

**Product information**

**Temperature probe**

**Temperature sensor**  
**GTL 479 / 479M**  
**GTL 499 / 499M**

Tighting torque : hand-tight  
 Immersion length : 37, 83, 97, 160 mm  
 Sensor head : Ø 18 mm

**Thermowell and sensor tip:**

Ø 3 mm : thermowell Ø 3 mm  
 Response time :  $T_{90} \leq 1.5$  s (without immersion sleeve)  
 $T_{90} \leq 15$  s (with immersion sleeve: The use of heat transfer paste is recommended, because this can reduce the stated time by up to 50 %)

Operating pressure : max. 10 bar

**Material**

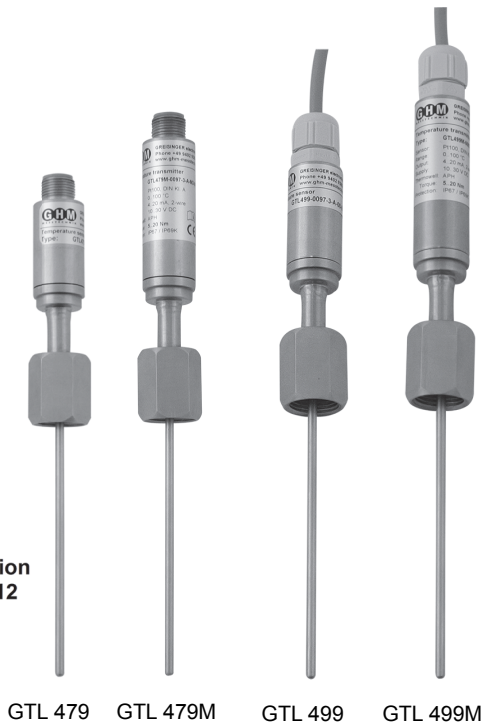
Sensor head : 1.4305  
 Thermowell and sensor tip : 1.4404  
 Union nut : 1.4408

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

**Design type**

	GTL 479 / 479M	GTL 499 / 499M
Electrical connection	M12-plug, 4-pin (1.4305)	fixed cable 2.5 m LIYY 499: 4 x 0.25 mm <sup>2</sup> 499M: 2 x 0.25 mm <sup>2</sup>

In combination with APH G12



- G 3/8" union nut
- Hygienic design and easy-to-sterilize measuring point
- Sensor completely made of stainless steel

**Characteristic**

The temperature sensors are designed for temperature monitoring in pipes and tanks, temperature measurements in steam and pressure pipes (closed process) and for monitoring of CIP- / SIP- processes.

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

**Specifications**

Temperature ranges : ambient: -40..+80 °C  
 process: -40..+200 °C  
 CIP- / SIP-temperature: 140 °C < 30 min.  
 Measuring resistor : Pt100  
 Accuracy : class A, class AA  
 Process connection : immersion sleeve, G 3/8" outside thread suitable adapter and weld-in sleeves APHG12, APHK25, APHZ18 (see accessories page 64)



**Transducer GTML2 (only for GTL 479M / GTL 499M)**

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)

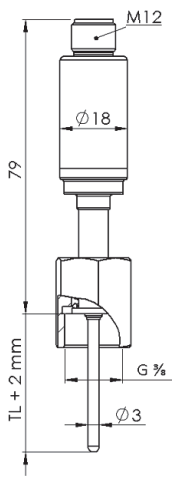
Note: The default settings are marked in **bold**.

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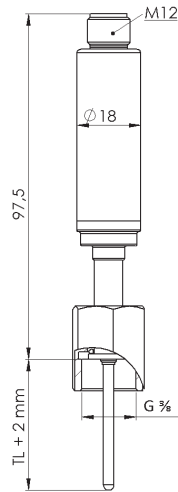
**Product information**

**Temperature probe**

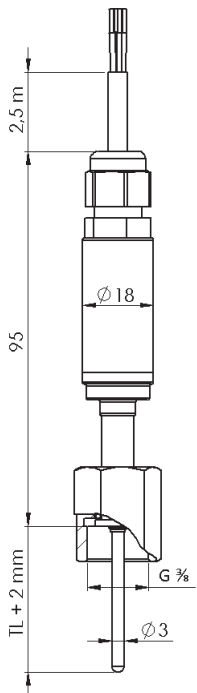
**Dimensions**



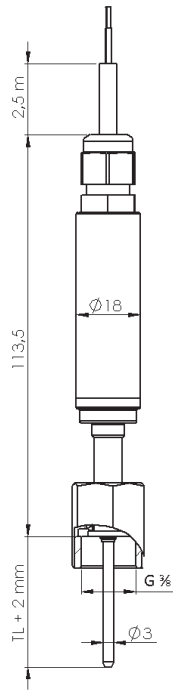
GTL 479



GTL 479M



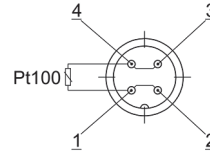
GTL 499



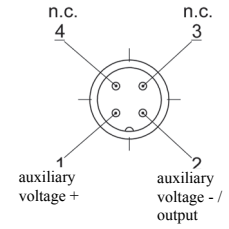
GTL 499M

**Connection**

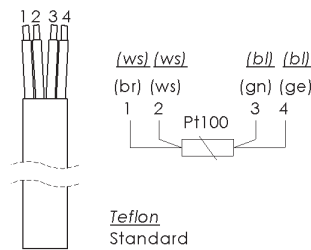
Design type GTL 479 or GTL 479M:  
 without transducer (4-wire):



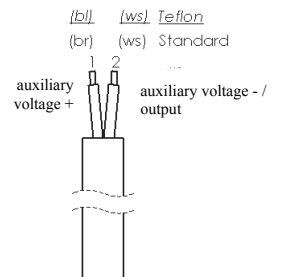
with transducer (2-wire):



Design type GTL 499 or GTL 499M:  
 without transducer (4-wire):



with transducer (2-wire):



**Option**

TK	Design type GTL 499 and GTL 499M with <b>Teflon cable</b> GTL 499: 4 x 0.14 mm <sup>2</sup> / GTL 499M: 2 x 0.14 mm <sup>2</sup> Teflon cable up to 200 °C
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**Product information**

**Temperature probe**

**Product key**

1. 2. 3. 4. 5. 6. 7.  
**GTL**  -  -  -  -  -  -

<b>1. Design type (electrical connection)</b>	
479	M12-plug
479M	M12-plug with integrated transducer
499	fixed cable (PVC) connection 2.5m
499M	fixed cable (PVC) connection 2.5m, with integrated transducer
<b>2. Immersion length TL</b>	
0037	37 mm
0083	83 mm
0097	97 mm
0160	160 mm
xxxx	any TL in mm: from 200 mm till max. 500 mm, (surcharge from 200 mm for each 100 mm started)
<b>3. Diameter thermowell and sensor tip</b>	
3	Ø 3 mm
<b>4. Accuracy class</b>	
A	class A
D	class AA (1/3 class B)
<b>5. Transducer GTML2 (programmable) ONLY for design types 479M and 499M</b>	
00	without transducer (design types 369 / 389)
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.)
<b>6. Option</b>	
00	without option
H	with spacer
TK	Teflon cable for connection via fixed cable (only available for 499 and 499M) (surcharge per meter)
<b>7. Certificate DIN EN 10204 (indicate only when required, multiple responses possible)</b>	
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)

Information on suitable adapter and weld-in sleeves can be found in section Accessories.