

TP-104A-N1/4-H1141-L005

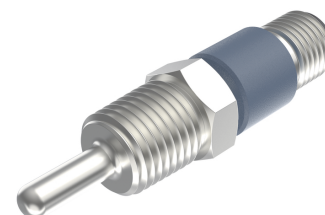
Temperature Detection – Probe

Technical data

Type	TP-104A-N1/4-H1141-L005
ID	9910664
Temperature range	
Measuring range	-50...120 °C
Measuring range	-58...248 °F
Accuracy	±0.15 K + 0.002 • t (-30...300 °C)
Measuring element	Pt-100 probe, 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 s / t 0.9 = 10 s in water at 0.2 m/s
Immersion depth (L)	5 mm
Process Pressure	100 bar
Mechanical data	
Housing material	Stainless steel, 1.4404 (AISI 316L)
Process connection	1/4" NPT
Electrical connection	Connector, M12 × 1
Protection class	IP67
Environmental conditions	
Ambient temperature	-40...+120 °C
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

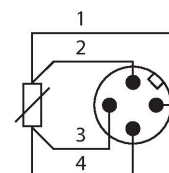
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ID	9910664
Temperature range	
Measuring range	-50...120 °C



Features

- Pt 100 probe according to DIN EN 60751
- Resistant to vibrations and shocks
- Connectable to TS, TTM, IM34, BL20, BL67
- Max. temperature connector: 120°C
- Connection mode: 4-wire connection
- Process connection 1/4" NPT male thread
- Electrical connection rotatable by 360°

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.

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Self-heating	0.4 K/mW at 0 °C
Measuring element	Pt-100 probe, DIN EN 60751, class A, connection mode: 4-wire connection
Response time	t 0.5 = 3 s / t 0.9 = 10 s in water at 0.2 m/s
Immersion depth (L)	5 mm
Outer diameter	4 mm
Protection type and 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)
Process connection	1/4" NPT
Process Pressure	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
Tests/approvals	
Approvals	cULus
UL registration number	E345414
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