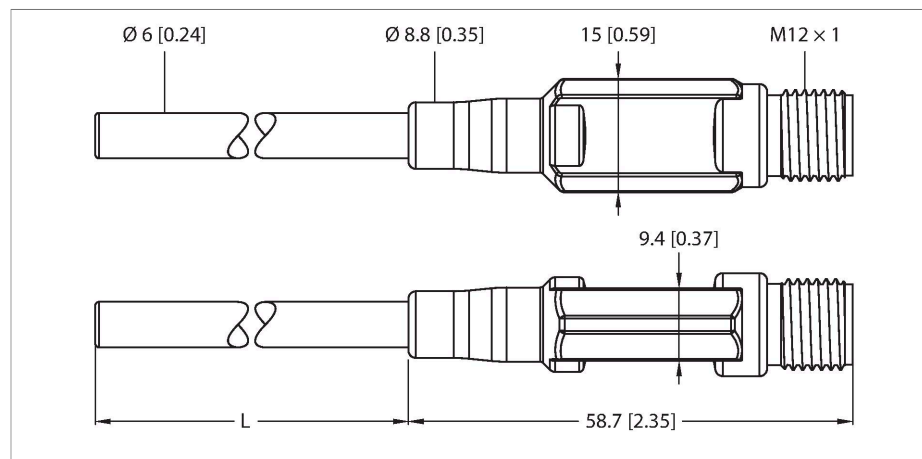


# TTM150C-206A-CF-LI6-H1140-L100

## Temperature Detection – With Current Output



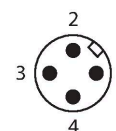
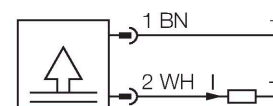
### Technical data

|                                           |                                                                                                     |
|-------------------------------------------|-----------------------------------------------------------------------------------------------------|
| Type                                      | TTM150C-206A-CF-LI6-H1140-L100                                                                      |
| ID                                        | 9910543                                                                                             |
| <b>Temperature range</b>                  |                                                                                                     |
| Measuring range                           | 0...150 °C                                                                                          |
|                                           | 32...302 °F                                                                                         |
| Factory setting                           | 0...150 °C                                                                                          |
|                                           | 32...302 °F                                                                                         |
| Measuring element                         | Pt1000, DIN EN 60751, class A                                                                       |
| Response time                             | $t_{05} = 1.5 \text{ s} / t_{09} = 6.0 \text{ s}$ in water @ 0.2 m/s                                |
| Immersion depth (L)                       | 100 mm                                                                                              |
| Process Pressure                          | 100 bar                                                                                             |
| <b>Power supply</b>                       |                                                                                                     |
| Operating voltage $U_b$                   | 5.5...32 VDC                                                                                        |
| Current consumption                       | $\leq 20 \text{ mA}$                                                                                |
| Short-circuit/reverse polarity protection | yes / yes                                                                                           |
| Insulation class                          | III                                                                                                 |
| <b>Analog output</b>                      |                                                                                                     |
| Current output                            | 4...20 mA                                                                                           |
| Load                                      | $\leq 0.84 \text{ k}\Omega$ at 24 VDC [ $R_{Load} = (V_{Supply} - 5.5 \text{ V}) / 22 \text{ mA}$ ] |
| Accuracy (Lin. + Hys. + Rep.)             | $\pm 0.2 \text{ K}$                                                                                 |
| <b>Mechanical data</b>                    |                                                                                                     |
| Housing material                          | Stainless-steel/Plastic, 1.4404 (AISI 316L)                                                         |

### Features

- Miniature design
- Analog output 4...20 mA
- Factory setting 0...150 °C
- Compression fitting process connection
- Bendable probe (min. bending radius: 3x outer diameter; excluding 30-mm probe tip)

### Wiring diagram



### Functional principle

The TTM miniature transmitters are available with integrated probe. Due to the integrated electronics, the limited temperature range must be observed, especially in the area of the M12 connector.

