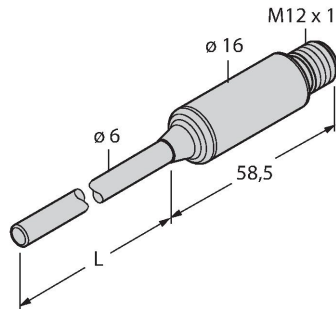


TTMS-206A-CF-LI6-H1140-L150-50/150

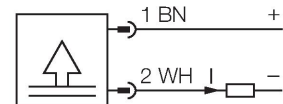
Temperature Detection – With Current Output



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-L150-50/150
ID	100004735
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	$t_{05} = 1.5 \text{ s}$ / $t_{09} = 6.0 \text{ s}$ in water @ 0.2 m/s
Immersion depth L	150 mm
Outer diameter	6 mm
Power supply	
Operating voltage U_B	5...32 VDC
Current consumption	≤ 20 mA
Short-circuit/reverse polarity protection	yes / yes
Protection class	IP67
Insulation class	III
Outputs	
Output 1	Analog output
Output function	Analog output
Analog output	
Current output	4...20 mA
Load	≤ 0.86 kΩ @24 VDC [$R_{Load} = (V_{supply} - 5 \text{ V})/22 \text{ mA}$] kΩ
Accuracy (Lin. + Hys. + Rep.)	± 0.2 K

Technical data

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, 1.4404 (AISI 316L)
Sensor material	Stainless steel, 1.4404 (AISI 316L)
Process connection	For compression fittings, thermowell or direct mounting
Pressure resistance	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

Accessories

CF-M-6-G1/4-A4	9910483	Compression fitting for direct mounting of temperature sensors; sensor diameter 6 mm; process connection G1/4" male thread	
CF-M-6-G1/2-A4	9910530	Compression fitting for direct mounting of temperature sensors; sensor diameter 6 mm; process connection G1/2" male thread	
CF-M-6-N1/4-A4	9910484	Compression fitting for direct mounting of temperature sensors; sensor diameter 6 mm; process connection 1/4" NPT male thread	
CF-M-6-N1/2-A4	9910529	Compression fitting for direct mounting of temperature sensors; sensor diameter 6 mm; process connection 1/2" NPT male thread	

CF-M-6-M18-A4 9910525

Compression fitting for direct mounting of temperature sensors; sensor diameter 6 mm; process connection M18 × 1 male thread



Accessories

Dimension drawing	Type	ID	
	WKC4.4T-2/TEL	6625025	Connection cable, M12 female connector, angled, 4-pin, cable length: 2 m, jacket material: PVC, black; cULus approval
	RKC4.4T-2/TEL	6625013	Connection cable, M12 female connector, straight, 4-pin, cable length: 2 m, jacket material: PVC, black; cULus approval
	RKC4.4T-2/TXL	6625503	Connection cable, M12 female connector, straight, 4-pin, cable length: 2 m, jacket material: PUR, black; cULus approval
	WKC4.4T-2/TXL	6625515	Connection cable, M12 female connector, angled, 4-pin, cable length: 2 m, jacket material: PUR, black; cULus approval