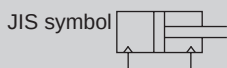


Small bore size cylinder
Double acting/Single rod/Rubber scraper

Environment-resistant cylinder

CMK2-G-HP1 Series

● Bore size: $\varnothing 20/\varnothing 25/\varnothing 32/\varnothing 40$



Specifications

Item		CMK2-G-HP1			
Bore size	mm	ø20	ø25	ø32	ø40
Actuation		Double acting			
Working fluid		Compressed air			
Max. working pressure	MPa	1.0			
Min. working pressure	MPa	0.15			
Proof pressure	MPa	1.6			
Ambient temperature	°C	-10 to 60 (no freezing)			
Port size		Rc1/8			
Stroke tolerance	mm	^{+2.0} ₀ (up to 200), ^{+2.4} ₀ (More than 200			
Working piston speed	mm/s	50 to 500			
Cushion		With rubber cushion			
Lubrication		Not required			
Allowable absorbed energy	J	0.166	0.308	0.424	0.639

Stroke

Bore size(mm)	Standard stroke (mm)	Max. stroke (mm)	Min. stroke (mm)
$\varnothing 20$	25/50/75/100/150/200/ 250/300	750	5
$\varnothing 25$			
$\varnothing 32$			
$\varnothing 40$			

*1: The custom stroke is available in 1 mm increments.

*2: One side foot (LS) has max. stroke of 50mm.

Min. stroke with switch

(Unit: mm)

Switch quantity	1						2						3					
	Proximity			Reed			Proximity			Reed			Proximity			Reed		
	T2,T3	T2W,T3W	T1	T0,T5	T8		T2,T3	T2W,T3W	T1	T0,T5	T8		T2,T3	T2W,T3W	T1	T0,T5	T8	
Bore size (mm)																		
$\varnothing 20$	10						25	30	35	25	35		50	55	55	50	55	
$\varnothing 25$	10						25	30	35	25	35		50	55	55	50	55	
$\varnothing 32$	10						25	30	35	25	35		50	55	55	50	55	
$\varnothing 40$	10						25	30	35	25	35		50	55	55	50	55	

*1: Up to 3 switches can be mounted.

How to order

Without switch (built-in magnet for switch)

CMK2-G - 00 - 20 - 100 - Y - HP1

With switch (built-in magnet for switch)

CMK2-G - 00 - 20 - 100 - T0H - R - V Y - HP1

A Mounting
*1

B Bore size

C Port thread

D Stroke

E Switch model No.

F Switch quantity
*6

G Option
*3

H Accessory
*4

⚠ Precautions for model No. selection

*1: One side foot (LS) has the max. stroke of 50 mm.

*2: Refer to page 52 for the min. stroke with switch.

*3: F; with push-in fitting (straight), FE; The compatible tube O.D. of push-in fitting (elbow) is ø6.

*4: "I" and "Y" cannot be selected together.

*5: Refer to "Pneumatic Cylinders I (Catalog No. CB-029SA)" for made-to-order specifications of rod end form.

*6: Up to three switches can be installed. If four or more switches are required, switch mounting brackets for the extra switches must be prepared separately.

*7: For 20 or 25 bore size, the rod is stainless steel as standard and the rod nut is zinc chromate. If a stainless steel rod nut is necessary, select the "M" option code.

*8: "CC1" mounting is not available for copper and PTFE free (P6).

[Model No. example]

CMK2-G-00-20-100-T0H-R-VY-HP1

Model: Small bore size cylinder double acting

- A Mounting : Basic
- B Bore size : ø20 mm
- C Port thread : Rc thread
- D Stroke : 100 mm
- E Switch model No. : Reed T0H switch, lead wire 1m
- F Switch quantity : 1 on rod side
- G Option : Boss cutoff
- H Accessory : Rod clevis

