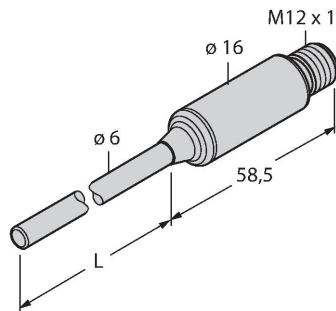


TTS260-000/075-00-LIUPN-H1140

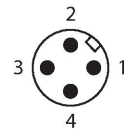
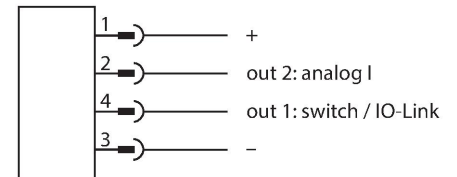
Temperature Sensor with Integrated Transmitter in Stainless Steel Housing



Features

- Jacket resistance thermometer
- Factory setting 0...150 °C
- IO-Link, Smart Sensor Profile
- Analog output 4...20 mA
- Switching output
- Multicolor LED
- Outer diameter: 6 mm
- Immersion depth: 100 mm
- Process connection: compression fitting
- Bendable probe (min. bending radius: 3 × outer diameter; excluding 30-mm probe tip)

Wiring diagram



Functional principle

All devices of the temperature transmitter product series TTS are made of stainless steel 1.4404 (AISI 316L). They are available with integrated probe or with M12 probe connection.

Due to the integrated electronics, the limited temperature range must be observed in the area of the M12 male connector.

The devices feature a current output (2-wire, 4...20 mA), a switching output and communication via IO-Link (Smart Sensor Profile).

Technical data

Type	TTS260-000/075-00-LIUPN-H1140
ID	100051325
Temperature range	
Measuring range	-70...500 °C
	-94...662 °F
Factory setting	0...150 °C
	32...302 °F
Note	Max. temperature of electronics: 85 °C/185 °F
Accuracy	±0.15 K + 0.002 • t (-30...300 °C)
Measuring element	Pt100, DIN EN 60751, class A
Response time	t _{0.5} = 6 s / t _{0.9} = 15 s in water at 0.2 m/s
Immersion depth L	100 mm
Outer diameter	6 mm
Error correction	Offset or 2-point correction
Power supply	
Operating voltage U _B	18...32 VDC
	In IO-Link mode
	8...32 VDC
	In SIO mode
Power consumption	≤ 0.65 W
	In IO-Link mode
Leistungsaufnahme	≤ 0.8 W
	im SIO-Mode
Short-circuit/reverse polarity protection	yes / yes
Protection class	IP67

Technical data

Insulation class	III
Outputs	
Output 1	Switching output or IO-Link mode
Output 2	Analog output
Switching output	
Communication protocol	IO-Link
Output function	NO/NC programmable, PNP/NPN
Switching point accuracy	$\pm 0.3 \text{ K}$
Rated operational current	0.25 A
Switching cycles	$\geq 100 \text{ mil.}$
Release position	-50...+490 °C
Switching point	-40...+500 °C
Analog output	
Current output	4...20 mA
Load	$\leq [(V_{\text{supply}} - 8 \text{ V})/22 \text{ mA}] \text{ k}\Omega$
Accuracy (Lin. + Hys. + Rep.)	$\pm 0.3 \text{ K}$
Remark	0.3 % of full scale applies to values > 300 °C
Repeatability	0.1 K
IO-Link	
IO-Link specification	V1.1, Smart Sensor Profile
Programming	FDT / DTM
Transmission physics	corresponds to 3-wire physics (PHY2)
Transmission rate	COM 2 / 38.4 kbps
Process data width	32 bit
Measured value information	16 bit
Switchpoint information	1 bit
Frame type	2.2
Profile support	Smart Sensor Profile (SSP3.1)
Genauigkeit	$\pm 0.15 \text{ K}$
Included in the SIDI GSDML	Yes
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...+85 °C
Storage temperature	-40...+85 °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

