Sensing Band
F03-16PE

CSM_F03-16PE_DS_E_1_7

- SUS316 used for core and polyethylene used for sheath to ensure high resistance to both acidic and alkaline liquids.
- Sensing Band Stickers that use the same material as the Sensing Band's insulating resin are available in 2 types: adhesive-tape type and screw type.

Free-cut Indicates models that allow free cutting.

Ordering Information

Name		Model
Liquid Leakage Sensing Band	1 m	**F03-16PE 1M**
	2 m	**F03-16PE 2M**
	5 m	**F03-16PE 5M**
	10 m	**F03-16PE 10M**
	15 m	**F03-16PE 15M**
	20 m	**F03-16PE 20M**
	25 m	**F03-16PE 25M**
	30 m	**F03-16PE 30M**
	40 m	**F03-16PE 40M**
	50 m	**F03-16PE 50M**
	100 m	**F03-16PE 100M**
Sensing Band Stickers (adhesive tape)		**F03-26PES ✻**
Sensing Band Stickers (screw)		**F03-26PEN ✻**

Note: 1. Specify the cable length for F03-16PE from the list above.
2. The cables can be cut.

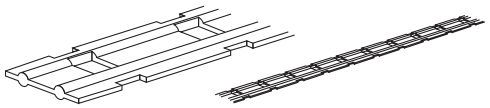
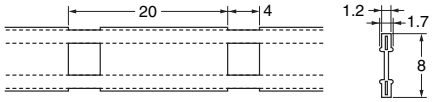
✻30 Stickers per set

Specifications

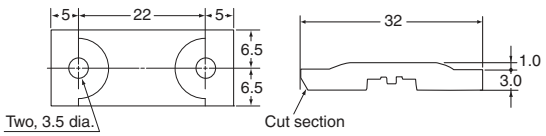
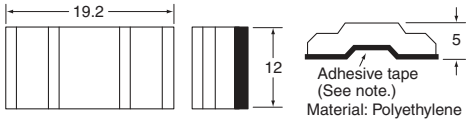
Sheath	Polyethylene
Core	SUS316 stainless steel
Ambient operating temperature	−10 to 55°C
Weight	Approx. 16 g (1 m)

Dimensions (Unit: mm)

■ Sensing Band

Appearance	
Structure	 Materials: Electrodes: SUS316 stainless steel, Sheath: Polyethylene

■ Sensing Band Stickers

	F03-26PEN (screws)	F03-26PES (adhesive tape)
Appearance		
Structure	 Material: Polyethylene	 Material: Polyethylene

Note: The shape of the adhesive tape shown above is for securing the F03-16PE.

Chemical Resistivity for F03-16PE/-16PT

Material	Sheath		Core	Material	Sheath		Core
	Polyethylene	Fluoroplastic	SUS316		Polyethylene	Fluoroplastic	SUS316
Water	A	A	A	**Toluene**	C	B	B
Acetone	C	A	A	**Phenol**	B	B	A
Ammonia	A	A	A	**Butanol**	B	A	---
Ethanol	B	A	A	**Fluorine**	A	A	C
Hydrochloric acid	A	A	C	**Hexane**	C	A	---
Hydrogen peroxide solution	A	A	A	**Benzene**	C	A	A
Xylene	B	A	A	**Methanol**	B	A	A
Cyclohexane	C	A	---	**Sulfuric acid**	C	A	B
Trichloroethylene	C	A	A	**Phosphoric acid**	A	B	B

Note: 1. A: Not affected at all or only very slightly affected.
B: Slightly affected but, depending on the conditions, sufficient for use.
C: Affected but may still be used. (Replace the Sensing Band immediately after detection.)

2. The F03-16PE Sensing Band is made from the following materials.
Core: SUS316
Insulated sheath: Polyethylene

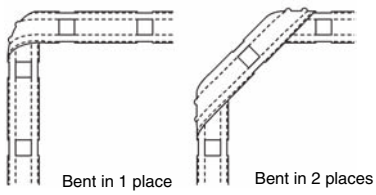
3. In order to prevent secondary fire damage, consider the effect of the atmosphere of the environment and the solution to be detected on the Sensing Band.

4. If the Sensing Band changes shape or color when a liquid is detected, replace the Sensing Band.

Connecting the Sensing Band

Bending the Sensing Band

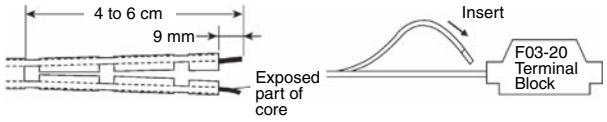
To change the direction of the Sensing Band, bend the Sensing Band in one or two places where the core is not exposed.



