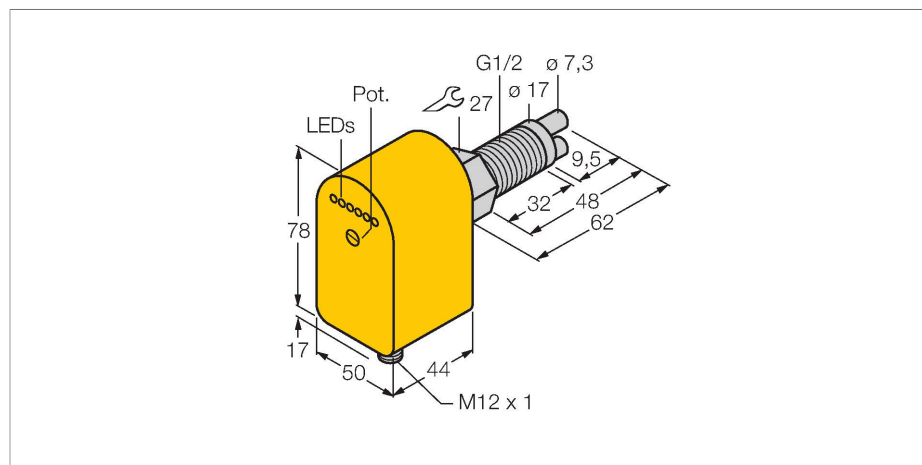# FCS-GL1/2A2P-AP8X-H1141/A
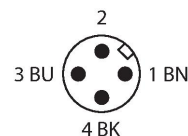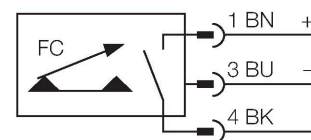# Flow Monitoring –   Immersion Sensor with Integrated Processor

Features

- Sensor for gaseous media
- Calorimetric principle
- Adjustments via potentiometer
- 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.

Technical data

ID	6870457
Type	FCS-GL1/2A2P-AP8X-H1141/A
Mounting	Immersion sensor
Air Operating Range	0.5…30 m/s
Stand-by time	10…90 s
Switch-on time	2…30 s
Switch-off time	5…30 s
Temperature gradient	≤ 20 K/min
Medium temperature	-20…+80 °C
Ambient temperature	-20…+70 °C
Electrical data	
Operating voltage U_B	19.2…28.8 VDC
Current consumption	≤ 80 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
MTTF	254 years acc. to SN 29500 (Ed. 99) 40 °C
Mechanical data	
Design	Immersion
Housing material	Plastic, PBT

Technical data

Sensor material	Stainless steel, 1.4305 (AISI 303)
Max. tightening torque of housing nut	30 Nm
Electrical connection	Connector, M12 × 1
Process Pressure	30 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
Tests/approvals	
Approvals	cULus
UL registration number	E210608