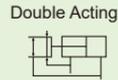




Large Wide Parallel Gripper with Linear Guide (Long stroke 1/Long stroke 2)

HMFB Series

- Operating stroke: Long stroke 1 100, 120, 160 mm
Long stroke 2 120, 160, 200 mm



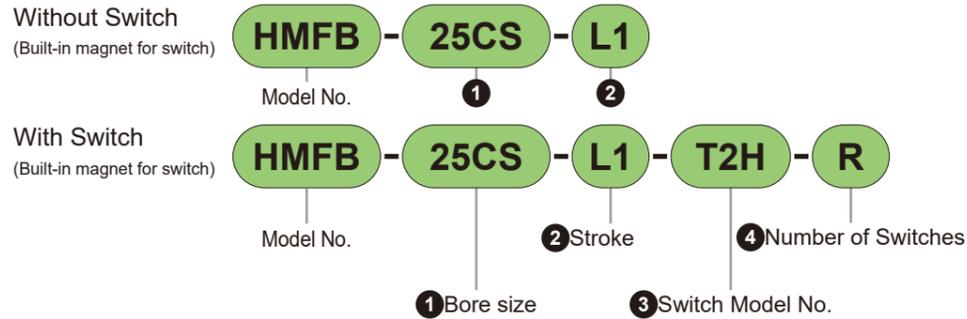
HMFB Series

Specifications/Gripping Force Performance Data

Specifications

Item	HMFB					
	25CS		32CS		40CS	
Size	L1	L2	L1	L2	L1	L2
Bore size mm	ø25 x 2		ø32 x 2		ø40 x 2	
Operating Fluid	Compressed Air					
Max. Working Pressure MPa	0.7					
Min. Operating Pressure MPa	0.3					
Ambient Temperature °C	5 to 60					
Port Size	M5			Rc1/8		
Operating stroke mm	100	120	120	160	160	200
Rod diameter mm	ø12		ø16		ø20	
Internal volume (reciprocating) cm ³	75.4	90.5	145	193	301	377
Repeatability mm	±0.1					
Weight kg	4.06	4.13	5.97	7.2	10.05	11.8
Lubrication	Not required (When lubricating, use turbine oil Class 1 ISO VG32)					

Model No. Notation Method



① Bore Size (mm)

Code	Content
25CS	ø25
32CS	ø32
40CS	ø40

② Stroke

Code	Content	Stroke (mm)		
		ø25	ø32	ø40
L1	Long stroke 1	100	120	160
L2	Long stroke 2	120	160	200

③ Switch Model No.

For switch details, please refer to P. 573. Switches are included with the product and shipped.

Contact	Indicator LED Special Function	Wiring (Output)	Load Voltage (V)		Load Current (mA)		Lead wire *1	
			AC	DC	AC	DC	Straight	L-shape
Solid State	1-Color	2-wire	-	10 to 30	-	5 to 20 *2	T2H□	T2V□
	1-Color Flex-Resistant Lead Wire	2-wire	-	10 to 30	-	5 to 20 *2	T2HR3	T2VR3
	1-Color	3-wire (NPN)	-	30 or less	-	100 or less	T3H□	T3V□
		3-wire (PNP)	-	-	-	-	T3PH□	T3PV□

*Lead wire length

Code	Content
Blank	1 m (Standard)
3	3 m (Option)
5	5 m (Option)

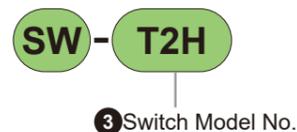
Example) Lead wire length
1 m T2H
3 m T2H③
5 m T2H⑤

*1: For "□" in the switch model number, enter the code selected from the "Lead wire length" table.
*2: The maximum load current value above, 20 mA, is at 25 °C. If the switch operating ambient temperature is higher than 25 °C, it will be lower than 20 mA. (At 60 °C, it will be 5 to 10 mA.)
*3: Switches other than the model numbers listed above are also available. (Custom Product) For details, see P. 573.

