

HP07 Series

Linear Bearing

- ◆ Withstand load, withstand moment
(high rigidity)
- ◆ High accuracy

High Repeat Accuracy

- ◆ The adjustment levers stop at a certain position regardless of the workpiece size.
(Repeat Accuracy: + 0.01 mm or less)

Stop Position Adjustment Bolt

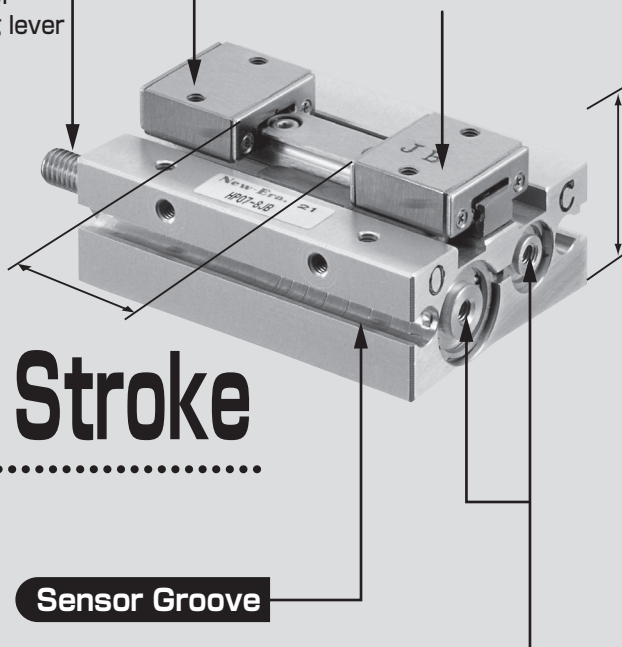
- ◆ Stop position adjustment of the adjusting lever

Ultrathin Type

Long Stroke

Sensor Groove

Pistons with different diameters



■ Model Code No.

HP07 - 8 JA ※ ZE135 A 2

Series Name

Nominal Diameter

8:φ8
12:φ12Lever Position Adjustment
MechanismJA: Opening direction adjustment
JB: Closing direction adjustment

Number of Switches

1:1 Switch
2:2 Switches

Switch Lead Wire Length

A:1m
B:3m

● Switch Type No Code: No Switch

ZE135**ES13**

2 Wire System Solid State Switch, Straight Type

ZE235**ES23**

2 Wire System Solid State Switch, L-shaped

ZE155**ES(P)15**

3 Wire System Solid State Switch, Straight Type

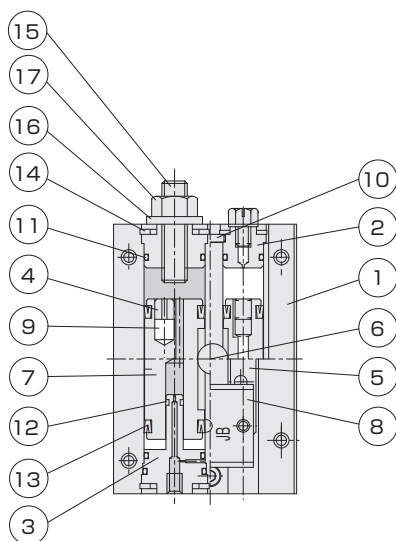
ZE255**ES(P)25**

3 Wire System Solid State Switch, L-shaped



● Switch details→P.521~528

■ Internal Structure Diagram



Parts List

NO	Name	Material
1	Main Body	Aluminum Alloy
2	Head Cover	Aluminum Alloy
3	Head Cover	Aluminum Alloy
4	Pressure Cover	Aluminum Alloy
5	Lever	Carbon Steel
6	Parallel Pin	Carbon Steel
7	Piston	Stainless Steel
8	Linear Guide	Stainless Steel
9	Magnet	Magnetic body
10	Roller	Carbon Steel
11	O Ring	NBR
12	O Ring	NBR
13	Packing	NBR
14	Hole Locating Snap Ring	Carbon Steel
15	Adjusting Screw	Carbon Steel
16	Fastener Seal	NBR
17	Hexagon Nut	Soft Steel

