

**Duct frost protection thermostat,
incl. mounting flange, mechanical, one-step,
with switching output**

Mechanical frost protection thermostat / frost monitor **THERMASREG® FST-K** with switching output, duct tube monitored across the entire length, with automatic reset or with mechanical locking, with/without optional manual reset.

The frost protector is suitable for air or water-side temperature monitoring at heat exchangers, water circulation systems and heating registers to prevent freezing up and to avoid frost damage, e.g. in ventilation and air conditioning ducts.

The FST-K is intrinsically safe and is equipped with sensor breakage detection. In the event of damage to the capillary membrane system, the frost sensor automatically switches to the heating function. The scope of delivery includes the mounting flange **MF-14-K**.

TECHNICAL DATA

Switching capacity:	10 (2) A, AC 250 V; because of gold-plated switching contacts also switching of signal voltages < 24 V
Setting range:	-10...+15 °C / +14 °F...+59 °F, factory setting to w = +5 °C (+41 °F)
Operating difference:	2 ± 1 K (3.6 ± 1.8 °F)
Reproducibility:	± 0.5 K (± 0.9 °F)
Contact:	dust-proof micro switch as single-pole potential-free changeover contact
Resetting:	FST-K automatic FST-K-HR manual (by hand)
Permissible medium:	Air
Ambient temperatures:	maximum operating temperature: +70 °C (+158 °F) minimum operating temperature: w + min. +2 °C (min. +3.6 °F) storage / transport: -30...+70 °C (-22...+158 °F)
Enclosure:	plastic, UV-stabilised, material polyamide, 30 % glass-globe reinforced, colour traffic white (similar to RAL 9016)
Enclosure dimensions:	108 x 70 x 73.5 mm (Thor 2)
Cable gland:	M 20 x 1.5; with strain relief
Process connection:	by mounting flange, plastic (included in the scope of delivery)
Electrical connection:	0.14 - 2.5 mm ² , via screw terminals
Protective tube:	metal , material CuZn37 (2.0321), Ø 14 mm, NL = 205 mm
Other materials:	mechanical sheet metal parts: galvanised steel capillary tube: copper capillary tube filling: R 507 switching contacts: Ag / Ni (90% / 10%) gold-plated (3 µm)
Protection class:	I (according to EN 60 730-1)
Protection type:	IP 65 (according to EN 60 529)
Standards:	CE conformity, EMC Directive 2014 / 30 / EU, Low Voltage Directive 2014 / 35 / EU
FUNCTION	Contact C-2: danger of frost / sensor breakage Contact C-3: normal operation

For further information and accessories see next page...



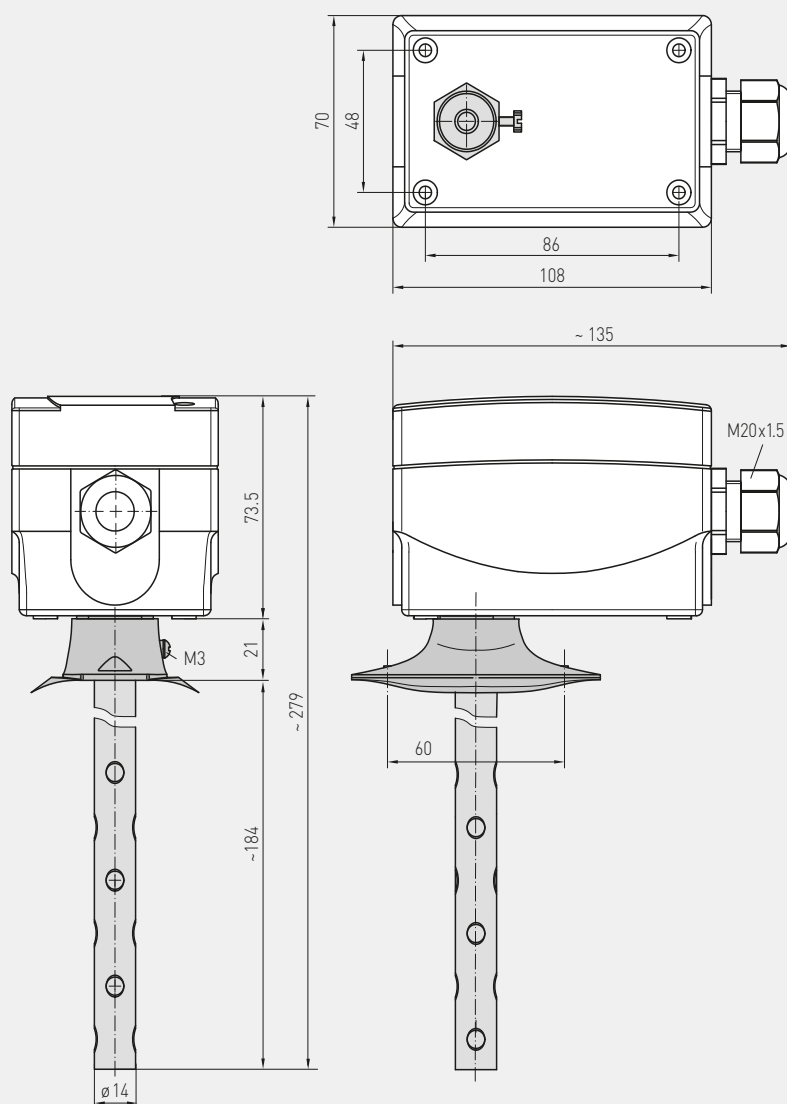
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THERMASREG® FST-K

