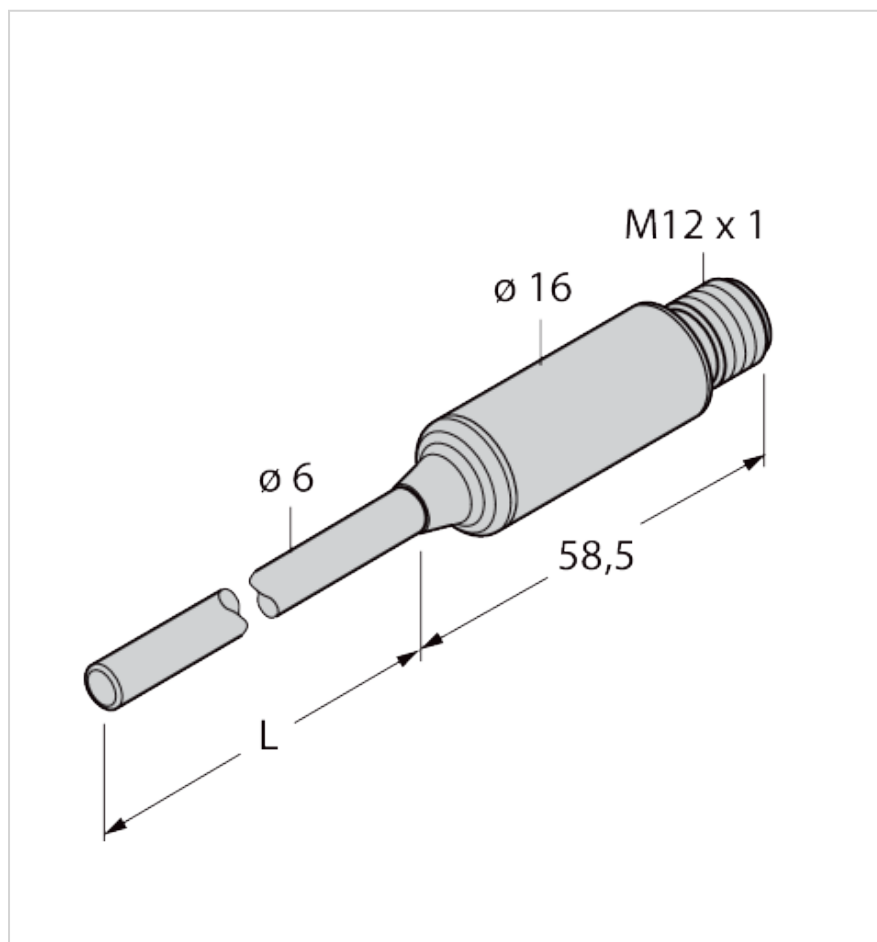


TTMS-206A-CF-LI6-H1140-L150-50/150

Temperature detection with current output



Type designation	TTMS-206A-CF-LI6-H1140-L150-50/150
Ident-No.	100004735

Technical data

General data	
Detection type	medium contact
Measuring principle	Media-contacting
Application area	
Immersion depth (L)	150 mm
Measuring element	Pt1000, DIN EN 60751, class A
Pressure resistance	100 bar