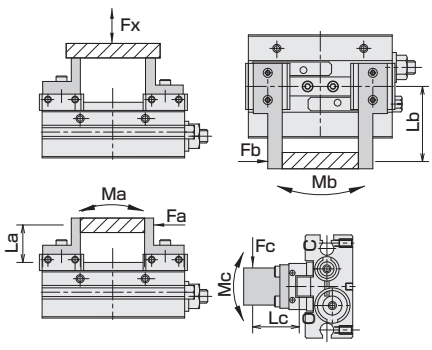
Specifications

Fluid	Air
Maximum Operating Pressure [MPa]	0.7
Proof Pressure [MPa]	1.05
Operating Temperature [°C]	0~60 (No Freezing)
Lubrication	Not Required (Required for sliding parts of the machine)
Pipe Bore	M3×0.5 (HP07-8) M5×0.8 (HP07-12)
Maximum Operating Cycle [Cycle/min]	120
Repeat Accuracy [mm]	±0.01
Applicable Switch	ZE, ES Type (Solid State Switch)

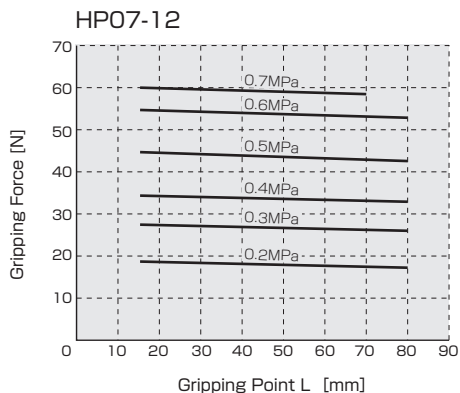
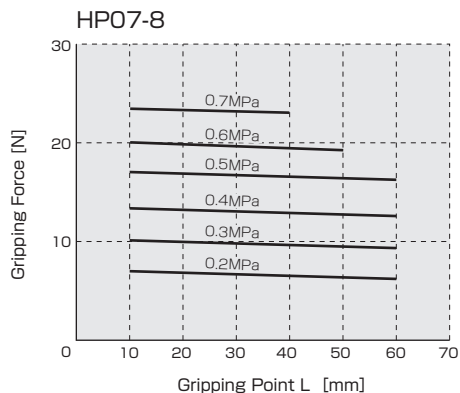
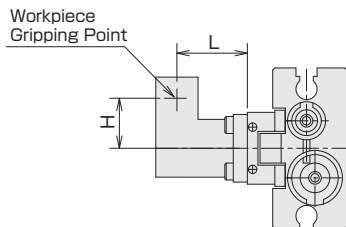
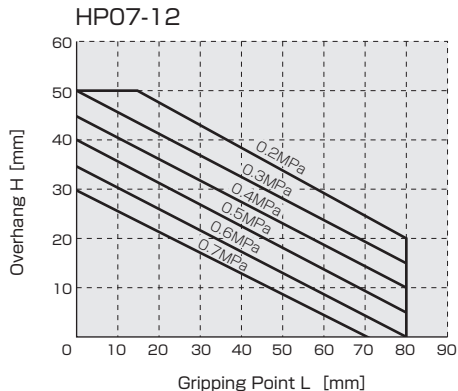
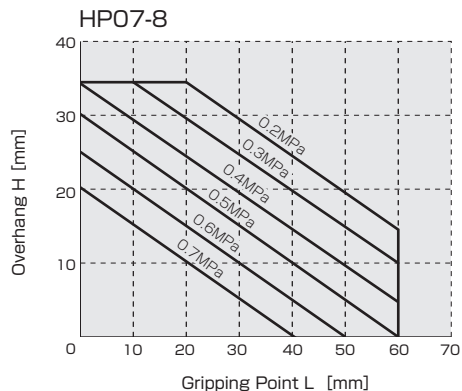
Action Type	Model	Bore Size [mm]	Minimum Operating Pressure [MPa]	Opening/Closing Stroke [mm]	Gripping Force [N]		Outside Dimensions (T x W x L) [mm]	Product Mass [g]
					Close	Open		
Double Acting	HP07-8JA	φ8+φ12	0.2	16	16.7	16.7	38×53×23.5	128
	HP07-8JB							
	HP07-12JA	φ12+φ16	0.15	22	44	44	42×66×30	251
	HP07-12JB							