④ Number of Switches

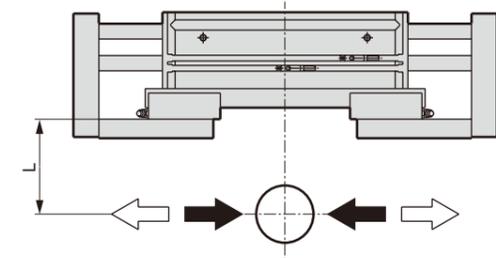
Code	Content
R	With 1 pc. on Open Side
H	With 1 pc. on Close Side
D	With 2 pcs

Switch Single Unit Model No. Notation Method



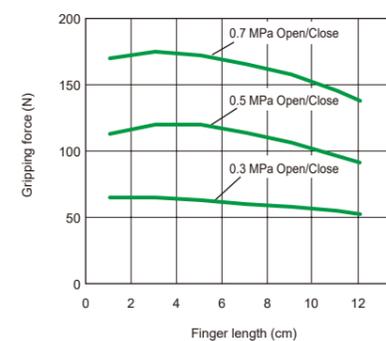
Gripping Force Performance Data

- Gripping force represents the thrust (for one finger) in the direction of the arrow shown in the figure.
- This represents the gripping force at the gripper's finger length L when the supply pressure is 0.3, 0.5, and 0.7 MPa.
- Opening direction (◀) Closing direction (▶) Both (Solid line)

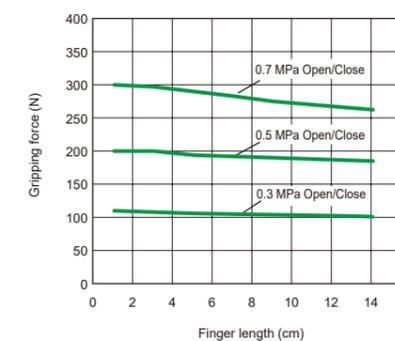


Note: When selecting, check the design and selection precautions on P. 336.

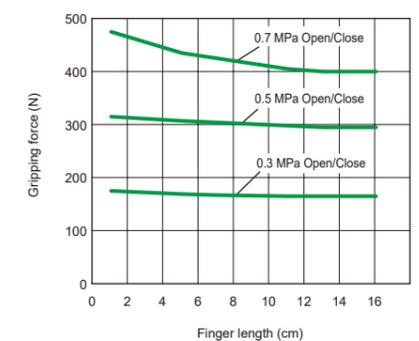
● HMFB-25CS



● HMFB-32CS

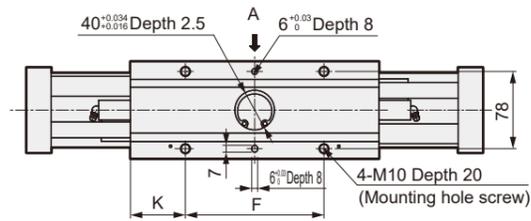


● HMFB-40CS

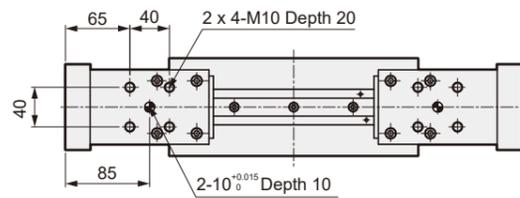
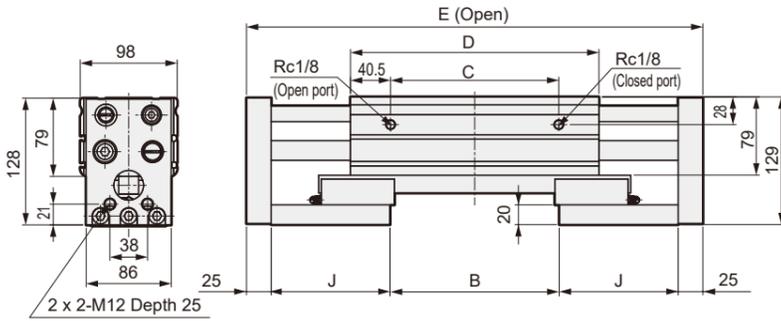
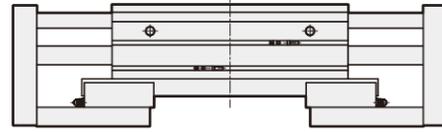


