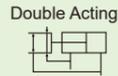




Wide Parallel Gripper Double Acting

HFP Series

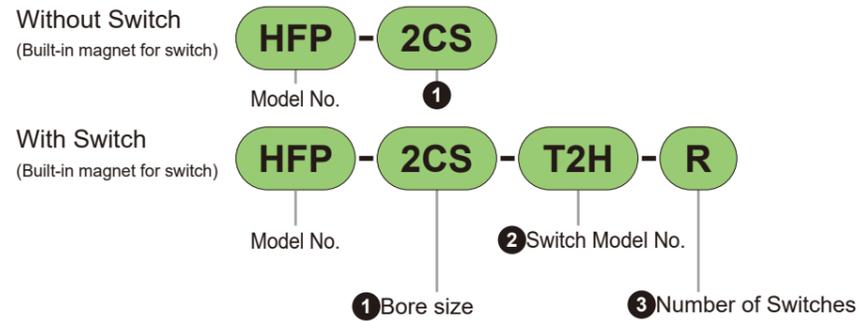
● Operating stroke: 20, 30, 40, 60 mm



HFP Series

Model No. Notation Method

Model No. Notation Method



① Bore Size (mm)

Code	Content
2CS	ø16
3CS	ø25
4CS	ø32
5CS	ø40

② 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 Note *	T2HR3	T2VR3
	1-Color	3-wire (NPN)	-	30 or less	-	100 or less	T3H□	T3V□
		3-wire (PNP)	-				T3PH□	T3PV□

*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.

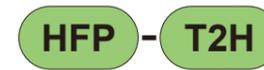
③ Number of Switches

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

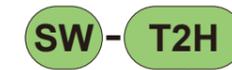
Switch Single Unit Model No. Notation Method

● For switch T□H□

• Switch body + Mounting bracket set *1



• Switch body

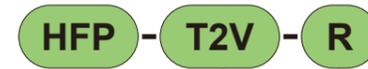


• Mounting bracket set *1

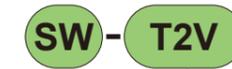


● For switch T□V□

• Switch body + Mounting bracket set *1



• Switch body



• Mounting bracket set *1



Code	Content
R	Open side
H	Closed side

Code	Content
R	Open side
H	Closed side

*1: The weight of the mounting bracket is 1.5 g.

*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 T2H^③
5 m T2H^⑤

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
HMF-B
HFP
FH500
HBL
HJL
HMD
HDL
HJD
Cylinder Switch
Ending

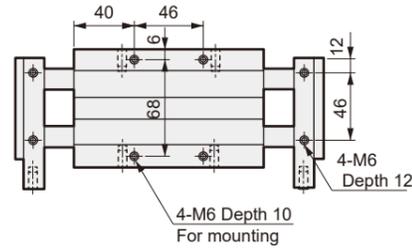
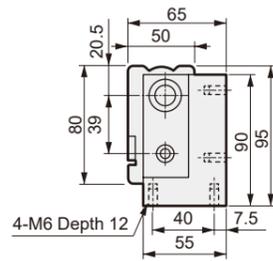
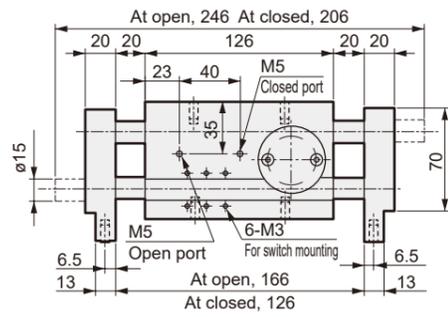
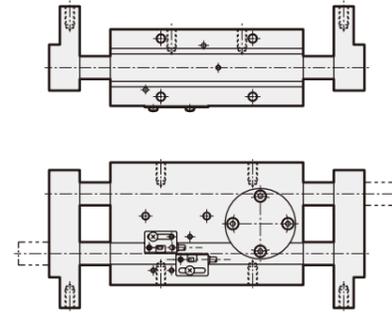
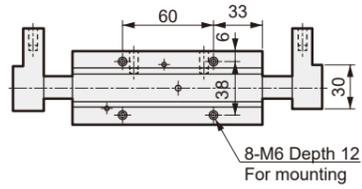
Hand (Gripper)

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
HMF-B
HFP
FH500
HBL
HJL
HMD
HDL
HJD
Cylinder Switch
Ending

