Universal-Relay Type TR800Web

8 Inputs, Operation with Browser via TCP/IP

TR800Web

Part numbers:

TR800Web	**T224164**
ER8 	**T224388**

Web-IO Universal Relay with 8 Inputs for Temperature-Sensors and other analog Signals.

The TR800Web can be connected to the internet or an intranet and operated via TCP/IP from a normal PC with a suitable browser. No special software and no special instruction is necessary.

The Universal-Relay TR800Web monitors and logs signals from up to 8 inputs. Up to 8 limits (one per input) can be programmed for each of the 4 output-relays. Thus e.g. alarm 1 can be activated when the temperature at a sensor (e.g. Pt100) at input 1 exceeds a limit or when the signal of a transmitter for pressure (e.g. 4-20 mA) at input 5 falls below a limit.
It can also send an email when a limit is exceeded and/or when the signals falls short of the limit again. A day/night switchover allows to vary limits depending on daytime.
In addition the device has an interface RS485 with the protocols Modbus and ZIEHL-standard.

Applications:
The TR800Web is used where one or more of the following features a required:

- measuring of up to 8 analog signals and transmit the data via TCP/IP
- reading of measured values and teleservice via internet/intranet
- signalling of alarms via email when limits are exceeded
- monitoring of filling levels (water, oil) with ZIEHL filling level probe NS6123-6
- logging of measured values and remote inquiry e.g. for monitoring temperatures at engines and in plants

Features

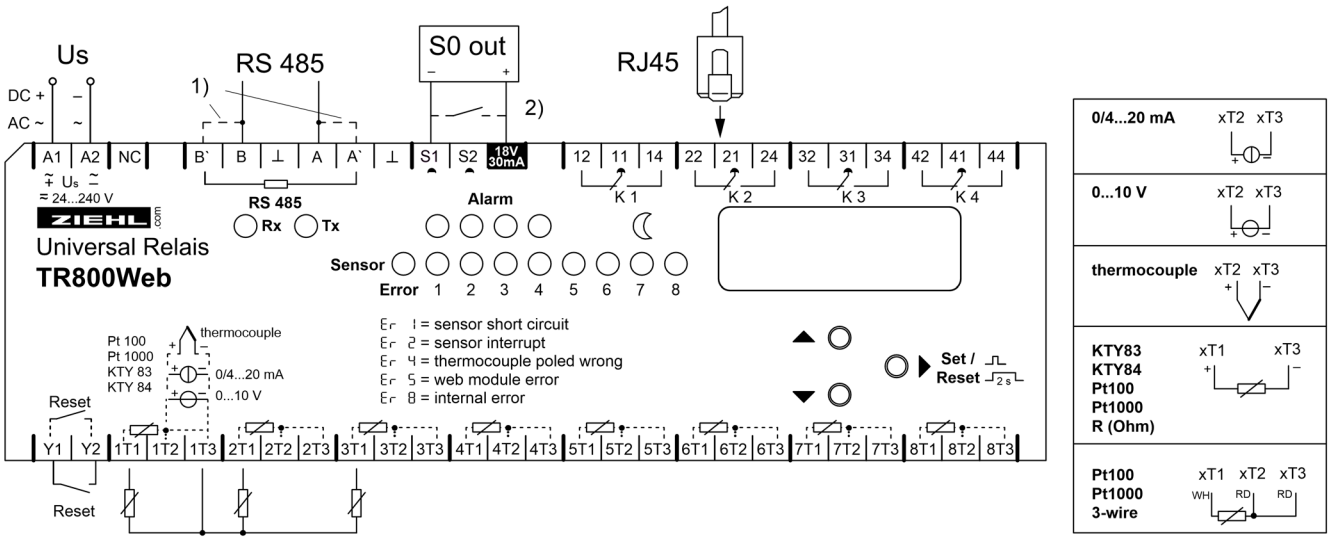
8 Measuring Inputs (each programmable):

- Pt100 (RTD), Pt1000 in 2- or 3-wire
- KTY83 or KTY84
- thermocouples types B, E, J, K, L, N, R, S, T
- DC 0-10 V, DC 0/4-20 mA, display can be scaled
- resistance 0-500 Ohm, 0-30 kOhm
- Difference of 2 signals

