



Pneumatic components

Safety Precautions

Always read this section before use.

Refer to page 2 for general information of the cylinder, and to page 320 for general information of the cylinder switch.

Thin linear slide cylinder LCX Series

Design & selection

1. Common

CAUTION

- When selecting the cylinder, follow the "LCX selection guide" on pages 188 to 190.
- Protect the cylinder with a cover to prevent damage and malfunction in a place where it is exposed to water or oil drops, or corrosive conditions.
- Caution for mounting the switch
 - Be careful of the lead wire direction when designing the 30 mm or less stroke length of axial lead wire and the 20 mm stroke length of radial lead wire since a switch is installed in each groove of the body.
- Keep the supply pressure 0.5 MPa and over when the ambient temperature of the cylinder is 5°C or less.
- Contact CKD if the use environment is always cold (5°C or less) or hot (40°C and over).

- The following two types of stopper with stroke adjusting function are available.

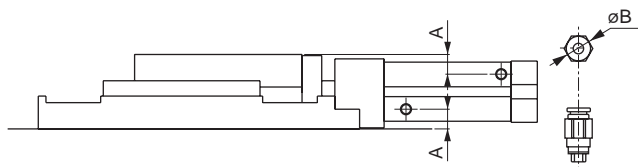
- Rubber cushion stopper
The stopper has an integrated urethane rubber cushion. A stopper allowing for contact to the metal part at 0.4 MPa and over for a stable stop position is also available. Contact CKD for details.
- Metal stopper
The stopper has no cushion mechanism and should be used for a low-load and low-speed application. The stop position is stable since it does not suffer from deformation of a rubber cushion.

Mounting, installation & adjustment

1. Common; when piping

CAUTION

- Precautions for piping
Be sure to attach a speed controller during piping before use. The available fittings are as below.



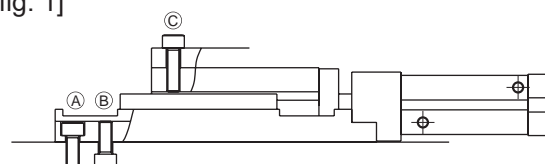
Descriptions	Bore size (mm)	Port diameter	Port location dimensions A	Applicable fitting	Fitting O.D. B
	ø25	M5	9.5	SC3W-M5-4-P7* SC3W-M5-6-P7* GWS4-M5-S-P7* GWS4-M5-P7*	ø17 or less
	ø32		9	GWL4-M5-P7* GWS6-M5-S-P7* GWS6-M5-P7* GWL6-M5-P7*	

2. Common; when installing

CAUTION

- The installation surfaces of the base and table have been finished with precision machining to obtain high-precision linear movement. Therefore, grinding the installation surface of the device to improve flatness will enable more stable high-precision performance. (Recommended flatness: 0.01 mm or less) Do not damage surface flatness by denting or scratching the mounting surface.

- Observe the following bolt insertion lengths and tightening torque when installing the jig on the table or base.
[fig. 1]

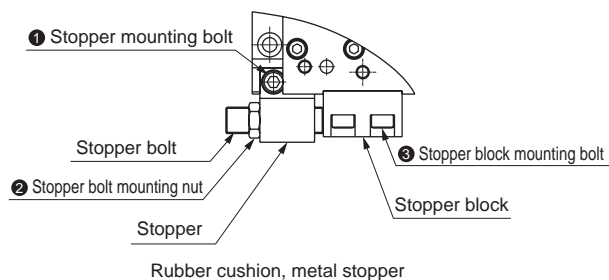


Descriptions	A		B			C		
	Applicable bolts	Tightening torque (N·m)	Applicable bolts	Tightening torque (N·m)	Max. insertion length	Applicable bolts	Tightening torque (N·m)	Max. insertion length
LCX-25	M6	4.3 to 5.2	M6 x 1.0	4.3 to 5.2	9.5 mm	M6 x 1.0	4.3 to 5.2	11 mm
LCX-32								

Mounting, installation & adjustment

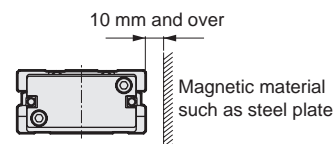
- Observe the following tightening torque of bolts and nuts of the stopper.

[Fig. A]

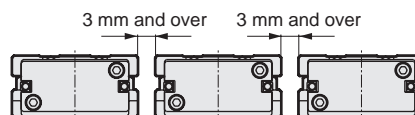


Descriptions	① Stopper mounting bolt (N·m)	② Stopper bolt mounting nut (N·m)	③ Stopper block mounting bolt (N·m)
LCX-25	4.3 to 5.2	4.5 to 6.0	4.3 to 5.2
LCX-32			

- The cylinder switch could malfunction if there is a magnetic substance such as a metal plate installed adjacently. To ensure safe operation, keep it 10 mm and over away from the cylinder surface or change the installation surface of the cylinder switch.
(Common for all port sizes)



- The cylinder switches may accidentally function if the cylinders are close to each other. Keep the distance between the surfaces of the cylinders.
(Common for all port sizes)



- When using a positioning hole, use a pin of the dimensions that do not require press fitting. If a pin is press fitted, the load of press fitting may damage or distort the linear guide, lowering the accuracy.
The recommended tolerance of a pin is JIS tolerance m6 or less.

During use & maintenance

1. Common

⚠ CAUTION

- Apply AFF grease (THK) to the guide rail in six months or when the number of operation times reaches one million, whichever comes first.

2. Long stroke length LCX-*L

- The preload of the linear guide has been adjusted to an optimum value.
Do not loosen or tighten the hexagon socket set screw. Doing so may degrade the product performance.

