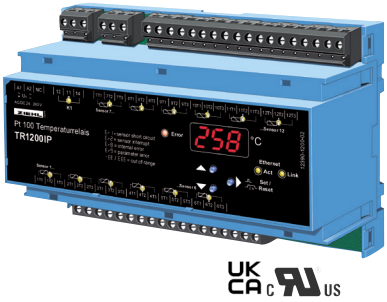
# Pt100-Temperature-Relay TR1200IP

## 12 Sensors, Interface TCP/IP, IEC 61850 (GOOSE)



### TR1200IP



**Part number:**
**T224078** AC/DC 24-240 V

**12-channel Temperature-Relay for Sensors Pt 100 (RTD)**
Temperature-relays TR1200IP measure the temperature of up to 12 sensors within 199…+850 °C and provide the data at an ethernet interface for external evaluation. With its universal power-supply AC/DC 24-240 V it can be connected to all common supply-voltages.
Actual measured values and stored min- and max-values can be displayed in a normal browser.

At the ethernet interface the following protocols are available:
- Modbus TCP
- ZIEHL RTD
- IEC 61850 (GOOSE)

The TR1200IP is used where temperatures of many sensors Pt100 shall be measured and transmitted via Ethernet. TR1200IP itself does not monitor temperatures for limits. For direct monitoring of temperatures our devices with alarms and output relays are recommended.

Applications are e.g. monitoring of
- motors and generators (windings, bearings, coolant, ambient temperature)
- transformers (windings, core, ambient temperature)
- machines, plants and equipment

