

User's Manual

Model 700929

10:1 Probe (Safety Probe Supporting Isolated Input)

Safety Precautions

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

- **General definitions of safety symbols and markings**



This symbol indicates the risk of injury, death of personnel or damage to the instrument. Be sure to refer to the corresponding explanation in the User's Manual.

WARNING

This symbol calls attention to a procedure, practice, condition or the like, which, if not correctly performed or adhered to, could result in injury or death of personnel.

CAUTION

This symbol calls attention to a procedure, practice, condition or the like, which, if not correctly performed or adhered to, could result in damage to or destruction of part of the product.

- **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

Make sure to connect the protective grounding of the measuring instrument.

- **Connecting the object of measurement**

Make sure to avoid an electric shock when connecting the probe to the object of measurement. Do not remove the probe from the measuring instrument after the object of measurement is connected.



CAUTION • Nondestructive input voltage range

Do not apply any voltages exceeding the Nondestructive input voltage range to the probe.

- **Maximum input voltage**

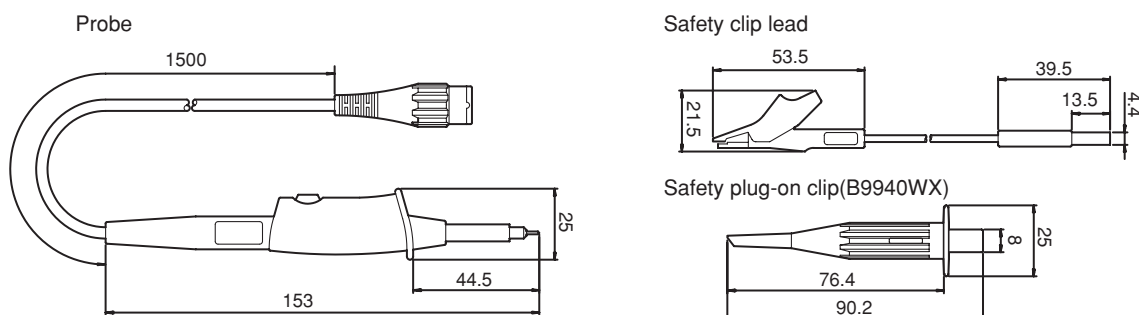
Do not supply any voltages exceeding the maximum input voltage to the probe.

Overview

The 700929 is a 10:1 probe that provides safer, high-voltage measurement when used together with an isolated input measuring instrument (waveform measuring instrument or amplifier). The probe and BNC connector are isolated so that dangerous voltages are not accidentally exposed when the probe is removed from the measurement terminal. Make sure you also fully understand the correct use of the instrument when using the probe.

Contents of the Package

The probe, safety clip lead, and safety plug-on clip (B9940WX) should be included in the package. Check that all contents are present and that they are undamaged.



Ability

Item	Specifications	Conditions
Total length	1.5 m	
Connector type	BNC	
Input impedance/capacitance	10 MΩ ± 1% approx. 18 pF	
Attenuation ratio	10:1	
Frequency band*	DC to 100 MHz (greater than -3 dB)	
Rise time*	1.4 ns	
Maximum input voltage (probe alone)	1000 V(DC + AC peak)	Space between clip and lead, lead and earth.
	When the input voltage is AC, the maximum allowable input decreases depending on the frequency as shown by the deleting curve in the chart below.	
Safety rating(probe alone)	EN61010-031:2002 600 Vrms Measurement category III	

* : Probe alone



CAUTION

- The actual maximum input voltage is limited to the lesser of either the probe's maximum input voltage or the measuring instrument's input voltage.
- See the specifications of the 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 frequency deleting is applied, damage to the instrument may result.

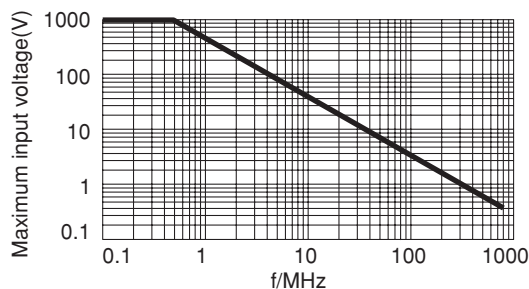


WARNING

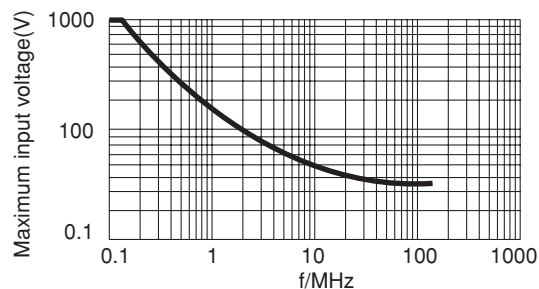
EN61010-031 is the safety rating for the probe alone.
During actual use, you should adhere to the safety ratings and usage precautions of your measuring instrument. Failure to comply with the correct safety precautions may result in electric shock or damage to the instrument.

Maximum Input Voltage Deleting Curve

Safety rating: EN61010-031



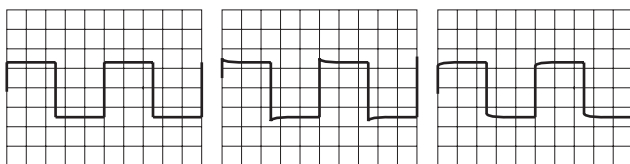
Space between clip and lead



Space between lead and earth

Using the Probe

Fasten the probe's connector to the instrument you are using (such as an oscilloscope), and connect the probe tip to the CAL or COMP terminal on the instrument. When measuring with the probe, rotate the variable condenser and adjust it until the correct waveform is generated as shown in the figure below.



Correct waveform

Over-compensated

Under-compensated

YOKOGAWA ELECTRIC CORPORATION, *Communication & Measurement Business Headquarters*
Phone: (81)-422-52-6768, Fax: (81)-422-52-6624, E-mail: tm@csv.yokogawa.co.jp
YOKOGAWA CORPORATION OF AMERICA YOKOGAWA EUROPE B.V.
Phone: (1)-301-916-0409, Fax: (1)-301-916-1498 Phone: (31)-33-4641858, Fax: (31)-33-4641859

YOKOGAWA ENGINEERING ASIA PTE. LTD.
Phone: (65)-62419933, Fax: (65)-62412606