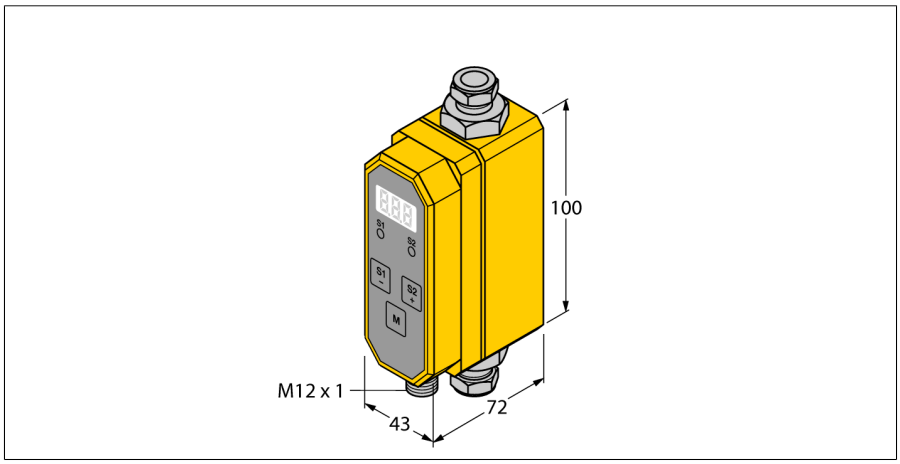
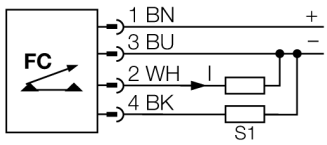
Flow Rate Measurement
Inline sensor with integrated processor
FTCI-3/8D10A4P-LI-UP8X-H1141



Type designation	FTCI-3/8D10A4P-LI-UP8X-H1141
Ident-No.	6870809
Ident-No (TUSA)	M6870809
Mounting	Inline sensor
Application area	flow rate/temperature monitoring of water or water/glycol mix
Flow operating range	1…10 l/min.
Stand-by time	6…10 s
Temperature gradient	≤ 400 K/min
Medium temperature	-10…+90 °C
Ambient temperature	0…+60 °C
Current consumption	≤ 100 mA
Output function	PNP/Analog output, NC/NO programmable
Rated operational current	0.2 A
Short-circuit protection	yes
Reverse polarity protection	yes
Current output	4…20mA
Max. AC switching capacity	500 VA
Max. DC switching capacity	50 W
Housing material	Plastic, PBT
Sensor material	stainless steel, AISI 316Ti
Electrical connection	Connector, M12 × 1
Pressure resistance	20 bar
Process connection	⅜" Swagelok
Flow state display	7-segment display, status LED (yellow)

- **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**

Wiring Diagram



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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