THERMASGARD® ALTF 2
THERMASGARD® ALTF 02

**Surface contact temperature sensors /
tube contact temperature sensors, including strap,
with passive output**

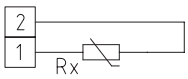
S+S REGELTECHNIK

THERMASGARD® **ALTF 2** is a tube contact resistance thermometer with passive output, in an impact-resistant plastic housing with quick-locking screws, incl.strap.

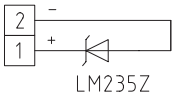
THERMASGARD® **ALTF 02** is a cost-saving tube contact resistance thermometer with passive output, in an impact-resistant plastic housing with snap-on lid, incl.strap.

Surface contact sensors are electric contact thermometers used for surface temperature measurement on solids, having at least one so-called contact area that is brought into contact with the surface to be measured. This surface contact temperature sensor measures the temperature of a medium flowing inside a pipe (e.g. the water temperature). This tube surface sensor is used for measuring temperature on piping and tubes (e.g. cold-water and hot-water), wor on heating sections for heating system control.

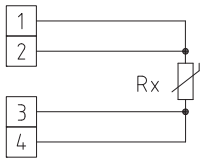
1x two-wire connection
standard



1x two-wire connection
LM 235 Z (KP 10)



1x four-wire connection
(optional)





TECHNICAL DATA

Measuring range:	–30...+110 °C
Sensors / output:	see table, passive (**Perfect Sensor Protection**) (optional also with two sensors)
Connection type:	2-wire connection (4-wire connection on PT100 / PT1000A, optional on other sensors)
Testing current:	< 0.6 mA (Pt1000) < 1.0 mA (Pt100) < 0.3 mA (Ni1000, Ni1000 TK5000) < 2.0 mW (NTC xx) 400 µA...5 mA (LM235Z)
Housing:	plastic, UV-resistant, material polyamide, 30 % glass-globe reinforced, colour traffic white (similar to RAL 9016), **ALTF 02 with snap-on lid,** **ALTF 2 with quick-locking screws** (slotted / Phillips head combination)
Dimensions:	72 x 64 x 37.8 mm (Tyr 1 / Tyr 01)
Electrical connection:	0.14 - 1.5 mm² via terminal screws
Cable connection:	**cable gland**, plastic (M 16 x 1.5; with strain relief, exchangeable, max. inner diameter 10.4 mm) **or** **M12 connector** according to DIN EN 61076-2-101 (optional on request)
Process connection:	with **endless strap** with metal tightener (included in the scope of delivery) Ø = 13 - 92 mm (¼ - 3"), length L = 300 mm
Insulating resistance:	≥ 100 MΩ, at +20 °C (500 V DC)
Humidity:	< 95 % RH, non-precipitating air
Protection class:	III (according to EN 60 730)
Protection type:	**ALTF 02 IP 54** (according to EN 60 529) Housing tested, TÜV SÜD, Report No. 713160960A (Tyr 01) **ALTF 2 IP 65** (according to EN 60 529) Housing tested, TÜV SÜD, Report No. 713139052 (Tyr 1)

THERMASGARD® ALTF 02 — Surface contact temperature sensors / tube contact temperature sensors, *Standard* including strap, with snap-on lid

