

# QI-ROG









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# **QI-ROG**PRODUCT MANUAL





#### **SAFETY WARNINGS AND CAUTIONS**

The following warnings and cautions must be observed to ensure personal safety and prevent damage.



**Death** or **serious injury** may result from failure to heed this warning.



It is necessary to comply with national regulations when installing and picking materials for power lines.



**Material damage** or **serious personal injury** may result from failure to heed this warning.



Repairs and modifications must be carried out only by the manufacturer. It is forbidden to open the case and make any changes to the device. Tampering with the device will invalidate the warranty.



The manufacturer **declines all responsibility** for electrical safety in the event of improper use of the equipment.



It is essential to read the entire contents of this manual before carrying out any work.

Installation and commissioning must be carried out by qualified personnel only.



Before commissioning, make sure that:

- the maximum values for all connections are not exceeded; refer to the product data sheet;
- the connection cables are not damaged or live during wiring;
- the direction of current flow and phase rotation are correct.

During installation, ensure that a switch or circuit-breaker is near the product and easily accessible.

The unit must be uninstalled if safe operation can no longer be guaranteed (e.g. visible damage). Disconnect all connections in this case. The unit should be returned to the manufacturer or to an authorised service centre for repair.



**WARNING:** High-intensity magnetic fields may alter the values measured by the transformer. Avoid installation near: permanent magnets, electromagnets, or iron masses. If irregularities are detected, reposition or move the unit to a more suitable location.



Failure to observe the warnings may result in damage to the equipment or failure to operate as intended.



Please note that the information on the nameplate must be observed.



The product described in this document may only be used for the specified application. The maximum performance data and environmental conditions specified in the product data sheet must be observed. Proper transport and storage, as well as professional assembly, installation, handling and maintenance are required for the correct and safe operation of the device.

Use under ambient conditions other than those specified, application of signals or voltages other than those specified, may cause significant deviations from the specified measurement tolerances, which may be irreversible.



Although the contents of this document have been checked for accuracy, it may contain errors or inconsistencies and we cannot guarantee its completeness or accuracy.



This document is subject to periodic revision and updating. QEED reserves the right to make changes to the product and/ or its technical documentation at any time in the interests of continuous quality improvement. Always consult the latest version of the documentation available on the website:

#### www.geed.it

If you find any errors or missing information in this document, please notify us by e-mail to:

#### technical@qeed.it





Disposal of waste electrical and electronic equipment (applicable in the European Union and other countries with separate collection). The symbol on the product or its packaging indicates that the product should not be treated as household waste. Instead, it will be handed over to an authorised collection point for the recycling of electrical and electronic waste. Ensuring that the product is disposed of properly will prevent potential negative effects on the environment and human health, which could otherwise be caused by inappropriate waste management of the product. Recycling materials helps to conserve natural resources. For further information, please contact your local authority, waste disposal service or the retailer from whom you purchased the product.

#### **PRODUCT OVERVIEW**

Rogowski QI-ROG probes are suitable for measuring alternating and pulsed currents.

The flexible and lightweight head allows installation in hard-to-reach areas and on large conductors.

Available in various lengths and colours.

Always use with an integrator (internal or external to the instrument).

The direction of current flow is indicated with an arrow on the probe closure.

The probes can be used with our **QE-POWER-x** and **QC-ENERGY-3T** power meters or with our **QE-CURRENT-485** signal converter.

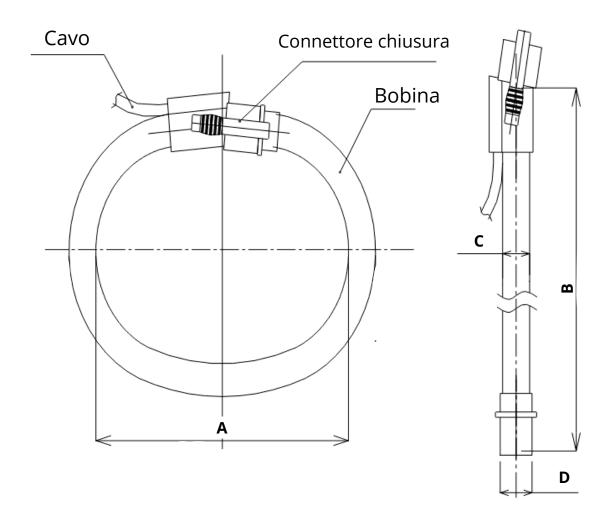


Figure 1: QI-ROG dimensions

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### **TECHNICAL SPECIFICATIONS**

### **Electrical characteristics**

Max. measurable current	100 kA @ 50 Hz
Accuracy	± 1%
Linearity	± 0,2%
Output signal	100 mV / 1000 A @ 50 Hz, 120mV/1000A @ 60Hz
Working frequency	20 Hz 5 kHz

# Sensitivity in conductor placement

Conductor	± 2% maximum from closing point
External field influence	± 0,5% max
Temperature sensitivity	± 0,07% by °C

### **Mechanical characteristics**

Probe cross-section diameter (C)	12 mm
Length of open probe (B)	300, 400, 500, 600, 700, 1000 mm (more on request)
Outer diameter of locking connector (D)	17 mm (max)
Maximum diameter of the conductor or bar to be	QI-ROG-300: 84 mm
measured (A)	QI-ROG-400: 115 mm
	QI-ROG-500: 147 mm
	QI-ROG-600: 179 mm
	QI-ROG-700: 211 mm
	QI-ROG-1000: 306 mm
Materials	Probe and cable: Thermoplastic rubber, UL94 V-0
Joints	PA6 UL94 V-0
Cable	1000V UL STYLE 20940; outer diameter 5mm; conductor 2x 26 AWG
Secondary output cable length	2, 4, 10 m (based on the model)
Shielding	100% coil, 100% output cable

#### **Materials**

Transducer & cable Thermoplastic	RUBBER, flame retardant UL 94 V-O rated
Couplings	PA6 UL 94 V-O rated
Cable	1000V UL STYLE 20940; External diameter 5mm; Wires 2x 26AWG

## **Environmental characteristics**

Working temperature	-20°C ÷ +70 °C
Relative humidity	85% max without condensation
Pollution degree	2
Maximum operating height	2000 m

### **Safety**

Max. working voltage	1000 V @ 50/60 Hz
Overvoltage category (IEC 61010-1)	CAT III
Hi-pot test (sensor and output cable)	7400 Vac @ 50/60 Hz for a minute

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As standards, specifications, and design change from time to time, please ask for confirmation of the information given in this publication.