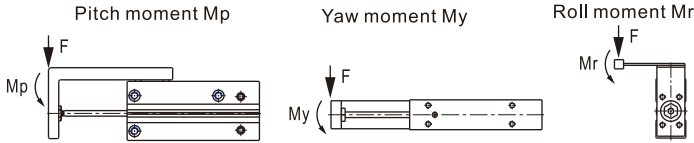


### Installation and application

1. The actual loading and moment of cylinder must be less than its allowable loading and moment:

1.1) The allowable moment of cylinder

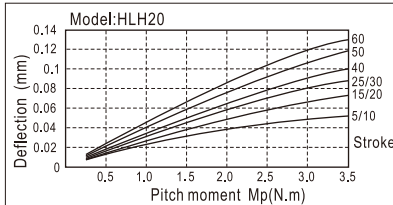
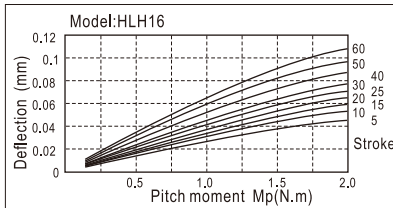
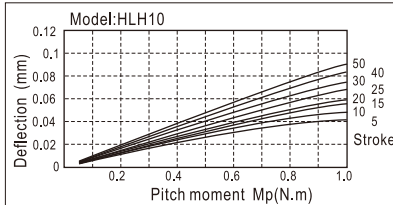
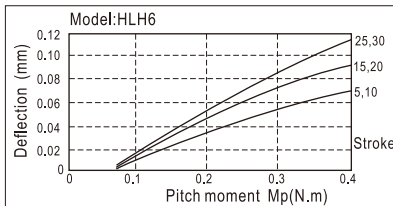
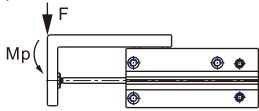


Model/Allowable torque (Nm)	Pitch moment Mp	Yaw moment My	Roll moment Mr
HLH6	0.25	0.25	0.41
HLH10	0.95	0.95	1.49
HLH16	3.28	3.28	3.45
HLH20	6.29	6.29	6.61

1.2) When the cylinder is subjected to different type of moment, there will be different degree of shift in performance, please refer to the following table for details.

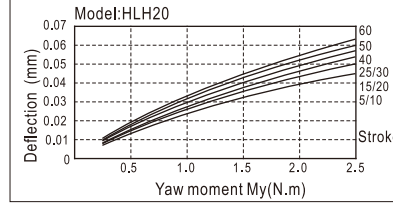
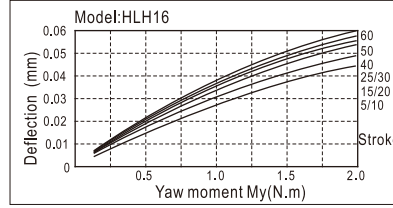
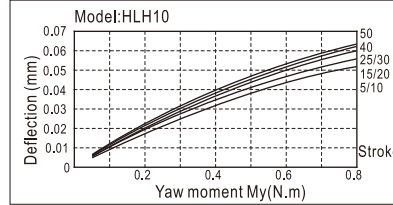
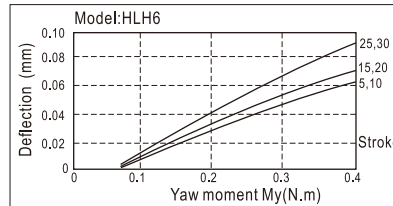
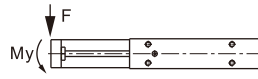
#### Table deflection due to pitch moment

Table deflection (arrow) when a load acts upon the section marked with the arrow at the full stroke of the compact slide.