In the product type, JA indicates the opening side and JB indicates the closing side.

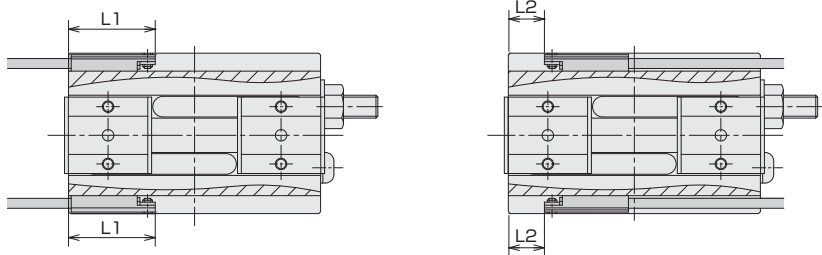
Allowable Load and Allowable Moment



Load and Moment	Fx [N]	MA [N·m]	MB [N·m]	MC [N·m]
Model				
HP07-8	40	0.3	0.3	0.6
HP07-12	120	1.0	1.0	2

Effective Gripping Force**Gripping Point Limit Range**

Switch Adjustment Position



※Reference values are shown in the table below.

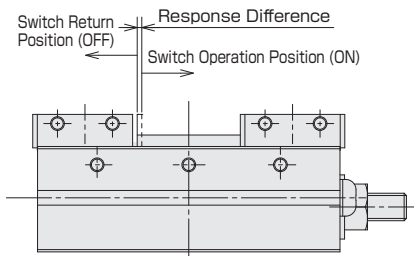
※They are the adjustment positions when the levers are full open or full close.

Bore Size [mm]	$\phi 8$		$\phi 12$	
Switch Adjustment Position [mm]	L1 Opening/Closing	L2 Opening/Closing	L1 Opening/Closing	L2 Opening/Closing
	21	7.5	23.5	10

Switch Response Difference

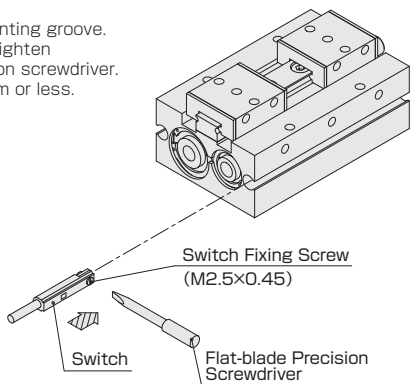
The distance from the position where the levers move and the switch turns on to the position where the levers move in the reverse direction and the switch turns off is called "response difference".

