



Z109PT2-1

RTD TO DC CURRENT / VOLTAGE ISOLATOR CONVERTER

Highlights

- Power Supply VAC/VDC
- Selectable input RTD type (Pt100, Pt500, Pt1000, Ni100) 2/3/4 wires
- Selectable output mA, V
- Sampling frequency from 240 sps (@11bit+sign resolution) to 15 sps (@15 bit +sign resolution)
- 3-way isolation 1,500 VAC power, input, output
- Setting via DIP switches, software, or App
- Micro USB connector (front side)
- Operating temperature -20 to +60°C
- UL Listed

Z109PT2-1 is a temperature converter for 2/3/4 wire RTD sensor (PT100, PT1000, PT500, Ni100) and provides a mA/V standard output signal.

A 3-way galvanic isolation for power supply // input // output circuits assures the integrity of your signals.

The device can also power an external sensor with 20 VDC stabilized 20 mA max, short circuit protected.

Z109PT2-1 offers high accuracy class (0.1%), fast response time (up to 35 ms), wide operating temperature range and low power consumption.

Besides DIP-switch settings, the module has a Micro USB connector on the front side and can be configured with PC software (EASY SETUP) or the dedicated app for Android devices setting: start / end scale, additional input types, square root extraction, filter, burnout etc.

Z109PT2-1 is certified in accordance with UL standards.



Mobile Phone with
USB OTG support



Z109PT2-1



RTD TO DC CURRENT / VOLTAGE ISOLATOR CONVERTER



TECHNICAL DATA

GENERAL DATA

Operating Power	10-40 VDC; 19-28 VAC (50 / 60 Hz)
Transducer power	20 V stabilized, 20 mA max, 2 wire
Power consumption	1.6 W (@24V) 2.5 W (max)
Isolation	1,500 VAC 3-way
Protection Degree	IP20 Must be mounted in protective enclosure
LED status indicators	Power on Off scale Setting error
Sampling frequency	From 240 sps @11bit+sign resolution to 15 sps @15bit+sign resolution
Response time	35 ms @11bit resolution, 140 ms @16bit resolution
Interface	Micro USB
Accuracy class	0.1% (RTD) – 0.3% (voltage output)
Thermal drift	0.01%/K
Settings	DIP switch PC Software (EASY SETUP) Mobile app (EASY SETUP app)
Operating temperature	-20 to +60°C
Dimension	100 x 112 x 17.5 mm (h x d x w)
Connections	Removable 3-way screw terminals, 5.08 mm pitch, cable section 2.5 mm ²
Case	PA6, black color
Mounting	35 mm DIN rail (IEC/EN 60175)
Weight	200 g
Approvals	CE, UL-UR CSA
Norms	EN 61000-6-4, EN 61000-6-2, EN 61010-1

INPUT DATA

Channels	1
Type	RTD PT100, PT500, PT1000, Ni100 2, 3 or 4 wire measurement, energizing current 1 mA, resolution 0.1 °C

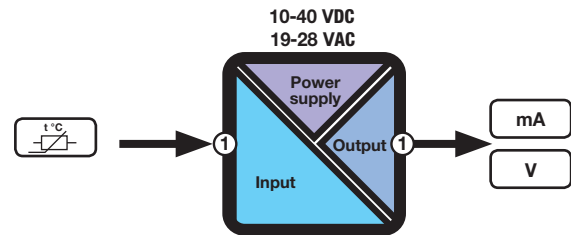
OUTPUT DATA

Channels	1
Type	VOLTAGE: 0-5 V, 0-10 V, 1-5 V, 2-10 V, min load resistance 2 k Ω Resolution: 2.5 μ A, 1.25mV CURRENT: 0-20 mA, 4-20 mA, max load resistance 600 Ω Resolution: 2.5 μ A, 1.25mV

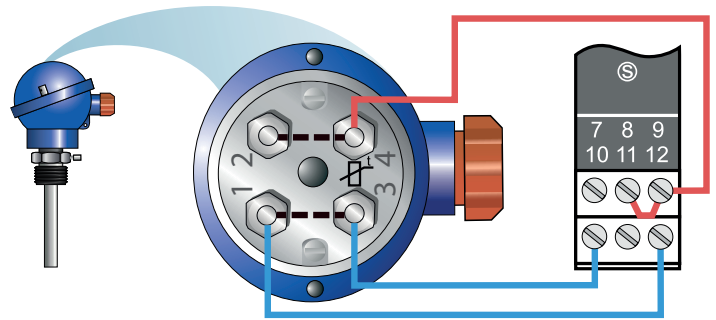
ORDER CODES

Code	Description
Z109PT2-1	RTD to DC current / voltage isolator converter, 9-40 VDC/19-28 VAC
CU-A-MICROB	USB-A Micro USB-B 5 P plug cable
CU-A-MICRO-OTG	Micro USB OTG to USB Type A (female) adapter cable
EASY SETUP	Plug&Play software suite for SENECA programmable instruments
EASY SETUP APP	Apple iOS / Android EASY SETUP suite
Z-POWER-115-15VA	DIN rail 19 VAC transformer, 115 / 15 VA with thermofuse
Z-POWER-230-15VA	DIN rail 19 VAC transformer, 230 / 15 VA with thermofuse
Z-POWER-230-25VA	DIN rail 19 VAC transformer, 230 / 25 VA with thermofuse
Z-SUPPLY	Single-phase switching power supply 24V @ 1.5A

SIGNAL / ISOLATION DIAGRAM



APPLICATION EXAMPLE



SETTING BY USB INTERFACE

