

THERMOCOUPLE AMPLIFIER TYPE WTK-110

General description

The WTK-110 device converts the low voltage output from a thermocouple to a standard 4 - 20 mA signal. The power supply should be between 16 and 36 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 mm². Amplifier can be mounted on a standard TS-32 or TS-35 rail.



Technical Specifications:

Power supply: 24 VDC (16 to 36 VDC)

Output signal: 4 - 20 mA

I_{out} at broken sensor leader: 3.5 to 4 mA

Maximum current consumption: 30 mA

Load resistance: 0 to 1130 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

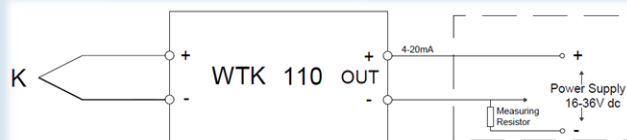
Dimensions (H x W x D): 22.5 x 85 x 80 mm

Weight: 65.5 g

Housing material: Polyamide terminal block

Mounting: TS-32 or TS-35 rail

Encapsulation: IP40



Standard types	Element type	Range
WTK-110/E	K NiCr-NiAl	0 to 160 °C
WTK-110/B	K NiCr-NiAl	0 to 300 °C
WTK-110/A	K NiCr-NiAl	0 to 600 °C
WTK-110/N	K NiCr-NiAl	0 to 900 °C
WTK-110/G	J Fe-Constantan	0 to 300 °C
WTK-110/F	J Fe-Constantan	0 to 600 °C