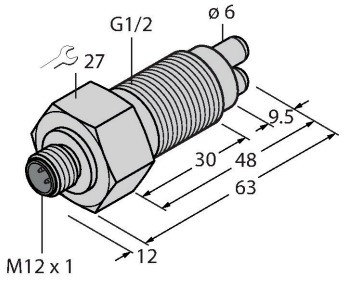
FCS-GL1/2A4-NAEX0-H1141/A
Flow Monitoring – Immersion Sensor without Integrated Processor



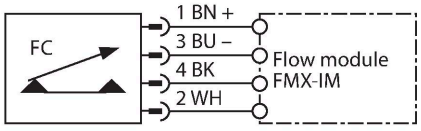
Technical data

ID	6870348
Type	FCS-GL1/2A4-NAEX0-H1141/A
Mounting conditions	**Immersion sensor**
Air Operating Range	2…25 m/s
Stand-by time	5…20 s
Switch-on time	Typ. 3 s (2…30 s)
Switch-off time	Typ. 3 s (2…30 s)
Temperature jump, response time	max. 60 s
Temperature gradient	≤ 20 K/min
Medium temperature	-20…+60 °C
Electrical data	
Important note	For intrinsically safe applications, the values specified in the corresponding Ex certificates (ATEX, IECEX, UL, etc.) apply.
Device marking	Ⓔx II 1 G Ex ia IIC T6…T3 Ga Ⓔx II 1/2 G Ex ia IIC T6…T3 Ga/Gb Ⓔx II 1 D Ex ia IIIC T130 °C Da
Ignition protection category	Gas Ex ia IIC; dust Ex ia IIIC
Power	≤ 0.69 W
Internal capacitance (C_i)/inductance (L_i)	Negligibly small
Ex approval acc. to conformity certificate	TÜV 99 ATEX 1517X
Protection class	IP67
MTTF	534 years acc. to SN 29500 (Ed. 99) 40 °C
Mechanical data	
Design	Immersion
Housing material	Stainless steel, 1.4571 (AISI 316Ti)

Features

- Intrinsically safe flow sensor for gaseous media
- Calorimetric principle
- Adjustment via intrinsically safe processor
- Status indicated via LED chain on signal processor
- Connector device, M12 × 1
- 4-wire connection to an Ex0 processor

Wiring diagram



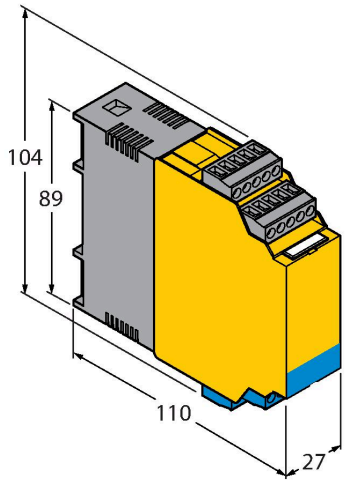
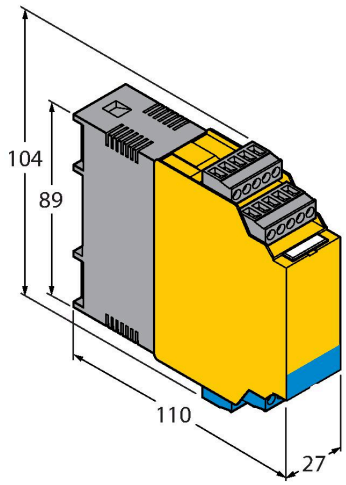
Functional principle

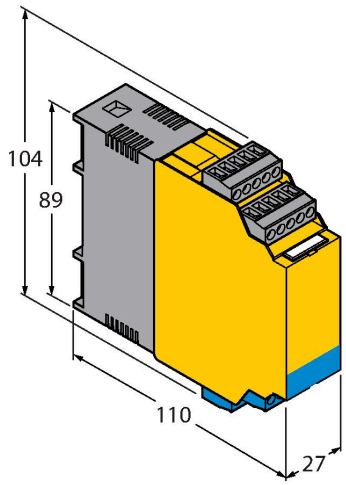
Our insertion - flow sensors operate on the principle of thermodynamics. The measuring probe is heated by several °C as against the flow medium. When fluid moves along the probe, the heat generated in the probe is dissipated. The resulting temperature is measured and compared to the medium temperature. 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.

Technical data

Sensor material	Stainless steel, 1.4571 (AISI 316Ti)
Max. tightening torque of housing nut	30 Nm
Electrical connection	Connector, M12 × 1
Pressure resistance	10 bar
Process connection	G 1/2" long version
Included in delivery	2 x Flachdichtung AFM 34 G1/2

Accessories

Dimension drawing	Type	ID	
	FMX-IM-3UP63X	7525101	Ex signal processor for Ex flow sensors from the FC….-NAEX… family; operating voltage 20…30 VDC; LED bar for displaying flow speed and medium temperature; IO-Link device with transistor outputs for flow, temperature and errors
	FMX-IM-3UR38X	7525103	Ex signal processor for Ex flow sensors from the FC….-NAEX… family; operating voltage 20…250 VAC; LED bar for displaying flow speed and medium temperature; IO-Link device with relay outputs for flow, temperature and errors

Dimension drawing	Type	ID	
	FMX-IM-2UPLI63X	7525105	Ex signal processor for Ex flow sensors from the FC….-NAEX… family; operating voltage 20…30 VDC; LED bar for displaying flow speed and medium temperature; HART device with analog output for flow and transistor outputs for temperature and errors