

Universal-Relay Type TR800Web

8 Inputs, Operation with Browser via TCP/IP

TR800Web



Art.-Nr. T224164

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 (tested with MS IE 7). 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

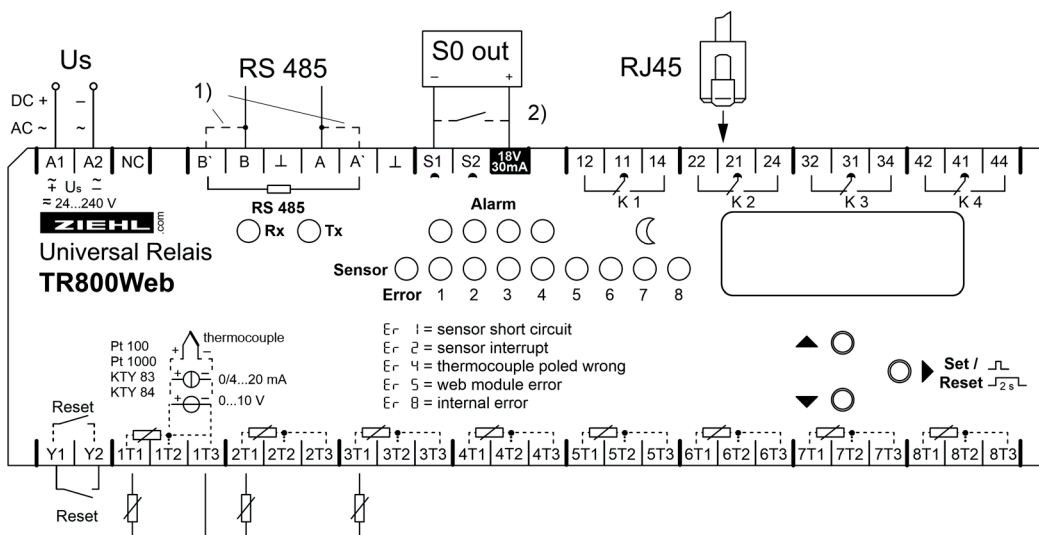
Features

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



0/4...20 mA	xT2 xT3	
0...10 V	xT2 xT3	
thermocouple	xT2 xT3	
KTY83 KTY84 Pt100 Pt1000 R (Ohm)	xT1 xT3	
Pt100 Pt1000 3-wire	xT1 xT2 xT3	

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-address
- switch IP 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 

Cancel Save

Sensor Configuration

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

Alarm Configuration

Day Night now active: day

alarm name	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 <input checked="" type="radio"/>	off <input type="radio"/>		on <input type="radio"/>	off <input checked="" type="radio"/>		on <input type="radio"/>	off <input checked="" type="radio"/>		on <input type="radio"/>	off <input checked="" type="radio"/>	
alarm locked	on <input type="radio"/>	off <input checked="" type="radio"/>		on <input checked="" type="radio"/>	off <input type="radio"/>		on <input type="radio"/>	off <input checked="" type="radio"/>		on <input checked="" type="radio"/>	off <input type="radio"/>	
sensor no.	active	Alarm ON	Alarm OFF	active	Alarm ON	Alarm OFF	active	Alarm ON	Alarm OFF	active	Alarm ON	Alarm OFF
1.	<input type="checkbox"/>	0.0	<input type="radio"/> 5.0	<input type="checkbox"/>	25.0	<input type="radio"/> 23.0	<input type="checkbox"/>	100.0	<input type="radio"/> 97.0	<input type="checkbox"/>	3.0	<input type="radio"/> 5.0
2.	<input type="checkbox"/>	100.0	<input type="radio"/> 97.0	<input type="checkbox"/>	100.0	<input type="radio"/> 97.0	<input type="checkbox"/>	100.0	<input type="radio"/> 97.0	<input type="checkbox"/>	100.0	<input type="radio"/> 97.0
3.	<input checked="" type="checkbox"/>	140.0	<input type="radio"/> 135.0	<input checked="" type="checkbox"/>	150.0	<input type="radio"/> 145.0	<input checked="" type="checkbox"/>	125.0	<input checked="" type="radio"/> 105.0	<input type="checkbox"/>	100.0	<input type="radio"/> 97.0
4.	<input checked="" type="checkbox"/>	140.0	<input type="radio"/> 135.0	<input checked="" type="checkbox"/>	150.0	<input type="radio"/> 145.0	<input checked="" type="checkbox"/>	125.0	<input checked="" type="radio"/> 105.0	<input type="checkbox"/>	100.0	<input type="radio"/> 97.0
5.	<input checked="" type="checkbox"/>	140.0	<input type="radio"/> 135.0	<input checked="" type="checkbox"/>	150.0	<input type="radio"/> 145.0	<input checked="" type="checkbox"/>	125.0	<input checked="" type="radio"/> 105.0	<input type="checkbox"/>	100.0	<input type="radio"/> 97.0
6.	<input type="checkbox"/>	0.0	<input type="radio"/> 969.0	<input type="checkbox"/>	0.0	<input type="radio"/> 969.0	<input type="checkbox"/>	0.0	<input type="radio"/> 969.0	<input checked="" type="checkbox"/>	200.0	<input type="radio"/> 190.0
7.	<input type="checkbox"/>	1000	<input type="radio"/> 969	<input type="checkbox"/>	1000	<input type="radio"/> 969	<input type="checkbox"/>	1000	<input type="radio"/> 969	<input type="checkbox"/>	200	<input type="radio"/> 190
8.	<input type="checkbox"/>	100.0	<input type="radio"/> 97.0	<input type="checkbox"/>	100.0	<input type="radio"/> 97.0	<input type="checkbox"/>	100.0	<input type="radio"/> 97.0	<input type="checkbox"/>	100.0	<input type="radio"/> 97.0

NoAlarm
 Delay Alarm On
 Alarm
 Delay Alarm Off
 Locked Alarm

Alarm- E-Mail

Alarm 1 / Relay K1 Vorwarnung/Alarm

eMail on "Alarm ON"	<input checked="" type="checkbox"/>	Recipient: maier@maier.de Subject: Vorwarnung/Alarm Trafo 1 Text: Vorwarntemperatur 140 °C überschritten Alarm temperature 140 °C exceeded	Add
eMail on "Alarm OFF"	<input checked="" type="checkbox"/>	Recipient: maier@maier.de Subject: Vorwarnung/Alarm Trafo 1 beendet/finished Text: Vorwarntemperatur unterschritten Alarm temperature deceeded	Add

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Technical Data TR800Web

Rated supply voltage U_s 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		Accuracy
	Min	Max	
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, switchgear-mount
protection housing/terminals attachment 140 x 90 x 58 mm, mounting height 55 mm
IP 30/ IP 20
DIN-rail 35 mm according to EN 60715 oder screws M4
(with 2 extra bars)
weight app. 370 g