# INSTALLATION MANUAL

# Z109S-H

## PRELIMINARY WARNINGS

The word **WARNING** preceded by the symbol indicates conditions or actions that put the user's safety at risk. The word **ATTENTION** preceded by the symbol indicates conditions or actions that could damage the instrument or connected equipment.
The warranty shall become null and void in the event of improper use or tampering with the module or devices supplied by the manufacturer as necessary for its correct operation, and if the instructions contained in this manual are not followed.

| | |
|---|---|
|  | **WARNING**: The full content of this manual must be read before any operation. The module must only be used by qualified electricians. Specific documentation is available using the QR-CODE shown on page 1. |
|  | The module must be repaired and damaged parts replaced by the Manufacturer. The product is sensitive to electrostatic discharges. Take appropriate measures during any operation. |
|  | Electrical and electronic waste disposal (applicable in the European Union and other countries with recycling). The symbol on the product or its packaging shows the product must be surrendered to a collection centre authorized to recycle electrical and electronic waste. |

DOCUMENTATION

SENECA

QUALITY MANAGEMENT SYSTEM
ISO 9001:2015

**SENECA s.r.l.; Via Austria, 26 – 35127 – PADOVA – ITALY; Tel. +39.049.8705359 - Fax +39.049.8706287**

## CONTACT INFORMATION

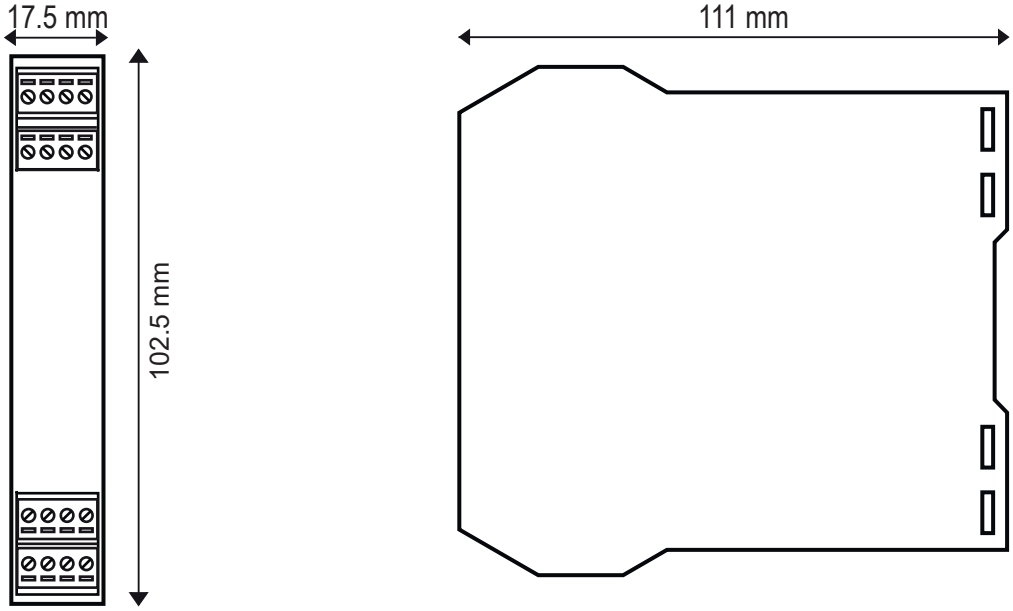
| | | | |
|---|---|---|---|
| Technical support | support@seneca.it | Product information | sales@seneca.it |

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## MODULE LAYOUT

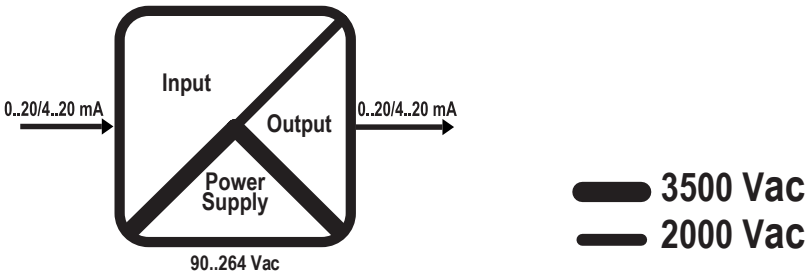



**Dimensions:** 17.5 x 102.5 x 111 mm, **Weight:** 100 g; **Enclosure:** PA6, black

## SIGNALS VIA LED ON FRONT PANEL

| LED | STATUS | LED meaning |
|---|---|---|
| PWR | ON | The device is powered correctly |

