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# Z-LINE

## Z109TC

Thermocouple Converter with galvanic isolation

Z-LINE

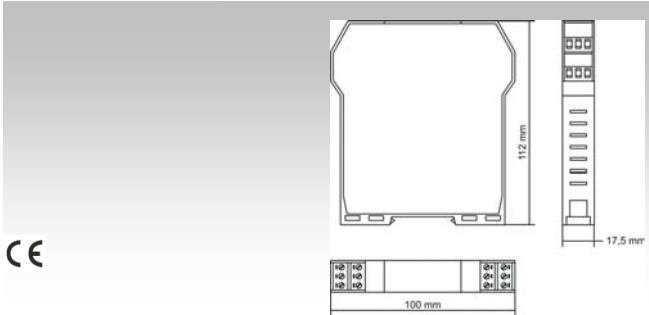
Temperature converters



- ▶ 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

## 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 - Setting error - 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 - 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 mm <sup>2</sup>
IP Protection	IP 20
Standards	EN50081-2 EN50082-2 EN61010-1
Approvals	CE

#### INPUT

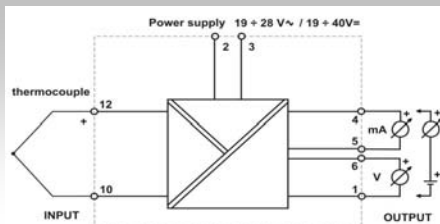
Thermocouples types: J, K, E, N, S, R, B, T  
 Tables: EN60584-1 (ITS-90)  
 Lower span: 100 °C  
 Impedance: 10 MOhm

#### OUTPUT

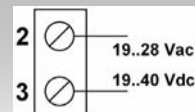
Current: 0..20 mA, 4..20 mA, 20..0 mA e 20..4 mA  
 Higher load resistance: 600 Ohm  
 Voltage: 0..5 Vdc, 1..5 Vdc, 0..10 Vdc and 10..0 Vdc  
 Lower load resistance: 2,5 KOhm

#### DIMENSIONS AND INSTALLATION

##### Circuit diagram

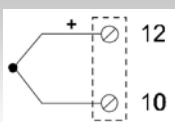


##### Power supply



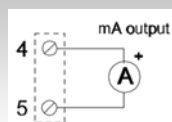
##### Input

###### Thermocouple

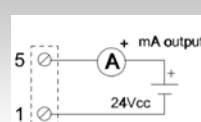


##### Output

###### Current – active output



###### Current – passive output



###### Voltage

