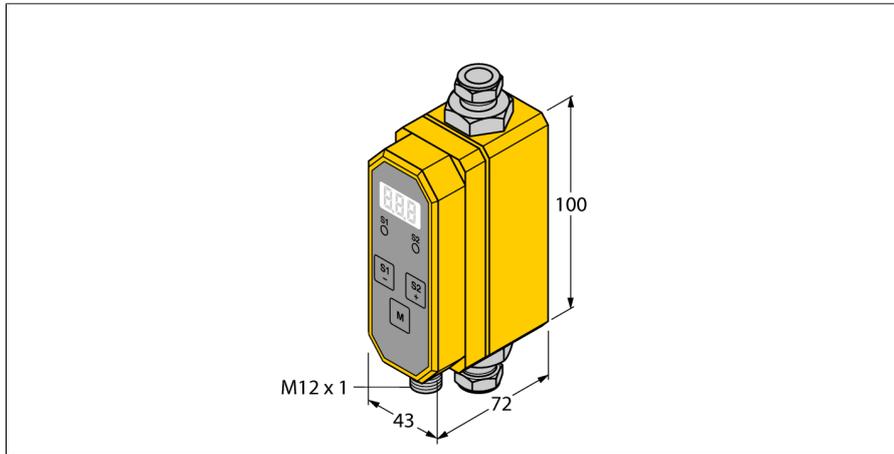


Flow Rate Measurement Inline Sensor with Integrated Processor FTCI-1/2D10A4P-LI-UP8X-H1141



- Compact inline flow sensor
- Calorimetric principle
- Monitoring of flow rate
- Monitoring of the medium temperature
- For water/glycol mix
- Parametrized via button
- Protected by software code
- DC 4-wire, 21.6...26.4 VDC
- NO/NC prog., PNP output
- 4...20 mA analog output
- Analog output provides a current signal proportional to the flow rate for the overall operating range
- Plug-in device, M12 x 1

| | |
|------|------------------------------|
| ID | 6870810 |
| Type | FTCI-1/2D10A4P-LI-UP8X-H1141 |

| | |
|----------------------|---|
| Mounting conditions | Inline sensor |
| Application area | Flow rate and temperature monitoring of water; water/glycol mix or Galden fluid HT110/135 |
| Flow operating range | 0.2...5 gpm |
| Stand-by time | 6...10 s |
| Switch-on time | 0...50 s |
| Switch-off time | 0...50 s |
| Temperature gradient | ≤ 400 K/min |
| Media temperature | 14...+194 °F |
| Ambient temperature | 32...+140 °F |

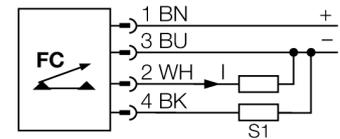
| | |
|-----------------------------|---------------------------------------|
| Electrical data | |
| Operating voltage | 21.6...26.4 VDC |
| Current consumption | ≤ 100 mA |
| Output function | PNP/Analog output, NO/NC programmable |
| Rated operational current | 0.2 A |
| Short-circuit protection | yes |
| Reverse polarity protection | yes |
| Current output | 4...20 mA |
| Load | 200...500 Ω |
| Protection class | IP65 |

| | |
|------------------------|--------------------------------------|
| Mechanical data | |
| Design | Inline |
| Housing material | Plastic, PBT |
| Sensor material | Stainless steel, 1.4571 (AISI 316Ti) |
| Electrical connection | Connector, M12 x 1 |
| Pressure resistance | 20 bar |
| Process connection | 1/2" Swagelok |

| | |
|--------------------|--|
| Flow state display | 7-segment display, switching status LED (yellow) |
|--------------------|--|

| | |
|-----------------|--|
| Tests/approvals | |
|-----------------|--|

Wiring Diagram



Functional principle

The FTCTIs from TURCK monitor flow rates of liquids passing through the sensor reliably and wear-free. These sensors are designed for high-precision flow rate measurement rather than simple flow monitoring tasks.

Based on the thermodynamic principle, electrical energy is converted in heat energy. The heat generated in the probe is conducted away by the flowing medium. The dissipated heat quantity is used as a direct measure for the medium's flow speed. The integrated microprocessor evaluates the data and calculates the flow rate. Based on the applied principle, the user is also indicated the media temperature.

In addition to the standardized electrical output signals for industrial applications, the TURCK flow meters also indicated the current flow rate on its 3-digit 7-segment display.