Technical data

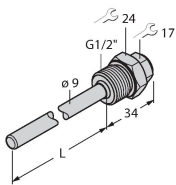
Pressure resistance	100 bar
Electrical connection	Connector, M12 × 1
Reference conditions acc. to IEC 61298-1	
Temperature	15...+25 °C
Atmospheric pressure	860...1060 hPa abs.
Humidity	45...75 % rel.
Auxiliary power	24 VDC
Displays/Operating elements	
Display	Green LED (IO-Link), RGB LED with adjustable color (Locator, SIO)
Switching state	RGB LED
MTTF	541 years acc. to SN 29500 (Ed. 99) 40 °C

Accessories

THW-6-G1/2-A4-L100

9910460

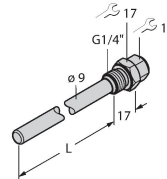
Protective tube for mounting temperature sensors; sensor diameter 6 mm; process connection G1/2" external thread; immersion depth 100 mm



THW-6-G1/4-A4-L100

9910762

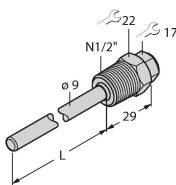
Protective tube for mounting temperature sensors; sensor diameter 6 mm; process connection G1/4" external thread; immersion depth 100 mm



THW-6-N1/2-A4-L100

9910464

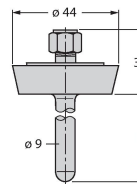
Protective tube for mounting temperature sensors; sensor diameter 6 mm; process connection 1/2" NPT; immersion depth 100 mm



THW-6-DN25K-A4-L100

9910436

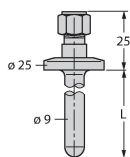
Protective tube for mounting temperature sensors; sensor diameter 6 mm; process connection for dairy screw connection DN25 acc. to DIN 11851; immersion depth 100 mm; for use in food and pharmaceutical applications



THW-6-TRI3/4-A4-L100

9910468

Protective tube for mounting temperature sensors; sensor diameter 6 mm; process connection Tri-Clamp 3/4; immersion depth 100 mm; for use in food and pharmaceutical applications



CF-M-6-G1/4-A4

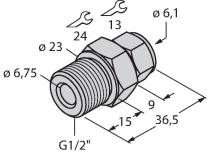
9910483

Compression fitting for direct mounting of temperature sensors; sensor diameter 6 mm; process connection G1/4" male thread



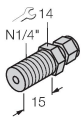
CF-M-6-G1/2-A4 9910530

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



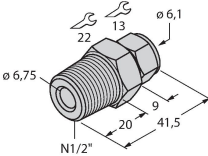
CF-M-6-N1/4-A4 9910484

Compression fitting for direct mounting of temperature sensors; sensor diameter 6 mm; process connection 1/4" NPT male thread



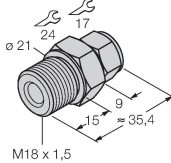
CF-M-6-N1/2-A4 9910529

Compression fitting for direct mounting of temperature sensors; sensor diameter 6 mm; process connection 1/2" NPT male thread



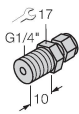
CF-M-6-M18-A4 9910525

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



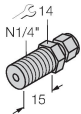
CF-P-6-G1/4-A4 9910485

Compression fitting for direct mounting of temperature sensors; sensor diameter 6 mm; process connection G1/4" male thread



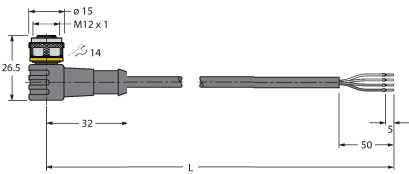
CF-P-6-N1/4-A4 9910486

Compression fitting for direct mounting of temperature sensors; sensor diameter 6 mm; process connection 1/4" NPT male thread

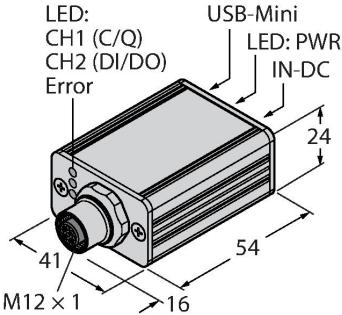


Accessories

Dimension drawing	Type	ID	
	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
	RKC4.4T-P7X2-10/TXL	6626184	Connection cable, M12 female connector, straight, 4-pin, LED, cable length: 10 m, jacket material: PUR, black; cULus approval

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

Accessories

Dimension drawing	Type	ID	
	USB-2-IOL-0002	6825482	IO-Link Master with integrated USB port