Code	Description
A Mounting	
00	Basic
LB	Axial foot (both sides)
LS	Axial foot (one side)
FA	Rod side flange
FB	Head side flange
CA	Eye bracket
CC	Eye bracket integrated
CC1	Eye bracket, bush pressfit
CB	Clevis Bracket (pin and split washer pin included)
TA	Rod side trunnion
TB	Head side trunnion

B Bore size (mm)	
20	ø20 *7
25	ø25 *7
32	ø32
40	ø40

C Port thread	
Blank	Rc thread
NN	NPT thread (made to order)
GN	G thread (made-to-order product)

D Stroke (mm)	
Stroke *2	Custom stroke
5 to 750	In 1 mm increments

E Switch model No.					
Lead wire	Lead wire	Contact	Voltage	Indicator	Lead Line
Straight	L-shaped		AC	DC	
T0H*	T0V*	Reed	●	●	1-color LED
T5H*	T5V*		●	●	No LED
T8H*	T8V*		●	●	1-color LED
T1H*	T1V*		●	●	1-color LED
T2H*	T2V*		●	●	1-color LED
T3H*	T3V*		●	●	1-color LED
T2HR3	T2VR3	Proximity	●	●	1-color LED
T3PH*	T3PV*		●	●	Bending resistant lead wire
T2WH*	T2WV*		●	●	1-color LED (made to order)
T3WH*	T3WV*		●	●	2-color LED
T2JH*	T2JV*		●	●	1-color LED off-delay

* Lead wire length	
Blank	1 m (standard)
3	3 m (option)
5	5 m (option)

F Switch quantity	
R	1 on rod side
H	1 on head side
D	2
T	3

G Option	
F	With push-in fitting (straight)
FE	With push-in fitting (elbow)
M	Piston rod material (stainless steel) *7
V	Boss cutoff
P6	Copper and PTFE free *8

H Accessory	
I	Rod eye
Y	Rod clevis (pin and split washer pin attached)
B2	Clevis bracket (pin and snap ring included)

SCP D3	Long service life cylinder
CMK2	Environment-resistant cylinder
SCM	Linear Slide Hand
SSD2	Low-profile long stroke hand
MDC2	Wide Parallel Hand
MSD	Chuck
MSDG-L	Booster
SMG	Air
STG	Compatible with rechargeable batteries
STM	Supports food mfg. processes
LCR	
LCG	
STR2	
LSH	
LSHL	
SCP D3	
CMK2	
SCM	
SCG	
SSD2	
STG	

CMK2-G-HP1 Series

How to order switch

● Switch body + mounting bracket set

CMK2 - T0H - 20

Bore size (page 53 Item **B**)

Switch model No. (page 53 Item **E**)

● Switch body only

SW - T0H

Switch model No. (page 53 Item **E**)

● Mounting bracket set

CMK2 - T - 20

Bore size (page 53 Item **B**)

Mounting bracket

How to order mounting brackets

Bore size (mm)	ø20	ø25	ø32	ø40 *1
Mounting bracket *2				
Basic (00) *4	M1- 00 -20	M1- 00 -30	M1- 00 -30	M1- 00-30 (for head side)
Axial foot (LB/LS) *3	M1-LB-20	M1-LB-30	M1-LB-30	M1-LB-30(For head side) CMK2-G2-40-LS (LS, LB rod side)
Flange (FA/FB)	M1-FA-20	M1-FA-30	M1-FA-30	CMK2-G2-40-FA(FA) M1-FA-30(FB)
Trunnion (TA/TB)	M1-TA-20	M1-TA-30	M1-TA-30	CMK2-G2-40-TA(TA) M1-TA-40(TB)
Eye bracket (CA)	M1-CA-20	M1-CA-30	M1-CA-30	M1-CA-30
Clevis bracket (CB)	M1-CB-20	M1-CB-30	M1-CB-30	M1-CB-30

*1: The rod cover nut, LS bracket (LB rod side), FA bracket and TA bracket for bore size ø 40 are not the standard.

*2: Mounting nuts and toothed washers are included with the axial foot type and flange type. The trunnion type includes mounting nuts. However, toothed washers are not included with ø40,00, LB (rod side), LS and FA.

