

## Combined control and / safety-limit thermostat, 3-pole switch, 40..60..85°C/100°C; 1,7m

Order No.: 005-1501



## TR/STB 1157 03

### Application

Combined control and safety-limit thermostat for electric boilers

### Features

- TR Electro-mechanical thermal control (TR), approved to DIN 3440 and EN60730-1/-2-9, not fail safe.
- STB Electro-mechanical, fail safe safety thermal cut-out (STB), approved to DIN 3440, EN60730-1/-2-9 and directive 97/23/EG, Exceeding the cut-out temperature, the circuit switches to OFF and stays at this position. Manual reset is enabled after a temperature drop of approx. 10 K on the sensing element.
- Time factor of the sensing element complying with DIN 3440
  - TR: type 2 B according EN 60 730-1 /-2-9)
  - STB: type 2 B according EN 60 730-1 /-2-9)
  - Environmental condition for pollution: normal

### Order No.

005-1501 (only thermostat)

### Technical data

The following indication are valid for the standard type 55.60015.070. Due to the function, other types show different data.

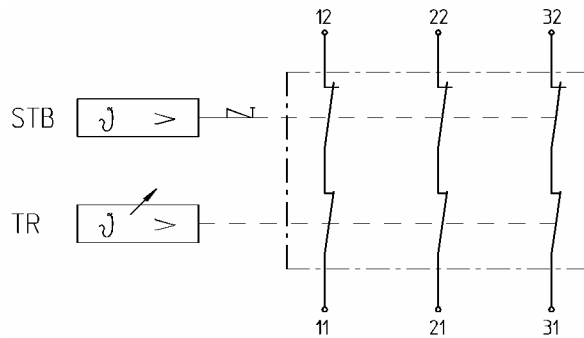
|                   |  |  |
|-------------------|--|--|
| Switching system  | Service life at nominal load                                       | 100'000 operations                         |
|                   | • Nominal voltage range  | AC 40...400 V                              |
|                   | • Nominal current range I (I <sub>M</sub> )                        | 0.5...20 (3.3) A                           |
|                   | Protection class   | I according to EN 60 730-1                 |
|                   | Protection class of housing  | IP00 according to EN 60 529                |
| Application range | Range  | 40 ... 60 ... 85°C                         |
|                   | Cut-out temperature $\vartheta_{\text{off}}$                       | 100 (0-8K) °C                              |
|                   | Ambient temperature at switching head                              | max. 80 °C (T80)                           |
|                   | Thermal differential   | 15.0 K $\pm$ 7.5.0K                        |
|                   | Sensing element temperature TR                                     | max. 150°C                                 |
|                   | Sensing element temperature STB                                    | max. 170°C                                 |
|                   | Storage and transportation temperature                             | -30...+120 °C                              |
|                   | Minimal capillary bending radius                                   | R <sub>min</sub> = 5 mm                    |
|                   | Correction factor TR   | c = 0,42 [K/K] referred to ambient temp.   |
|                   | Correction factor STB  | c = 0,55 [K/K] referred to ambient temp.   |
| Calibration       | Calibration tolerance  | $\pm$ 5 K                                  |
|                   | Calibrated for ambient temperature at switching head and capillary | 23 $\pm$ 2 °C (Tu23 according to DIN 3440) |
|                   | Time factor in water / in Oil                                      | < 45 s / < 60 s                            |
| Execution         | Switch system support  | Thermoplastic                              |
|                   | Capillary tube   | Stainless steel                            |
|                   | Sensing element  | Stainless steel                            |
|                   | Diaphragm  | Stainless steel                            |
|                   | Capillary tube length L  | 1770 mm                                    |
|                   | Electrical connection  | Faston A6.3-0.8-Br acc. DIN 46 244         |
|                   | Earth terminal connection  | Faston A6.3-0.8-Br acc. DIN 46 244         |
|                   | Weight   | Approx. 223 gr.                            |

## Mounting indications

The required pocket material depends on the installation (medium, tank material etc.) and **must be specified by the user**

To comply with the time factor requirements according to DIN 3440, pockets must conform to drawing H 1 7111 3459 (see also data sheet "Pockets 1130")

## Wiring diagram



## Dimensions

