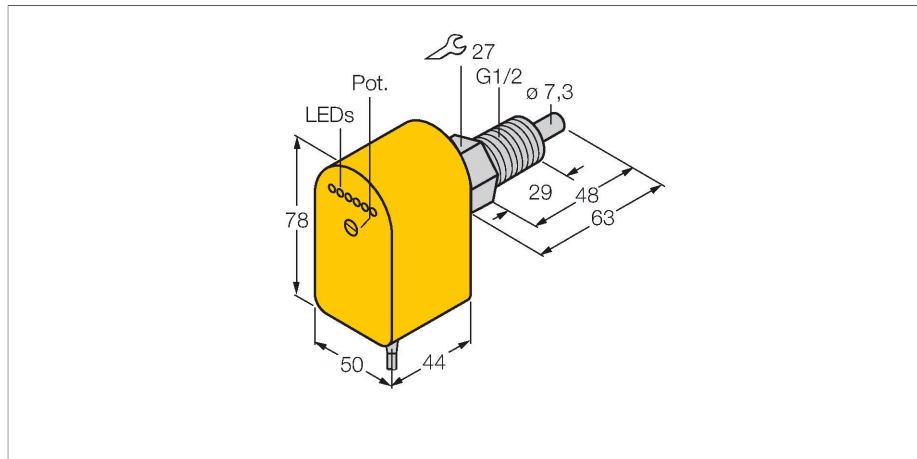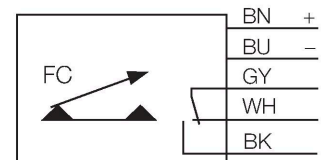# FCS-GL1/2A4P-VRX/24VDC
Flow Monitoring – Immersion Sensor with Integrated Processor

Features

- Sensor for liquid media
- Calorimetric principle
- Adjustment via potentiometer
- Status indicated via LED chain
- 5-wire DC, 19.2…28.8 VDC
- Changeover contact, relay output
- Cable device

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.

Technical data

ID	6870097
Type	FCS-GL1/2A4P-VRX/24VDC
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
Electrical data	
Operating voltage	19.2…28.8 VDC
Current consumption	≤ 80 mA
Output function	Relay output, Complementary contact
Rated operational current	4 A
Short-circuit protection	no
Reverse polarity protection	yes
AC switching voltage	250 VAC
DC switching voltage	60 VDC
Max. AC switching capacity	1000 VA
Max. DC switching capacity	60 W
Protection class	IP68
Mechanical data	
Design	Immersion
Housing material	Plastic, PBT

Technical data

Sensor material	Stainless steel, 1.4571 (AISI 316Ti)
Max. tightening torque of housing nut	30 Nm
Electrical connection	Cable
Cable length	2 m
Core cross-section	5 x 0.5 mm^2
Pressure resistance	100 bar
Process connection	G 1/2" long version
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 × LEDs Green