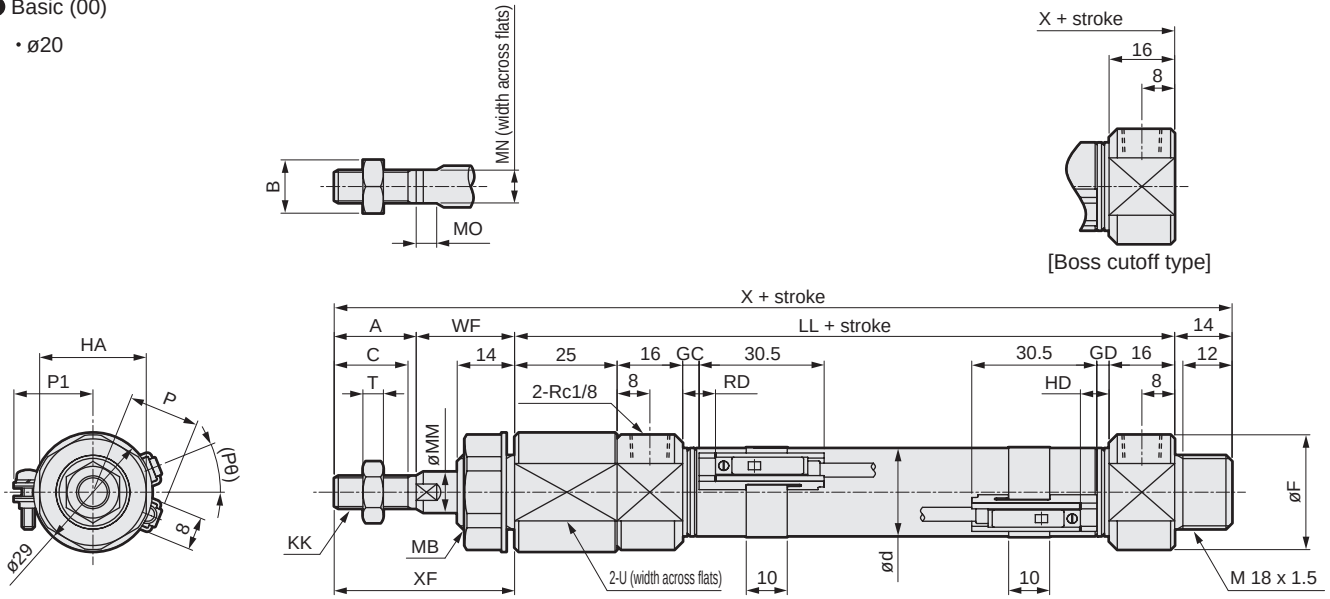
*3: For axial foot types (two-sided), 2 sets of the "M1-LB-*1" in the table above are required. For ø40, the brackets used on the rod side and head side are different. Refer to the table above for details.

*4: Mounting nut, toothed washer only. Although 1 set is included with the basic product (00) (only mounting nuts are included with the ø40), use them when needed.

