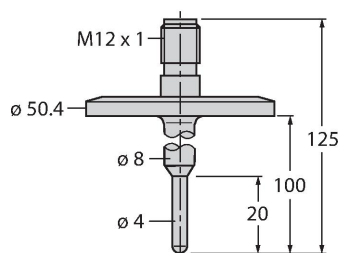


TP-504A-TRI1.5-H1141-L100/S3645

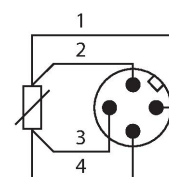
Temperature Detection – Probe



Features

- Max. temperature connector: 120°C
- Connection mode: 4-wire connection
- Process connection Tri-Clamp 1 1/2"

Wiring diagram



Technical data

Type	TP-504A-TRI1.5-H1141-L100/S3645
ID	100048143
Special version	S6345 Corresponds to: Roughness of media-contacting surfaces $R_a < 0.4 \mu\text{m}$ (electropolished)
Temperature range	
Measuring range	-50...120 °C
	-58...248 °F
Accuracy	$\pm 0.15 \text{ K} + 0.002 \cdot 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	$t_{0.5} = 3 \text{ s} / t_{0.9} = 10 \text{ s}$ in water at 0.2 m/s
Immersion depth (L)	100 mm
Process Pressure	40 bar
Mechanical data	
Housing material	Stainless steel, 1.4404 (AISI 316L)
Roughness	$R_a \leq 0.8 \mu\text{m}$
Process connection	Tri-Clamp 1 1/2"
Electrical connection	Connector, M12 x 1
Protection class	IP67
Environmental conditions	
Ambient temperature	-40...+120 °C

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

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

Technical data

Type	TP-504A-TRI1.5-H1141-L100/S3645
ID	100048143
Special version	S6345 Corresponds to: Roughness of media-contacting surfaces $R_a < 0.4 \mu\text{m}$ (electropolished)
Temperature range	
Measuring range	-50...120 °C
	-58...248 °F
Accuracy	$\pm 0.15 \text{ K} + 0.002 \cdot 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	$t_{0.5} = 3 \text{ s} / t_{0.9} = 10 \text{ s}$ in water at 0.2 m/s
Immersion depth L	100 mm
Outer diameter	8 mm
Protection class	IP67
Environmental conditions	
Ambient temperature	-40...+120 °C
Mechanical data	
Housing material	Stainless steel, 1.4404 (AISI 316L)
Sensor material	Stainless steel, 1.4404 (AISI 316L), $R_a \leq 0.8 \mu\text{m}$
Process connection	Tri-Clamp 1 1/2"
Process Pressure	40 bar
Electrical connection	Connector, M12 × 1
Core cross-section	4 mm ²

Technical data

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