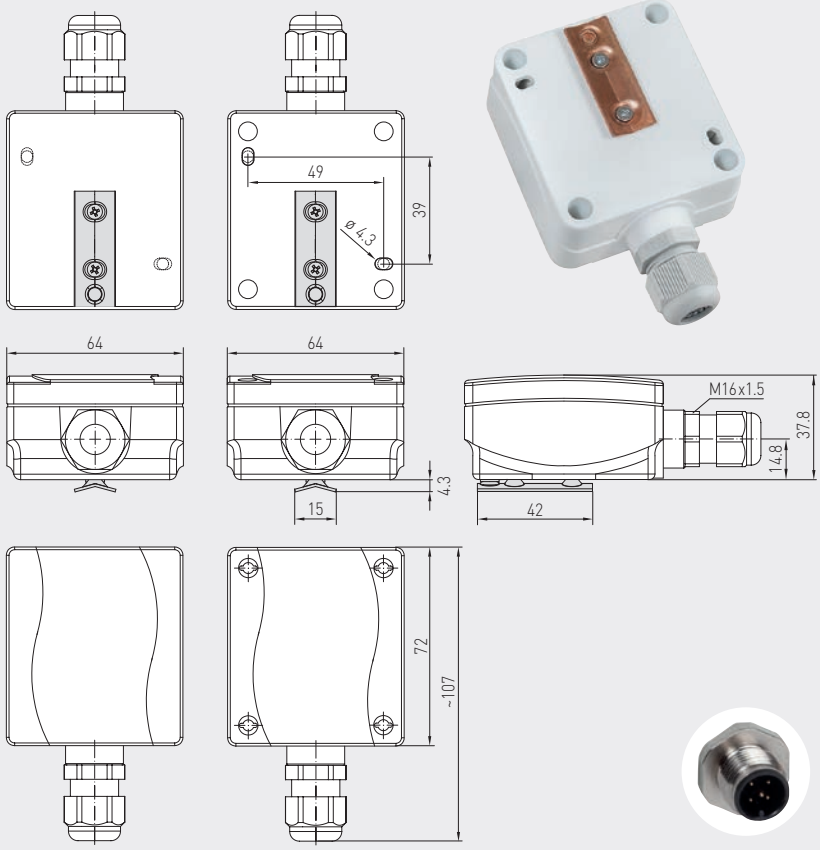
Type / WG03B	Sensor / Output	Item No.	Price
ALTF 02		**IP 54**	
ALTF02 Pt100	Pt100 (according to DIN EN 60 751, class B)	1101-1010-1003-000	**22,30 €**
ALTF02 Pt1000	Pt1000 (according to DIN EN 60 751, class B)	1101-1010-5001-000	**22,30 €**
ALTF02 Ni1000	Ni1000 (according to DIN EN 43 760, class B, TCR = 6180 ppm / K)	1101-1010-9001-000	**22,68 €**
ALTF02 NiTK	Ni1000 TK5000 (TCR = 5000 ppm / K), LG-Ni1000	1101-1011-0001-000	**25,97 €**
ALTF02 LM235Z	LM235Z (TCR = 10 mV / K; 2.73 V at 0 °C), KP10	1101-1012-1001-000	**22,95 €**
ALTF02 NTC1,8K	NTC 1.8 K	1101-1011-2001-000	**21,63 €**
ALTF02 NTC10K	NTC 10K	1101-1011-5001-000	**21,63 €**
ALTF02 NTC20K	NTC 20K	1101-1011-6001-000	**21,63 €**
Extra charge:	two or other sensors optional cable connection with **M12 connector** according to DIN EN 61076-2-101	on request on request	

ACCESSORIES

WLP-1	Heat-conductive paste, silicone-free	7100-0060-1000-000	**3,48 €**

Dimensional drawing

ALTF 2
ALTF 02



with snap-on lid

with quick-locking screws

M12 connector
(optional on request)



ALTF 02
with snap-on lid
(IP 54)



ALTF 2
with quick-locking screws
(IP 65)

High-performance encapsulation against vibration, mechanical stress and humidity

PS-PROTECTION
PERFECT SENSOR PROTECTION

THERMASGARD® ALTF 2	Surface contact temperature sensors / tube contact temperature sensors, *Premium* including strap, with quick-locking screws		
Type / WG03	**Sensor / Output**	**Item No.**	**Price**
ALTF 2		**IP 65**	
ALTF2 Pt100	Pt100 (according to DIN EN 60751, class B)	1101-1020-1003-000	**25,89 €**
ALTF2 Pt1000	Pt1000 (according to DIN EN 60751, class B)	1101-1020-5001-000	**26,63 €**
ALTF2 Pt1000A	Pt1000 (according to VDI / VDE 3512, class A-TGA)	1101-1020-6003-000	**30,28 €**
ALTF2 Ni1000	Ni1000 (according to DIN EN 43760, class B, TCR = 6180 ppm / K)	1101-1020-9001-000	**26,25 €**
ALTF2 NiTK	Ni1000 TK5000 (TCR = 5000 ppm / K), LG-Ni1000	1101-1021-0001-000	**30,78 €**
ALTF2 LM235Z	LM235Z (TCR = 10 mV / K; 2.73 V at 0 °C), KP10	1101-1022-1001-000	**25,40 €**
ALTF2 NTC1,8K	NTC 1.8 K	1101-1021-2001-000	**22,09 €**
ALTF2 NTC10K	NTC 10K	1101-1021-5001-000	**22,09 €**
ALTF2 NTC20K	NTC 20K	1101-1021-6001-000	**22,09 €**
Extra charge:	two or other sensors optional cable connection with **M12 connector** according to DIN EN 61076-2-101	on request on request	

ACCESSORIES			
WLP-1	Heat-conductive paste, silicone-free	7100-0060-1000-000	**3,48 €**