## TECHNICAL SPECIFICATIONS

| | |
|---|---|
| **CERTIFICATIONS** | CE UKCA |
| **INSULATION** |   |
| **ENVIRONMENTAL CONDITIONS** | Temperature: -25°C ÷ + 70°C; Humidity: Max. 90% non condensing.<br>Storage temperature: -30°C ÷ + 85°C; Degree of protection: IP20 |
| **POWER SUPPLY** | Voltage: 90 ÷ 264 Vac; 50 ÷ 60 Hz; Absorption: Max. 2.0 W |
| **ASSEMBLY** | IEC EN60715, 35mm DIN rail in vertical position. |
| **INPUT** | Current 0 ÷ 20 mA or 4 ÷ 20 mA, loop supply >22 Vdc.<br>Input impedance 50 Ω |
| **OUTPUT** | Current 0 ÷ 20 mA or 4 ÷ 20 mA, loop supply < 600 Ω |
| **CONNECTIONS** | 3-way removable screw terminals pitch 5 mm.<br>Cable section 0.25-2.5 mm² |
| **RESPONSE TIME** | <2 ms, frequency limit (-3dB) 200 Hz |
| **INPUT PROTECTION:** | 30V continuous. |
| **POWER SUPPLY/OUTPUT PROTECTION** | Output / Power supply: against 400W/ms impulse surges |
| **ERROR OF THE INPUT MEASURING RANGE:** | Calibration: 0.2%; Thermal coefficient: 0.02% / °C EMI < 1% |

# INSTALLATION REGULATIONS

The module has been designed for vertical installation on a DIN 46277 rail. For optimal operation and long life, adequate ventilation must be provided. Avoid positioning ducting or other objects that obstruct the ventilation slots. Avoid mounting modules over heat-generating equipment. Installation in the bottom part of the electrical panel is recommended.

**⚠ CAUTION**

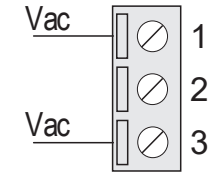
These are open type devices intended for installation in a final casing/panel that offers mechanical protection and protection against the spread of fire.

# ELECTRICAL CONNECTIONS

**⚠ CAUTION**

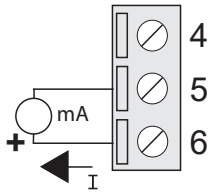
To meet the electromagnetic immunity requirements:
- use shielded signal cables;
- connect the shield to a preferential instrumentation earth system;
- separate shielded cables from other cables used for power installations (transformers, inverters, motors, etc...).

## POWER SUPPLY



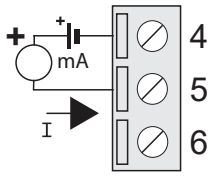

The supply voltage limits indicated in the technical specifications must not be exceeded, otherwise serious damage to the module may occur.
The power supply source must be protected from the malfunctions of the module through appropriately-sized safety fuses.

## ACTIVE OUTPUT



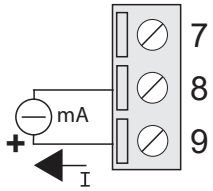

Connection to be used when the output loop must be powered directly by the Z109S-H module.
The module can drive a maximum load of 600 ohm on the loop, with loop power supply protected against short circuit.

## PASSIVE OUTPUT



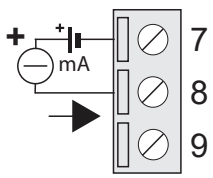

Connection to be used when the current loop power supply comes from the outside.

## ACTIVE INPUT




Connection to be used with transducers in 2-wire technology.
The transducer is powered directly by the Z109S-H module with short circuit protection.

## PASSIVE INPUT




Connection to be used when the input current is impressed from the outside (the loop power supply comes from the outside).

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