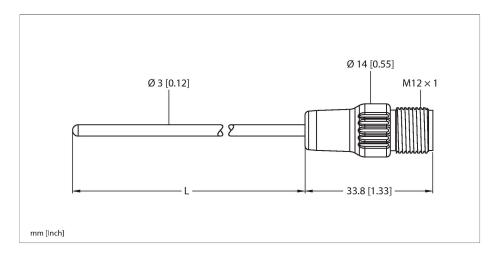


TP-203A-CF-H1141-L300 Temperature Detection – Probe





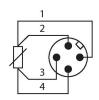
Temperature range	Туре	TP-203A-CF-H1141-L300		
Measuring range -50500 °C -58932 °F Accuracy ±0.15 K + 0.002 • t (-30300 °C) Self-heating 0.4 K/mW at 0 °C Measuring element Pt100, DIN EN 60751, class A; connection mode: 4-wire connection Response time t 0.5 = 1.5 s / t 0.9 = 6.0 s in water at 0.2 m/s Immersion depth L 300 mm Outer diameter 3 mm Protection class IP67 Environmental conditions Ambient temperature -40+120 °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 Pressure resistance 100 bar Electrical connection Connector, M12 × 1 Core cross-section 4 mm² Reference conditions acc. to IEC	ID	9910474		
-58932 °F Accuracy ±0.15 K + 0.002 • t (-30300 °C) Self-heating 0.4 K/mW at 0 °C Measuring element Pt100, DIN EN 60751, class A; connection mode: 4-wire connection Response time t 0.5 = 1.5 s / t 0.9 = 6.0 s in water at 0.2 m/s Immersion depth L 300 mm Outer diameter 3 mm Protection class IP67 Environmental conditions Ambient temperature -40+120 °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 Pressure resistance 100 bar Electrical connection Connector, M12 × 1 Core cross-section 4 mm² Reference conditions acc. to IEC 61298-1	Temperature range			
Accuracy ±0.15 K + 0.002 • t (-30300 °C) Self-heating 0.4 K/mW at 0 °C Measuring element Pt100, DIN EN 60751, class A; connection mode: 4-wire connection Response time t 0.5 = 1.5 s / t 0.9 = 6.0 s in water at 0.2 m/s Immersion depth L 300 mm Outer diameter 3 mm Protection class IP67 Environmental conditions Ambient temperature -40+120 °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 Pressure resistance 100 bar Electrical connection Connector, M12 × 1 Core cross-section 4 mm² Reference conditions acc. to IEC 61298-1	Measuring range	-50500 °C		
Self-heating 0.4 K/mW at 0 °C Measuring element Pt100, DIN EN 60751, class A; connection mode: 4-wire connection Response time 1 0.5 = 1.5 s / t 0.9 = 6.0 s in water at 0.2 m/s Immersion depth L 300 mm Outer diameter 3 mm Protection class IP67 Environmental conditions Ambient temperature -40+120 °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 Pressure resistance 100 bar Electrical connection Connector, M12 × 1 Core cross-section 4 mm² Reference conditions acc. to IEC 61298-1		-58932 °F		
Measuring element Pt100, DIN EN 60751, class A; connection mode: 4-wire connection Response time t 0.5 = 1.5 s / t 0.9 = 6.0 s in water at 0.2 m/s Immersion depth L 300 mm Outer diameter 3 mm Protection class IP67 Environmental conditions Ambient temperature -40+120 °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 Pressure resistance 100 bar Electrical connection Connector, M12 × 1 Core cross-section 4 mm² Reference conditions acc. to IEC 61298-1	Accuracy	±0.15 K + 0.002 • t (-30300 °C)		
tion mode: 4-wire connection Response time t 0.5 = 1.5 s / t 0.9 = 6.0 s in water at 0.2 m/s Immersion depth L 300 mm Outer diameter 3 mm Protection class IP67 Environmental conditions Ambient temperature -40+120 °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 Pressure resistance 100 bar Electrical connection Connector, M12 × 1 Core cross-section Reference conditions acc. to IEC 61298-1	Self-heating	0.4 K/mW at 0 °C		
Immersion depth L 300 mm Outer diameter 3 mm Protection class IP67 Environmental conditions Ambient temperature -40+120 °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 Pressure resistance 100 bar Electrical connection Connector, M12 × 1 Core cross-section 4 mm² Reference conditions acc. to IEC 61298-1	Measuring element			
Outer diameter 3 mm Protection class IP67 Environmental conditions Ambient temperature -40+120 °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 Pressure resistance 100 bar Electrical connection Connector, M12 × 1 Core cross-section 4 mm² Reference conditions acc. to IEC 61298-1	Response time			
Protection class IP67 Environmental conditions Ambient temperature -40+120 °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 Pressure resistance 100 bar Electrical connection Connector, M12 × 1 Core cross-section 4 mm² Reference conditions acc. to IEC 61298-1	Immersion depth L	300 mm		
Environmental conditions Ambient temperature -40+120 °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 Pressure resistance 100 bar Electrical connection Connector, M12 × 1 Core cross-section 4 mm² Reference conditions acc. to IEC 61298-1	Outer diameter	3 mm		
Ambient temperature -40+120 °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 Pressure resistance 100 bar Electrical connection Connector, M12 × 1 Core cross-section 4 mm² Reference conditions acc. to IEC 61298-1	Protection class	IP67		
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 Pressure resistance 100 bar Electrical connection Connector, M12 × 1 Core cross-section 4 mm² Reference conditions acc. to IEC 61298-1	Environmental conditions			
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 Core cross-section 4 mm² Reference conditions acc. to IEC 61298-1	Ambient temperature	-40+120 °C		
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 Core cross-section 4 mm² Reference conditions acc. to IEC 61298-1	Storage temperature	-40+85 °C		
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 Core cross-section 4 mm² Reference conditions acc. to IEC 61298-1	Mechanical data			
Process connection For compression fittings, thermowell or direct mounting Pressure resistance 100 bar Electrical connection Connector, M12 × 1 Core cross-section 4 mm² Reference conditions acc. to IEC 61298-1	Housing material	Stainless steel, 1.4404 (AISI 316L)		
Pressure resistance 100 bar Electrical connection Connector, M12 × 1 Core cross-section 4 mm² Reference conditions acc. to IEC 61298-1	Sensor material	Stainless steel, 1.4404 (AISI 316L)		
Electrical connection Connector, M12 × 1 Core cross-section 4 mm² Reference conditions acc. to IEC 61298-1	Process connection			
Core cross-section 4 mm² Reference conditions acc. to IEC 61298-1	Pressure resistance	100 bar		
Reference conditions acc. to IEC 61298-1	Electrical connection	Connector, M12 × 1		
61298-1	Core cross-section	4 mm ²		
Temperature 15 +25 °C				
Temperature 13123 O	Temperature	15+25 °C		



