# QI-HSC-50 | QI-HSC-100 | QI-HSC-104-2000I

Visit the QI-HSC-50 | QI-HSC-100 | QI-HSC-104-2000I page for news, updates and downloads

## CONTENTS

## 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.

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

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.

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

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 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.qeed.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

The QI-HSC series are open-core current sensors for measuring DC and AC currents with excellent accuracy and a wide measuring range.

The QI-HSC-xxx uses open-loop Hall-effect measurement technology and an openable core, making the sensors easy to install without disconnecting conductors. Screw terminals make installation extremely easy. The sensors are available in a range of sizes and primary current ratings and can provide either voltage or current output signals.

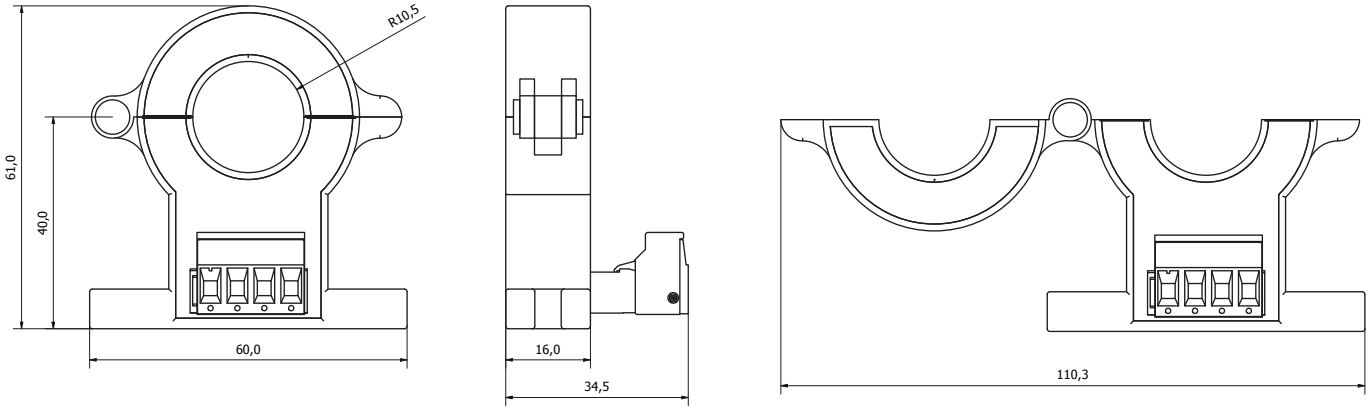



**Figure 1:** QI-HSC-50/QI-HSC-100 dimensions

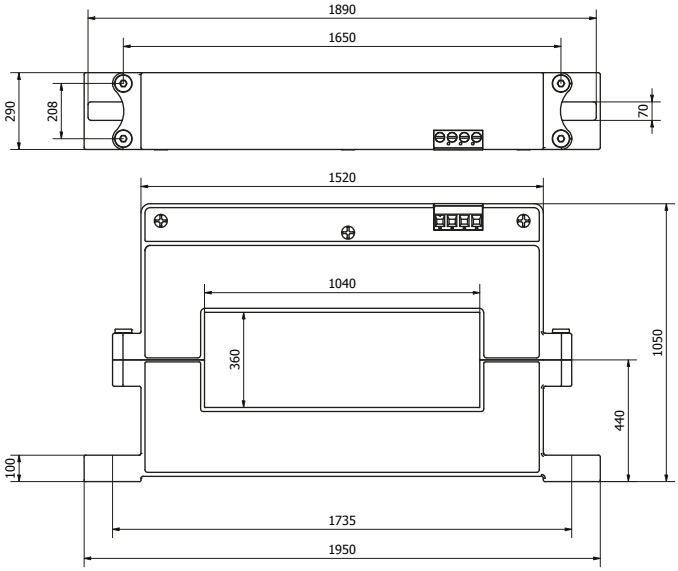



**Figure 2:** QI-HSC-104-200-I dimensions

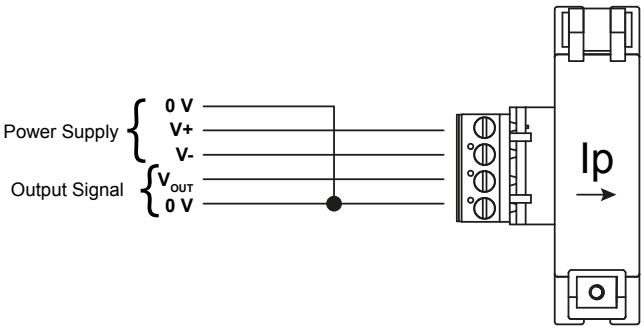
