ₂	I	K	MM	N	NA	NN	P	S	ZZ
20	1 to 300	18	15.5	13	26	8	20 _{0.033}	13	8	41	5	8	28	5	M8 X 1.25	15	24	M20 X 1.5	1/8	62	116
25	1 to 300	22	19.5	17	32	10	26 _{0.033}	13	8	45	6	8	33.5	5.5	M10 X 1.25	15	30	M26 X 1.5	1/8	62	120
32	1 to 300	22	19.5	17	32	12	26 _{0.033}	13	8	45	6	8	37.5	5.5	M10 X 1.25	15	34.5	M26 X 1.5	1/8	64	122
40	1 to 300	24	21	22	41	14	32 _{0.039}	16	11	50	8	10	46.5	7	M14 X 1.5	21.5	42.5	M32 X 2	1/4	88	154

With rod boot

Symbol	e	f	h					ℓ					ZZ				
Bore	Stroke		1 to 50	51 to 100	101 to 150	151 to 200	201 to 300	1 to 50	51 to 100	101 to 150	151 to 200	201 to 300	1 to 50	51 to 100	101 to 150	151 to 200	201 to 300
20	36	17	68	81	93	106	131	12.5	25	37.5	50	75	143	156	168	181	206
25	36	17	72	85	97	110	135	12.5	25	37.5	50	75	147	160	172	185	210
32	36	17	72	85	97	110	135	12.5	25	37.5	50	75	149	162	174	187	212
40	46	19	77	90	102	115	140	12.5	25	37.5	50	75	181	194	206	219	244

Boss-cut

Bore	Without gaiter	ZZ				
		1 to 50	51 to 100	101 to 150	151 to 200	201 to 300
20	103	130	143	155	168	193
25	107	134	147	159	172	197
32	109	136	149	161	174	199
40	138	165	178	190	203	228

With air cushion

Bore	N ₁	WA	WB
20	17.5	13	8.5
25	17.5	13	10.5
32	17.5	13	11.5
40	21.5	16	15

Built-in One-touch fitting

Bore	G	P	Q
20	8	6	23
25	8	6	26
32	8	6	28.5
40	11	8	32.5