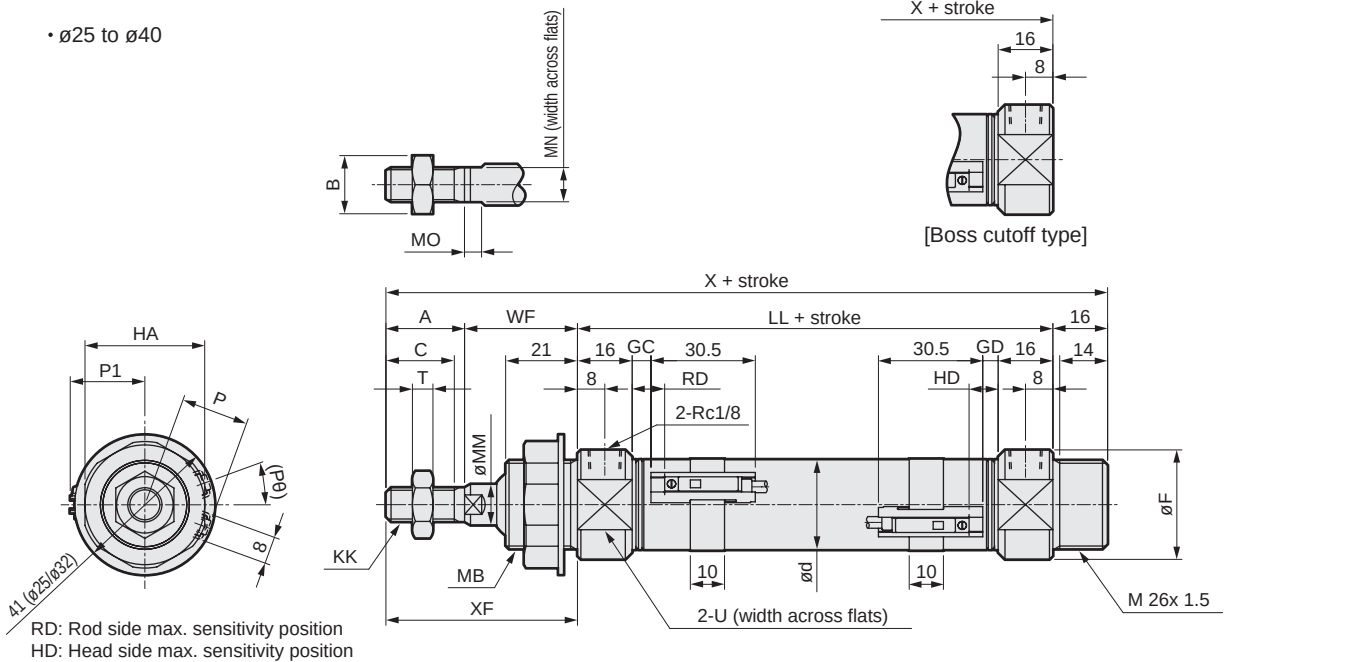
Dimensions



- Basic (00)
- $\phi 20$



- $\phi 25$ to $\phi 40$



Code	Basic (00) basic dimensions															
Bore size (mm)	A	B	C	D	F	HA	KK	LL	MB	MM	MN	MO	T	U	WF	XF
$\phi 20$	20	13	18	21.4	28	26	M8 x 1.0	91	M18 x 1.5	10	8	5	5	24	24	149
$\phi 25$	23	17	20	26.4	32	35	M10 x 1.25	69	M26 x 1.5	12	10	5	6	30	33	141
$\phi 32$	23	17	20	33.6	36	35	M10 x 1.25	69	M26 x 1.5	12	10	5	6	34	33	141
$\phi 40$	25	19	22	41.6	45	38	M12 x 1.5	73	M30 x 1.5	14	12	6	7	43	33	147

Code	With switch								Boss cutoff type		
Bore size (mm)	T0, T5, T2, T3				T2W, T3W				P	P1	(P0)*
	GC	GD	RD	HD	GC	GD	RD	HD			X
$\phi 20$	4	3	8	7	6	5	10	9	17.3	19.5	22
$\phi 25$	5.5	4.5	9.5	8.5	7.5	6.5	11.5	10.5	19.8	22.0	18
$\phi 32$	5.5	4.5	9.5	8.5	7.5	6.5	11.5	10.5	24.3	25.5	15
$\phi 40$	7.5	6.5	11.5	10.5	9.5	8.5	13.5	12.5	28.3	29.5	12

1: Refer to "Pneumatic Cylinders I (No. CB-029SA)" for HD, RD and protruding dimensions of T1, T8* switches and 2-color LED switches.

*2: For the dimensions of accessories, "Pneumatic Cylinders I (No. CB-029SA)".

*3: $\phi 40$ is not supplied with toothed washer.

* Refer to Double acting/Single rod in "Pneumatic Cylinders I" (No. CB-029SA) for dimensions of each mounting type.