

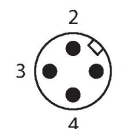
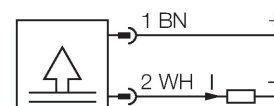
TTMS-206A-CF-LI6-H1140-L100-50/150

Temperature Detection – With Current Output

Features

- Miniature design
- Analog output 4...20 mA
- Factory setting -50 °C...150 °C
- Compression fitting process connection
- Bendable probe (min. bending radius: 3x outer diameter; excluding 30-mm probe tip)

Wiring diagram



Functional principle

Temperatures are recorded over a mineral insulated transmitter and converted into a wide range of electrical output signals. The devices of the TTM miniature series are enclosed in a fully potted plastic housing and depending on the variant, they have either an IO-link output, power output and/or switching output.

Technical data

Type	TTMS-206A-CF-LI6-H1140-L100-50/150
ID	100004227
Temperature range	
Measuring range	-50...150 °C
	-58...302 °F
Factory setting	
	-50...150 °C
	-58...302 °F
Measuring element	Pt1000, 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)	100 mm
Process Pressure	100 bar
Power supply	
Operating voltage U_b	5...32 VDC
Current consumption	$\leq 20 \text{ mA}$
Short-circuit/reverse polarity protection	yes / yes
Insulation class	III
Outputs	
Output 1	Analog output
Output function	Analog output
Analog output	
Current output	4...20 mA
Load	$\leq 0.86 \text{ k}\Omega$ at 24 VDC [$R_{\text{Load}} = (V_{\text{supply}} - 5 \text{ V}) / 22 \text{ mA}$]
Accuracy (Lin. + Hys. + Rep.)	$\pm 0.2 \text{ K}$

Technical data

Mechanical data	
Housing material	Stainless steel, 1.4404 (AISI 316L)
Process connection	For compression fittings, thermowell or direct mounting
Electrical connection	Connector, M12 × 1
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	TTMS-206A-CF-LI6-H1140-L100-50/150
ID	100004227
Temperature range	
Measuring range	-50...150 °C
	-58...302 °F
Factory setting	-50...150 °C
	-58...302 °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	100 mm
Outer diameter	6 mm
Power supply	
Operating voltage U _s	5...32 VDC
Current consumption	≤ 20 mA
Short-circuit/reverse polarity protection	yes / yes

Technical data

Protection class	IP67
Insulation class	III
Outputs	
Output 1	Analog output
Output function	Analog output
Analog output	
Current output	4...20 mA
Load	$\leq 0.86 \text{ k}\Omega$ at 24 VDC [$R_{\text{Load}} = (V_{\text{supply}} - 5 \text{ V}) / 22 \text{ mA}$]
Accuracy (Lin. + Hys. + Rep.)	$\pm 0.2 \text{ K}$
Temperature behaviour	
Temperature coefficient zero point TK_0	$\pm 0.1 \text{ \% of full scale/10 K}$
Temperature coefficient range TK_s	$\pm 0.1 \text{ \% of full scale/10 K}$
Environmental conditions	
Ambient temperature	-40...+80 °C
Storage temperature	-40...+80 °C
Mechanical data	
Housing material	Stainless steel, 1.4404 (AISI 316L)
Sensor material	Stainless steel, 1.4404 (AISI 316L)
Process connection	For compression fittings, thermowell or direct mounting
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	
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