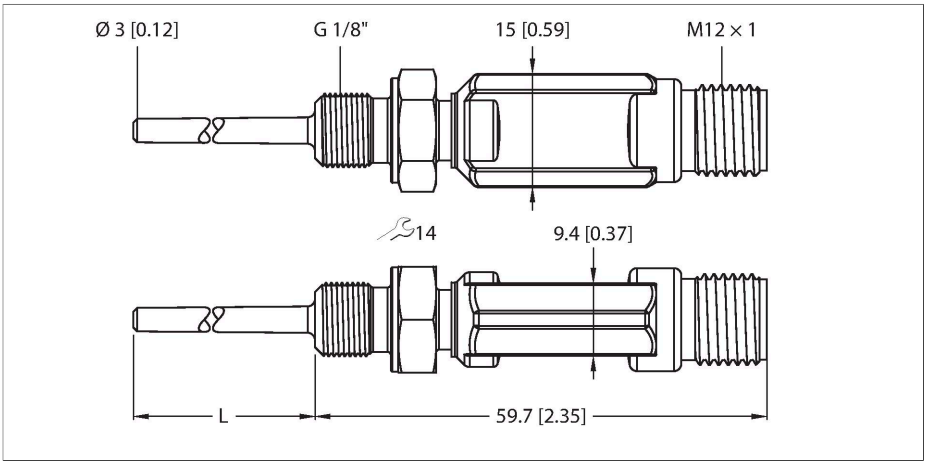
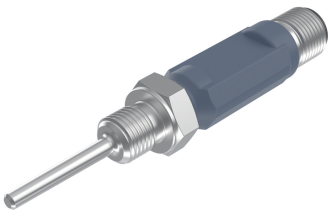
TTM100C-103A-G1/8-LI6-H1140-L013-50/100C
Temperature Detection – With Current Output





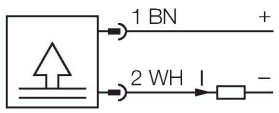
Technical data

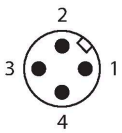
Type	TTM100C-103A-G1/8-LI6-H1140-L013-50/100C
ID	9910574
Temperature range	
Measuring range	-50…100 °C
	-58…212 °F
Measuring element	Pt1000, DIN EN 60751, class A
Response time	t_{05} = 1.5 s / t_{09} = 6.0 s in water @ 0.2 m/s
Immersion depth (L)	13 mm
Process Pressure	100 bar
Power supply	
Operating voltage U_B	5.5…32 VDC
Current consumption	≤ 20 mA
Short-circuit/reverse polarity protection	yes / yes
Insulation class	III
Analog output	
Current output	4…20 mA
Load	≤ 0.84 kΩ at 24 VDC [R_{Load}=(V_{Supply} – 5.5 V)/22 mA]
Accuracy (Lin. + Hys. + Rep.)	± 0.2 K
Mechanical data	
Housing material	Stainless-steel/Plastic, 1.4404 (AISI 316L)
Process connection	G 1/8" male thread
Electrical connection	Connector, M12 × 1

Features

- Miniature design
- Analog output 4…20 mA
- Factory setting -50…100 °C (other settings on request)
- Process connection G1/8" male thread

Wiring diagram





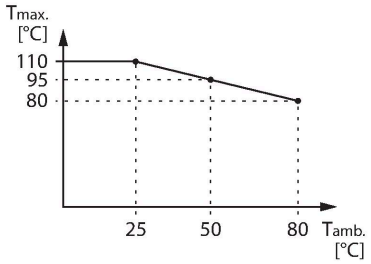
Functional principle

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.

TTM100C-103A-G1/8-LI6-H1140-L013-50/100Q 02/21/2025 18-19 | technical changes reserved

Technical data

Protection class	IP67
Environmental conditions	
Ambient temperature	-40…+80 °C
Storage temperature	-40…+80 °C
Tests/approvals	
Reference conditions acc. to IEC 61298-1	
Temperature	15…+25 °C
Atmospheric pressure	860…1060 hPa abs.
Humidity	45…75 % rel.
Auxiliary power	24 VDC
Temperature behaviour	
Temperature coefficient range TK_s	± 0.1 % of full scale/10 K
Temperature coefficient zero point TK_0	± 0.1 % of full scale/10 K
MTTF	162 years acc. to SN 29500 (Ed. 99) 40 °C



Technical data

Type	TTM100C-103A-G1/8-LI6-H1140-L013-50/100C
ID	9910574
Temperature range	
Measuring range	-50…100 °C
	-58…212 °F
Note	Max. temperature of electronics: 80 °C/176 °F
Measuring element	Pt1000, DIN EN 60751, class A
Response time	t_{05} = 1.5 s / t_{09} = 6.0 s in water @ 0.2 m/s
Immersion depth L	13 mm
Outer diameter	3 mm
Power supply	
Operating voltage U_B	5.5…32 VDC
Current consumption	≤ 20 mA
Short-circuit/reverse polarity protection	yes / yes
Protection class	IP67
Insulation class	III
Analog output	
Current output	4…20 mA
Load	≤ 0.84 kΩ at 24 VDC [R_{Load}=(V_{Supply} – 5.5 V)/22 mA]

TTM100C-103A-G1/8-LI6-H1140-L013-50/100Q 02/21/2025 18-19 | technical changes reserved

Technical data

Accuracy (Lin. + Hys. + Rep.)	± 0.2 K
Temperature behaviour	
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
Environmental conditions	
Ambient temperature	-40…+80 °C
Storage temperature	-40…+80 °C
Mechanical data	
Housing material	Stainless-steel/Plastic, 1.4404 (AISI 316L)
Sensor material	Stainless steel, 1.4404 (AISI 316L)
Process connection	G 1/8" male thread
Process Pressure	100 bar
Electrical connection	Connector, M12 × 1
Reference conditions acc. to IEC 61298-1	
Temperature	15…+25 °C
Atmospheric pressure	860…1060 hPa abs.
Humidity	45…75 % rel.
Auxiliary power	24 VDC
Tests/approvals	
MTTF	162 years acc. to SN 29500 (Ed. 99) 40 °C

TTM100C-103A-G1/8-LI6-H1140-L013-50/100Q 02/21/2025 18-19 | technical changes reserved