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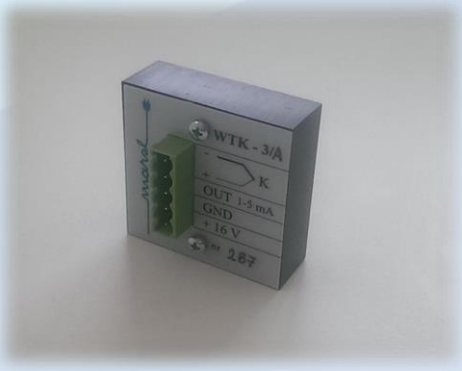
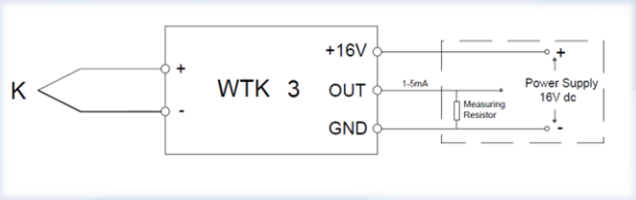
THERMOCOUPLE AMPLIFIER TYPE WTK-3

General description

The WTK-3 device converts the low voltage output from a thermocouple to a standard 1 - 5 mA signal. The power supply should be 16 VDC. The thermocouple is connected to the input of the amplifier. The input voltage is dependent upon the temperature difference between the sensor and the amplifier. Fluctuations in temperature are compensated by the built-in temperature sensor. A screened cable should always be used from the sensor to the amplifier and from the amplifier to the monitoring system. Minimum cross section cable is 2 x 0.2 mm^2. Amplifier can be mounted by two screws.



Technical Specifications:



Power supply: 16 VDC
Output signal: 1 - 5 mA
I_{out} at broken sensor leader: 0.5 to 1 mA
Maximum current consumption: 10 mA
Load resistance: 0 to 1400 Ω
Ambient temperature, operation: -25 to +75 °C
Compensated temperature range: 0 to +70 °C
Accuracy: < ±1.0 % of FRO* (incl. non linearity, hysteresis and repeatability at 22 °C)
Repeatability: < ±0.2 % of FRO*
Thermal zero and sensitivity shift: < 0.05 °C/°C ambient temperature shift
Dimensions (H x W x D): 44 x 50 x 50 mm
Weight: 67.5 g
Housing material: Polyamide terminal block
Mounting: two screws
Encapsulation: IP64

Standard types	Element type	Range
WTK- 3/E	K NiCr-NiAl	0 to 160 °C
WTK- 3/B	K NiCr-NiAl	0 to 300 °C
WTK- 3/A	K NiCr-NiAl	0 to 600 °C
WTK- 3/N	K NiCr-NiAl	0 to 900 °C
WTK- 3/G	J Fe-Constantan	0 to 300 °C
WTK- 3/F	J Fe-Constantan	0 to 600 °C