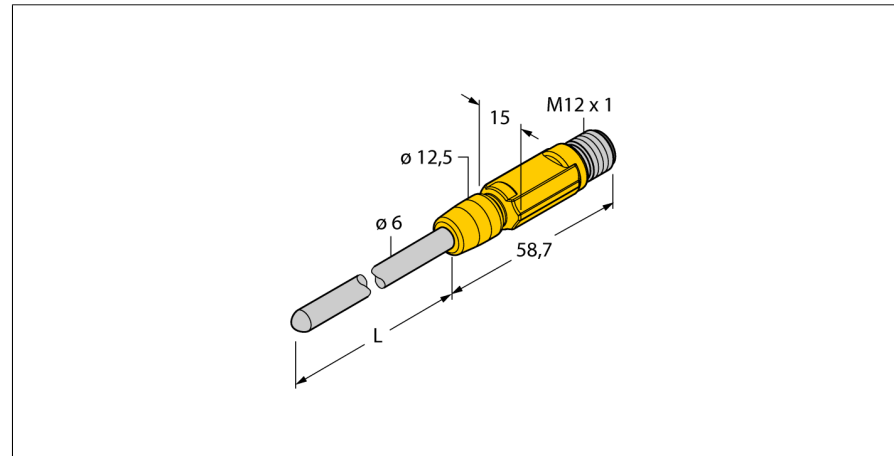
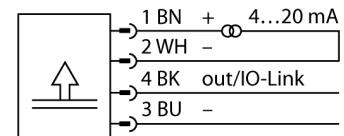


**Temperature measurement  
with current output and PNP/NPN transistor switching output  
TTM-206A-CF-LIUPN-H1140-L100**



- Miniature design
- Analog output 4...20 mA
- Temperature range -210...650 °C

**Wiring diagram**



**General description**

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.

<b>Type code</b>	TTM-206A-CF-LIUPN-H1140-L100
Ident no.	9910624
<b>Temperature range</b>	
Temperature operating range	-210...650 °C
Measuring element	-346...1202°F
Accuracy	Pt-100 platinum measuring element, DIN EN 60751
Response time	Class A
Immersion depth (L)	$t_{0.5} = 6 \text{ s} / t_{0.9} = 15 \text{ s}$ in water at 0.2 m/s
	100 mm
<b>Power supply</b>	
Operating voltage	15...30VDC
No-load current $I_0$	$\leq 20 \text{ mA}$
Short-circuit/reverse polarity protection	yes/ yes
Protection type and class	IP67/ III
<b>Outputs</b>	
Output 1	Switching output or IO-Link mode
Output 2	analogue output
<b>Switching output</b>	
Switching point accuracy	$\pm 0.2 \text{ K}$
Switching cycles	$\geq 100 \text{ mil.}$
Release points	210...640°C
Switching point	-200...650°C
<b>Analogue output</b>	
Operating range	4...20/ 0...20 mA (2-wire)
Load	$\leq 0.5 \text{ k}\Omega$
Accuracy (Lin. + Hys. + Rep.)	$\pm 0.2 \text{ K}$
Anmerkung	0.1% of full scale applies to temperatures $> +200 \text{ }^\circ\text{C}$
Repeatability	0.1 K
<b>IO-Link</b>	
Communication	specified acc. to version 1.1
Parameterization	FDT / DTM
Transmission physics	corresponds to 3-wire physics (PHY2)
Transmission rate	COM 2 / 38.4 kbps
Process data width	16 bit
Measured value information	14 bit
Switchpoint information	2 bit
Frame type	2.2
Genauigkeit	$\pm 0.2 \text{ K}$
<b>Temperature behaviour</b>	
Temperature coefficient zero point $T_{0}$	$\pm 0.1 \text{ \% of full scale} / 10 \text{ K}$
Temperature coefficient span $T_{1s}$	$\pm 0.1 \text{ \% of full scale} / 10 \text{ K}$

## Temperature measurement with current output and PNP/NPN transistor switching output TTM-206A-CF-LIUPN-H1140-L100

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**Ambient conditions**

Ambient temperature	-40...80 °C
Storage temperature	-40...+80°C
Pressure resistance	100 bar

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**Housing**

Housing material	stainless-steel/plastic, V4A (1.4404)
Sensor material	stainless steel, AISI 316L
Process connection	for compression fittings, thermowells or direct mounting
Connection	male, M12 x 1
Pressure resistance	100 bar

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**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 measurement  
with current output and PNP/NPN transistor switching output  
TTM-206A-CF-LIUPN-H1140-L100**

**Wiring accessories**

Type code	Ident no.	Description	Dimension drawing
RKC4.4T-2/TEL	6625013	Connection cable, female M12, straight, 4-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see <a href="http://www.turck.com">www.turck.com</a>	
WKC4.4T-2/TEL	6625025	Connection cable, female M12, angled, 4-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see <a href="http://www.turck.com">www.turck.com</a>	
RKC4.4T-2/TXL	6625503	Connection cable, female M12, straight, 4-pin, cable length: 2 m, sheath material: PUR, black; cULus approval; other cable lengths and qualities available, see <a href="http://www.turck.com">www.turck.com</a>	
WKC4.4T-2/TXL	6625515	Connection cable, female M12, angled, 4-pin, cable length: 2 m, sheath material: PUR, black; cULus approval; other cable lengths and qualities available, see <a href="http://www.turck.com">www.turck.com</a>	