Note: Bend the Sensing Band approximately 4 cm (i.e., twice the distance between places where the core is exposed) away from places where a Sticker is attached. If the Sensing Band is bent at places further away than this, the Sensing Band may come away from the surface.

Stripping and Connecting Terminals

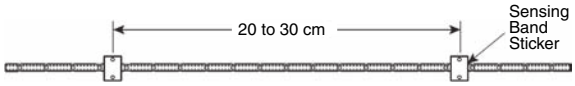
1. Cut into the Sensing Band approximately 4 to 6 cm in from the end as shown in the diagram below.
2. Strip away approximately the last 9 mm of the sheath to expose the core (SUS line).
3. To connect to the Terminal Block, insert the screwdriver (see note 3) from the top of the Terminal Block and insert the stripped end of the core from the side. (Refer to *Dimensions* on page 2.)



Note: Check that the wiring is secure before using the K7L in applications.

Interval Between Stickers

When securing the Sensing Band with Stickers, attach the Stickers at intervals of 20 to 30 cm in places where the core is not exposed.



Note: 1. When using the F03-26PES (adhesive-tape model), be sure to wipe all moisture, oil, and dust from the surface to which the Sticker is to be attached. Failure to do so may result in insufficient adhesion, and the Sticker may peel away from the surface.

2. When using the F03-26PEN (screw model), before installing the Sensing Band, it is necessary to perform stud welding. For details on the pitch of the studs, refer to the information on the dimensions of Sensing Band Stickers.

3. Commercially available screwdrivers can be used. It is recommended, however, that either a 210-350/01 screwdriver or a 209-132 operating tool to connect jumpers, both manufactured by Wago Japan, is used. Contact http://www.wago.com.

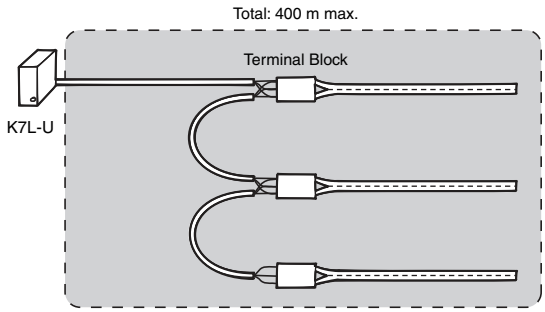
FAQs

Some questions that are frequently asked about the K7L are given below. Use this information when selecting a model.

Can one K7L Amplifier be used for detection in more than one place?

Yes.

By using Terminal Blocks to connect Sensing Bands in parallel, detection can be performed in more than place with only one K7L Amplifier.



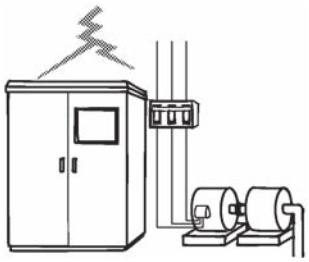
Note: 1. When wiring, be sure not to exceed the maximum possible wiring distances for both the connecting cable and the Sensing Band. Exceeding these distances may lead to faulty operation. Connect one Sensing Band to each Terminal Block.

2. Not applicable to the K7L-UD.

Can the K7L Amplifier be used as a replacement for the 61F-GPN-V50 Water Leakage Detector?

Yes.

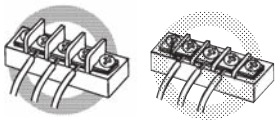
Because the surge withstand capability is different, however, do not use in locations where it will be exposed to impulses and surges, such as outdoor roofs or in pump panels. Also, items such as the power supply voltage and the connection sockets are different. Check these items before application.



Can a different terminal block (e.g. a commercially available terminal block or a terminal block constructed by the user) be used instead of the one provided?

Yes.

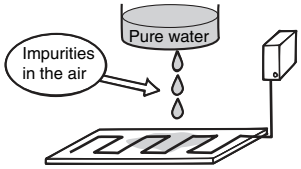
When using another terminal block, however, be sure to check that all the terminals are mutually isolated, and that there is no danger of ground faults in connecting cables or Sensing Bands.



Can the K7L Amplifier detect pure water?

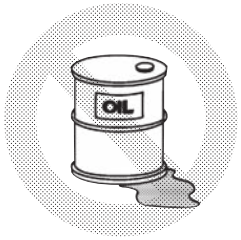
Yes.

Even pure water, which has a resistance exceeding 10 MΩ·cm, can nearly always be detected if the K7L is used at its maximum sensitivity. This is because impurities are mixed with the water when it is leaked and the resistance drops.



Can the K7L Amplifier detect oil?

No.



ALL DIMENSIONS SHOWN ARE IN MILLIMETERS.

To convert millimeters into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.

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