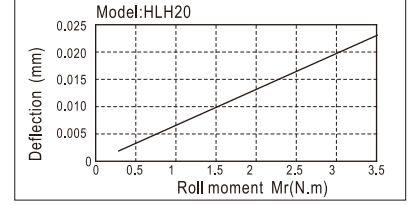
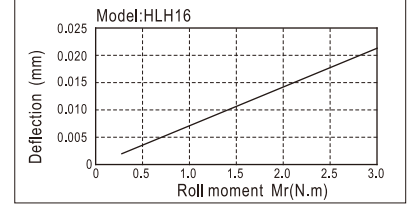
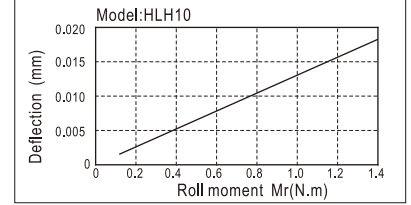
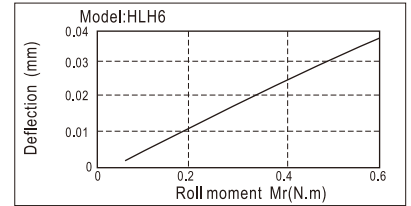
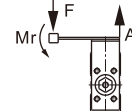
#### Table deflection due to yaw moment

Table deflection (arrow) when a load acts upon the section marked with the arrow at the full stroke of the compact slide.



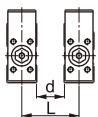
#### Table deflection due to roll moment

Table deflection (at A) when a load acts upon section F at the full stroke of the compact slide.

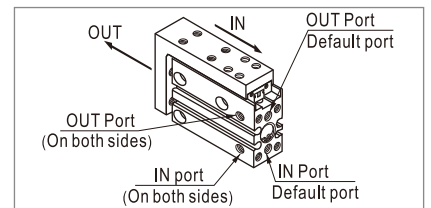


2. The compact slide can be piped from 3 directions. Confirm the pressure ports and operating direction. (See drawing right)

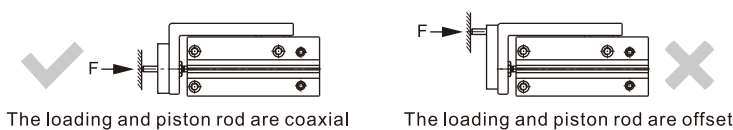
3. In compact slides with sensor switch, there is a danger of sensor switch malfunction if the mounting pitch is less than the dimensions shown in Table right. Be sure to allow at least the indicated interval.



At least indicated interval (mm)/Model	HLH6	HLH10	HLH16	HLH20
d	5	5	10	15
L	21	25	35	47



4. When the output of the compact slide will be directly applied to the table, it should be applied along the rod axis. (See drawing below.)

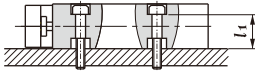


# Slide table cylinder

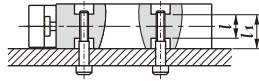
## HLH Series

- Be sure to use a flow control value, and adjust the speed to 500mm/s or less.
- A compact slide can be mounted from 4 directions. Don't exceed the max. fastening torque then tightening the mounting bolts.

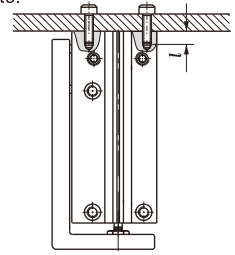
### Lateral Mounting(Through Holes)



### Lateral Mounting(Tapped Holes)



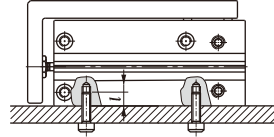
### Axial Mounting(Tapped Holes)



Model	Bolts	Max.fastening torque	L1
HLH6	M3×0.5	1.1(Nm)	12.7
HLH10	M4×0.7	2.5(Nm)	15.6
HLH16	M4×0.7	2.5(Nm)	20.6
HLH20	M5×0.8	5.1(Nm)	24.0

Model	Bolts	Max.fastening torque	L1	L
HLH6	M4×0.7	2.5(Nm)	12.7	9.4
HLH10	M5×0.8	5.1(Nm)	15.6	11.2
HLH16	M5×0.8	5.1(Nm)	20.6	16.2
HLH20	M6×1.0	8.1(Nm)	24.0	16.0

