

Thank you for purchasing the Plug-on Clips (Model 701948). To ensure correct use, please read this manual thoroughly before beginning operation. After reading the manual, keep it in a convenient location for quick reference whenever a question arises during operation.

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**YOKOGAWA** ◆

IM 701948-01E  
1st Edition

### Safety Precautions

Make sure to comply with the safety precautions mentioned hereafter when handling the plug-on clip. Yokogawa Electric Corporation assumes no responsibility for any consequences resulting from failure to comply with these safety precautions. Also, read the User's Manual of the probe and the measuring instrument thoroughly so that you are fully aware of its specifications and handling, before starting to use the plug-on clip.

**Make sure to comply with the following safety precautions in order to prevent accidents such as an electric shock which impose serious health risks to the user and damage to the instrument.**

#### WARNING

##### Grounding of the measuring instrument

The protective grounding terminal of the measuring instrument must be connected to ground.

##### Handling of the plug-on clip

Do not touch the plug-on clip's input terminal or the plug-on clip itself with wet hands.

##### Do not operate with suspected failures

If you suspect that there is damage to this plug-on clip, have it inspect by a service personnel.

##### Observe maximum working voltage

When the oscilloscope's input coupling is AC, DC voltage of the same electric potential as the plug-on clip's input is applied to the oscilloscope's input. Make sure not to exceed the oscilloscope's maximum input voltage.

##### Do not operate in wet/damp conditions

To avoid electric shock, do not operate this plug-on clip in wet or damp conditions.

##### Do not operate in explosive atmosphere

To avoid injury or fire hazard, do not operate this plug-on clip in an explosive atmosphere.

##### Avoid exposed circuitry

To avoid injury, remove jewelry such as rings, watches, and other metallic objects. Do not touch exposed connections and components when power is present.

#### CAUTION

##### Maximum input voltage

Do not apply any voltages exceeding the maximum input voltage to the plug-on clip.

### Waste Electrical and Electronic Equipment



#### Waste Electrical and Electronic Equipment (WEEE), Directive 2002/96/EC

(This directive is only valid in the EU.)

This product complies with the WEEE Directive (2002/96/EC) marking requirement. This marking indicates that you must not discard this electrical/electronic product in domestic household waste.

##### Product Category

With reference to the equipment types in the WEEE directive Annex 1, this product is classified as a "Monitoring and Control instrumentation" product.

Do not dispose in domestic household waste. When disposing products in the EU, contact your local Yokogawa Europe B. V. office.

### The Following Symbols are Used in this Manual.

#### WARNING

Calls attention to actions or conditions that could cause serious or fatal injury to the user, and precautions that can be taken to prevent such occurrences.

#### CAUTION

Calls attentions to actions or conditions that could cause light injury to the user or damage to the instrument or the user's data, and precautions that can be taken to prevent such occurrences.

#### Note

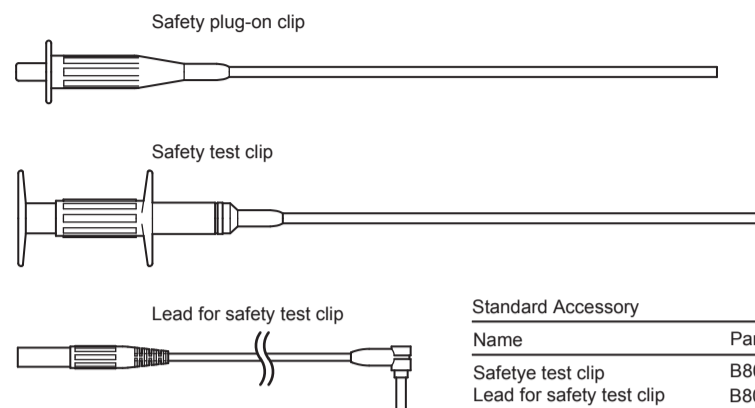
Calls attention to information that is important for proper operation of the instrument.

