

## Option

Various options are available for use in a wide range of applications.

### Z-axis long stroke length

**Compatible models:** KHL-500, KHL-600, KHL-700    **Optional stroke:** 300 mm

This is an optional specification with the Z-axis operating range extended.  
It enables work with high vertical difference and handling of long workpieces.

### Z-axis lower bellows

**Compatible with all models of the KHL Series. (Same for KHE Series)**

Protects the lower side of the Z-axis shaft in environments where liquids or cutting chips are scattered.  
Note: The cycle time and Z-axis operating range differ from the standard specifications. Contact CKD for details.



### Z-axis top cap

**Compatible with all models of the KHL Series. (Same for KHE Series)**

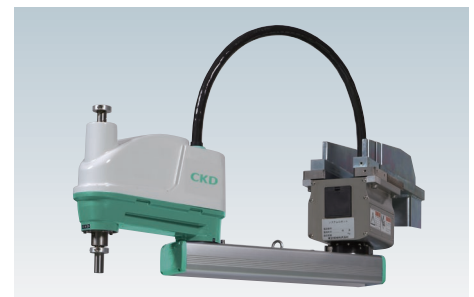
Protects the upper side of the Z-axis shaft in environments where liquids or chips are scattered.  
It also prevents peripheral components such as cables from being caught.



### Ceiling mount specification

**Compatible models:** KHL-400, KHL-500, KHL-600, KHL-700

The robot can be hung and installed above the work area.  
Enables effective use of space.  
Note: The operating area differs from the standard specifications. Contact CKD for details.



### Cable length change

The cable length between the robot and controller can be changed to up to 15 m for all models of the KHL Series .

## Tool flange for mounting the hand

Compatible with all models of the KHL Series. (Same for KHE Series)

A tool flange for fixing the hand.

Note 1: The photo on the right shows the hand mounting tool flange for KHL-500 to 700.

The shape of the hand mounting tool flange for KHL-300 and 400 is different from the one on the right.

Note 2: When ordering the SCARA robot body and the tool flange at the same time, the tool flange will be "assembled at shipment" it will be .



## Simple clean-room specification

Compatible with all models of the KHL Series.

Clean-room specification that corresponds to ISO clean-room class 5.

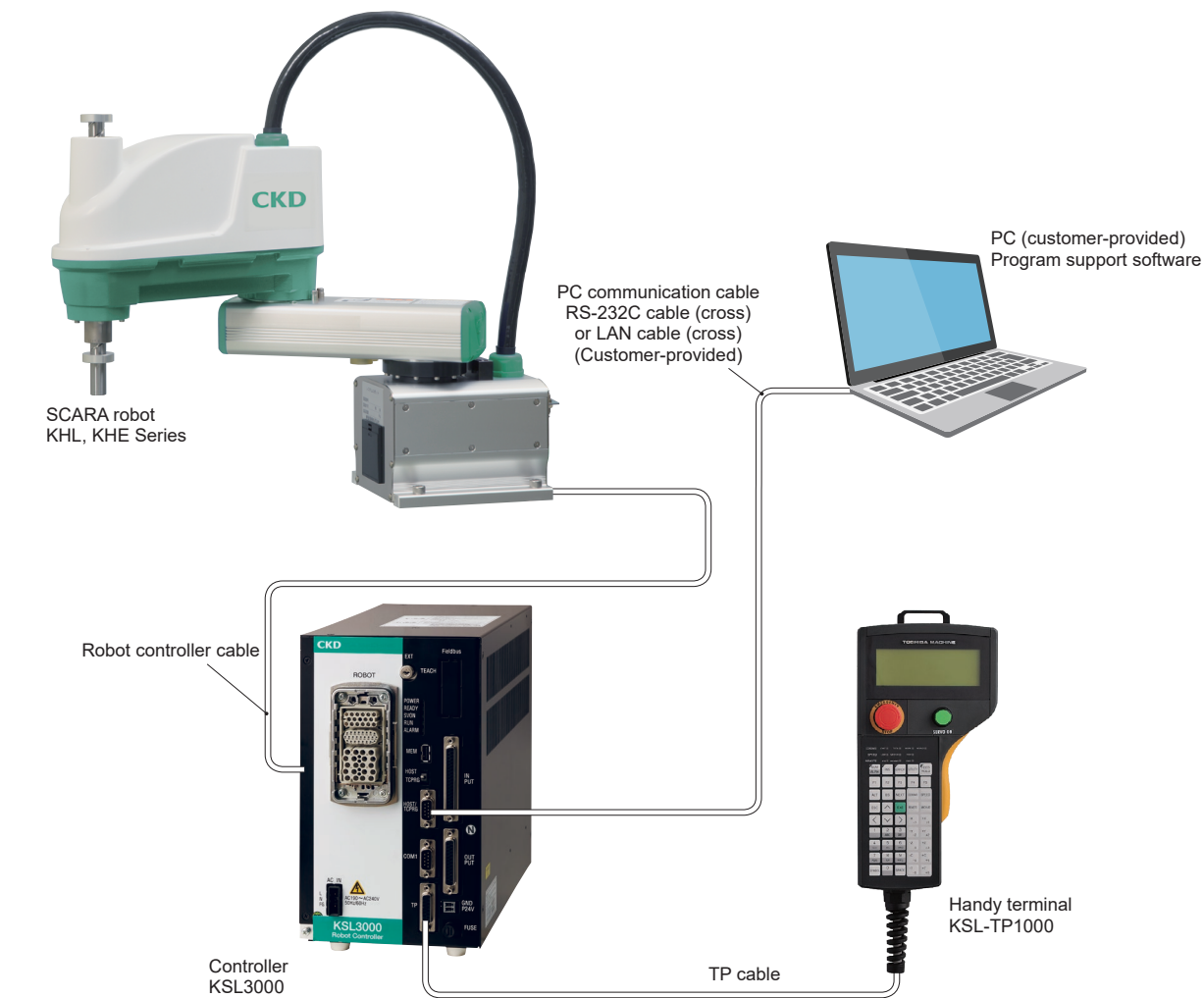
It can be used in the manufacturing process such as semiconductors and liquid crystal related products for which dust must be avoided.

