

Wireless-Temperature-Sensor WS Pt 100

potential-free monitoring of temperatures at high-voltage transformers

WS Pt 100



The Wireless Temperature-Sensor WS Pt 100 measures the temperature of a connected Pt 100 (RTD) sensor.

The measured values are transmitted by radio to a Wireless-Relay WR 250. The WR 250 displays and evaluates the temperatures.

The WS Pt 100 has a built-in battery or generates the required energy by means of an integrated photocell and stores it in a capacitor. Thus the WS Pt 100 can also measure and transmit temperatures during a temporary darkness.

The maximum duration at darkness depends on the selected intervals for measuring- and sending and on the state of charge of the capacitor.

Power-supply and transmission of data are completely potential-free. Thus high differences in potentials are possible.

The electronics must be mounted potential-free or on the same potential as the connected sensor. Max. ambient temperature 65 °C.

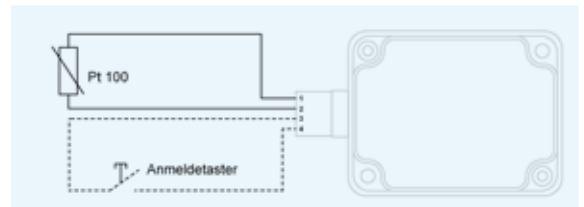
Application:

- Protection of high-voltage transformers (in primary windings also) from over-temperatures
- where temperatures are to be measured on high potential
- where wireless data-transfer via radio is preferred

Description

- Input for temperature-sensor Pt 100 (RTD)
- Measuring range 0 .. 180°C (other ranges on request)
- Lifetime of battery at 10s/10 cycles and ambient temperature < 30°C up to 10 years
- Duration at darkness max. app. 10 hours (solar)
- Measuring-cycle adjustable (1s / 10s / 100s)
- Sending-cycle adjustable (every 1 / 10 / 100 measurements)
- Automatic sending on temperature-change >4 K
- Input for sensor Pt 100 (not included) via connector M12 (included)
- Lighting on photocell min. 500 LUX (continuously)
- Range of radio signal: free field app. 100 m, in buildings app. 20 m

Order-numbers: solar **T 224351**
 with battery **T 224352**



Technical Data

Rated supply-voltage Us	not required (supply via photocell)
Radio frequency	868,3 MHz
Transmitting power	max. 10 mW
Measuring cycle	app. 1s / 10s / 100s (BR1 and BR2)
Sending cycle	every 1 / 10 / 100 measurements (BR3 and BR4)
Battery Life	depending on configuration and ambient temperature up to 10 years
Measuring range	0 °C...180 °C
Tolerance	± 4 K
Environment	weather-protected places +5°C ... +65°C 5% ... 85% relative humidity no condensation or icing permitted
Protection	IP 66
Interference resistance	EN 61000-6-2
Dimensions (h x w x d)	65 x 50 x 35 mm
Protection housing / terminals	IP 66 / IP 67
Attachment	Screws M 4 (mounting plate included)
Weight	app. 80 g