### 1 Description

The 701948 (plug-on clips) are accessories for safety probes that support isolated input measuring instruments (such as the 700929 and 701947). Please use them in combination with safety probes that support isolated input. Using the 701948 makes it possible to take measurements in tight locations that probes cannot reach. Make sure you also fully understand the correct use of the instrument and probe when using the plug-on clips.

### 2 Appearance

This plug-on clip is composed of the plug-on clip and its accessories.

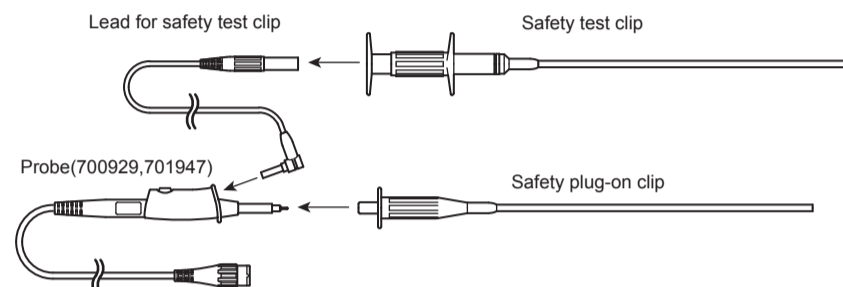


Standard Accessory

Name	PartNo.
Safeteye test clip	B8073ZM
Lead for safety test clip	B8073ZJ

### 3 Operation

Replace the safety plug-on clips used with the isolated input safety probe (such as the 700929 or 701947) with the 701948 safety plug-on clips, and attach to the tip of the probe. Replace the safety clip lead used with the isolated input safety probe with the 701948 safety test clip and lead for safety test clip.



#### WARNING

- Make sure to avoid an electric shock when connecting the plug-on clip or probe to the object of measurement. Do not remove the probe from the measuring instrument or do not remove the plug-on clip from the probe after the object of measurement is connected.
- When disconnecting the probe BNC output connector, first turn OFF the power to the circuit under measurement. Then, disconnect the plug-on clip or probe from the high voltage parts of the circuit under measurement.
- Do not use with probes by manufacturers other than Yokogawa.
- EN61010-031 is the safety rating for the probe alone. During actual use, you should adhere to the safety ratings and usage precautions of your measuring instrument. Failure to comply with the correct safety precautions may result in electric shock or damage to the instrument.

#### CAUTION

- The actual maximum input voltage is limited to the lesser of either the plug-on clip's maximum input voltage or the probe's maximum input voltage or the measuring instrument's input voltage.
- See the specifications of the probe or measuring instrument you are using to determine the maximum input voltage.
- Convert the probe's attenuation ratio, and be sure not to input an excessive voltage to the measuring instrument.
- If a voltage exceeding the maximum input voltage or probe's frequency deleting is applied, damage to the instrument may result.
- Use a soft cloth to clean the dirt. Prevent damage to the plug-on clip. Avoid immersing the plug-on clip, using abrasive cleaners, and using chemicals contains benzene or similar solvents.

### 4 Specifications

Item	Specifications
Rated voltage	1000 V CAT II double insulation (voltage to ground)
Crimping width	Approx. 5 mm max.
Shaft length	200 mm
Operating environment	5 to 40°C, 20 to 80% (no condensation)
Storage environment	-20 to 60°C, 20 to 80% (no condensation)
Operating altitude	2,000 m or less
Safety standards	Complying standards IEC/EN61010-031 Measurement category II <sup>*1</sup> Pollution degree 2 <sup>*2</sup>

\*1 This equipment is for measurement category II (CAT II). Do not use it with measurement category III (CAT III), nor measurement category IV (CAT IV). CAT II applies to electrical equipment that is powered through a fixed installation such as a wall outlet wired to a distribution board and measurement performed on such wiring. CAT III applies to measurement of the distribution level, that is, building wiring, fixed installations. CAT IV applies to measurement of the primary supply level, that is, overhead lines, cable systems, and so on.

\*2 Pollution degree applies to the degree of adhesion of a solid, liquid, or gas which deteriorates withstand voltage or surface resistivity. Pollution degree 2 applies to normal indoor atmospheres (with only non-conductive pollution).