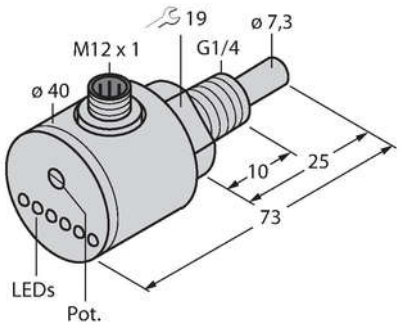
FCS-G1/4A4-AP8X-H1141
Flow Monitoring – Immersion Sensor with Integrated Processor



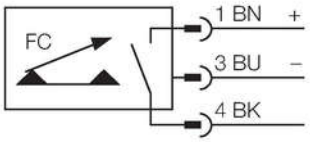
Technical data

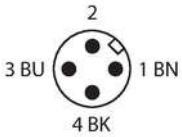
ID	6870101
Type	FCS-G1/4A4-AP8X-H1141
Mounting conditions	**Immersion sensor**
Water Operating Range	1…150 cm/s
Oil Operating Range	3…300 cm/s
Stand-by time	typ. 8 s (2…15 s)
Switch-on time	typ. 2 s (1…15 s)
Switch-off time	typ. 2 s (1…15 s)
Temperature jump, response time	max. 12 s
Temperature gradient	≤ 250 K/min
Medium temperature	-20…+80 °C
Ambient temperature	-20…+80 °C
Operating voltage	**19.2…28.8 VDC**
Current consumption	≤ 70 mA
Output function	PNP, NO contact
Rated operational current	0.4 A
Voltage drop at I_e	≤ 1.5 V
Short-circuit protection	yes
Reverse polarity protection	yes
Protection class	IP67
Design	Immersion
Housing material	**Stainless steel, 1.4571 (AISI 316Ti)**
Sensor material	Stainless steel, 1.4571 (AISI 316Ti)
Max. tightening torque of housing nut	30 Nm
Electrical connection	Connector, M12 × 1
Pressure resistance	100 bar

Features

- Sensor for liquid media
- Calorimetric principle
- Adjustment via potentiometer
- Status indicated via LED chain
- DC 3-wire, 19.2…28.8 VDC
- NO contact, PNP output
- Connector device, M12 × 1

Wiring diagram





Functional principle

The function of immersion flow sensors is based on the thermodynamic principle. The sensor is heated up by a few degrees Celsius compared to the flow medium. If the medium flows past the sensor, the heat generated in the sensor is dissipated. The resulting temperature is measured and compared with the temperature of the medium. The flow condition of each medium can be derived from the temperature difference obtained. Thus, TURCK flow sensors reliably and wear-free monitor the flow of liquid or gaseous media.

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Technical data

Process connection	G 1/4"
Switching state	LED chain, Green/Yellow/Red
Flow state display	LED chain
Indication: Drop below setpoint	LED red
Indication: Setpoint reached	LED yellow
Indication: Setpoint exceeded	4 x LEDs green
Tests/approvals	
Approvals	UL
UL registration number	E210608

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