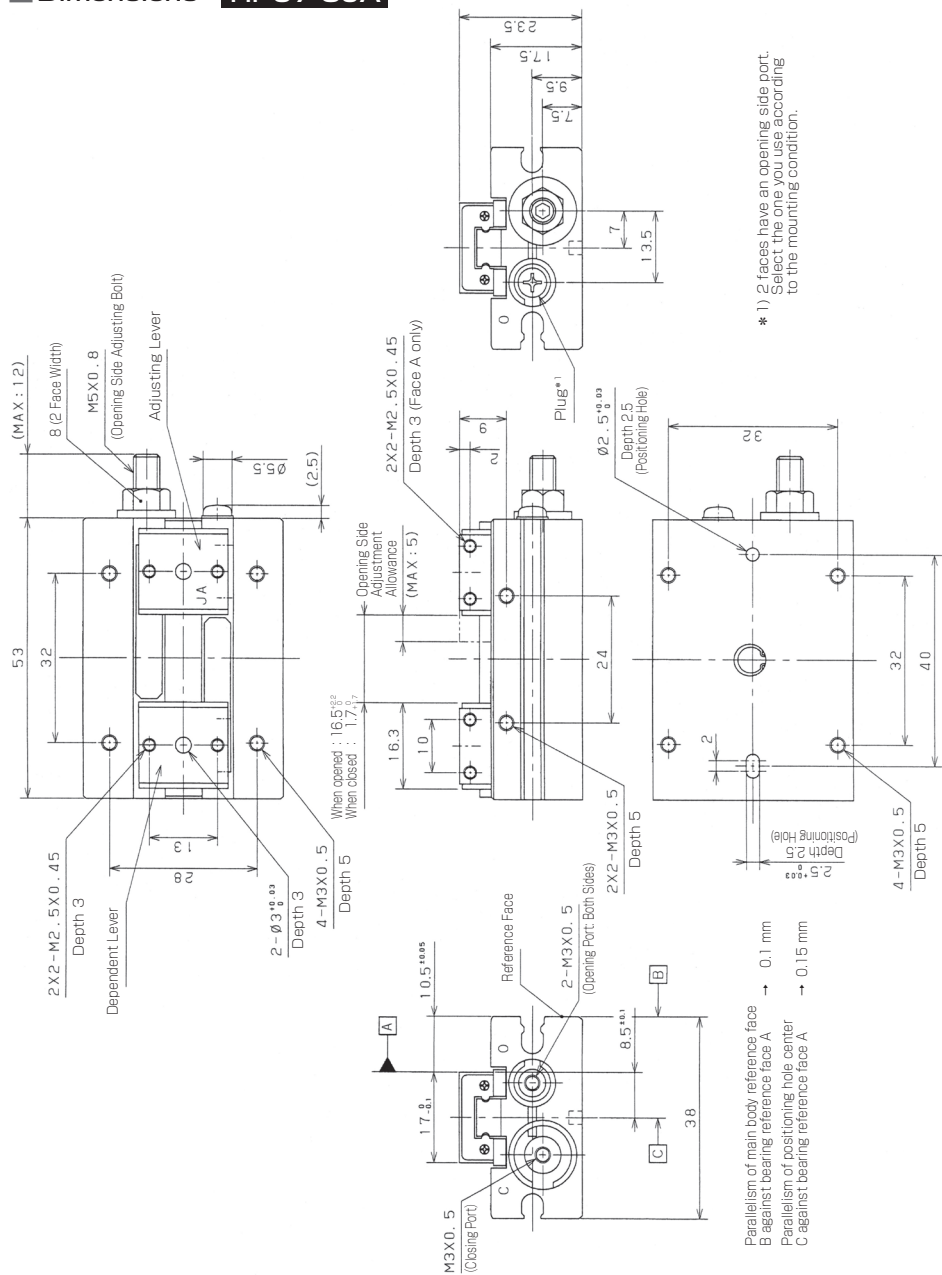
Bore Size [mm]	$\phi 8$	$\phi 12$
Maximum Response Difference [mm]	0.3	0.3