### Vertical Mounting(Tapped Holes)

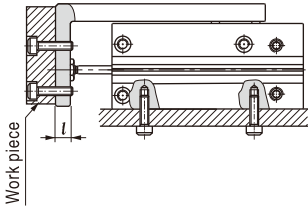


Model	Bolts	Max.fastening torque	L
HLH6	M3×0.5	1.1(Nm)	5
HLH10	M4×0.7	2.5(Nm)	6
HLH16	M4×0.7	2.5(Nm)	6
HLH20	M5×0.8	5.1(Nm)	8

## 7. Work Piece Mounting

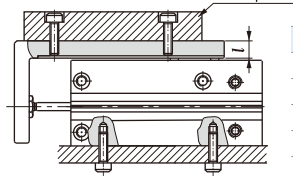
- Work pieces can be mounted on 2 surfaces of the compact slide. When mounting a work piece, tighten the bolts properly at a torque value within the limiting range.

### Front Mounting



Model	Bolts	Max.fastening torque	L
HLH6	M3×0.5	1.1(Nm)	5.5
HLH10	M4×0.7	2.5(Nm)	7.5
HLH16	M4×0.7	2.5(Nm)	10
HLH20	M5×0.8	5.1(Nm)	11

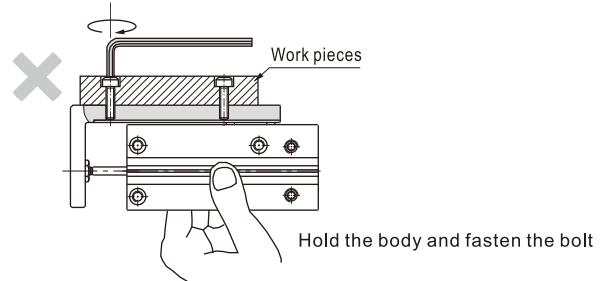
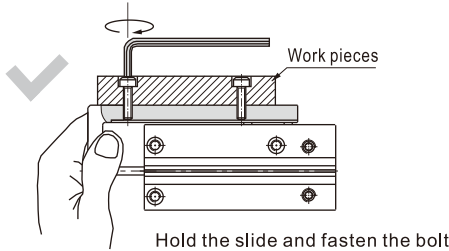
### Top Mounting



Model	Bolts	Max.fastening torque	L
HLH6	M3×0.5	1.1(Nm)	6.5
HLH10	M4×0.7	2.5(Nm)	8
HLH16	M4×0.7	2.5(Nm)	9
HLH20	M5×0.8	5.1(Nm)	9.5

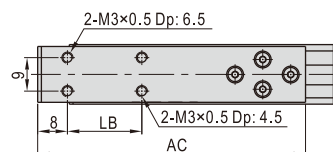
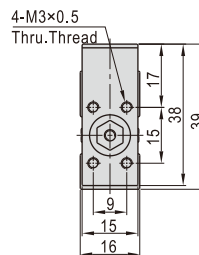
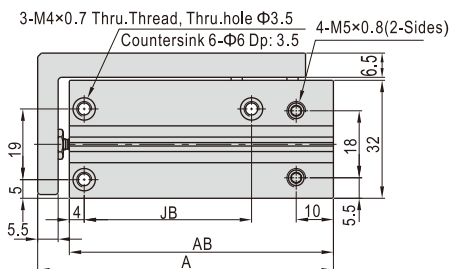
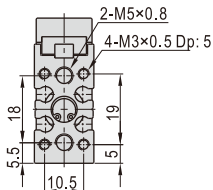
- Since the table is supported by the linear guide, take care not to apply strong impact or large moment to the guide section.

- Hold the slide when fastening work pieces with bolts, If the body is held while tightening bolts, excessive moment may damage guide section.



## Dimensions

### HLH6



Stroke\Item	A	AB	AC	JB	KB	LB
5	44.5	36	42	14	10	10
10	49.5	41	42	14	15	10
15	54.5	46	52	24	20	20
20	59.5	51	52	24	25	20
25	64.5	56	62	30	30	30
30	69.5	61	62	30	35	30