# Z-LINE

# Z109TC

## Thermocouple Converter with galvanic isolation

Z-LINE

Temperature converters

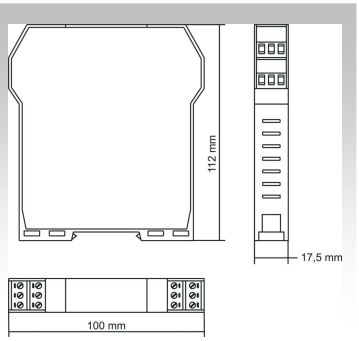

CE

- INPUT: Thermocouple type (J,K,R,S,T,B,E,N) with zero and span configurable by dip-switch
- OUTPUT:N.1 channel current 0..20, 4..20 mA voltage 0..5, 1..5, 0..10, 2..10 Vdc (scale inversion also)
- Galvanic isolation @ 3-way
- Screw-fit terminals removable
- Din rail mounting
- Power supply: 19..40 Vdc, 19..28 Vac

SENECA

# TECHNICAL DATA

## Z109TC – Thermocouple Converter




## ORDER CODE

**Cod. Z109TC**

## GENERAL FEATURES

| | |
|---|---|
| **Power supply** | 19÷40Vdc, 19÷28 Vac |
| **Channels** | N.1 |
| **Accuracy** | Cold junction error: 1,5°C Max |
| **Status indicators** | - Power<br>- Setting error<br>- Off scale |
| **Galvanic Isolation** | Power supply // input // output at 1500 Vac, digital |
| **Hot swapping** | Yes |
| **Power consumption** | 2,0 W |
| **Sampling frequency** | 3 samples / second |
| **Protections** | Surges: 400W/ms. Loop supply short-circuit protected |
| **Protection for inputs** | Except current: 60V continuous; current 200mA continuous. |
| **Humidity** | 30..90% a +40°C (not condensing) |

| | |
|---|---|
| **Design** | Terminal housing for mounting on 35 mm DIN 46277 |
| **Data memory** | EEPROM for all configuration data; storage time: 10 years. |
| **DIP Switch** | - Inputs signal setup<br>- Output signal setup |
| **Enclosure** | "V0" self-extinguishing glass filled nylon case |
| **Dimensions** | 17,5 x 100 x 112 mm (w x h x d) |
| **Weight** | 140 g |
| **Operating temperature** | 0..50 °C |
| **Connections** | Plug-in screw clamp terminal blocks, wires up to 2.5 mm² |
| **IP Protection** | IP 20 |
| **Standards** | EN50081-2<br>EN50082-2<br>EN61010-1 |
| **Approvals** | CE |

## INPUT

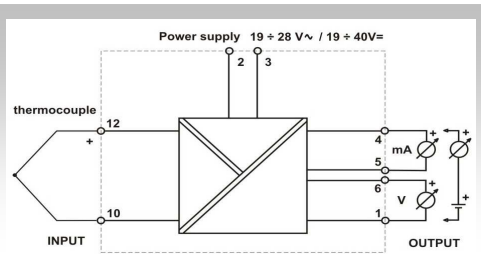
**Thermocouples** types: J, K, E, N, S, R, B, T
Tables:EN60584-1 (ITS-90)
Lower span: 100 °C
Impedance: 10 MOhm

## OUTPUT

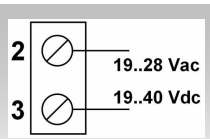
**Current:** 0..20 mA, 4..20 mA, 20..0 mA e 20..4 mA
Higher load resistance: 600 Ohm
**Voltage:** 0..5 Vdc, 1..5 Vdc, 0..10 Vdc and 10..0 Vdc
Lower load resistance: 2,5 KOhm

## DIMENSIONS AND INSTALLATION

### Circuit diagram

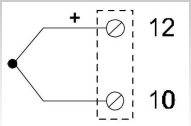



### Power supply



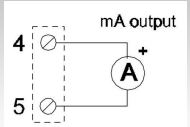

### Input

#### Thermocouple

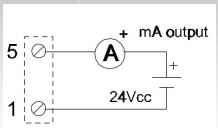



### Output

#### Current – active output




#### Current – passive output




#### Voltage