

# Transformer-Protection Trafosafe TS1000 with integrated monitoring of Fans

## Trafosafe TS1000



Art.-No.: T221660

The Trafosafe TS1000 is applied at transformers with forced cooling. It monitors the temperature of the transformer with 3 sensor-circuits (PTC-thermistors), controls the forced cooling depending on the load of the transformer, reports exceeding of alarm-temperature and switches off the transformer (trip) when increasing of the temperature continues.

Up to 6 fans can be controlled and monitored directly with the TS1000. Contactors and motor protection switches are not necessary any more.

At Pt 100-monitored transformers the TS1000 can be used to control only the fans.

### Temperature-Monitoring:

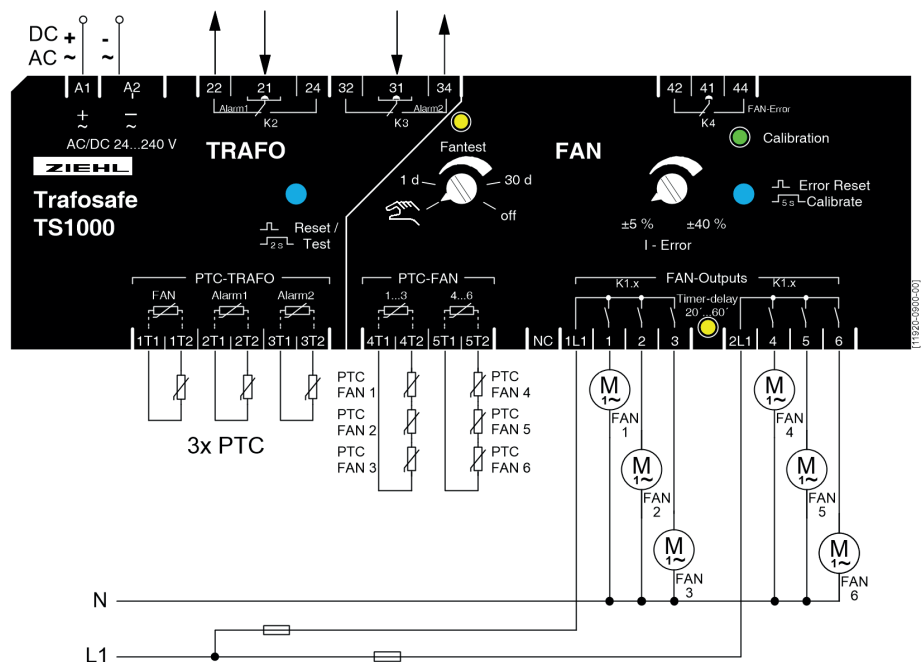
- 1 PTC-circuit for controlling the cooling (1T1/1T2) = input for starting fan when using as fan-control only.
- 2 x 1 PTC-circuit for alarm 1 (2T1/2T2) and alarm 2 / trip (3T1/3T2), monitored for short-circuit and interruption
- Alarm 1 (K2) in closed-circuit current mode = monitoring of function
- Alarm 2/trip (K3) in open-circuit current mode = no signal/tripping when switching on the device
- Test-/Reset-button for testing the function

### Fan-Control and Monitoring of Fan:

- direct connection of up to 6 fans 0,07...4,0 A
- automatic exceeding of the on-time of the fans at high load of the transformer
- Monitoring of failure fan (over-/undercurrent)
- Self-calibration of the monitored values of the currents to the fans
- Switching-point for current-failure adjustable  $\pm 5-40\%$
- automatic test of fans 1-30 days, disconnectable
- Relay for reporting fan-failure
- Clear displays with LEDs

### General:

- Universal-power-supply AC/DC 24-240 V
- compact housing for cabinet-mount, 140 mm wide, mounting height 55 mm
- Attachment on 35 mm rail or with 3 screws M4



## Technical Data

Supply voltage $U_s$ Tolerance	AC/DC 24 - 240 V, 0/45-120 Hz, < 2 W, < 4 VA DC 20,4 - 297 V, AC 20 - 264 V
Connectable PTC-circuits Switching point	5 x 1...6 pcs according to DIN 44081 or 44082 < 4000 $\Omega$
Output relays K2, K3, K4 Type of contact	3 x 1 change-over contact (co) type 3 (see "general technical informations")
Output relays 1-6 Rated current of fans	6 x 1 normally-open contact (no) 0,07...4,0 A
Test conditions Rated ambient temp. range Dimensions (h x w x d) Attachment Protection housing / terminals Weight	see "general technical informations" -20...+55 $^{\circ}\text{C}$ housing V8: 90x140x8 [mm], mounting height 55 mm on DIN-rail 35 mm or 3 screws M4 IP 30 / IP 20 app. 400 g