



S+S REGELTECHNIK

THERMASREG® TR xx - F

Temperature controllers with remote sensor, one-step,  
with switching output

Mechanical temperature controller **THERMASREG® TRxx-F** with remote sensor and switching output (one-step), working as capillary thermostat / capillary controller without external voltage. This capillary controller is used for monitoring and to control temperatures of non-aggressive liquid or gaseous media in heating, ventilation and air conditioning technology as well as in mechanical and apparatus engineering, for installation in immersion sleeves or air conditioning ducts.

#### TECHNICAL DATA

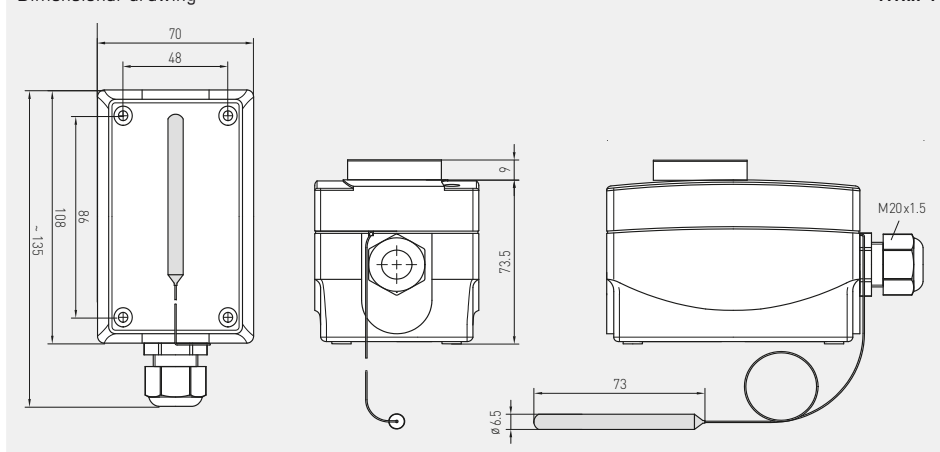
|                                       |                                                                                                                           |
|---------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| Switching capacity:<br>(Contact load) | 24...250 V AC +10%, 16 A, cos $\varphi$ = 1.0<br>24...250 V AC +10%, 1.5 A, cos $\varphi$ = 0.6<br>at 24 V AC min. 150 mA |
| Contact:                              | dust-proof switch block unit as potential-free single-pole<br>changeover contact                                          |
| Enclosure:                            | plastic, UV-stabilised, material polyamide, 30 % glass-globe reinforced,<br>colour traffic white (similar to RAL 9016)    |
| Enclosure dimensions:                 | 108 x 70 x 73.5 mm (Thor 2)                                                                                               |
| Cable gland:                          | M20 x 1.5; including strain relief                                                                                        |
| Enclosure temperature:                | -10...+65 °C                                                                                                              |
| Design principle:                     | torsion meter with liquid filling                                                                                         |
| Sensor:                               | copper tube, length of capillary = 1 m with PVC protective hose,<br>Ø 6.8 mm                                              |
| Tolerance:                            | $T_{\min} \pm 3\text{ K}$ ; $T_{\max} \pm 3\text{ K}$                                                                     |
| Inserted length:                      | immersion sleeves EL = 150 mm<br>(accessories see table)                                                                  |
| Electrical connection:                | 0.14 - 2.5 mm <sup>2</sup> via terminal screws                                                                            |
| Protection class:                     | I (according to EN 60 730)                                                                                                |
| Protection type:                      | IP 65 (according to EN 60 529)                                                                                            |
| Standards:                            | CE conformity, EMC directive 2014 / 30 / EU,<br>low-voltage directive 2014 / 35 / EU                                      |

#### FUNCTION

**Heating:** wire contacts 2 - 3

**Cooling:** wire contacts 2 - 1

Dimensional drawing



TRxx-F

TRxx-F

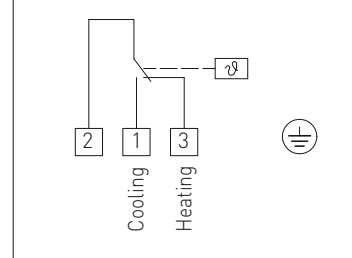


TRxx-F-U



Connecting diagram

TRxx-F



#### THERMASREG® TRxx-F – Temperature controllers, one-step

| Type / WG01                                    | Temperature Range                                           | Thermal Operating Difference (fixed) approx. | Max. Capillary Temperature | Item No.              | Price   |
|------------------------------------------------|-------------------------------------------------------------|----------------------------------------------|----------------------------|-----------------------|---------|
| TRxx-F                                         |                                                             |                                              |                            | TR (External setting) |         |
| TR-1-F                                         | -35... +35 °C                                               | 3 K (± 1 K)                                  | +60 °C                     | 1102-1056-1110-100    | 67,32 € |
| TR-060-F                                       | 0... +60 °C                                                 | 3 K (± 1 K)                                  | +75 °C                     | 1102-1050-1110-300    | 67,32 € |
| TR-090-F                                       | 0... +90 °C                                                 | 3 K (± 1 K)                                  | +120 °C                    | 1102-1050-1110-400    | 67,32 € |
| TR-0120-F                                      | 0...+120 °C                                                 | 5 K (± 1 K)                                  | +135 °C                    | 1102-1050-1110-500    | 67,32 € |
| TR-50140-F                                     | +50...+140 °C                                               | 5 K (± 1 K)                                  | +150 °C                    | 1102-1050-1110-600    | 67,32 € |
| Extra charge:                                  | U = Internal setting (TW), e. g. TR - 090 - F - U           |                                              |                            |                       | 8,40 €  |
| Accessories                                    |                                                             |                                              |                            |                       |         |
| THR-MS-08/150                                  | Brass immersion sleeve, EL = 150 mm, Ø 8 x 0.5 mm           |                                              |                            | 7100-0011-3404-000    | 13,11 € |
| THR-VA-09/150                                  | Stainless steel immersion sleeve, EL = 150 mm, Ø 9 x 1.0 mm |                                              |                            | 7100-0012-3032-000    | 34,58 € |
| For further information, see the last chapter! |                                                             |                                              |                            |                       |         |

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