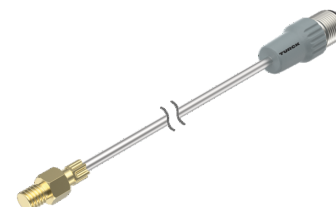
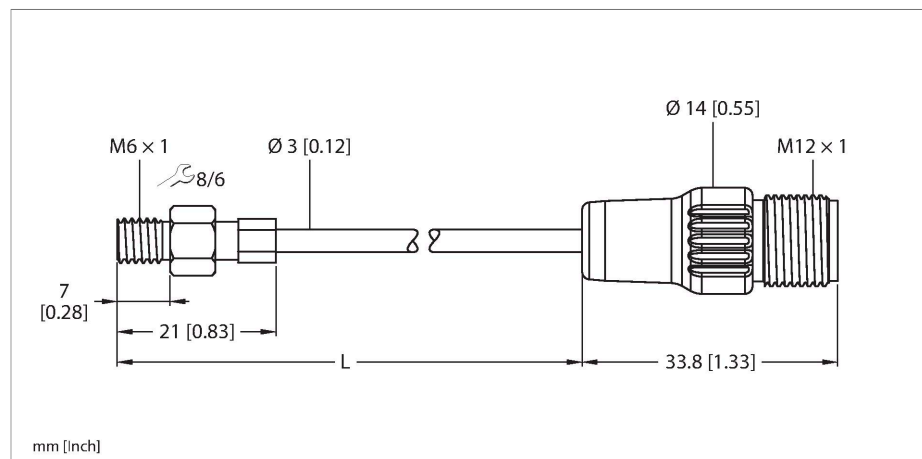


TP-203A-M6-H1141-L100-I7

Temperature Detection – Probe



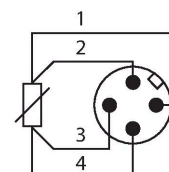
Technical data

Type	TP-203A-M6-H1141-L100-I7
ID	100041106
Temperature range	
Measuring range	-50...500 °C
	-58...932 °F
Accuracy	±0.15 K + 0.002 • t (-30...300 °C)
Measuring element	Pt100, DIN EN 60751, class A; connection mode: 4-wire connection
Self-heating	0.4 K/mW at 0 °C
Response time	t 0.5 = 6 s / t 0.9 = 15 s in water at 0.2 m/ s
Process Pressure	100 bar
Mechanical data	
Housing material	Stainless steel, 1.4404 (AISI 316L)
Process connection	M6 × 1 male thread
Electrical connection	Connector, M12 × 1
Protection class	IP67
Environmental conditions	
Ambient temperature	-40...+120 °C
Storage temperature	-40...+85 °C
Tests/approvals	
UL registration number	E345414
Reference conditions acc. to IEC 61298-1	
Temperature	15...+25 °C

Features

- Max. temperature connector: 120°C
- Connection mode: 4-wire connection
- Process connection: M6 × 1 male thread at probe tip

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	860...1060 hPa abs.
Humidity	45...75 % rel.
Auxiliary power	24 VDC
MTTF	2283 years acc. to SN 29500 (Ed. 99) 20 °C

Technical data

Type	TP-203A-M6-H1141-L100-I7
ID	100041106
Temperature range	
Measuring range	-50...500 °C
	-58...932 °F
Accuracy	±0.15 K + 0.002 • t (-30...300 °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 = 6 s / t 0.9 = 15 s in water at 0.2 m/s
Bar length (L)	100 mm
Immersion length (I)	7 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	M6 × 1 male thread
Process Pressure	100 bar
Electrical connection	Connector, M12 × 1
Core cross-section	4 mm ²
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
Tests/approvals	
Approvals	cULus

Technical data

UL registration number	E345414
MTTF	2283 years acc. to SN 29500 (Ed. 99) 20 °C