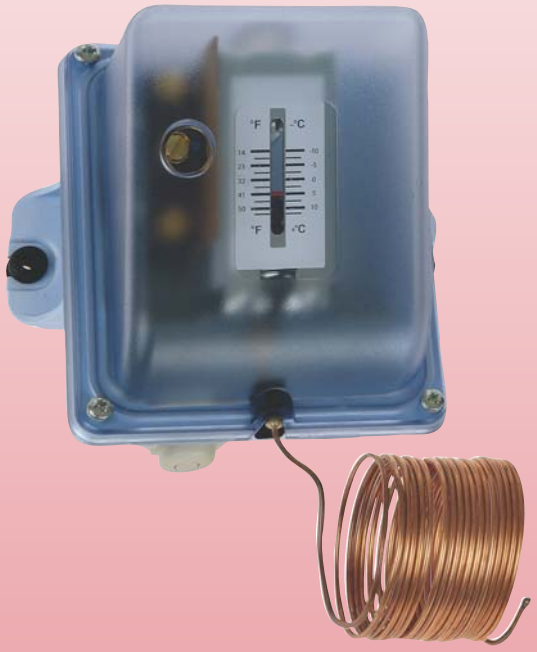
Frost Protection and Capillary Thermostats

for General Applications



- Switching range:
  -30...+30°C to +50...+120°C
- Material:
  Housing: plastic or steel
  Probe: copper
- Option:
  manual interlocking for
  frost protection thermostats

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Model:
TEA-F
TEA-K

Description

The frost protection thermostats are fitted with liquid-filled probes made of copper that act as temperature-dependant pressure probes. A change in temperature causes a pressure change in the probe, which is transferred to a switch by a bellows system. Probe and bellows system are connected with a copper capillary tube. A compression spring acts as a counteracting force. The switching values are set by changing the initial stress of the compression spring with a setpoint spindle. The probes in the frost protection thermostats have been designed as capillary tubes and are active along their entire length. Switching occurs when the set temperature acts on approximately 30 cm of the probe.
The instruments are fail safe, so that they switch off if the probe is damaged or ruptured.
A second switch contact may be fitted to the instruments as an option. This allows safety measures to be taken before switching off. The switching difference between both switching levels is 5 K.

Technical Details

Material:

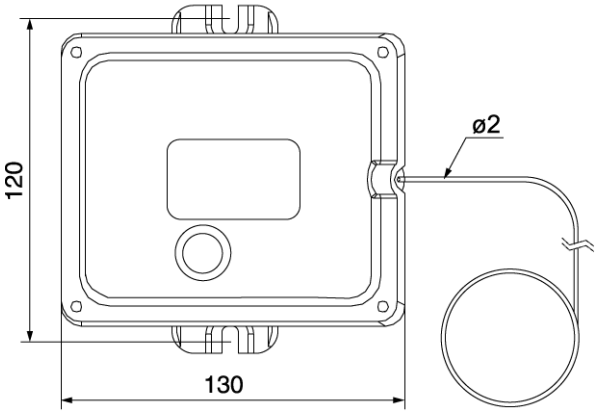
● Housing:	steel lower part galvanized, top sprayed
● Capillary tube:	copper, liquid-filled
Contact operation:	single-pole, floating changeover contact, dust-tight enclosed
Switch point:	adjustable, set to 5°C at the factory
Option:	second switch contact Switching difference between the contacts fixed (5 K)
Switch capacity:	24 - 250 V_{AC} 15 A at 250 V_{AC} 8 A at 250 V_{AC} inductive
Ambient temperature:	max. 55°C
Protection:	IP 54
Reclosing interlock:	Option F, manual reset with falling temperature

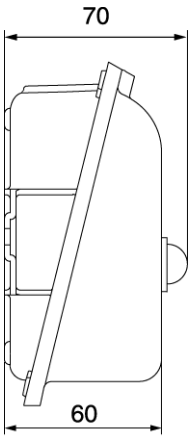
Applications

- Protection of warm water- and heating register control systems and heat exchangers from freezing.
- Heating, ventilation, refrigeration technology
- Piping and vessel manufacturing, and mechanical engineering

Anti-freeze thermostats with fixed switching difference *single* and *double* contact

Dimensions





Order Details (Example: TEA-F 1111 30)

Setting range	Max. probe temperature	Hysteresis (fixed)	Length of capillary tube	Order no. single contact	Order no. double contact	Option
-10 to +12 °C	200°C	1 K	3 meter	TEA-F 1111 3...	TEA-F 1211 3...	...0 = without
-10 to +12 °C	200°C	1 K	6 meter	TEA-F 1111 6...	TEA-F 1211 6...	...F = manual interlocking

Description

The capillary thermostats are fitted with liquid-filled probes made of copper that act as temperature-dependant pressure probes. A change in temperature causes a pressure change in the probe, which is transferred to a switch by a bellows system. Probe and bellows system are connected with a copper capillary. A compression spring acts as a counteracting force. The switching values are set by changing the initial stress of the compression spring with a setpoint spindle.

Capillary tube thermostats single contact

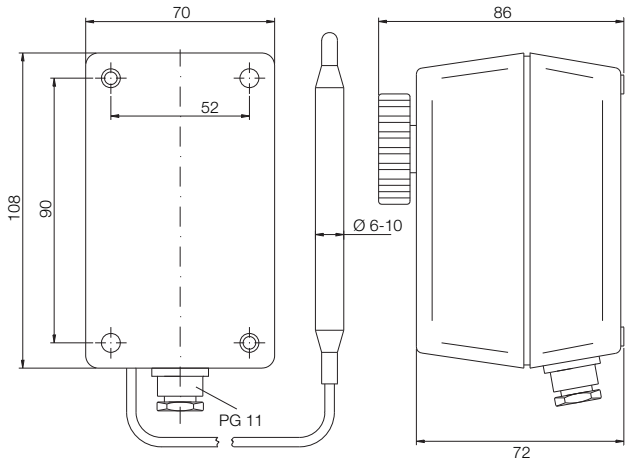
Technical Details

Material:	
● Housing:	impact-resistant plastic
● Probe:	copper, liquid-filled
● Capillary tube:	copper
Contact operation:	single-pole, floating changeover contact, dust-tight enclosed
Hysteresis:	2 - 20 K adjustable
Switch capacity:	24 - 250 V_{AC} 15 A at 250 V_{AC} 8 A at 250 V_{AC} inductive
Ambient temperature:	max. 55°C
Protection:	IP 65

Applications

- Monitoring and control of liquids and gases.
- Heating, ventilation, refrigeration technology
- Vessel manufacturing and mechanical engineering

Dimensions



Order Details (Example: TEA-K 3133 1 0)

Setting range	Max. probe temperature	Hysteresis adjustable	Order no.	Length of capillary tube	Option
-30 to +30°C	60°C	2 - 20 K	**TEA-K 3133...**	**..1..** = 1.5 m	**..0** = without **..A** = full internal adjustment
0 to +60°C	75°C	2 - 20 K	**TEA-K 3106...**		
+20 to +90°C	100°C	2 - 20 K	**TEA-K 3129...**		
+50 to +120°C	150°C	2 - 20 K	**TEA-K 3112...**		

*for setting ranges -35 to +90°C only

For different Flow Measurements please refer to our brandnew »Flow« compilation.

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