4 Alarms

- 4 relays, potential-free change-over contacts
- Remote switching of relays via Ethernet
- for every alarm separately programmable
  - one limit per input (limit and switching-back-value)
  - second set of values switchable day/night
  - switching-delay and switching-back delay
  - remote operation of relays (on/off) with browser
  - interlocked switching
  - email at alarm

Accessory: Installation frame ER8 for panel mount



Programmable via internet in web-browser

- display of measured values, min- and max-values with date/ time-stamp
- simulation of measured values state of alarms
- configuration of inputs (name, compensation, scaling and measuring-unit)
- configuration of alarms (limits, function of relays, ...)
- time-depending day/night changing of limits
- logging of up to 150.000 values per input, alarms with date/time-stamp
- logging-interval adjustable 2 seconds to 24 hours
- configuration of network
- settings of system
- administration of users and code-protection
- real-time clock with synchronizing with time-server, reserve 7 days

Interfaces:

Ethernet interface (http, https, UDP and Modbus)

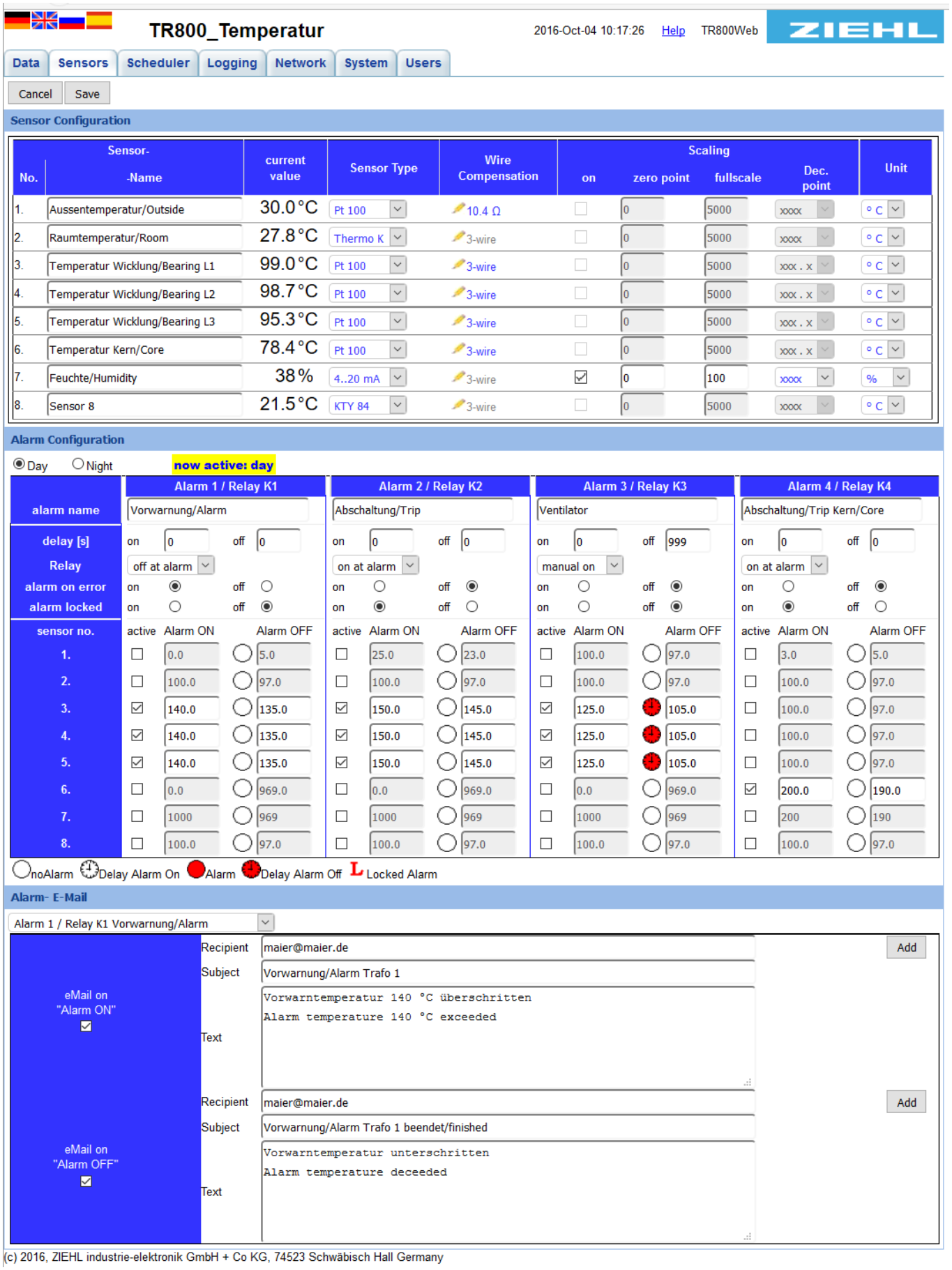
- http (port can be selected and switched off) and https
- ftp-upload for automatic (interval adjustable)
- storage of logged data on ftp-server
- UDP- and Modbus protocol to read data (port can be selected)
- AJAX for data-readout in html
- SNMP