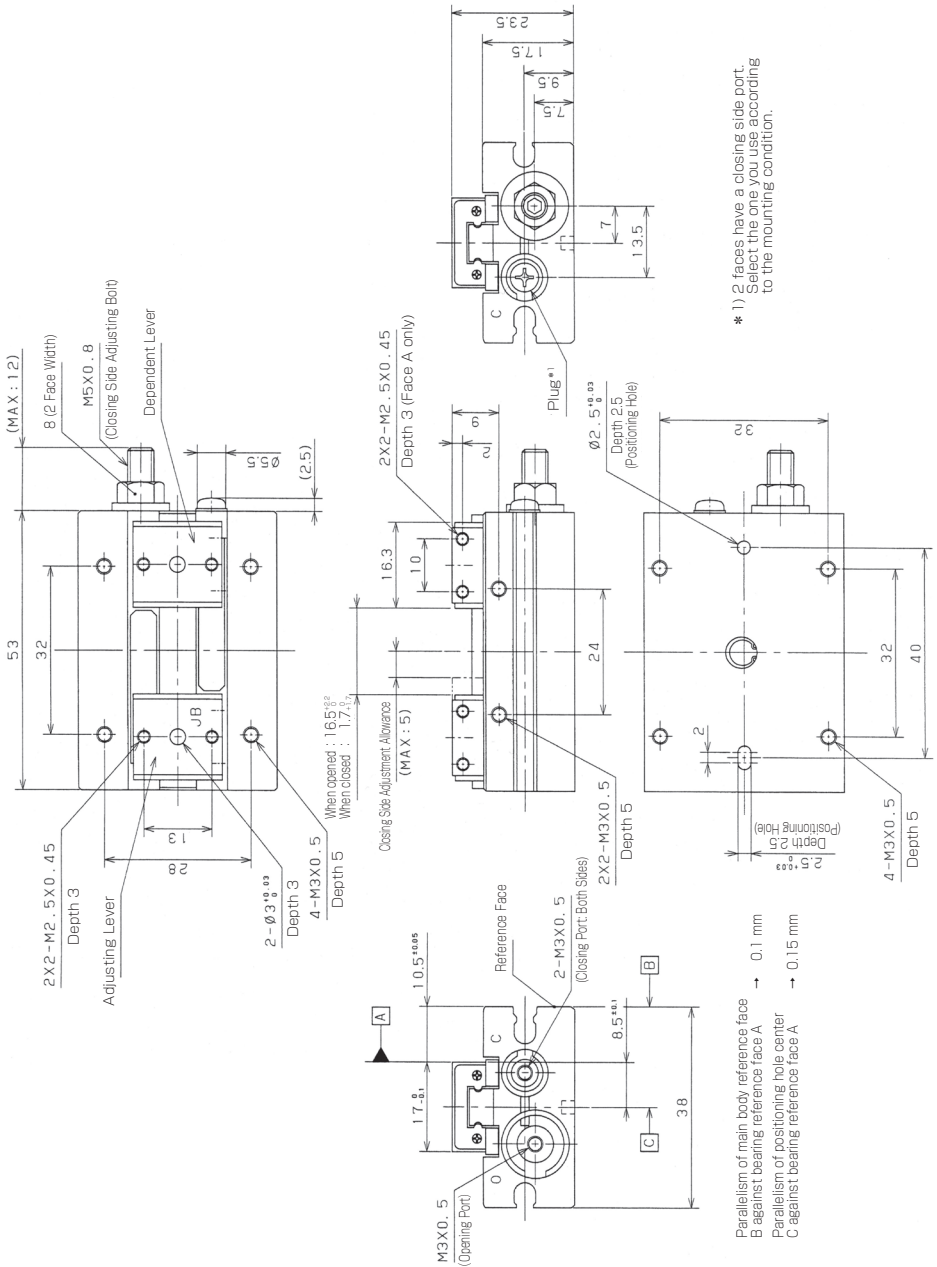
Switch Mounting

Insert the switch into the switch mounting groove.
After setting the mounting position, tighten the switch fixing screw with a precision screwdriver.
The tightening torque shall be 0.1 N·m or less.



