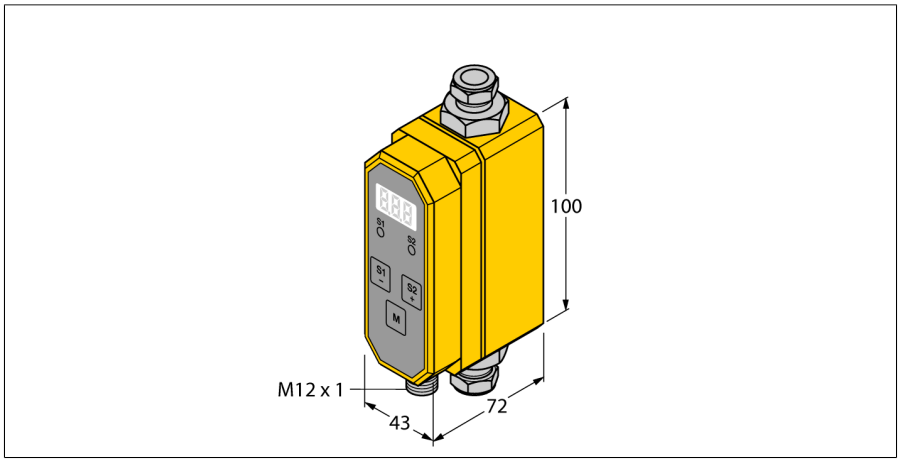
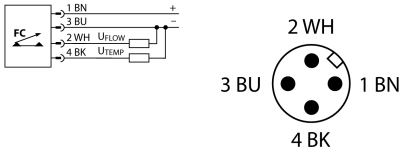
Flow Rate Measurement
Inline Sensor with Integrated Processor
FTCI-1/2D10A4P-2LUX-H1141



- 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
- Analog output flow 0… 10 VDC
- Analog output temperature 0…10 VDC
- Electrical connection M12 x 1

Wiring Diagram



ID	6870840
Type	FTCI-1/2D10A4P-2LUX-H1141
Mounting conditions	Inline sensor
Application area	flow rate/temperature monitoring of water or water/glycol mix
Flow operating range	0.8…19 l/min
Stand-by time	6…10 s
Temperature gradient	≤ 400 K/min
Medium temperature	-10…+90 °C
Ambient temperature	0…+60 °C
Electrical data	
Operating voltage	21.6…26.4 VDC
Current consumption	≤ 100 mA
Output function	Analog output
Short-circuit protection	yes
Reverse polarity protection	yes
Voltage output	0…10 V
Load resistance voltage output	≥ 10 kΩ
Protection class	IP65
Mechanical data	
Design	Inline
Housing material	Plastic, PBT
Sensor material	Stainless steel, 1.4571 (AISI 316Ti)
Electrical connection	Connector, M12 × 1
Pressure resistance	20 bar
Process connection	1/2″ Swagelok
Flow state display	7-segment display, switching status LED (yellow)
Programming options	glycol concentration, flow rate correction, mean value, access code, reference check
Tests/approvals	

Functional principle

The FTCIs 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 aso 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.

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