

**Screw-in/immersion temperature sensors
with neck tube (stepped once)
with passive output**

ETF 7

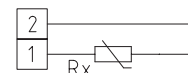
Very quickly responding screw-in resistance thermometer/immersion temperature sensor **THERMASGARD® ETF 7** with passive output, neck tube and a single-tapered stainless steel protective tube, housing cover with quick-locking screws, very short reaction time, particularly suitable for very quick temperature changes and control operations, e.g. in hydraulic systems.

TECHNICAL DATA

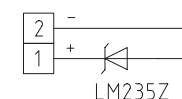
Measuring range:	-35...+150 °C
Sensors / output:	see table, passive (Perfect Sensor Protection)
Response times:	$t_{0,5} = 2.8$ s $t_{0,9} = 10$ s (for water at a flow rate of 2 m/s)
Connection type:	2-wire connection (4-wire connection on PT100, optional on other sensors)
Testing current:	< 0.6 mA (Pt1000) < 1.0 mA (Pt100) < 0.3 mA (Ni1000, Ni1000 TK5000)
Insulating resistance:	≥ 100 MΩ, at +20 °C (500 V DC)
Electrical connection:	0.14 - 1.5 mm² via terminal screws
Cable connection:	cable gland , plastic (M 16 x 1.5; with strain relief, exchangeable, inner diameter 10.4 mm) or M12 connector according to DIN EN 61076-2-101
Housing:	plastic, UV-resistant, material polyamide, 30 % glass-globe reinforced, with quick-locking screws (slotted / Phillips head combination), colour traffic white (similar to RAL 9016)
Housing dimensions:	72 x 64 x 37.8 mm (Tyr 1)
Protective tube:	stainless steel V4A (1.4571), G ½" straight pipe thread, wrench size 27 mm, $p_{max} = 6$ bar, $\varnothing = 6$ mm, single-tapered to $\varnothing = 4$ mm (see dimensional drawing) length of neck tube (HL) = 25 mm inserted length (EL) = 100 - 250 mm (see table)
Process connection:	screwed socket with G ½" straight pipe thread
Humidity:	< 95 % RH, non-precipitating air
Protection class:	III (according to EN 60 730)
Protection type:	IP65 (according to EN 60 529) Housing tested, TÜV SÜD, Report No. 713139052 (Tyr 1)



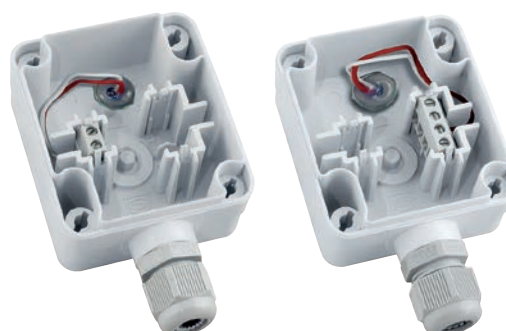
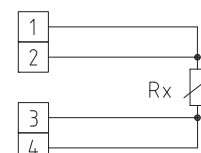
1x two-wire connection
standard



1x two-wire connection
LM235Z (KP 10)