Duct frost protection thermostat,
incl. mounting flange, mechanical, one-step,
with switching output

Dimensional drawing

FST-K



FST-K



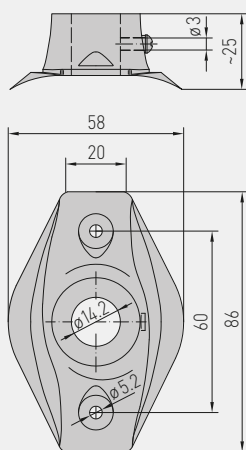
FST-K-HR
with manual reset



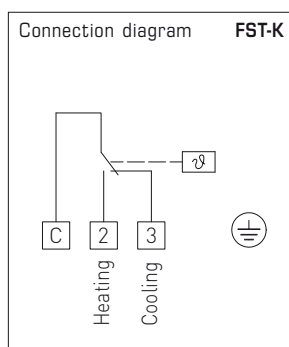
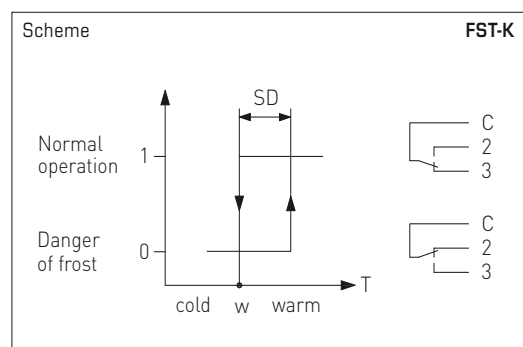
Dimensional drawing

MF-14-K

MF-14-K
Mounting flange,
plastic



Duct frost protection thermostat,
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FUNCTION

The switch in the **FST-K** duct frost protection thermostat responds if the temperature across the entire length of the duct tube falls below the preset temperature setpoint (closes contact C-2). Contact C-3 opens at the same time and can be used as a signal contact. Resetting occurs automatically (contact closes C-3) if the temperature rises above the preset setpoint again (on type **FST-K-HR**, resetting must be performed manually using the reset button).

The **FST-K** is "intrinsically safe", i.e., in the event of damage to the capillary tube-membrane system, it automatically switches to the heating function. Contact C-2 closes and can therefore be used as an operating contact. The air temperature is detected over the entire length of the sensor (capillary tube). The gas-filled (R507) membrane system and the capillary tube constitute one measuring unit, which is mechanically coupled to the microswitch.



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THERMASREG® FST-K

Duct frost protection thermostat,
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FST-K

TW = temperature monitor
(automatically switching)



FST-K-HR

TB = temperature limiter
(manual reset)



THERMASREG® FST-K – Duct frost protection thermostat, mechanical

Type / WG02	Temperature Range	Thermal Operating Difference (fixed) approx.	Function	Permissible Medium	Item No.	Price
FST-K					TW	
FST-K	−10...+15 °C	2 K (± 1 K)	TW	air	1102-1064-0100-001	101,31 €
FST-K-HR					TB	
FST-K HR	−10...+15 °C	2 K (± 1 K)	TB	air	1102-1064-1100-000	114,20 €
Equipment:	FST-K FST-K-HR	TW = temperature monitor (automatically switching) TB = temperature limiter (manual reset)				
Accessories						
MF-14-K	Mounting flange, plastic				7100-0030-2000-000	8,06 €

For further information see last chapter!