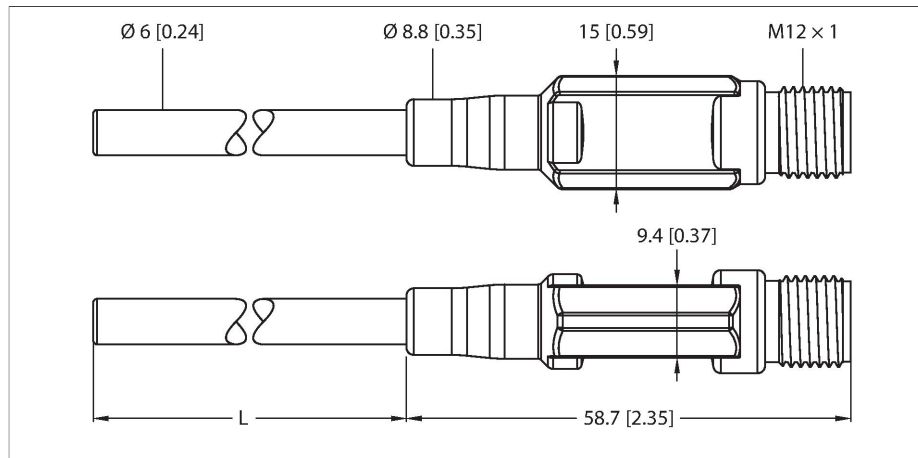


# TTM100C-206A-CF-LI6-H1140-L150

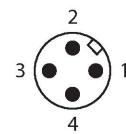
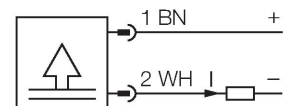
## Temperature Detection – With Current Output



### Features

- Miniature design
- Analog output 4...20 mA
- Factory setting 0...100 °C (other settings on request)
- 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.

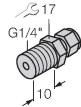
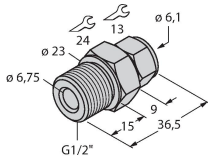
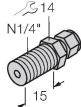
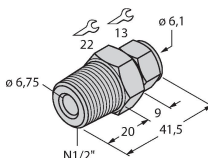
### Technical data

|                                           |                                                                                                     |
|-------------------------------------------|-----------------------------------------------------------------------------------------------------|
| Type                                      | TTM100C-206A-CF-LI6-H1140-L150                                                                      |
| ID                                        | 9910542                                                                                             |
| <b>Temperature range</b>                  |                                                                                                     |
| Measuring range                           | 0...100 °C                                                                                          |
|                                           | 32...212 °F                                                                                         |
| Note                                      | Max. temperature of electronics:<br>80 °C/176 °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                         | 150 mm                                                                                              |
| Outer diameter                            | 6 mm                                                                                                |
| <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                                                                                           |
| Protection class                          | IP67                                                                                                |
| 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>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                                                                                        |

Technical data

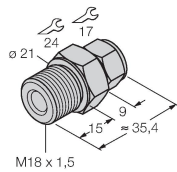
|                                          |                                                         |
|------------------------------------------|---------------------------------------------------------|
| Storage temperature                      | -40...+80 °C                                            |
| Mechanical data                          |                                                         |
| 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 |
| 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

|                                                                                     |         |                                                                                                                               |                                                                                      |         |                                                                                                                               |
|-------------------------------------------------------------------------------------|---------|-------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------|-------------------------------------------------------------------------------------------------------------------------------|
| CF-M-6-G1/4-A4                                                                      | 9910483 | Compression fitting for direct mounting of temperature sensors; sensor diameter 6 mm; process connection G1/4" male thread    | CF-M-6-G1/2-A4                                                                       | 9910530 | Compression fitting for direct mounting of temperature sensors; sensor diameter 6 mm; process connection G1/2" male thread    |
|  |         |                                                                                                                               |  |         |                                                                                                                               |
| CF-M-6-N1/4-A4                                                                      | 9910484 | Compression fitting for direct mounting of temperature sensors; sensor diameter 6 mm; process connection 1/4" NPT male thread | CF-M-6-N1/2-A4                                                                       | 9910529 | Compression fitting for direct mounting of temperature sensors; sensor diameter 6 mm; process connection 1/2" NPT male thread |
|  |         |                                                                                                                               |  |         |                                                                                                                               |

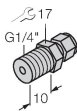
CF-M-6-M18-A4 9910525

Compression fitting for direct mounting of temperature sensors; sensor diameter 6 mm; process connection M18 × 1 male thread



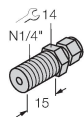
CF-P-6-G1/4-A4 9910485

Compression fitting for direct mounting of temperature sensors; sensor diameter 6 mm; process connection G1/4" male thread



CF-P-6-N1/4-A4 9910486

Compression fitting for direct mounting of temperature sensors; sensor diameter 6 mm; process connection 1/4" NPT male thread



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

| Dimension drawing | Type                | ID      |                                                                                                                               |
|-------------------|---------------------|---------|-------------------------------------------------------------------------------------------------------------------------------|
|                   | RKC4.4T-P7X2-10/TXL | 6626184 | Connection cable, M12 female connector, straight, 4-pin, LED, cable length: 10 m, jacket material: PUR, black; cULus approval |

