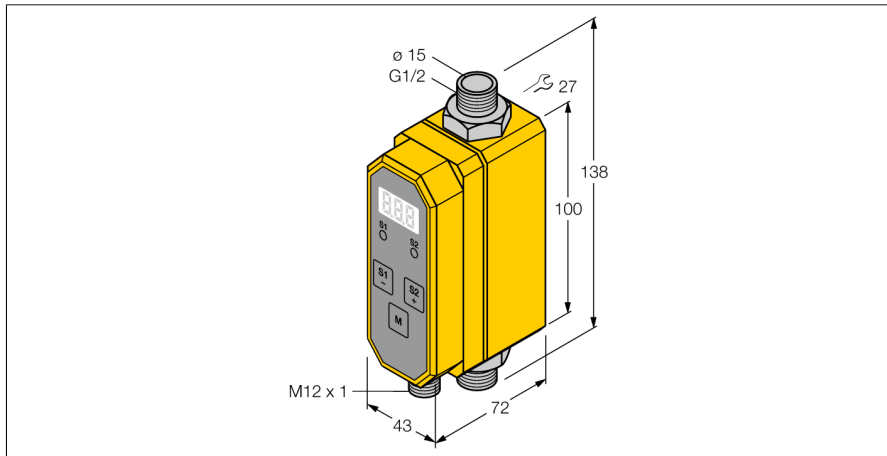


## Flow Rate Measurement

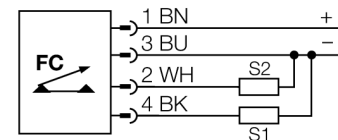
### Inline sensor with integrated processor

#### FTCI-G1/2D15A4P-2UP8X-H1141/D228



- Flow meters for water
- Calorimetric measuring principle
- 2 switchpoints /outputs flow
- 3-digit display [l/min]
- Programming via button
- Protected via access code 0...255
- Switch ON/OFF delay 0...50 s
- DC 4-wire
- PNP outputs
- NO/NC programmable

#### Wiring Diagram



#### Functional principle

The FTCLs 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.

<b>Type designation</b>	FTCL-G1/2D15A4P-2UP8X-H1141/D228
Ident no.	6870137
<b>Ident. no.</b>	6870137
Type	FTCL-G1/2D15A4P-2UP8X-H1141/D228
Special version	D228 = FTCL without temperature monitoring; with G1/2 process connection rather than compression fitting ; only suitable for use in water (not glycol); 2–20 l/min
<b>Mounting conditions</b>	Inline sensor
Application area	flow monitoring of water
Flow operating range	2...20 l/min
Stand-by time	6...10 s
Temperature gradient	≤ 400 K/min
Medium temperature	0...+70 °C
Ambient temperature	0...+60 °C
<b>Operating voltage</b>	21.6...26.4 VDC
Current consumption	≤ 100 mA
Output function	2 × PNP, NO/NC programmable
Rated operational current	0.2 A
Short-circuit protection	yes
Reverse polarity protection	yes
Protection class	IP65
<b>Design</b>	Inline
<b>Housing material</b>	Plastic, PBT
Sensor material	Stainless steel, V4A (1.4571)
Max. tightening torque housing nut	30 Nm
Electrical connection	Connectors, M12 × 1
Pressure resistance	20 bar
Process connection	G 1/2"
<b>Flow state display</b>	7-segment display, switching status LED (yellow)
<b>Programming options</b>	access code; switch-point flow rate; N.C./N.O.; switch-on/switch-off delay; signal filter; reference compensation

**Flow Rate Measurement**  
**Inline sensor with integrated processor**  
**FTCI-G1/2D15A4P-2UP8X-H1141/D228**

**Accessories**

Type code	Ident no.	Description	Dimension drawing
FTCI-MP01AL	6870040	Mounting plate for FTCI flow meter for front mounting	