

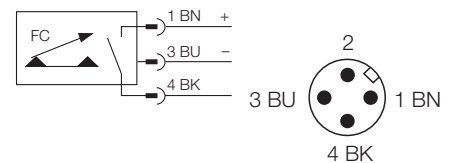
flow sensor

insertion style sensor with integrated processor

FCS-G1/4A4P-AP8X-H1141

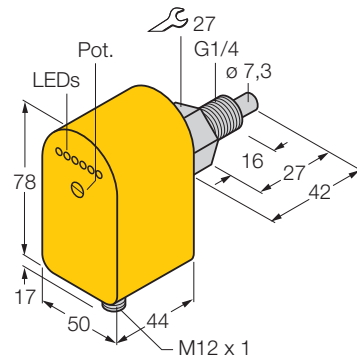
- flow sensor for liquid media
- calorimetric function principle
- adjustment via potentiometer
- status display via LED chain
- 3-wire DC, 21...26 VDC
- normally open, pnp output
- connector, M12 x 1

Wiring diagram



Functional principle

The function of our insertion flow sensors is based on the thermo-dynamic principle. The measuring probe is heated by several °C compared to the flow medium. When fluid moves along the probe, the heat generated in the probe is conducted away from the sensor. The resulting temperature is measured and compared to the medium temperature. The flow status of every medium can be derived from the evaluated temperature difference. Thus TURCK's wear-free flow sensors reliably monitor the flow of gaseous and liquid media.



Type	FCS-G1/4A4P-AP8X-H1141
Ident-No.	6870082
Water operating range [cm/s]	1... 150 cm/s
Oil operating range [cm/s]	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 change reaction time	max. 12 s
Temperature gradient	≤ 250 K/min
Medium temperature	-20... 80°C
Operating voltage	21... 26VDC
No-load current I_0	≤ 60mA
Output function	pnp, normally open
Rated operational current	0.4A
Voltage drop at I_0	≤ 1.5V
Short-circuit protection	yes
Reverse polarity protection	yes
Degree of protection	IP67
Housing material	plastic, PBT
Sensor material	stainless steel, AISI 316Ti
Tightening torque of housing nut	max. 100 Nm
Connection	Connectors, M12 x 1
Pressure resistance	100 bar
Mechanical connection	G 1/4"
Display switch state	LED chain green / yellow / red
Display 'Setpoint value undershoot '	LED red
Display 'Setpoint value achieved '	LED yellow
Display 'Setpoint value overshoot '	4 x LEDs green