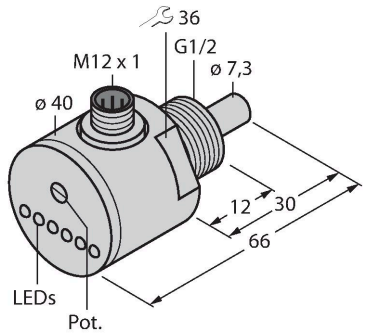
FCS-G1/2A4-AP8X-H1141/D030
Flow Monitoring – Immersion Sensor with Integrated Processor



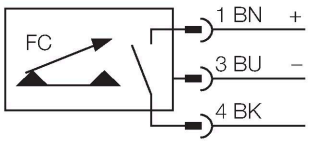
Technical data

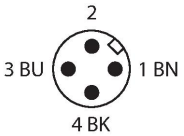
Ident. no.	6870019
Type	FCS-G1/2A4-AP8X-H1141/D030
Special version	D030 corresponds to: Kompaktgeräte mit Schutzisolierung
Mounting	Immersion sensor
Water Operating Range	1…150 cm/s
Oil Operating Range	3…300 cm/s
Stand-by time	typ. 8 s (2…15 s)
Switch-on time	typ. 2 s (1…15 s)
Switch-off time	typ. 2 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
Insulation class	Protective insulation acc. to DIN 57106 part 1/VDE 0106, part 1
Design	Immersion

Features

- Sensor for liquid media
- Calorimetric principle
- Adjustment via potentiometer
- Status indicated via LED chain
- Protective insulation acc. to DIN 57106 part 1/VDE 0106, part 1 The protective insulation prevents excessive touch voltages on the device surface as against the earth potential.
- 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

Housing material	Stainless steel, 1.4571 (AISI 316Ti)
Sensor material	Stainless steel, 1.4571 (AISI 316Ti)
Max. tightening torque housing nut	30 Nm
Electrical connection	Connector, M12 × 1
Process Pressure	100 bar
Process connection	G 1/2"
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

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