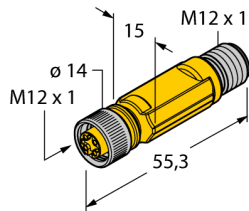
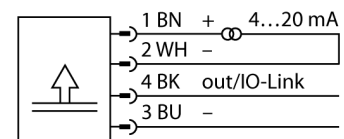


**Temperature measurement
miniature transmitter for external probes
TTM-100-LIUPN-H1140**



- Factory setting 0...+150 °C (other settings on request)
- Parametrizable via IO-Link
- Analog output 4...20 mA (2-wire)
- Switching output
- For connection to external temperature probes
- Temperature range -210...650 °C

Wiring diagram



General description

TP temperature probes (PT100 4-wire) can be plugged directly or via cable to the M12 connection at the TTM100 temperature transmitter.

The temperature signal is transformed into an analog output signal (2-wire 4...20mA) and a switching signal. IO-Link is available for communication and programming.

Type code	TTM-100-LIUPN-H1140
Ident no.	9910632
Temperature range	-210...650 °C
Temperature operating range	-346...1202°F
Measuring element	For connection to probes of the TP series
Accuracy	Class A
Response time	depending on connected temperature probe
Power supply	
Operating voltage	15...30VDC
No-load current I ₀	≤ 20 mA
Short-circuit/reverse polarity protection	yes/ yes
Protection type and class	IP67/ III
Outputs	
Output 1	Switching output or IO-Link mode
Output 2	analogue output
Switching output	
Switching point accuracy	± 0.2 K
Switching cycles	≥ 100 mil.
Release points	210...640°C
Switching point	-200...650°C
Analogue output	
Operating range	4...20/ 0...20 mA (2-wire)
Load	≤ 0.5 kΩ
Accuracy (Lin. + Hys. + Rep.)	± 0.2 K
Anmerkung	0.1% of full scale applies to temperatures > +200 °C
Repeatability	0.1 K
IO-Link	
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	± 0.2 K
Temperature behaviour	
Temperature coefficient zero point T ₀	± 0.1 % of full scale / 10 K
Temperature coefficient span T _s	± 0.1 % of full scale / 10 K
Ambient conditions	
Ambient temperature	-40...80 °C
Storage temperature	-40...+80°C

**Temperature measurement
miniature transmitter for external probes
TTM-100-LIUPN-H1140**

Housing

Housing material	stainless-steel/plastic, V4A (1.4404)
Process connection	M12 x 1
Connection	male, M12 x 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

**Temperature measurement
miniature transmitter for external probes
TTM-100-LIUPN-H1140**

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 www.turck.com	
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 www.turck.com	
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 www.turck.com	
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 www.turck.com	