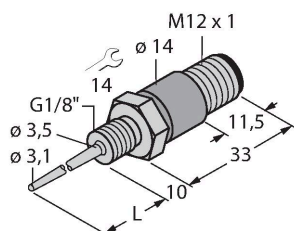


# TP-103A-G1/8-H1141-L013

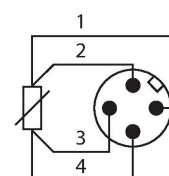
## Temperature Detection – Probe



### Features

- Max. temperature connector: 120°C
- Connection mode: 4-wire connection
- Process connection G1/8" male thread
- Electrical connection rotatable by 360°

### Wiring diagram



### Technical data

Type	TP-103A-G1/8-H1141-L013
ID	9910400
<b>Temperature range</b>	
Measuring range	-50...120 °C
	-58...248 °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 = 1.5 s / t 0.9 = 6.0 s in water at 0.2 m/s
Immersion depth (L)	13 mm
Process Pressure	100 bar
<b>Mechanical data</b>	
Housing material	Stainless steel, 1.4404 (AISI 316L)
Process connection	G 1/8" male thread
Electrical connection	Connector, M12 × 1
Protection class	IP67
<b>Environmental conditions</b>	
Ambient temperature	-40...+120 °C
<b>Tests/approvals</b>	
UL registration number	E345414
<b>Reference conditions acc. to IEC 61298-1</b>	
Temperature	15...+25 °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

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-103A-G1/8-H1141-L013
ID	9910400
<b>Temperature range</b>	
Measuring range	-50...120 °C
	-58...248 °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 = 1.5 s / t 0.9 = 6.0 s in water at 0.2 m/s
Immersion depth L	13 mm
Outer diameter	3 mm
Protection class	IP67
<b>Environmental conditions</b>	
Ambient temperature	-40...+120 °C
<b>Mechanical data</b>	
Housing material	Stainless steel, 1.4404 (AISI 316L)
Sensor material	Stainless steel, 1.4404 (AISI 316L)
Process connection	G 1/8" male thread
Process Pressure	100 bar
Electrical connection	Connector, M12 × 1
Core cross-section	4 mm <sup>2</sup>
<b>Reference conditions acc. to IEC 61298-1</b>	
Temperature	15...+25 °C
Atmospheric pressure	860...1060 hPa abs.
Humidity	45...75 % rel.
Auxiliary power	24 VDC
<b>Tests/approvals</b>	
Approvals	cULus
UL registration number	E345414

## Technical data

MTTF

2283 years acc. to SN 29500 (Ed. 99) 20  
°C

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