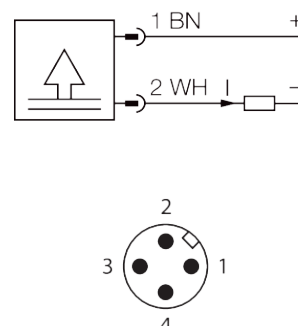
Features

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

Technical data

Detection area/measuring range	
Factory setting	-50...150 °C
Factory setting	-58...302 °F
Measuring range	-50...150 °C
Measuring range	-58...302 °F
Temperature	
Temperature measuring range	-50...150 °C
Power supply	
Operating voltage U_B	5...32 VDC
Power supply	
Electrical data	
Output function	Analog output
Short-circuit protection	yes
Wire break/reverse polarity protection	yes
Current consumption	≤ 20 mA
Insulation class	III
Response time	$t_{05} = 1.5$ s / $t_{09} = 6.0$ s in water @ 0.2 m/s
Outputs	
Accuracy (Lin. + Hys. + Rep.)	$\pm 0,2$ K
Current output	4...20 mA
Electrical output	Current output (2-wire)
Load	≤ 0.86 k Ω at 24 VDC $[R_{Load} = (V_{supply} - 5 V) / 22 \text{ mA}]$
Output 1	Analog output
Accuracy/deviation	
Temperature coefficient range TK_s	$\pm 0,1$ % v.E./10 K
Temperature coefficient zero point TK_0	$\pm 0,1$ % v.E./10 K
Mechanical data	
Design	Without display (integrated probe)
Construction type designation	TTMS
Housing material	Stainless steel, 1.4404 (AISI 316L)
Electrical connection	Connector, M12 x 1
Outer diameter	6 mm
Process connection	For compression fittings, thermowell or direct mounting

Wiring Diagram



Functional principle

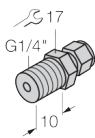
Temperatures are detected via a mineral-insulated probe and converted into a wide range of electrical output signals. The devices in the TTM miniature product series are enclosed in a fully potted plastic housing and, depending on the variant, they have either an IO-link output, current output and/or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

Technical data

Sensor material	Stainless steel, 1.4404 (AISI 316L)
Mounting conditions	Immersion sensor
Ambient conditions	
Ambient temperature	-40...+80 °C
Storage temperature	-40...+80 °C
Protection class	IP67
Tests/approvals	
Approvals	CE
MTTF	162 Years acc. to SN 29500 (Ed. 99) 40 °C
Reference conditions	
Auxiliary power	24 VDC
Atmospheric pressure	860...1060 hPa abs.
Humidity	45...75 % rel.
Temperature	15...+25 °C
Comments	
Note	Max. temperature of electronics: 80 °C/ 176 °F

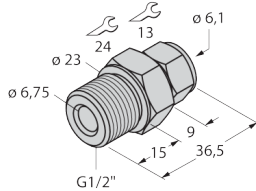
Mounting accessories

CF-M-6-G1/4-A4	9910483
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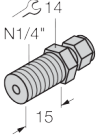
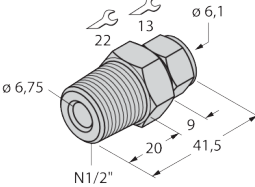
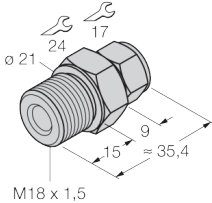
Compression fitting for direct mounting of temperature probes; probe diameter 6 mm; process connection G1/4" male thread

CF-M-6-G1/2-A4	9910530
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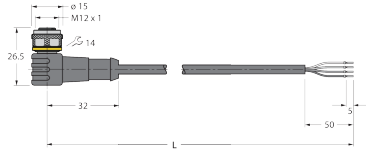
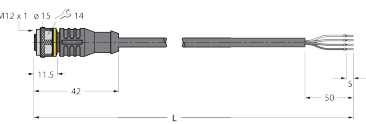
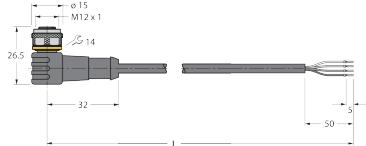


Compression fitting for direct mounting of temperature probes; probe diameter 6 mm; process connection G1/2" male thread

Mounting accessories

CF-M-6-N1/4-A4	9910484	Compression fitting for direct mounting of temperature probes; probe diameter 6 mm; process connection 1/4" NPT male thread
		
CF-M-6-N1/2-A4	9910529	Compression fitting for direct mounting of temperature probes; probe diameter 6 mm; process connection 1/2" NPT male thread
		
CF-M-6-M18-A4	9910525	Compression fitting for direct mounting of temperature probes; probe diameter 6 mm; process connection M18 x 1.5 male thread
		

Connection accessories

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