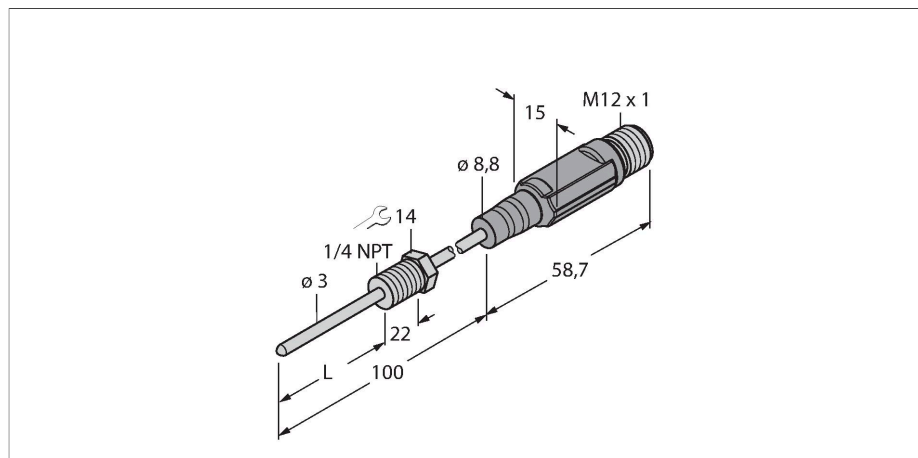


# TTM-203A-N1/4-LI6-H1140-L100/I30-50/150C

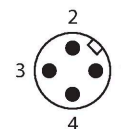
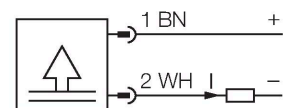
## Temperature Detection – With Current Output



### Features

- Miniature design
- Analog output 4...20 mA
- Factory setting -50...150 °C (other settings on request)
- Process connection 1/4" NPT male thread
- Bendable probe (min. bending radius: 3x outer diameter; excluding 30-mm probe tip)

### Wiring diagram



### Functional principle

The TTM miniature transmitters are available with integrated probe. Due to the integrated electronics, the limited temperature range must be observed, especially in the area of the M12 connector.

### Technical data

Type	TTM-203A-N1/4-LI6-H1140-L100/I30-50/150C
ID	9910817
<b>Temperature range</b>	
Measuring range	-50...150 °C
Measuring range	-58...302 °F
Note	Max. temperature of electronics: 80 °C/176 °F
Measuring element	Pt-1000 probe, DIN EN 60751, class A
Response time	$t_{05} = 1.5 \text{ s} / t_{09} = 6.0 \text{ s}$ in water @ 0.2 m/s
Immersion depth (L)	30 mm
Outer diameter	3 mm
<b>Power supply</b>	
Operating voltage	5.5...32 VDC
Current consumption	≤ 20 mA
Short-circuit/reverse polarity protection	yes / yes
Protection type and class	IP67 / III
<b>Analog output</b>	
Current output	4...20 mA
Load	≤ 0.84 kΩ @24 0.84 kΩ @24 VDC [ $R_{Load} = (V_{Supply} - 5.5 \text{ V}) / 22 \text{ mA}$ ] kΩ
Accuracy (Lin. + Hys. + Rep.)	± 0.2 K
<b>Temperature behaviour</b>	
Temperature coefficient zero point $TK_0$	± 0.1 % of full scale/10 K
Temperature coefficient range $TK_s$	± 0.1 % of full scale/10 K
<b>Environmental conditions</b>	
Ambient temperature	-40...+80 °C

## Technical data

Storage temperature	-40...+80 °C
<b>Mechanical data</b>	
Housing material	Stainless-steel/Plastic, 1.4404 (AISI 316L)
Sensor material	Stainless steel, 1.4404 (AISI 316L)
Process connection	1/4" NPT male thread
Pressure resistance	100 bar
Electrical connection	Connector, M12 × 1
<b>Reference conditions acc. to IEC 61298-1</b>	
Temperature	15...+25 °C
Atmospheric pressure	860...1060 hPa abs.
Humidity	45...75 % rel.
Auxiliary power	24 VDC
<b>Tests/approvals</b>	
MTTF	162 years acc. to SN 29500 (Ed. 99) 40 °C