

# Pt100-Temperature-Relay Type TR250

## Digital, 3 Sensors, 3 Limits

TR250



### Function

The Pt100 thermostat TR250 monitors up to 3 sensors Pt100 (RTD), Pt1000, KTY83 KTY84 or thermistors (PTC) at the same time. Different types of sensors, e.g. Pt 100 and PTC can be monitored simultaneously. The unit is especially suitable for monitoring motors, generators and transformers.

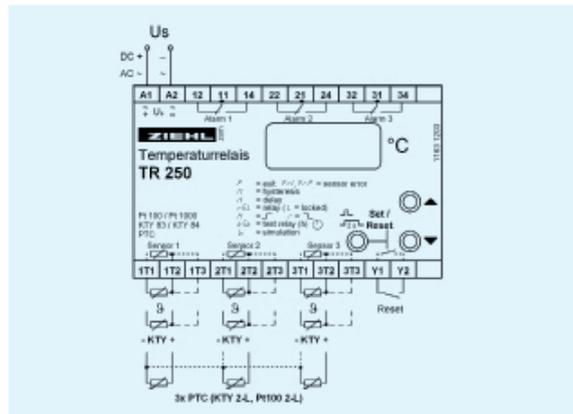
An other application is the use as a 2- or 3-step-controller with additional monitoring of over- or under-temperature. monitoring of differences in temperatures of 2 sensors or temperature controller for heat pumps.

- Measuring and monitoring range -199...+850 °C
  - resolution 0.1 °C selectable within range -19.9...99.9 °C
  - 3 relay outputs K1 to K3 with change-over contacts
  - Universal power supply AC/DC 24-240 V
  - Easy setting
  - Storing of values of MIN- and MAX- temperature
  - Code-lock against manipulation of settings
- 3 Sensor-Inputs:
- Pt100/1000, 2- or 3-wire connection, KTY83, KTY84
  - Thermistors (PTC) each 1...6 in series
  - Monitoring of short-circuit and break

### Technical Data

Rated supply voltage $U_s$	AC/DC 24-240 V (AC 20-264 V, DC 20-297 V)
Sensor connection	3 x Pt100 (DIN 43 760/IEC 751) (RTD) 3 x Pt1000, KTY83, KTY84 3 x 1...6 PTC (DIN 44080/44081)
Measuring accuracy	< 0,5 % of value $\pm 1$ K
Sensor-current	< 1 mA
Connection	3-wire, 2-wire, line-resistance max. 2 x 50 $\Omega$
Measuring range	-199...+850 °C
Hysteresis	-99...+99 °C
Switching delay on/off	0...99 s / 0...999 s
Type of contact	<b>type 2</b> (see "general technical informations") 3 x change-over / alarm
Test conditions	see "general technical informations"
Rated ambient temperature range	-20 °C...+65 °C
Dimensions (h x w x d)	V4: 90 x 70 x 58 [mm], mounting height 55 mm
Protection housing / terminals	P 30 / IP 20
Weight	app. 200 g
Attachment	on 35 mm DIN rail or with screws M4

Order-number: T224190



### Displays:

- 3 digit 7-segment-display for temperature and programming
- 3 LEDs for sensors, for alarms/relays
- °C / °F / resolution 0.1 °C can be selected

### Switching-Functions

- 3 relays
- warmest/coldest sensor switches relay
- programmable for every relay:
  - hysteresis (+ or - = MIN- or MAX-function)
  - autoreset or electronic reclosing lock
  - delay-time for switching and switching back
  - operating- or closed current-mode
  - cyclic check of function
- monitoring of difference in temperature
- 4 preset programmes:
  - motor / generator
  - transformer with Pt 100, with PTC/Pt 100
  - 3 x 1 alarm per sensor