

Surface-contacting temperature sensor / tube contacting temperature sensor with passive output

ALTF 1

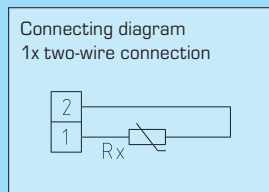
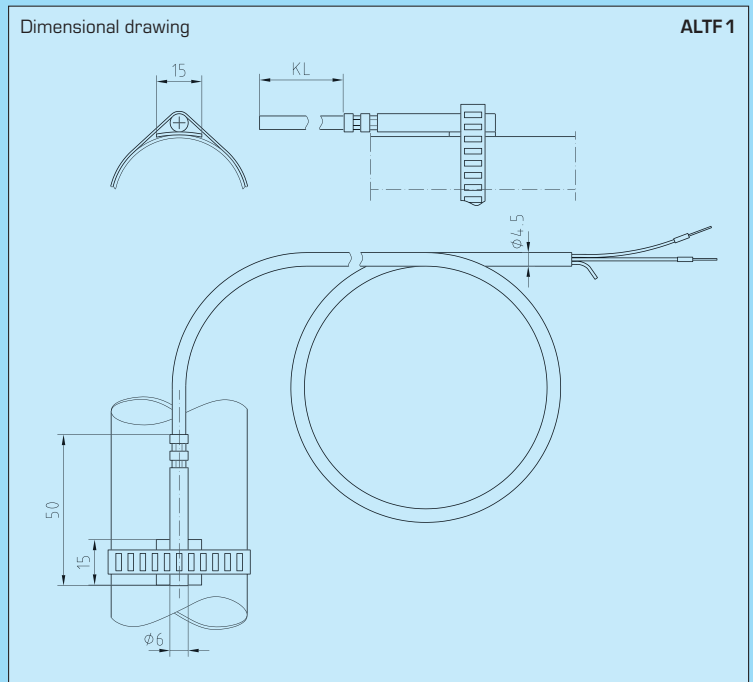
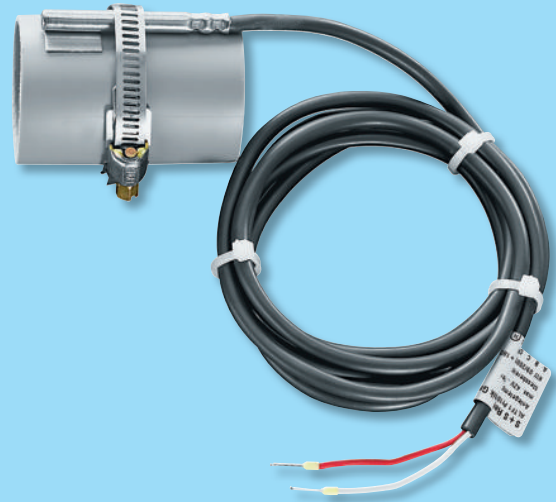
**APPLICATION:**

Surface-contacting sensors are electric contact thermometers, which are used for measuring surface temperatures of solids, having at least one so-called contact area that is brought into contact with the surface to be measured. A surface-contacting temperature sensor determines the temperature of a medium flowing inside a pipe (e.g. the water temperature) via the surface temperature.

ALTF 1 is a tube-contacting resistance thermometer with strap and axial sensor tube for temperature detection on piping and tubes (e.g. coldwater and hot-water), or on heating systems for heating system control.

**TECHNICAL DATA:**

- Measuring range:..... -35...+105°C PVC  
-35...+180°C silicone  
( $T_{max} NTC=150^{\circ}C$ ,  $T_{max} LM235Z = 125^{\circ}C$ )
- Sensors / output:..... see table, passive  
(optional also with two sensors)
- Connection type:..... 2-wire connection  
(3- or 4-wire connection optional)
- Testing current:..... ca. 1 mA
- Process connection:..... endless strap and metal tightener  
(included in the scope of delivery)
- Protective tube:..... stainless steel, 1.4571, V4A,  
including pre-bent contact plate
- Strap dimensions:.....  $\varnothing = 13-92\text{ mm}$  [1 / 4 - 3"]; length 300 mm
- Connecting cable:..... PVC; 1.5 m, LiYY, 2x0.25 mm<sup>2</sup> or  
silicone, SiHF, 2x0.25 mm<sup>2</sup>  
ends stripped, with wire end sleeves
- Insulating resistance:.....  $\geq 100\text{ M}\Omega$ , at 20°C (500V DC)
- Humidity:..... <95% r.H.
- Protection class:..... III (according to EN 60730)
- Protection type:..... IP65 (according to EN 60529)  
(optional humidity-tight  
compound-filled, IP68)



**THERMASGARD® ALTF 1, including strap:**

type / WG1	Sensor / output	PVC		Silicone	
ALTF 1 Pt100	Pt100 (according to DIN EN 60751, class B)	•	•	•	•
ALTF 1 Pt1000	Pt1000 (according to DIN EN 60751, class B)	•	•	•	•
ALTF 1 Ni1000	Ni1000 (according to DIN EN 43760, class B, TCR = 6180 ppm/K)	•	•	•	•
ALTF 1 Ni1000 TK5000	Ni1000 TK5000 (TCR = 5000 ppm/K)	•	•	•	•
ALTF 1 NTC 1,8kOhm	NTC 1.8kOhm	•	•	•	•
ALTF 1 KTY81-210, NTC 10k, 20k, 30k, 50k, 10k Precon	KTY81-210, NTC10k, 20k, 30k, 50k, 10k Precon	•	•	•	•
ALTF 1 LM235Z	LM235Z (TCR = 10 mV/K; 2.73V at 0°C)	•	•	•	•
Extra charge:	2-wire connecting leads (PVC) per running meter 2-wire connecting leads (silicone) per running meter Rolled / stamped humidity tight				
Accessories:	Heat-conductive paste, set				