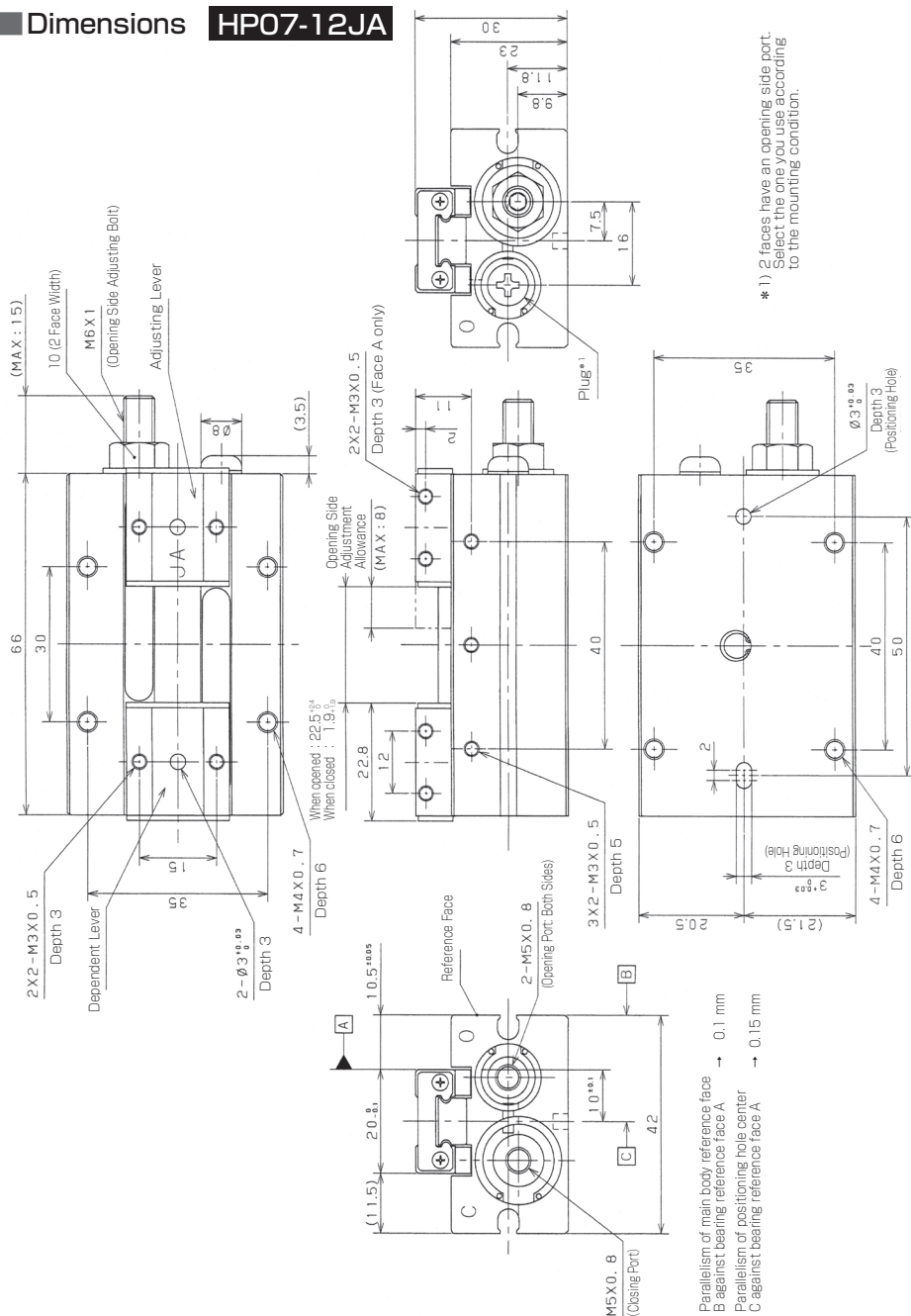
Dimensions HP07-8JA

Dimensions HP07-8JB



Dimensions **HP07-12JA**

*1) 2 faces have an opening side port.
Select the one you use according
to the mounting condition.



Parallelism of main body reference face B against bearing reference face A → 0.1 mm

Parallelism of positioning hole center C against bearing reference face A → 0.15 mm

