

Product information

Temperature Transmitter PMT50-3



- Signal conditioning – linearisation – output characteristic transformation
- Input for RTD Pt100/Pt1000 and thermocouples
- Measuring range programmable
- Linearisation or transformation of output characteristic via 32 base-points configurable
- Automatic fault detection in the measuring circuit

Characteristics

The programmable universal transmitter PMT50 operates with analog input signals. The device convert input signals to analog output 0/4..20 mA; 0/2..10 V DC. The device offers a linearisation function for any sensor curves and a simulator function. The integrated transmitter supply 24 V DC max. 30 mA allows the feeding of 2-and 3-wire sensors. 4 alarm outputs for monitoring and controlling are available.

Technical data

Power supply

Supply voltage : 230 V AC $\pm 10\%$
: 115 V AC $\pm 10\%$
: 24 V DC $\pm 15\%$

Power consumption : < 5 VA
Operating temperature : -10..+55 °C
Conformity : CE

Inputs

Input : Pt100 (3-wire) -100.0..+600.0 °C
: Pt1000 (3-wire) -100.0..+300.0 °C

: Thermocouple (TC)
type J -100.0..+800.0 °C
type K -150..+1200 °C
type N -150..+1200 °C
type S -50..+1600 °C

Fault detection : broken line (Pt100 / Pt1000,TC)
: short circuit (only Pt100 / Pt1000)

Accuracy : < 0.1 %, ± 1 Digit

Outputs

Alarm outputs : relay SPDT
<250V AC<250VA<2A; $\cos \Phi \geq 0.3$
< 300 V DC < 40 W < 2 A

Analog output : 0/4..20 mA burden $\leq 500 \Omega$,
0/2..10 V burden > 500 Ω isolated
output changes automatically
(burden depending)

Fault indication : Broken line or short circuit detection
→ analog output 0 mA, < 3.6 mA or > 21.5 mA
→ Alarm relays min. or max.

Display

: Graphic-LCD-Display
128 x 64 Pixel,
with white LCD backlit

Case

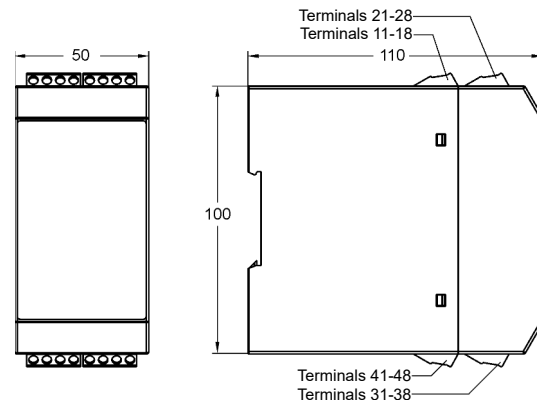
: Polyamide (PA) 6.6 , UL94V-0
TS35

Weight : approx. 450 g

Connection : screw terminals 0.14..2.5 mm²
AWG 26..AWG14

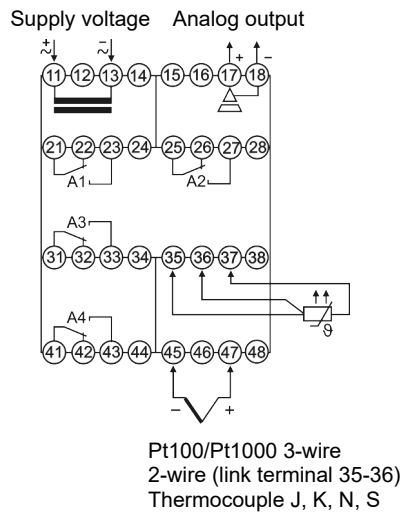
Protection class : case IP30, terminals IP20 acc. to
BGV A3

Dimensions



Product information

Connection diagrams



Ordering code

PMT50 - 1. - 2. - 3. - 4. - 5. - 6.

| 1. Device type/input | |
|----------------------|---|
| 3 | RTD Pt100, 3-wire, -100.0..+600.0 °C RTD Pt1000, 3-wire, -100.0..+300.0 °C Thermocouple J (Fe-CuNi), -100.0..+800.0 °C K (NiCr-Ni), -150..+1200 °C N (NiCrSi-NiSi), -150..+1200 °C S (Pt10Rh-Pt), -50..+1600 °C |
| 2. Analog output | |
| AO | 0/4..20 mA, 0/2..10 V DC isolated |
| 3. Alarm outputs | |
| 00 | not installed |
| 2R | 2 relay outputs, A1, A2 SPDT |
| 4. Alarm output | |
| 00 | not installed |
| 2R | 2 relay outputs, A3, A4 SPDT |
| 5. Supply voltage | |
| 0 | 230 V AC, ± 10 % 50-60 Hz |
| 1 | 115 V AC, ± 10 % 50-60 Hz |
| 5 | 24 V DC, ± 15 % |
| 6. Options | |
| 00 | without option |