

Product information

Temperature probe

**Temperature sensor
 GTL 162 / 162M
 GTL 182 / 182M**

Tightening torque : 5..10 Nm
 Insertion length : 50, 100, 150 or 250 mm
 Sensor head : Ø 18 mm

Thermowell and sensor tip:
 Ø 6 mm, Ø 4 mm Thermowell without taper
 Ø 3 mm Thermowell Ø 6 mm and sensor tip Ø 3 mm

Response time : tip Ø 3 mm: $T_{90} \leq 1.5$ s
 tip Ø 4 mm: $T_{90} \leq 3.6$ s
 tip Ø 6 mm: $T_{90} \leq 7.4$ s

Operating pressure : max. 10 bar

Material
 Sensor head : 1.4305 (V2A)
 Thermowell and sensor tip : 1.4404 (V4A)

Protection class : IP67 / IP69K
 CE conformity : EN 61326-1:2013 / -2-3:2013



GTL 162

GTL 162M

GTL 182

GTL 182M

Design type

	GTL 162 / 162M	GTL 182 / 182M
Electrical connection	M12-plug, 4-pin (1.4305)	fixed cable 2.5 m, PVC LIYY 182: 4 x 0.25 mm ² 182M: 2 x 0.25 mm ²

Transducer GTML2 (only for GTL 162M / GTL 182M)

Measuring range : -10..+40 °C * / 0..50 °C * / 0..100 °C *
 0..150 °C * / 0..200 °C *
 or freely in range -20..200 °C *

Power supply : 10..30 V DC
 Output : analog, 4..20 mA, 2-wire

Output signal in case of error : **< 3.75 mA** or **> 21.5 mA**, selectable *

Filter : integrated low-pass, 4-step *

Response time : **< 150 ms** (filter 0), **< 300 ms** (filter 1)
 < 800 ms (filter 2), < 3 s (filter 3)

Ambient temperature : -40..+70 °C
 Accuracy : < 0.2 % FS
 Temperature drift : < 0.01 % FS / K

* Programmable via GTL - Configuration tool (accessories)

Note: The default settings are marked in **bold**.



- Hygienic M12 process connection
- Hygienic design and easy-to-sterilize measuring point
- Sensor completely made of stainless steel

Characteristic

The temperature sensors are designed for temperature measurements in pipes or thin-walled tanks.

They can be used for example for process monitoring at tube curvatures, temperature measurements in pressure pipes or at measurements of pasty media in pipes.

The sensors can be provided with different electric connections and with or without integrated head transmitter.

Specifications

Temperature ranges : ambience: -40..+80 °C
 probe tip: -40..+200 °C
 CIP- / SIP-temperature: 140 °C < 30 min.

Measuring resistor : Pt100
 Accuracy : class A, class AA

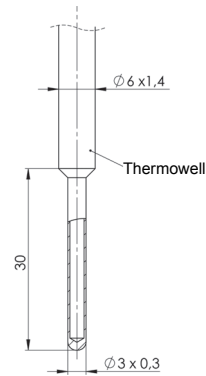
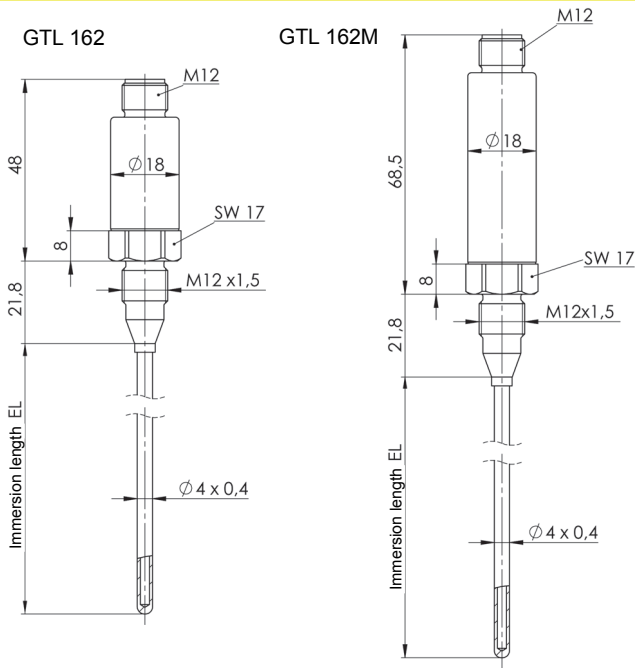
Process connection : hygienic M12

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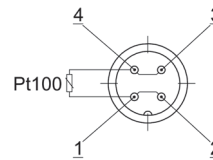
Dimensions



