EN

Z109S-1
POWER-SUPPLY PLUS GALVANIC SEPARATION FOR CURRENT LOOP

GENERAL FEATURES

- Input current 0 - 20 mA or 4 - 20 mA.
- Sensors supply in two wires technique: 20V⎓ stabilized, 20mA max protected against short circuit.
- Measure and retransmission or an analog insulated output, current output 0 - 20 mA or 4 - 20 mA.
- Frontal power supply presence indicator.
- Insulation 3 wires: 1500V~.

TECHNICAL FEATURES

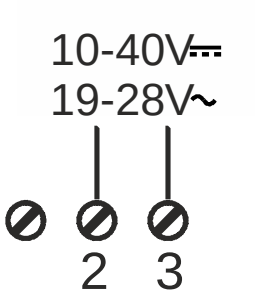
Power:	10 - 40 V⎓, 19 - 28 V~ 50 - 60Hz, max 2.5W.		
Input:	Current 0 - 20 mA or 4 - 20 mA, 20Vdc stabilized loop supply, input impedance 50 ohm.		
Output:	Current 0-20 mA or 4-20 mA, loop impedance < 600 ohm.		
Environemental conditions: Temperature: Humidity: Storage temperature: Protection degree:	 From -20 to +60 °C. min: 30%, max 90% at 40°C not condensing From -20 to +85 °C IP20 (see also section ***How to install***).		
Box specification: Dimensions and weight: Material:	 100 x 112 x 18 mm, 130 g. PBT, Black color.		
Errors referred to Input's measure range:	Calibration 0,2%	Thermal coeff. 0,02%/°C	EMI <1%
Connections:	Removable 3-way screw terminals, 5 mm pitch. cable section's 0.25-2.5 mm²		
Response time:	<200us, cutoff frequency (-3dB) 6kHz		
Inputs protection:	30V continuously.		
Protection Output / Power-supply:	 Against surge pulses 400W/ms		

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Standards:	Complying equipments with prescriptions:
CE c UL us LISTED 3LUT	EN61000-6-4 (electromagnetic compability, industrial environment) EN61000-6-2 (electromagnetic immunity, Industrial environment) EN61010-1 (security) Notes: - Use with copper conductor. - Use in Pollution Degree 2 Environment . - Power Supply must be Class 2. - When supplied by an Isolated Limited Voltage/Limited Current power supply a fuse rated max 2.5 A shall be installed in the field.

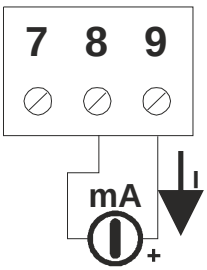
ELECTRICAL CONNECTIONS

POWER

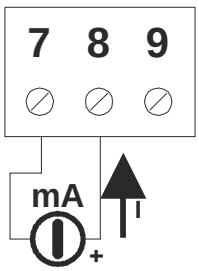


Power voltage must be in a range from 10 to 40 V ⎓ (indifferent polarity), from 19 to 28 V~; see also section ***INSTALLATION NORMS.***
Upper limits must not be exceeded, if it happen there could be damages for module.
It is necessary to protect power source from possible module's failure by fuse correctly dimentioned.

INPUT



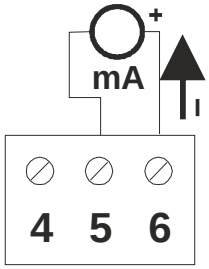
ACTIVE INPUT: use this connection with transducers 2 wires technology.
Transducer is directly powered by Z109S module 20V⎓ stabilized voltage, 20mA max., protected against short circuit.



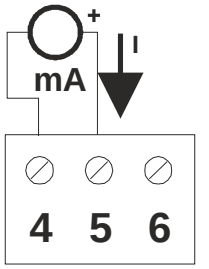
PASSIVE INPUT : use this connection if input current is given from external (loop power supply is given from external).

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OUTPUT



ACTIVE OUTPUT : use this connection when output loop is to be directly feeded from Z109S module.
Loop power supply given by Z109S module is protected against short circuit.
Max load resistance 600 ohm.



PASSIVE OUTPUT : use this connection if current loop's power supply is given from external.

