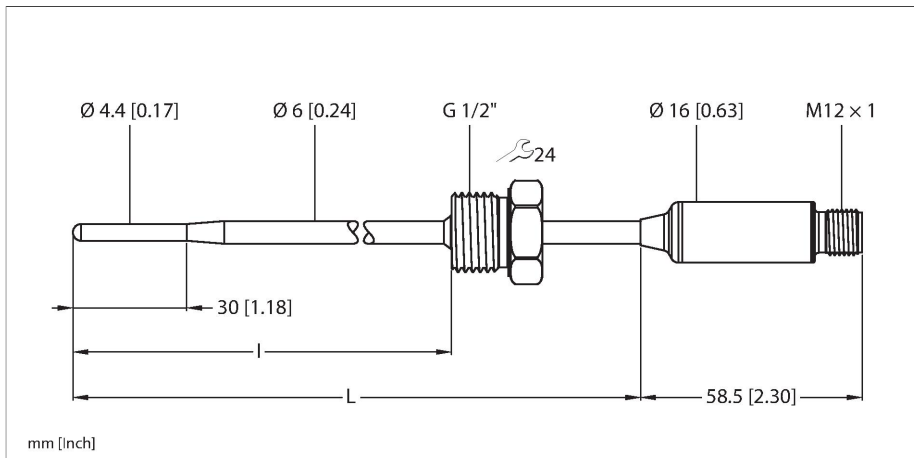


# TTMS-206A-G1/2-LI6-H1140-L250-50/150

## Temperature Detection – With Current Output



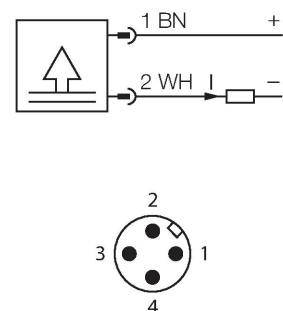
### Technical data

|                                           |                                                                  |
|-------------------------------------------|------------------------------------------------------------------|
| Type                                      | TTMS-206A-G1/2-LI6-H1140-L250-50/150                             |
| ID                                        | 100004225                                                        |
| <b>Temperature range</b>                  |                                                                  |
| Measuring range                           | -50...150 °C<br>-58...302 °F                                     |
| Factory setting                           | -50...150 °C<br>-58...302 °F                                     |
| Note                                      | Probe tapered from 6 mm to 4.4 mm                                |
| Measuring element                         | Pt1000, DIN EN 60751, class A                                    |
| Bar length (L)                            | 300 mm                                                           |
| Immersion length (I)                      | 250 mm                                                           |
| Outer diameter                            | 4.4 mm                                                           |
| <b>Power supply</b>                       |                                                                  |
| Operating voltage $U_B$                   | 5...32 VDC                                                       |
| Current consumption                       | ≤ 20 mA                                                          |
| Short-circuit/reverse polarity protection | yes / yes                                                        |
| Protection class                          | IP67                                                             |
| Insulation class                          | III                                                              |
| <b>Outputs</b>                            |                                                                  |
| Output 1                                  | Analog output                                                    |
| Output function                           | Analog output                                                    |
| <b>Analog output</b>                      |                                                                  |
| Current output                            | 4...20 mA                                                        |
| Load                                      | ≤ 0.86 kΩ @24 VDC [ $R_{Load} = (V_{supply} - 5 V) / 22 mA$ ] kΩ |
| Accuracy (Lin. + Hys. + Rep.)             | ± 0.2 K                                                          |

### Features

- Miniature design
- Analog output 4...20 mA
- Factory setting -50 °C...150 °C
- Process connection G1/2", male thread
- Bendable probe (min. bending radius: 3x outer diameter; excluding 30-mm probe tip)
- Probe tapered from 6 mm to 4.4 mm

### Wiring diagram



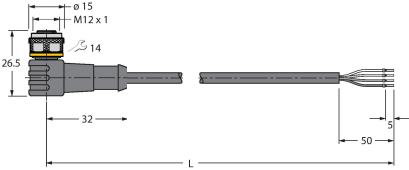
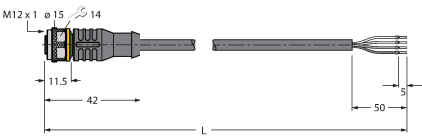
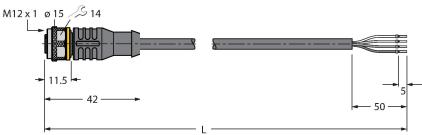
### Functional principle

Temperatures are recorded over a mineral insulated transmitter and converted into a wide range of electrical output signals. The devices of the TTM miniature series are enclosed in a fully potted plastic housing and depending on the variant, they have either an IO-link output, power output and/or switching output.

Technical data

| Temperature behaviour                              |                                           |
|----------------------------------------------------|-------------------------------------------|
| Temperature coefficient zero point TK <sub>0</sub> | ± 0.1 % of full scale/10 K                |
| Temperature coefficient range TK <sub>s</sub>      | ± 0.1 % of full scale/10 K                |
| Environmental conditions                           |                                           |
| Ambient temperature                                | -40...+80 °C                              |
| Storage temperature                                | -40...+80 °C                              |
| Mechanical data                                    |                                           |
| Housing material                                   | Stainless steel, 1.4404 (AISI 316L)       |
| Sensor material                                    | Stainless steel, 1.4404 (AISI 316L)       |
| Process connection                                 | G 1/2" male thread                        |
| Pressure resistance                                | 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                                    |                                           |
| MTTF                                               | 162 years acc. to SN 29500 (Ed. 99) 40 °C |

Accessories

| Dimension drawing                                                                   | Type          | ID      |                                                                                                                         |
|-------------------------------------------------------------------------------------|---------------|---------|-------------------------------------------------------------------------------------------------------------------------|
|  | WKC4.4T-2/TEL | 6625025 | Connection cable, M12 female connector, angled, 4-pin, cable length: 2 m, jacket material: PVC, black; cULus approval   |
|  | RKC4.4T-2/TEL | 6625013 | Connection cable, M12 female connector, straight, 4-pin, cable length: 2 m, jacket material: PVC, black; cULus approval |
|  | RKC4.4T-2/TXL | 6625503 | Connection cable, M12 female connector, straight, 4-pin, cable length: 2 m, jacket material: PUR, black; cULus approval |

| Dimension drawing                                                                 | Type          | ID      |                                                                                                                       |
|-----------------------------------------------------------------------------------|---------------|---------|-----------------------------------------------------------------------------------------------------------------------|
|  | WKC4.4T-2/TXL | 6625515 | Connection cable, M12 female connector, angled, 4-pin, cable length: 2 m, jacket material: PUR, black; cULus approval |