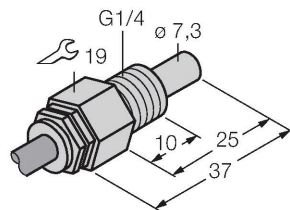


# FCS-G1/4A4-NAEX0

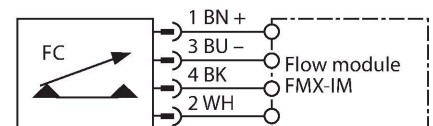
## Flow Monitoring – Immersion Sensor without Integrated Processor



### Features

- Ex sensor for liquid media
- Calorimetric functionality
- Adjustment via Ex signal processor
- Status indicated via LED chain on signal processor
- Cable device
- 4-wire connection to an Ex0 processor
- ATEX category II 1/2 G, Ex-zone 0
- ATEX category II 1 D, Ex zone 20

### 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.

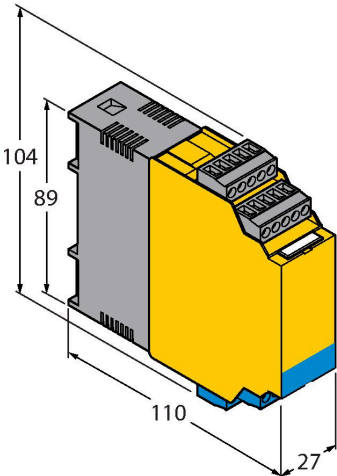
### Technical data

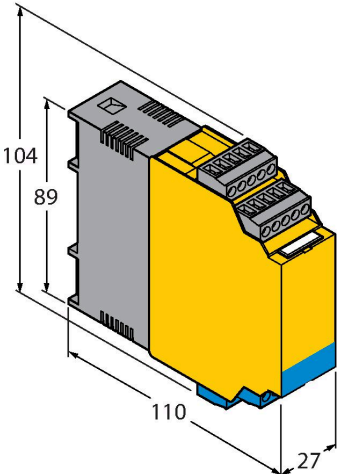
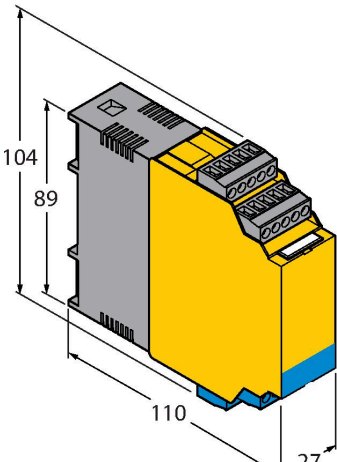
ID	6870465
Type	FCS-G1/4A4-NAEX0
Mounting conditions	Immersion sensor
Water Operating Range	1...100 cm/s
Oil Operating Range	3...200 cm/s
Minimum immersion depth	≥ 15 mm
Stand-by time	typ. 8 s (2...18 s)
Switch-on time	typ. 2 s (1...13 s)
Switch-off time	typ. 2 s (1...13 s)
Temperature jump, response time	max. 12 s
Temperature gradient	≤ 250 K/min
Medium temperature	-20...+60 °C
<b>Electrical data</b>	
Important note	For Ex applications, the values specified in the corresponding Ex certificates (ATEX, IECEx, UL, etc.) apply.
Device marking	<ul style="list-style-type: none"> <li>⊕ II 1 G Ex ia IIC T6...T3 Ga</li> <li>⊕ II 1/2 G Ex ia IIC T6...T3 Ga/Gb</li> <li>⊕ II 1 D Ex ia IIIC T125 °C Da</li> </ul>
Ignition protection category	Gas Ex ia IIC; dust Ex ia IIIC
Power	≤ 0.69 W
Internal capacitance (C <sub>i</sub> )/inductance (L <sub>i</sub> )	0.27 nF/1.3 μH
Ex approval acc. to conformity certificate	TÜV 99 ATEX 1517X
Protection class	IP67
<b>Mechanical data</b>	
Design	Immersion
Housing material	Stainless steel, 1.4571 (AISI 316Ti)

## 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
Cable quality	Blue
Cable Jacket Material	PUR
Core cross-section	4 x 0.25 mm <sup>2</sup>
Permissible ambient pressure for the device in explosive atmospheres	0.8...1.1 bar absolute
Pressure resistance	60 bar
Process connection	G 1/4"
Included in delivery	2 x AFM 34 G1/4 flat seal
<b>Tests/approvals</b>	
Approvals	ATEX CE UKCA GOST

## Accessories

Dimension drawing	Type	ID	
	FMX-IM-3UP63X	7525101	Ex signal processor for Ex flow sensors from the FC...-NAEX... product series; 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

Dimension drawing	Type	ID	
 <p>Technical drawing of the FMX-IM-3UR38X signal processor. The drawing shows a yellow rectangular device with a grey top section. Dimensions are indicated: total height is 104, height to the top of the grey section is 89, total width is 110, and the bottom flange width is 27. The top section features two rows of terminals labeled '00000'.</p>	<p>FMX-IM-3UR38X</p>	<p>7525103</p>	<p>Ex signal processor for Ex flow sensors from the FC...-NAEX... product series; 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</p>
 <p>Technical drawing of the FMX-IM-2UPLI63X signal processor. The drawing shows a yellow rectangular device with a grey top section. Dimensions are indicated: total height is 104, height to the top of the grey section is 89, total width is 110, and the bottom flange width is 27. The top section features two rows of terminals labeled '00000'.</p>	<p>FMX-IM-2UPLI63X</p>	<p>7525105</p>	<p>Ex signal processor for Ex flow sensors from the FC...-NAEX... product series; 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</p>