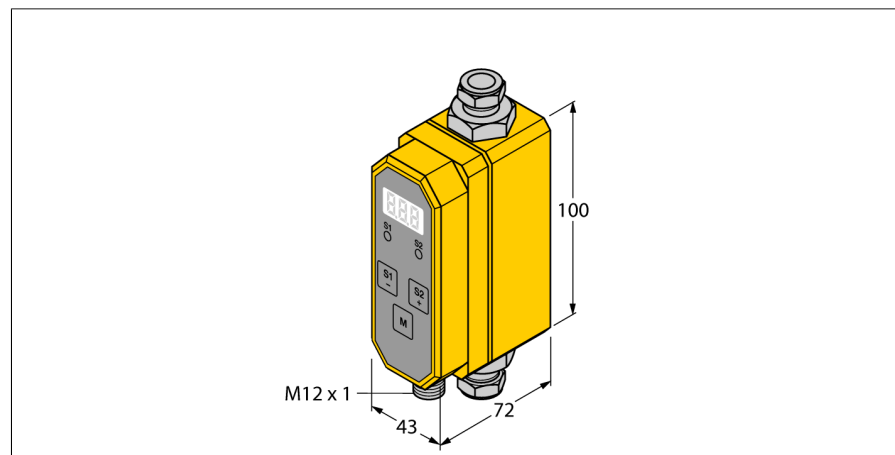


Flow Rate Monitoring

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 | 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 |

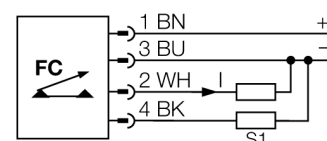
| | |
|-----------------------------|---|
| Electrical data | |
| Operating voltage U_s | 21.6...26.4 VDC |
| Current consumption | ≤ 100 mA |
| Output function | PNP/Analog output, NO/NC programmable |
| Rated operational current | 0.2 A |
| Short-circuit protection | yes |
| Reverse polarity protection | yes |
| Current output | 4...20 mA |
| Load | 200...500 Ω |
| Protection class | IP65 |
| MTTF | 346 years acc. to SN 29500 (Ed. 99) 40 °C |

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

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

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

Wiring Diagram



Functional principle

The FTCTs from TURCK monitor flow rates of liquids passing through the sensor reliably and wear-free. These sensors are designed for flow rate monitoring.

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

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