RS485 interface to readout data with modbus (RTU) and ZIEHL-protocol

Displays and Operating elements:

- 8 LEDs for inputs
- 4 LEDs for alarms, 4 LEDs for state of relays
- 4 digit display for measuring values
- 3 buttons for reading measured values at the device and for setting of IP-adress
- switch IP 10.10.10.10 / user
- reset-button
- LEDs for activity of interfaces

Operating and Programming with Web-Browser:



TR800_Temperatur

2016-Oct-04 10:17:26 Help TR800Web

Data | Sensors | Scheduler | Logging | Network | System | Users

Cancel Save

Sensor Configuration

No.	Sensor-Name	current value	Sensor Type	Wire Compensation	Scaling on	Scaling zero point	Scaling fullscale	Scaling Dec. point	Unit
1.	Aussentemperatur/Outside	30.0 °C	Pt 100	10.4 Ω	☐	0	5000	xxxx	°C
2.	Raumtemperatur/Room	27.8 °C	Thermo K	3-wire	☐	0	5000	xxxx	°C
3.	Temperatur Wicklung/Bearing L1	99.0 °C	Pt 100	3-wire	☐	0	5000	xxx . x	°C
4.	Temperatur Wicklung/Bearing L2	98.7 °C	Pt 100	3-wire	☐	0	5000	xxx . x	°C
5.	Temperatur Wicklung/Bearing L3	95.3 °C	Pt 100	3-wire	☐	0	5000	xxx . x	°C
6.	Temperatur Kern/Core	78.4 °C	Pt 100	3-wire	☐	0	5000	xxx . x	°C
7.	Feuchte/Humidity	38 %	4..20 mA	3-wire	☑	0	100	xxxx	%
8.	Sensor 8	21.5 °C	KTY 84	3-wire	☐	0	5000	xxxx	°C

Alarm Configuration

◉ Day ○ Night now active: day

	Alarm 1 / Relay K1	Alarm 2 / Relay K2	Alarm 3 / Relay K3	Alarm 4 / Relay K4
alarm name	Vorwarnung/Alarm	Abschaltung/Trip	Ventilator	Abschaltung/Trip Kern/Core
delay [s]	on 0 off 0	on 0 off 0	on 0 off 999	on 0 off 0
Relay	off at alarm	on at alarm	manual on	on at alarm
alarm on error	on ◉ off ○	on ○ off ◉	on ○ off ◉	on ○ off ◉
alarm locked	on ○ off ◉	on ◉ off ○	on ○ off ◉	on ◉ off ○