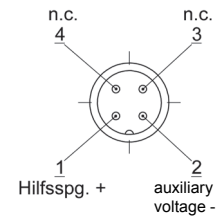
Connection

Design type GTL 162 or GTL 162M:

without transducer (4-wire):

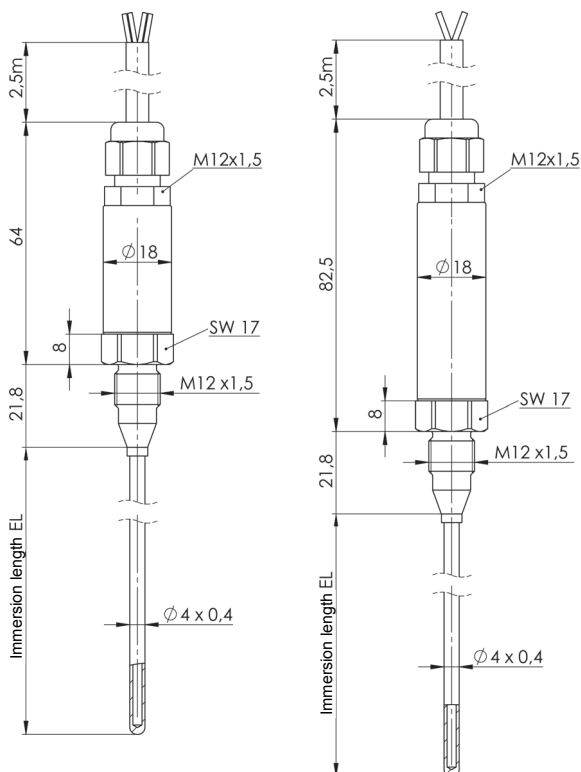


with transducer (2-wire):



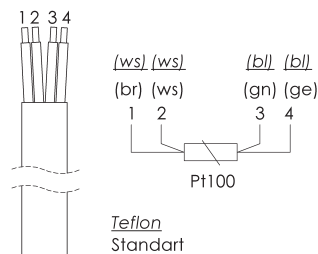
GTL 182

GTL 182M

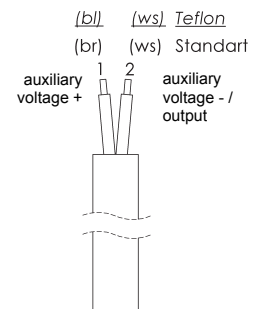


Design type GTL 182 or GTL 182M:

without transducer (4-wire):



with transducer (2-wire):



Options

TK	Design type GTL 182 and GTL 182M with Teflon cable GTL 182: 4 x 0.14 mm ² GTL 182M: 2 x 0.14 mm ² Teflon cable up to 200 °C
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Product information

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Product key

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GTL - - - - - -

Information on suitable weld-in sleeves can be found in product information GHMadapt/Accessories.

1. Design type	
162	M12-plug, without integrated transducer
162M	M12-plug, with integrated transducer
182	fixed cable (PVC) connection 2.5m, without integrated transducer
182M	fixed cable (PVC) connection 2.5m, with integrated transducer
2. Insertion length EL	
0020	20 mm
0050	50 mm
0100	100 mm
0150	150 mm
0250	250 mm
xxxx	any EL in mm (surcharge from 250 mm for each 100 mm started, up to max. insertion length: Ø 6: max. 1000 mm Ø 4: max. 500 mm)
3. Diameter thermowell and sensor tip	
6	Ø 6 mm, without taper
4	Ø 4 mm, without taper
3	Ø 6 mm, with tapered sensor tip Ø 3 mm
4. Accuracy class	
A	class A
D	class AA (1/3 class B)
5. Transducer GTML2 (programmable) ONLY for design types 162M and 182M	
00	without transducer (design types 162 / 182)
M1	measuring range -10..+40 °C
M2	measuring range 0..50 °C
M3	measuring range 0..100 °C
M4	measuring range 0..150 °C
M5	measuring range 0..200 °C
MB	transducer with special measuring range in °C (state special measuring range separately e.g.: 0..75 °C or -20..+30 °C) Mind the minimum range of 50 °C.
6. Option	
00	without option
H	with neck tube
TK	Teflon cable for connection via fixed cable (only available for GTL 182 / 182M)
7. Certificate DIN EN 10204 (indicate only when required, multiple responses possible)	
WZ2.2	factory certification 2.2
APZMAT	acceptance test certificate 3.1 for material (in contact with products)
APZ2P	acceptance test certificate 3.1 with 2 measuring points (0°C / 70°C)
APZ3P	acceptance test certificate 3.1 with 3 measuring points (0°C, 70°C + 1 test point freely selectable)
APZ4P	acceptance test certificate 3.1 with 4 measuring points (0°C, 70°C + 2 test points freely selectable)