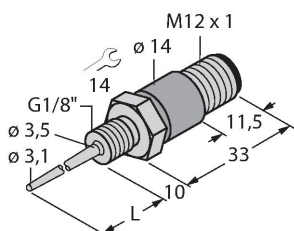


# TP-103A-G1/8-H1141-L013

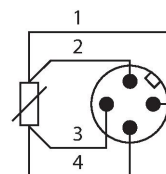
## Temperature Detection – Probe



### Features

- Pt-100 probe acc. to DIN EN 60751
- Vibration and shock-resistant
- Connectable to TS, TTM, IM34, BL20, BL67
- Max. temperature connector: 120°C
- 4-wire connection technology
- Process connection G1/8" male thread
- Electrical connection rotatable by 360°

### Wiring diagram



### Technical data

|                                                 |                                                   |
|-------------------------------------------------|---------------------------------------------------|
| Type                                            | TP-103A-G1/8-H1141-L013                           |
| ID no.                                          | 9910400                                           |
| <b>Temperature range</b>                        |                                                   |
| Measuring range                                 | -50...120 °C                                      |
| Temperature operating range                     | -58...248 °F                                      |
| Accuracy                                        | ± 0.15 °C + 0.002 •  t  (-30...350 °C)            |
| Measuring element                               | Pt-100 probe, DIN EN 60751, class A               |
| 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                                           |
| Output function                                 | 4-wire                                            |
| Housing material                                | Stainless steel, 1.4404 (AISI 316L)               |
| Process connection                              | G1/8" male thread                                 |
| Electrical connection                           | Connector, M12 × 1                                |
| Protection class                                | IP67                                              |
| Ambient temperature                             | -40...+120 °C                                     |
| <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                                            |

### 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

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

## Technical data

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| Immersion depth (L)                             | 13 mm                                             |
| Protection type and class                       | IP67                                              |
| Output function                                 | 4-wire                                            |
| <b>Ambient conditions</b>                       |                                                   |
| Ambient temperature                             | -40...+120 °C                                     |
| <b>Housing</b>                                  |                                                   |
| Housing material                                | Stainless steel, 1.4404 (AISI 316L)               |
| Sensor material                                 | Stainless steel, 1.4404 (AISI 316L)               |
| Process connection                              | G1/8" male thread                                 |
| Process Pressure                                | 100 bar                                           |
| Electrical connection                           | Connector, M12 × 1                                |
| <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                                            |
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