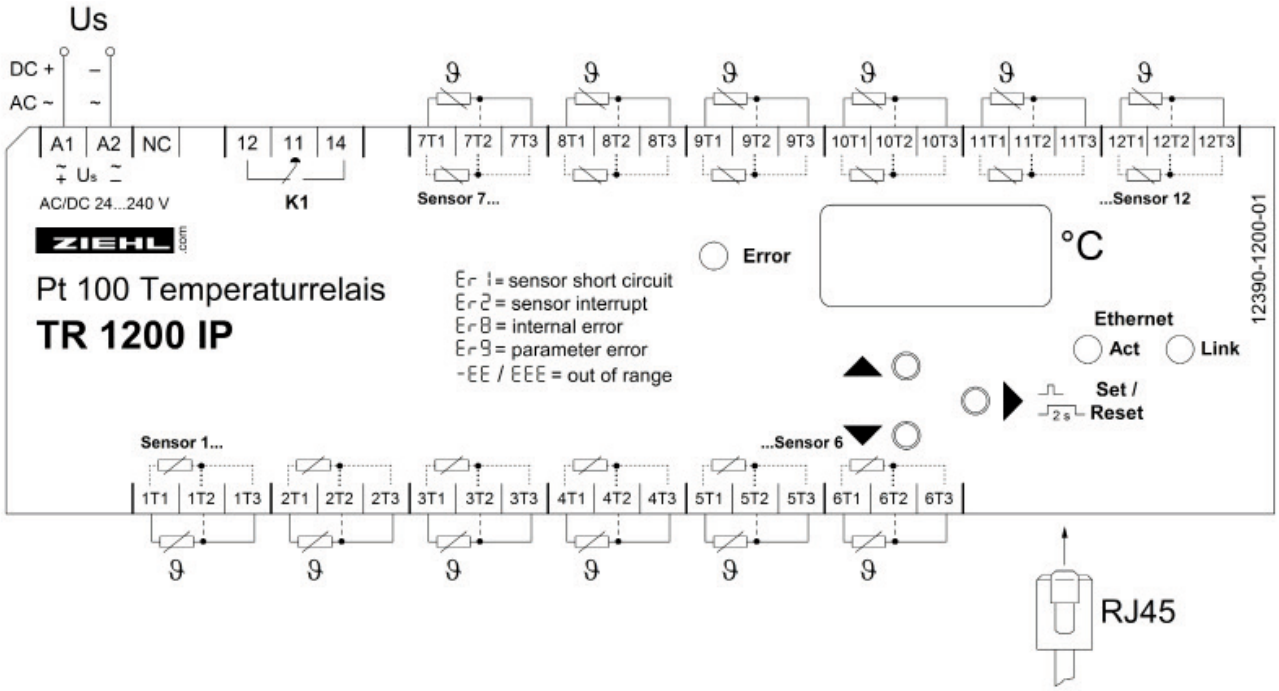
## Features

Sensors and Displays:
- 12 inputs for sensors Pt100 (RTD)
- Connection 2- or 3-wire unneeded inputs can be switched off
- Monitoring of sensors for short-circuit and interrupt
- 3-digit-display for temperature LEDs for assigning the measured value, error, state of relay and interface

Interface:
Interface TCP/IP
- 10 MBit/s Ethernet
- supports IEC 61850 GOOSE
- Protocol details see www.ziehl.de - operating manuals

More Features:
- easy operation and selection of temperatures at the device
- Sensor-simulation
- Code-protection against manipulation of settings
- Relay for Error (1 co-contact) for sensor-error and operational failure
- Universal supply-voltage AC/DC 24…240 V
- Housing for switchgear-mount, 140 mm wide, mounting-height 55 mm
- Mounting on DIN-rail 35mm or with screws M4 (option)

Software
- The TR1200IP can be operated with a normal web-browser. There is no special software required.



## GOOSE settings and configuration:

**TR1200IP**

Status | Simulation | Sensor Config | IP Config | TCP/UDP Config | GOOSE | Firmware Update | Help

**Achtung:** VLAN ID / Priorität wird nicht ünterstützt!
**Warning:** VLAN ID / Priority is not supported!

| | |
|---|---|
| **IEC 61850:** | On Off |
| **Goose MAC:** | 01:0C:CD:01 : 10 : 00 |
| **IEC 61850 Name:** | TR1200IP 504 |
| **Go ID:** | ZIEHL_TR1200IP |
| **App ID:** | 0x 0504 |
| **Monitoring time min:** | 10 ms |
| **Monitoring time max:** | 2000 ms |
| **Deadband:** | 99 .0 °C |
| **Config revision:** | 1 |

Save Config

Download IEC 61850 IED Capability Description (ICD) file

| Sensor state of single sensor | Internal error / device error 0 = no error | temperature value | Quality of the temperature value |
|---|---|---|---|
| Valid temperature | 0 | -199..859 °C | 0 |
| Sensor = not connected | 0 | 980 °C | 0x0042 |
| Sensor interruption | 0 | 999 °C | 0x0042 |
| Sensor short-circuit | 0 | -999 °C | 0x0042 |
| any | > 0 | -199..859, -999, 980,999 °C | 0x0042 |

QUALITY 0x0042 = INVALID + FAILURE

## Technical Data TR1200IP

| | |
|---|---|
| Rated Supply Voltage Us | AC/DC 24-240 V, 0/45...65 Hz, < 5 VA<br>DC: 20,4...297 V, AC: 20,4...264 V |
| Relay output | 1 change-over contact (CO)<br>type 2, see "general technical informations" |
| Measuring inputs | 12 x Pt 100 (RTD) acc. to EN 60 751 / IEC 60 751 |
| Measuring time sensor | 0,25...3s (depending on number of sensors) |
| Measuring range | -199°...850°C |
| Resolution | 1°C |
| Tolerance | ± 0,5% of value ± 1 K |
| Sensor-current | ≤ 0,8 mA |
| Ethernet interface | |
| IP-adress | selectable |
| Subnet mask | selectable |
| UDP Port | selectable 0...65535 |
| Max. cable-length | max. 20 m with CAT 5 patch-cable |
| Max. response time | 200 ms |
| Testing conditions | see "general technical informations" |
| Rated ambient temperature range | -20°C...+65°C |
| Housing | Design V8 |
| Dimensions (W x H x D) | 140 x 90 x 58 mm, mounting height 55 mm |
| Protection housing/terminals | IP 30 / IP 20 |
| Attachment | DIN-rail 35 mm acc. to EN 60715 or screws M4 (option) |
| Weight | app. 350 g |