Outline Dimension Drawing

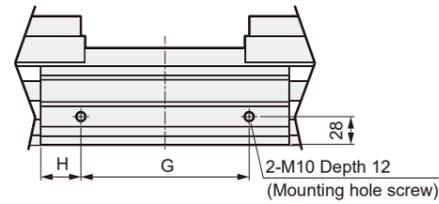
●HMFB-40CS-L1/L2



●With Switch



View A

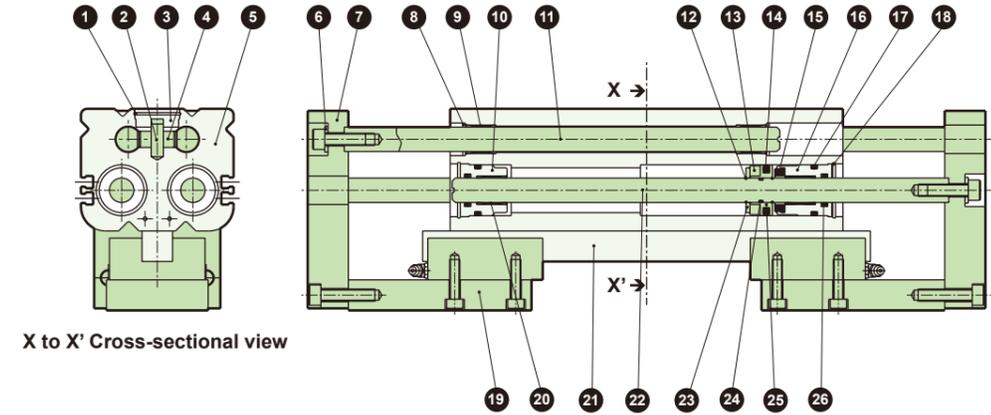


Code	B		C	D	E	F	G	H	J	K
	When Open	When Closed								
L1	171	11	170	251	461	140	170	40.5	120	55.5
L2	214	14	233	314	564	202	160	77	150	56

Internal Structure Diagram/Material

Internal Structure Diagram/Material

●HMFB-25CS to 40CS-L1
●HMFB-25CS to 40CS-L2



Do not disassemble

Part No.	Part Name	Material	Remarks	Part No.	Part Name	Material	Remarks
1	C-type retaining ring	Stainless Steel		14	Packing	Nitrile Rubber	
2	Pinion gear shaft	Stainless Steel		15	Cushion	Urethane Rubber	
3	Pinion cover	Stainless Steel		16	Cover A	Aluminum Alloy	
4	Pinion gear	Steel		17	O-ring	Nitrile Rubber	
5	Body	Aluminum Alloy		18	C-type retaining ring	Stainless Steel	
6	Plain Washer	Stainless Steel	25CS, 40CS only	19	Connection plate	Aluminum Alloy	
7	Finger	Aluminum Alloy		20	Bushing	Oil-Impregnated Bearing Alloy	
8	Bearing seal			21	Linear Guide		
9	Bushing	Oil-Impregnated Bearing Alloy		22	Piston Rod	Stainless Steel	
10	Cover B	Aluminum Alloy		23	Magnet retainer	Stainless Steel	
11	Guide rod	Stainless Steel		24	O-ring	Nitrile Rubber	
12	Piston fixing spring	Stainless Steel		25	Piston	Stainless Steel	
13	Magnet			26	Packing	Nitrile Rubber	

Hand (Gripper)

LSH-HP
LSH
FH100
BSA2
BHA
BHG
BHE
LHA
LHAG

HAP-1C
HAP-2 to 4CS
HKP
HCP
HGP
LST-HP
HLF2
HLA/HLB
HLAG/HLBG

HLC
HLD

HMC-HP

HMF

HMF-G

HMFB

HFP

FH500

HBL

HJL

HMD

HDL

HJD

Cylinder Switch

Ending

Hand (Gripper)

LSH-HP
LSH
FH100
BSA2
BHA
BHG
BHE
LHA
LHAG

HAP-1C
HAP-2 to 4CS
HKP
HCP
HGP
LST-HP
HLF2
HLA/HLB
HLAG/HLBG

HLC
HLD

HMC-HP

HMF

HMF-G

HMFB

HFP

FH500

HBL

HJL

HMD

HDL

HJD

Cylinder Switch

Ending