

Z109TC2-1

THERMOCOUPLE TO DC ISOLATOR / SIGNAL CONVERTER WITH MICRO USB INTERFACE

Highlights

- **Power Supply Vac/dc**
- **Selectable input TC type (J,K,E,N,R,S,B,T)**
- **Selectable output mA, V**
- **Sampling frequency from 240 sps (@11bit+sign resolution) to 15 sps (@15 bit +sign resolution)**
- **Isolation 1.500 Vac at**
- **3-ways power supply /input / output**
- **Setting via DIP switches, software or APP**
- **Micro USB connector (front side)**
- **Operating temperature -20...+60°C**
- **UL Certification**

Z109TC2-1 is a temperature converter for Thermocouple J,K,E,N,S,R,B,T type. It provides a mA/V standard output signal. A 3-way galvanic isolation among power supply // input // output circuits assures the integrity of your signals.

Z109TC2-1 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 by PC software (EASY SETUP) or 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 standard





THERMOCOUPLE TO DC ISOLATOR / SIGNAL CONVERTER WITH MICRO USB INTERFACE



TECHNICAL DATA

GENERAL DATA

Power Supply	10..40 Vdc; 19..28 Vac
Max consumption	2,5 W
Isolation	1.500 Vac (@3 ways)
Protection degree	IP20
Pollution degree	2
LED status indicators	Power Supply Error Out of scale
Response time	35..140 ms
Interface	Micro USB (front panel)
Accuracy Class	0,1% (TC) - 0,3% (voltage output)
Thermal Drift	0,01%/°K
Setting	DIP switch Software (EASY SETUP) APP Android (EASY SETUP APP)
Data Memory	EEPROM, 40 years retention time
Operating temperature	-10..+60°C
Dimension	17,5 x 100 x 112 mm
Connection	Screw removable terminals pitch 5,08 mm, section 2,5 mm ²
Case	Nylon 6 30% fiber glass
Mounting	35 mm DIN rail (IEC/EN 60715)
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	Thermocouple Type: J, K, R, S, T, E, B, N Resolution 5 µV Automatic detection of cable interruption Sampling frequency from 240 sps (@11bit+sign) to 15 sps (@15bit+sign) Response time from 35 ms (@11bit+sign) to 140 ms (@15bit+sign)

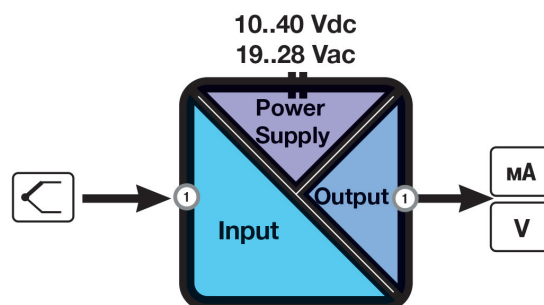
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Channels	1
Type	VOLTAGE (V) 4 scales: 0..5, 1..5, 0..10, 2..10 V Min load impedance KΩ Resolution: 0,025%..0,032 % CURRENT (mA) Active / passive connection 2 scales: 0..20, 4..20 mA Max load impedance: 600 Ω Resolution: 0,025%..0,032 %

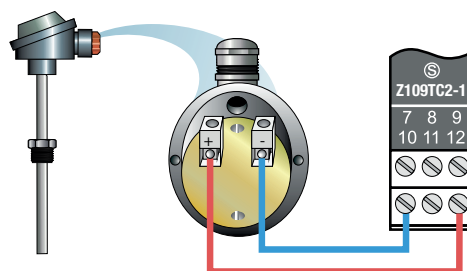
ORDER CODES

Code	Description
Z109TC2-1	Thermocouple to DC isolator / signal converter with Micro USB interface
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	App 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