## Option list

Model No.	Z-axis	Z-axis bottom bellows	Z-axis top cap	Ceiling mount specifications	Cable extension (longest)	For mounting hand tool flange	Simple clean-room
KHL-300	X	OK	OK	X	15 m	OK	OK
KHL-400	X	OK	OK	OK	15 m	OK	OK
KHL-500	OK (300 mm)	OK	OK	OK	15 m	OK	OK
KHL-600	OK (300 mm)	OK	OK	OK	15 m	OK	OK
KHL-700	OK (300 mm)	OK	OK	OK	15 m	OK	OK

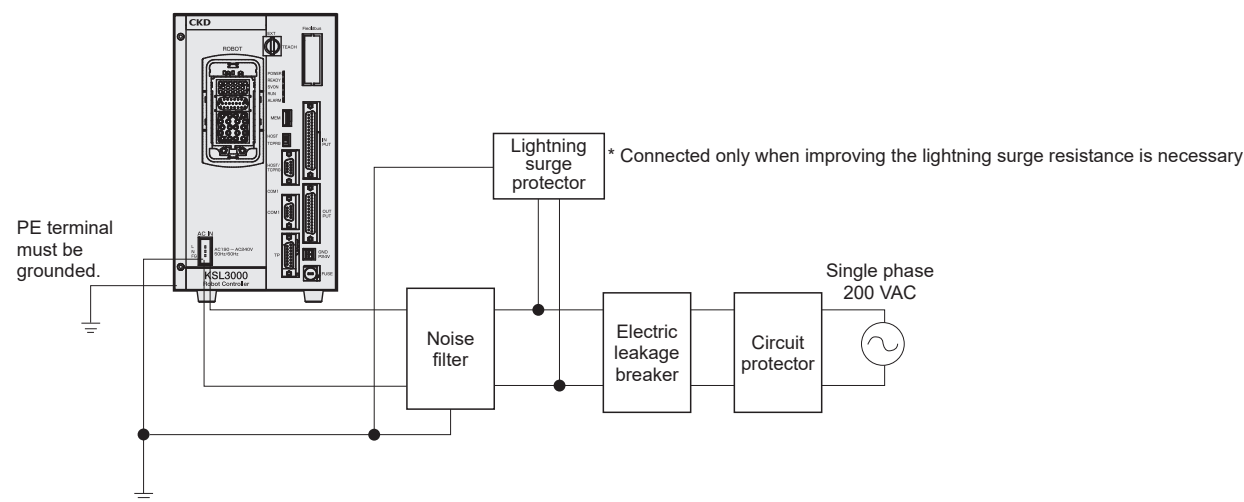
OK: Compatible X: Not compatible

System configuration



■ Power line connection example

An example of connecting the KSL3000 power line is shown below.



Leakage breaker	Specifications	Single phase 20 A, sensitivity current 30 mA leakage breaker
	Recommended product	BKW2203CCK Panasonic Co., Ltd.
Noise filter	Recommended product	SUPF-EX20-ER-6 Okaya Electric Industries Co., Ltd.

- The KSL3000 does not have a protective device, so be sure to install a leakage breaker, noise filter, etc.
- Refer to "Installation/Transportation" in the instruction manual for details on connecting the power line.