User's Manual

96032

Clamp-on Probe

Thank you for purchasing our Clamp-on Probe.
This manual describes the specifications and handling precautions for a Clamp-on Probe.
Before using this product, thoroughly read this manual to get a clear understanding on proper use.

Contact information of Yokogawa offices worldwide is provided on the following sheet.

PIM 113-01Z2: Inquiries

List of worldwide contacts

Store this manual in a place that facilitates ease of reference whenever necessary.

All Rights Reserved, Copyright © 2016, Yokogawa Meters & Instruments Corporation Printed in Japan



IM 96032-E

Yokogawa Meters & Instruments Corporation

5th Edition: Jan. 2016 (YMI)

Regarding Safe Use of This Product

When operating the instrument, be sure to observe the cautionary notes given below to ensure correct and safe use of the instrument. If you use the instrument in any way other than as instructed in this manual, the instrument's protective measures may be impaired. YOKOGAWA is by no means liable for any damage resulting from use of the instrument in contradiction to these cautionary notes.

The following safety symbols are used on the instrument and in this manual.



Indicates a hazard that may result in the loss of life or serious injury of the user unless the described instruction is abided by.

A CAUTION

Indicates a hazard that may result in an injury to the user and/or physical damage to the product or other equipment unless the described instruction is abided by.

 $\hat{\Lambda}$

Danger! Handle with Care.

This mark indicates that operator must refer to an explanation in the instruction manual in order to avoid risk of injury or death of personnel or damage to the instrument.

This symbol indicates AC voltage/current.

Strictly observe the following cautionary notes in order to avoid the risk of injury or death of personnel or damage to the instrument due to hazards such as electrical shock.

! WARNING

- This instrument is for measuring AC current (clamping sensor). Do not use this instrument for other purpose.
- Do not use the instrument if there is a problem with its physical appearance.
- To avoid a short-circuit or an accident to personnel, use this product within the RATED circuit-to-earth voltage of measurement category.
- Do not use the product when there are raindrops or droplets of condensed water on its surface, or if your hands are wet.
- Safety protectors such as rubber-insulated gloves should be worn to prevent electrical shock when using the instrument.
- Do not use this product in a place where an explosive gas or vapor is present.
- Do not use the instrument if there is any damage to the casing or when the casing is removed. Do not attempt to repair/modify the product yourself, as doing so is extremely dangerous.
 Should an abnormality or failure in the product be found, contact the vendor from which you purchased the product.

! CAUTION

- The clamping JAWS is precision assembled to ensure high performance. When using the clamp, do not apply any intense mechanical shock, vibration or force to the clamping JAWS.
- If dust or any other foreign matter gets in the clamping JAWS, do not close the clamping cores tight. First remove the dust and then make sure the clamping cores on both sides close smoothly.

Cleaning

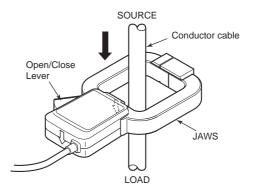
To remove dirt, disconnect the connector and gently wipe the outer surface with a clean and soft cloth. Do not use a chemical agent such as benzene or paint thinner.

For Precise Measurements

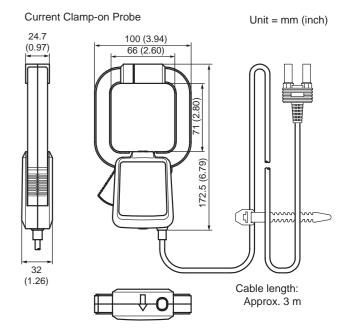
Use this product under the following ambient conditions. Temperature: 23 ±5°C

Relative humidity: 35 to 75% (no condensation)

- When performing a measurement, hold the probe so that the measured conductor cable runs at the center of the clamp.
- Ensure that the orientation of the clamp to the direction of the conductor cable (power source --- load) is correct as shown right.
- · Ensure that the clamping JAWS is properly closed.



External Dimensions



Clamp On Power Meter CW140 Specifications (for Model 96032)

When you are using the CW140 connecting with the 96032 probe, the specifications for the CW140 (measurement accuracy and power factor effects) is as follows:

Mesurement accuracy Power factor (including clamp)
 Current, active power, reactive power 1
 45 Hz ≤ f ≤ 66 Hz: ± (1.0% rdg + 0.8% rng)

Power factor effects (For 45 Hz ≤ f ≤ 66 Hz)

Active power: $\pm 2.0\%$ rng $\cos \phi = \pm 0.5$ (relative to power factor 1) Reactive power: $\pm 2.0\%$ rng $\sin \phi = \pm 0.5$ (relative to reactive power 1)

Specifications

Item		96032
Measurement range		0 to 1000 Arms AC (1414 Apk) 5 minutes
Output voltage		0 to 0.25 Vrms AC (0.25 mV/A)
Accuracy	Amplitude	±1.0% rdg ± 0.2 mV (45 Hz to 66 Hz)
	phase	±1.0° (50 A or more, 45 Hz to 66 Hz)
	(for temperature	e of 23°C ±5°C, relative humidity of 35 to 75%, and sinewave input)
Temperature coefficient		±0.05%/°C in ranges of 5 to 40°C
Maximum allowed current		1000 Arms AC : 5 minutes, 700 Arms AC :Continuous (45 Hz to 66 Hz)
Output impedance		Approximately 100 Ω (max.)
External magnetic field effects		0.5 A equivalent or less (at 400 A/mA, 50/60 Hz)
Connector position effects		±0.5% (at 200 to 1000 A, 45 Hz to 66 Hz)
The RATED circuit-to-earth voltage		600 Vrms AC maximum
Withstand voltage		2.2 kVrms AC for one minute, (across core and casing, and across core and output)
Measurable conductor diameter		ϕ 65 mm maximum, Bus bar: 65 × 70 mm max.
Operating temperature and humidity		5 to 40°C, 35 to 80% RH (no condensation)
Storage temperature and humidity		-20 to 60°C, 90% RH or less (no condensation)
External dimensions		Approx. 100 (W) × 172.5 (H) × 32 (D) mm (excluding protrusions)
Weight		Approx. 500 g
Output cable length		Approx. 3 m (Output terminal: Safety banana plug)
Accessory		User's manual (1 copy), Ring markers (4 colors × 2): L4007MG