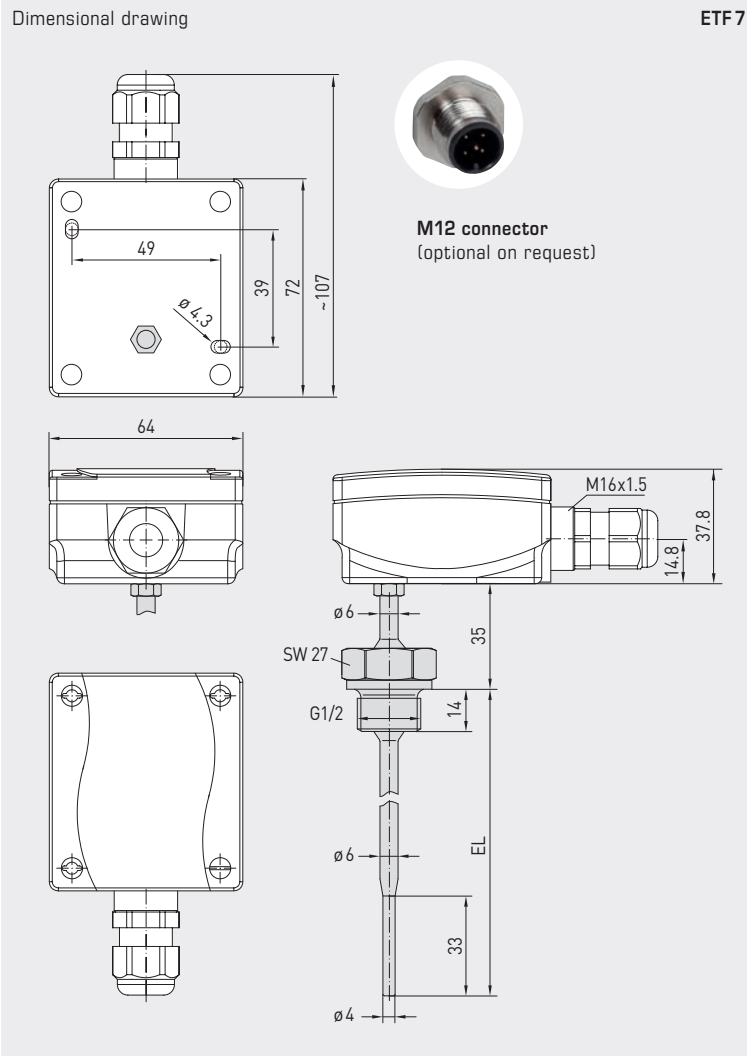


1x four-wire connection
(optional)



High-performance encapsulation against
vibration, mechanical stress and humidity

PS-PROTECTION
PERFECT SENSOR PROTECTION



ETF 7

THERMASGARD® ETF 7 Screw-in / immersion temperature sensor with neck tube

Type / WG01	Sensor / Output	Item No.
ETF7 Pt100 xx	Pt100	
ETF7 Pt100 100mm	Pt100 (according to DIN EN 60 751, class B)	1101-2080-1023-000
ETF7 Pt100 150mm	Pt100 (according to DIN EN 60 751, class B)	1101-2080-1033-000
ETF7 Pt100 250mm	Pt100 (according to DIN EN 60 751, class B)	1101-2080-1053-000
ETF7 Pt1000 xx	Pt1000	
ETF7 Pt1000 100mm	Pt1000 (according to DIN EN 60 751, class B)	1101-2080-5021-000
ETF7 Pt1000 150mm	Pt1000 (according to DIN EN 60 751, class B)	1101-2080-5031-000
ETF7 Pt1000 250mm	Pt1000 (according to DIN EN 60 751, class B)	1101-2080-5051-000
ETF7 Ni1000 xx	Ni1000	
ETF7 Ni1000 100mm	Ni1000 (according to DIN EN 43 760, class B, TCR = 6180 ppm / K)	1101-2084-2021-000
ETF7 Ni1000 150mm	Ni1000 (according to DIN EN 43 760, class B, TCR = 6180 ppm / K)	1101-2084-2031-000
ETF7 Ni1000 250mm	Ni1000 (according to DIN EN 43 760, class B, TCR = 6180 ppm / K)	1101-2084-2051-000
ETF7 Ni1000TK xx	Ni1000 TK5000	
ETF7 NiTK 100mm	Ni1000 TK5000 (TCR = 5000 ppm / K), LG - Ni1000	1101-2081-0021-000
ETF7 NiTK 150mm	Ni1000 TK5000 (TCR = 5000 ppm / K), LG - Ni1000	1101-2081-0031-000
ETF7 NiTK 250mm	Ni1000 TK5000 (TCR = 5000 ppm / K), LG - Ni1000	1101-2081-0051-000
Optional:	Cable connection with M12 connector according to DIN EN 61076-2-101	on request