Outline Dimension Drawing

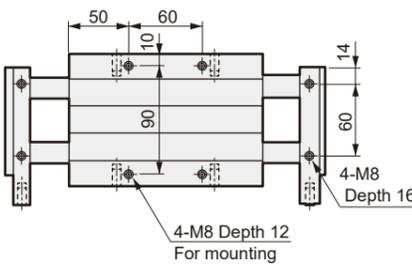
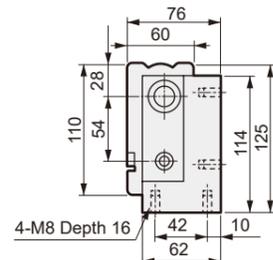
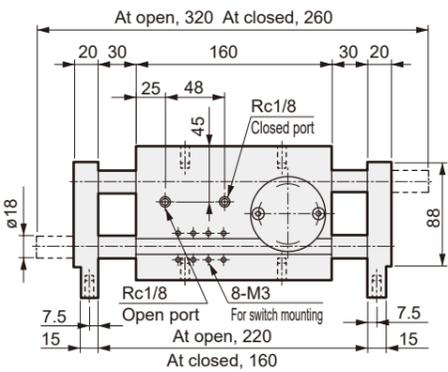
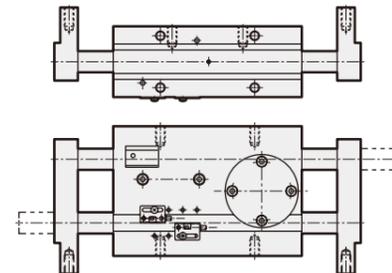
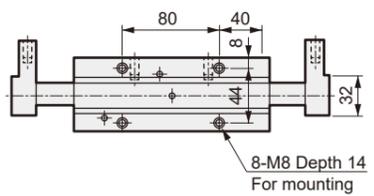
●HFP-4CS Standard

●With Switch



●HFP-5CS Standard

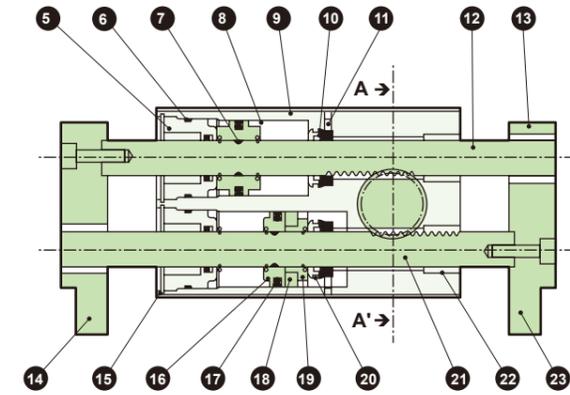
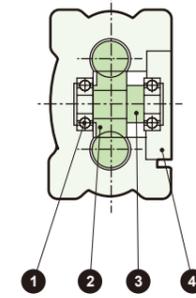
●With Switch



Internal Structure Diagram/Material

Internal Structure Diagram/Material

A-A' cross-sectional view



Do not disassemble

No.	Part Name	Material	Remarks	No.	Part Name	Material	Remarks
1	Bearing	Alloy Steel		13	Bushing		
2	Pinion gear	Steel		14	Finger A	Aluminum Alloy	
3	Pinion gear shaft	Steel		15	Retaining ring	Stainless Steel	
4	Bearing Cover	Aluminum Alloy		16	Piston A	Aluminum Alloy	
5	Packing housing A	Aluminum Alloy		17	Piston Packing	Nitrile Rubber	
6	Gasket A	Nitrile Rubber		18	Magnet		
7	Piston Gasket	Nitrile Rubber		19	Piston B	Aluminum Alloy	
8	Piston fixing spring	Stainless Steel		20	Gasket B	Nitrile Rubber	
9	Body	Aluminum Alloy		21	Piston Rod B	Stainless Steel	
10	Rod Packing	Nitrile Rubber		22	Bushing		
11	Packing housing B	Aluminum Alloy		23	Finger B	Aluminum Alloy	
12	Piston Rod A	Stainless Steel					

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
HMF-B
HFP
FH500
HBL
HJL
HMD
HDL
HJD
Cylinder Switch
Ending

Hand (Gripper)

LSH-HP
LSH
FH100
BSA2
BHA
BHG
BHE
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LHAG

HAP-1C
HAP-2 to 4CS
HKP
HCP
HGP
LST-HP
HLF2
HLA/HLB
HLAG/HLBG
HLC
HLD
HMC-HP
HMF
HMF-G
HMF-B
HFP
FH500
HBL
HJL
HMD
HDL
HJD
Cylinder Switch
Ending