ELECTRICAL CONNECTIONS

For signals connection please use shielded cables; the equipment cable shields must be connected to a preferential ground. It's also a good rool avoid to pass wires near power installation cables like transformers, inverters, motors, induction ovens etc.

HOW TO INSTALL

Z109S module is designed to be installed on a DIN 46277 bar, in vertical position.
For working properly and long life, make sure that adequate ventilation is provided for the module, avoiding placing raceways or other objects which could obstruct the abat-vents. Avoid to install module over equipment that generates heat.
We suggest you to install the module in the lower part of the cabinet.

HEAVY WORKING CONDITIONS:

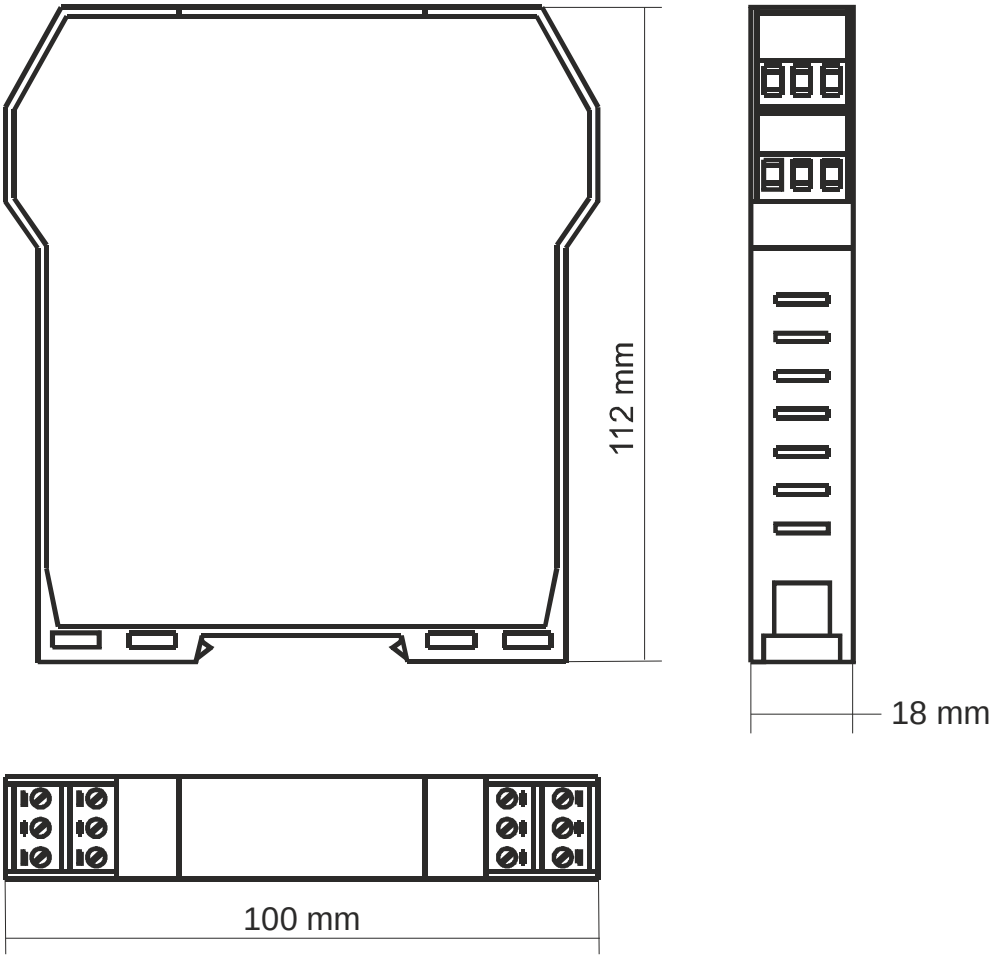
Heavy working conditions are:

- *High power voltage a (> 30V⎓ / > 26 V~).*
- *Input sensor feeded.*
- *Use of output in impressed current.*

When modules are installed side by side it may **be necessary to separate them at least 5 mm** in the following cases:

- Upper board temperature higher than 45°C and at least one of the heavy working conditions verified.
- Upper board temperature higher than 35°C and at least two of the heavy working temperature verified.

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