

Product information

Temperature - Hygienic Design

Temperature sensor
GTL 349



- Without tread
- Hygienic design and easy-to-sterilize measuring point
- Sensor completely made of stainless steel

Characteristic

The temperature sensor GTL 349 is designed for temperature measurements in pipes of different nominal diameters or thin-walled tubes and 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 fitting length can be varied by use of compression fitting. The probes can be provided with different electric connections and with or without integrated head transmitter.

Specifications

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

Measuring resistor : Pt100
 Accuracy : class A, class AA
 Electrical connection : cable gland M16x1.5
 M12-plug (1.4305)

Process connection : no thread
 suitable weld-in sleeves e.g.:
 GKEV-25/76, GEMK-25/76
 (see accessories page 63)



Insertion length : 50, 100, 150, 250 mm
 Sensor head : Ø 59 mm

Thermowell and sensor tip:
 Ø 6 mm thermowell Ø 6 mm without taper
 Ø 3 mm thermowell Ø 6 mm and sensor tip Ø 3 mm

Response time : tip Ø 3 mm: T₉₀ ≤ 1.5 s
 tip Ø 6 mm: T₉₀ ≤ 7.4 s

Operating pressure : max. 10 bar

Material
 Sensor head : 1.4305
 Thermowell and sensor tip : 1.4404

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

Transducer GMTL1

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

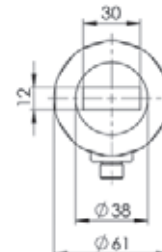
Output signal in case of error : < **3.75 mA** or > 21.5 mA, selectable *
 Filter : integrated low-pass, 4-step *
 Response time : < 150 ms (filter 0), < **300 ms (filter 1)**
 < 800 ms (filter 2), < 3 s (filter 3)

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

Transducer GMTL1 with on-site display

Transducer with integrated **on-site display (LCD)** only in combination with electric connection: cable connection M12 plug and integrated transducer (for further information see transducer GMTL1).

Display : 4-digit LCD
 Displayed unit : °C or °F, selectable *
 Resolution : **0.1 °C** or 1 °C, selectable *
 Background illumination : **activatable**, deactivatable *
 Working temperature : -20..+60 °C



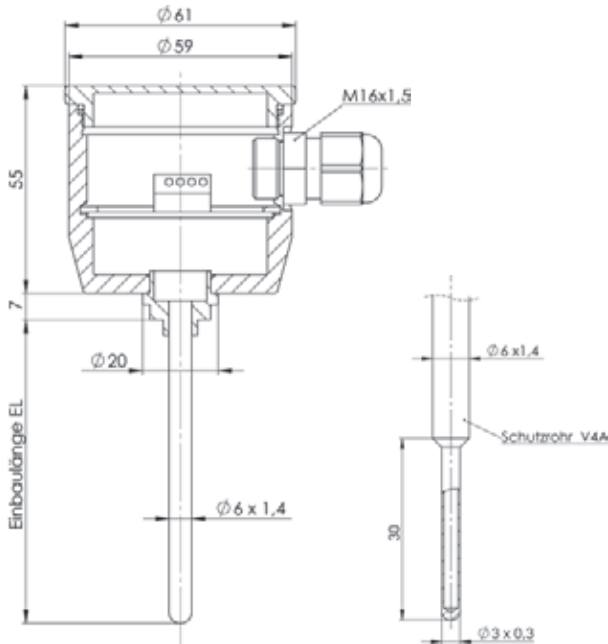
- * Programmable via GTL - Configuration tool (accessories) or buttons (only with on-site display)
- ** Programmable via GTL - Configuration tool (accessories)

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

Product information

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Dimensions



Connection

Electrical connection: cable gland M16x1.5 (PG)

without transducer (4-wire):

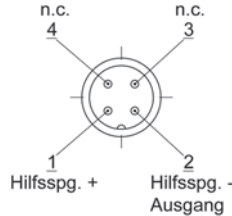
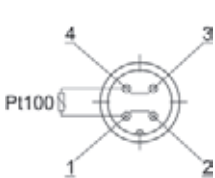
with transducer (2-wire):



Electrical connection: M12-plug (1.4305)

without transducer (4-wire):

with transducer (2-wire):



Product key

1. 2. 3. 4. 5. 6. 7. 8. 9.
 GTL - - - - - - - -

1. Design type	349 without thread
2. Electrical connection	P cable screwing M16x1.5 (PG) V V2A cable screwing M16x1.5 (PG) M cable connection M12-plug
3. Insertion length EL	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. fitting length: Ø 6: max. 1000 mm)
4. Diameter thermowell and sensor tip	6 Ø 6 mm, without taper 3 Ø 6 mm, with sensor tip Ø 3 mm
5. Accuracy class	A class A D class AA (1/3 class B)
6. Transducer	0 without transducer M permanently integrated transducer GTML1, without display V permanently integrated transducer GTML1, on-site display (LCD) R exchangeable head transducer RT420 T exchangeable head transducer T19
7. Measuring range	0 without transducer 1 measuring range -10..+40 °C (-50..+50 °C for head transducer T19) 2 measuring range 0..50 °C 3 measuring range 0..100 °C 4 measuring range 0..150 °C 5 measuring range 0..200 °C B transducer with special measuring range in °C (not possible for head transducer T19), state special measuring range separately e.g.: 0..75 °C or -20..+30 °C Mind the minimum range of 50 °C.
8. Option	0 without transducer H mit Halsrohr (100 mm)
9. 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)

Notes on on-site display (LCD):

Permanently integrated transducer GTML1 (programmable) with on-site display only in combination with electrical connection: M12 plug. Information on suitable compression insertions can be found in section Accessories.