## Technical data

|                                                    |                                                         |
|----------------------------------------------------|---------------------------------------------------------|
| Process connection                                 | For compression fittings, thermowell or direct mounting |
| Electrical connection                              | Connector, M12 × 1                                      |
| Protection class                                   | IP67                                                    |
| <b>Environmental conditions</b>                    |                                                         |
| Ambient temperature                                | -40...+80 °C                                            |
| Storage temperature                                | -40...+80 °C                                            |
| <b>Tests/approvals</b>                             |                                                         |
| 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                                                  |
| <b>Temperature behaviour</b>                       |                                                         |
| Temperature coefficient range TK <sub>s</sub>      | ± 0.1 % of full scale/10 K                              |
| Temperature coefficient zero point TK <sub>0</sub> | ± 0.1 % of full scale/10 K                              |
| MTTF                                               | 162 years acc. to SN 29500 (Ed. 99) 40 °C               |

## Technical data

|                                           |                                                                      |
|-------------------------------------------|----------------------------------------------------------------------|
| Type                                      | TTM150C-206A-CF-LI6-H1140-L100                                       |
| ID                                        | 9910543                                                              |
| <b>Temperature range</b>                  |                                                                      |
| Measuring range                           | 0...150 °C                                                           |
|                                           | 32...302 °F                                                          |
| Factory setting                           | 0...150 °C                                                           |
|                                           | 32...302 °F                                                          |
| Note                                      | Max. temperature of electronics:<br>80 °C/176 °F                     |
| Measuring element                         | Pt1000, DIN EN 60751, class A                                        |
| Response time                             | t <sub>05</sub> = 1.5 s / t <sub>09</sub> = 6.0 s in water @ 0.2 m/s |
| Immersion depth L                         | 100 mm                                                               |
| Outer diameter                            | 6 mm                                                                 |
| <b>Power supply</b>                       |                                                                      |
| Operating voltage U <sub>B</sub>          | 5.5...32 VDC                                                         |
| Current consumption                       | ≤ 20 mA                                                              |
| Short-circuit/reverse polarity protection | yes / yes                                                            |
| Protection class                          | IP67                                                                 |
| Insulation class                          | III                                                                  |

## Technical data

|                                                 |                                                                                                                 |
|-------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| <b>Analog output</b>                            |                                                                                                                 |
| Current output                                  | 4...20 mA                                                                                                       |
| Load                                            | $\leq 0.84 \text{ k}\Omega$ at 24 VDC [ $R_{\text{Load}} = (V_{\text{Supply}} - 5.5 \text{ V})/22 \text{ mA}$ ] |
| Accuracy (Lin. + Hys. + Rep.)                   | $\pm 0.2 \text{ K}$                                                                                             |
| <b>Temperature behaviour</b>                    |                                                                                                                 |
| Temperature coefficient zero point $TK_0$       | $\pm 0.1 \text{ \% of full scale/10 K}$                                                                         |
| Temperature coefficient range $TK_s$            | $\pm 0.1 \text{ \% of full scale/10 K}$                                                                         |
| <b>Environmental conditions</b>                 |                                                                                                                 |
| Ambient temperature                             | -40...+80 °C                                                                                                    |
| Storage temperature                             | -40...+80 °C                                                                                                    |
| <b>Mechanical data</b>                          |                                                                                                                 |
| Housing material                                | Stainless-steel/Plastic, 1.4404 (AISI 316L)                                                                     |
| Sensor material                                 | Stainless steel, 1.4404 (AISI 316L)                                                                             |
| Process connection                              | For compression fittings, thermowell or direct mounting                                                         |
| 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                                                                                                          |
| <b>Tests/approvals</b>                          |                                                                                                                 |
| MTTF                                            | 162 years acc. to SN 29500 (Ed. 99) 40 °C                                                                       |