

# Transformer-Protection Trafosafe TS 1000

## with integrated monitoring of Fans

Trafosafe TS 1000



The Trafosafe TS 1000 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 TS 1000. Contactors and motor protection switches are not necessary any more.

At Pt 100-monitored transformers the TS 1000 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:

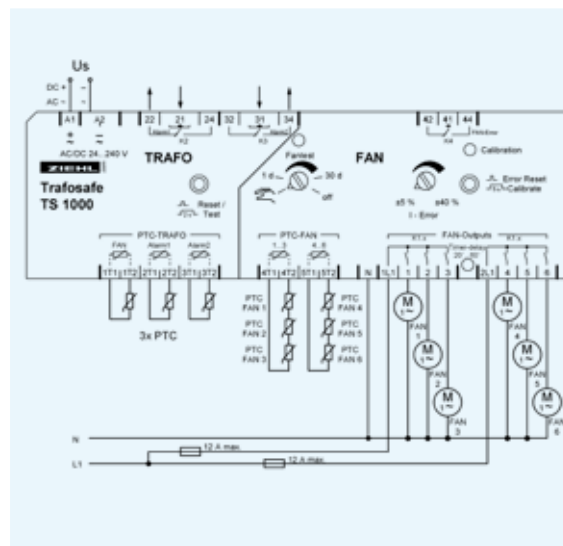
- direct connection of up to 6 fans
- automatic exceeding of the on-time of the fans at high load of the transformer
- Monitoring of failure fan (over-/undercurrent)
- Self-calibration of the monitored values of the currents to the fans
- Switching-point for current-failure adjustable  $\pm 5-40\%$
- 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

Order-number

**T 221660**



## Technical Data

Supply voltage  $U_s$   
Steuerspannung 1L1, 2L1-N

AC/DC 24 - 240 V  $\pm 15\%$  0/50/60 Hz <3W <5 VA  
AC 90 - 240 V  $\pm 10\%$  50/60 Hz (<1 VA no load)

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)  
max. 4 A

Test conditions  
Rated ambient temp. range  
Dimensions (h x w x d)  
Attachment  
Protection housing / terminals  
Weight

see "general technical informations"  
-20...+55 °C  
housing V8: 90x140x8 [mm], mounting height 55 mm  
on DIN-rail 35 mm or 3 screws M4  
IP 30 / IP 20  
app. 420 g