sensor no.	active	Alarm ON	Alarm OFF	active	Alarm ON	Alarm OFF	active	Alarm ON	Alarm OFF	active	Alarm ON	Alarm OFF
1.	☐	0.0	5.0	☐	25.0	23.0	☐	100.0	97.0	☐	3.0	5.0
2.	☐	100.0	97.0	☐	100.0	97.0	☐	100.0	97.0	☐	100.0	97.0
3.	☑	140.0	135.0	☑	150.0	145.0	☑	125.0	105.0	☐	100.0	97.0
4.	☑	140.0	135.0	☑	150.0	145.0	☑	125.0	105.0	☐	100.0	97.0
5.	☑	140.0	135.0	☑	150.0	145.0	☑	125.0	105.0	☐	100.0	97.0
6.	☐	0.0	969.0	☐	0.0	969.0	☐	0.0	969.0	☑	200.0	190.0
7.	☐	1000	969	☐	1000	969	☐	1000	969	☐	200	190
8.	☐	100.0	97.0	☐	100.0	97.0	☐	100.0	97.0	☐	100.0	97.0

○noAlarm Delay Alarm On Alarm Delay Alarm Off L Locked Alarm

Alarm- E-Mail

Alarm 1 / Relay K1 Vorwarnung/Alarm

eMail on "Alarm ON" ☑

Recipient maier@maier.de Add

Subject Vorwarnung/Alarm Trafo 1

Text
```
Vorwarntemperatur 140 °C überschritten
Alarm temperature 140 °C exceeded
```

eMail on "Alarm OFF" ☑

Recipient maier@maier.de Add

Subject Vorwarnung/Alarm Trafo 1 beendet/finished

Text
```
Vorwarntemperatur unterschritten
Alarm temperature deceeded
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Technical Data TR800Web

Rated supply voltage Us

Tolerance	AC/DC 24-240 V, 0/50/60 Hz < 4 W < 13 VA DC 20,4...297 V, AC 20...264 V

Relay output

Type of contact	4 x 1 change-over contact (CO)Typ 2 type 2 (see "general technical informations")

Testing conditions

see "general technical informations"

Network-connection

10/100 MBit Auto-MDIX

Inputs

Measuring cycle/measuring time < 3 s

Pt100, Pt1000 according to EN 60 751

	Measuring range °C		Short-circuit Ohm	Interruption Ohm	Resistance sensor + resistance line Ohm
Sensor	min	max	<	>	max
Pt100	-199	860	15	400	500
Pt1000	-199	860	150	4000	4100
KTY83	-55	175	150	4000	4100
KTY84	-40	150	150	4000	4100

Accuracy	< ± 0,5 % of measured value ± 0,5 K (KTY ±5K)
Sensor-current	≤ ± 0,6 mA
Thermal drift	< 0,04 °C/K

Thermocouples according to EN 60 584, DIN 43710

Typ	Measuring range °C Min	Max	Accuracy
B	0	1820	≤ ± 2 °C T > 300 °C
E	-270	1000	≤ ± 1 °C
J	-210	1200	≤ ± 1 °C
K	-200	1372	≤ ± 2 °C
L	-200	900	≤ ± 1 °C
N	-270	1300	≤ ± 2 °C
R	-50	1770	≤ ± 2 °C
S	-50	1770	≤ ± 2 °C
T	-270	400	≤ ± 1 °C

Thermal drift	< 0,01 % /K
Measuring-error of sensor-line	+ 0,25 µV / Ω
Accuracy of summing point	< ± 5 °C

Inputs for voltage and current

	Resistance of input	max. Inputsignal	Accuracy from Full Scale
0 - 10 V	12 k Ω	27 V	< 0,1 %
0/4...20 mA	18 Ω	100 mA	< 0,5 %

Thermal drift < 0,02 %/ K

Measuring of resistance:

Accuracy 0,0...500,0 Ω	< 0,2 % of measured value ± 0,5 Ω
Accuracy 0...30,00 kΩ	< 0,5 % measured value ± 2 Ω
Measuring current	≤ 0,6 mA

Housing

Dimensions (w x h x d)	Design V8 / Front mounting kit ER8, 8 TE
Protection housing/terminals	140 x 90 x 58 mm, mounting height 55 mm
Attachment	IP 30/ IP 20 DIN-rail 35 mm according to EN 60715 oder screws M4
Weight	(with 2 extra bars) app. 370 g