Features

- Process connection via compression fitting or thermowell
- Connection mode: 4-wire connection

Wiring diagram



Functional principle

Resistance thermometers are used for the detection and monitoring of temperatures to optimize and control a process.

Typical applications are in machine and plant construction as well as in the process industry. The core element of the temperature probe is a temperature-dependent resistor.

Technical data

Atmospheric pressure	8601060 hPa abs.	
Humidity	4575 % rel.	
Auxiliary power	24 VDC	
Tests/approvals		
Approvals	cULus	
UL registration number	E345414	
MTTF	2283 years acc. to SN 29500 (Ed. 99) 20 °C	

Accessories

CF-M-3-G1/8-A4 9910405 Compression fitting for direct mounting of temperature sensors; sensor diameter 3 mm; process connection G1/8" male thread

CF-M-3-N1/8-A4

Compression fitting for direct mounting of temperature sensors; sensor diameter 6 mm; process connection 1/8" NPT male thread

9910406

9910408



CF-M-3-G1/4-A4 9910407

> Compression fitting for direct mounting of temperature sensors; sensor diameter 3 mm; process connection G1/4" male thread

CF-M-3-N1/4-A4

Compression fitting for direct





mounting of temperature sensors; sensor diameter 3 mm; process connection 1/4" NPT male thread

Accessories

Dimension drawing	Туре	ID	
0 15 M12 x1 26.5 14	WKC4.4T-2/TEL	6625025	Connection cable, M12 female connector, angled, 4-pin, cable length: 2 m, jacket material: PVC, black; cULus approval
M12x1 e15 75 14	RKC4.4T-2/TEL	6625013	Connection cable, M12 female connector, straight, 4-pin, cable length: 2 m, jacket material: PVC, black; cULus approval

Dimension drawing	Туре	ID	
M12 x 1 o 15	RKC4.4T-2/TXL	6625503	Connection cable, M12 female connector, straight, 4-pin, cable length: 2 m, jacket material: PUR, black; cULus approval
0 15 M12 x 1 26.5 32	WKC4.4T-2/TXL	6625515	Connection cable, M12 female connector, angled, 4-pin, cable length: 2 m, jacket material: PUR, black; cULus approval

Accessories

Dimension drawing	Туре	ID	
	TTM-100-LIUPN-H1140	9910632	Miniature transmitter for external probes