## TECHNICAL SPECIFICATIONS

### Electrical charateristics

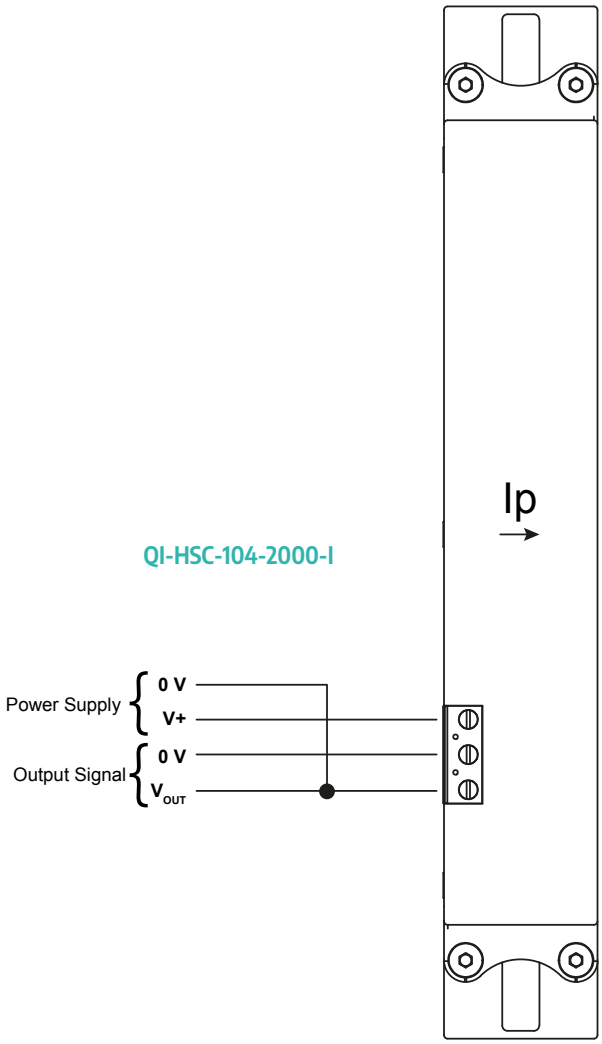
| | QI-HSC-50 | QI-HSC-100 | QI-HSC-104-2000-I |
|---|---|---|---|
| Rated current | 50 A AC/DC | 100 A AC/DC | ± 2000 A |
| Auxiliary power supply | ± 12 ... 15 V dc | | 24 Vdc |
| Working frequency | from Continuous up to 20 kHz | | |
| Load resistance | Min 10 kΩ | | max 500 Ω |
| Current consumption @ 15 V dc | 25mA | | |
| Output voltage @ rated voltage $I_p$=0 | ± 25 mV | | / |
| Output voltage @ rated voltage $I_{pn}$ | ± 4 V ±1% | | / |
| Output current @ rated current $I_p$=0 | / | | 4 mA |
| Output current @ rated current $I_{pn}$ | / | | 20 mA ±1% |
| Measurement accuracy | ± 1% | | |
| Linearity | < 1% | | |
| Thermal drift | ± 1 mV/°C | | ± 0,001 mA/°C |
| Measurement response time 0 – 90% | 10 µs | | 50 ms |
| Primary/secondary insulation voltage | 3 kV | | 5 kV |
| Working temperature | -25°C...85°C | | |
| Storage temperature | -40°C...100°C | | -40°C...125°C |
| Connection | Removable connector for cable section 0,2 ÷ 2,5 $mm^2$ | | |
| Weight | 80 g | | 960 g |

## Output signals and connections

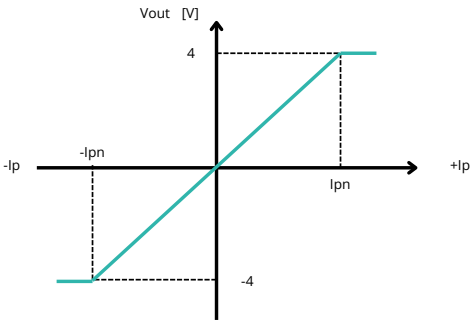
### QI-HSC-50
### QI-HSC-100




### QI-HSC-104-2000-I




**IN/OUT Characteristics**




**IN/OUT Characteristics**