

Flow Sensor

FXFF102

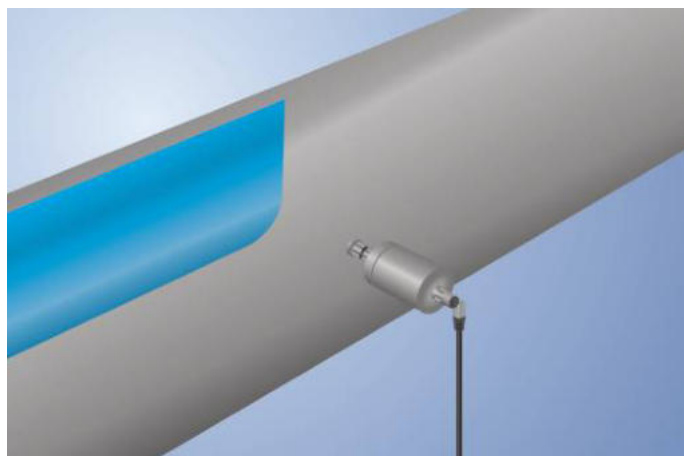
Part Number

weFlux² InoxSens



- 2 analog outputs: 4 ... 20 mA
- A single sensor for flow and temperature
- FDA compliant
- Measurement independent of flow direction and installation position

weFlux² Flow Sensors with two analog outputs simultaneously measure flow velocity and the temperature of aqueous liquids regardless of position and direction of flow. Advantage: The number of measuring points and the diversity of sensor variants are cut in half, and greatest possible flexibility is assured for installation in closed piping systems. The analysis module is integrated into the compact housing.



Technical Data

Sensor-specific data

Measuring Range	10...400 cm/s
Temperature of the medium, flow measurement	0...125 °C**
Temperature of the medium, temperature measurement	-25...150 °C
Adjustable Range	10...400 cm/s
Medium	Water
Measuring error	≤ 2 %
Response time in case of temperature jump	10 s

Environmental conditions

Ambient temperature	-25...80 °C
Storage temperature	-25...80 °C
Mechanical Strength	100 bar
EMC	DIN EN 61326-1
Shock resistance per DIN IEC 68-2-27	30 g / 11 ms
Vibration resistance per DIN IEC 60068-2-6	5 g (10...2000 Hz)

Electrical Data

Supply Voltage	12...32 V DC
Current Consumption (U _b = 24 V)	< 40 mA
Analog Outputs	2
Analog Output	4...20 mA Flow O2 / Temp O1
Response Time	1...5 s
Short Circuit Protection	yes
Reverse Polarity Protection	yes
Protection Class	III

Mechanical Data

Housing Material	1.4404
Material in contact with media	1.4404
Degree of Protection	IP68/IP69K *
Connection	M12 × 1; 4-pin
Process Connection	Cutting/locking ring
Process Connection Length (PCL)	109 mm
Probe Length (PL)	100 mm

Safety-relevant Data

MTTFd (EN ISO 13849-1)	1210,41 a
Diagnostic Coverage (DC)	0 %
Service Life TM (EN ISO 13849-1)	20 a

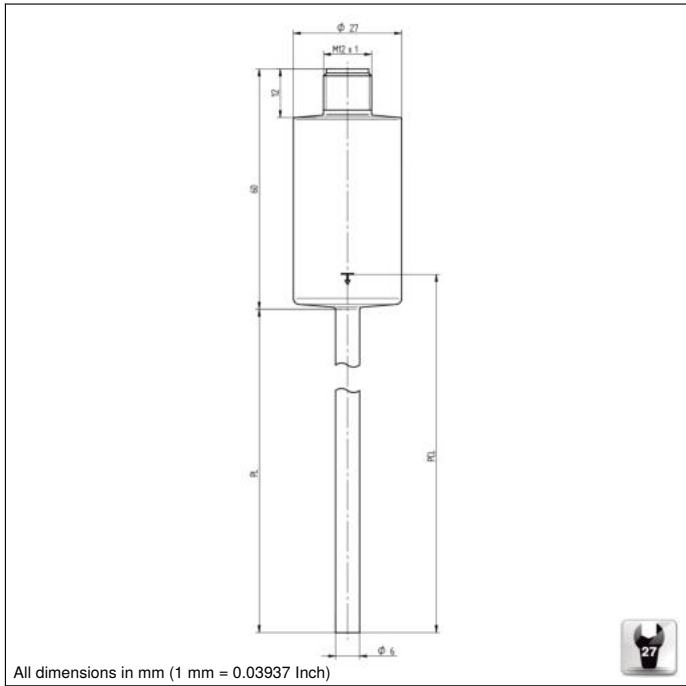
Analog output flow	●
Analog output temperature	●
Connection Diagram No.	141
Suitable Connection Technology No.	21
Suitable Mounting Technology No.	907 908

* Tested by wenglor

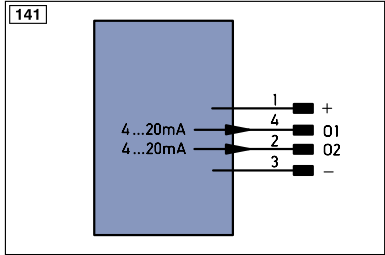
** The sensors were calibrated and specified for the medium water. Technically, the sensors are suitable for a medium temperature of up to -25 °C. To achieve a temperature below 0 °C, a different medium must be added to the water. This leads to a different measurement result, which is why a use under 0 °C must be tested individually for the mixture used.

Complementary Products

Software
ZH6C00x Adapter to G1/4"



All dimensions in mm (1 mm = 0.03937 Inch)



Legend

+ Supply Voltage +	PT Platinum measuring resistor	ENa Encoder A
- Supply Voltage 0 V	nc not connected	ENb Encoder B
~ Supply Voltage (AC Voltage)	U Test Input	AMIN Digital output MIN
A Switching Output (NO)	U Test Input inverted	AMAX Digital output MAX
Ā Switching Output (NC)	W Trigger Input	AOK Digital output OK
V Contamination/Error Output (NO)	O Analog Output	SY In Synchronization In
Ṽ Contamination/Error Output (NC)	O- Ground for the Analog Output	SY OUT Synchronization OUT
E Input (analog or digital)	BZ Block Discharge	OLt Brightness output
T Teach Input	AWV Valve Output	M Maintenance
Z Time Delay (activation)	a Valve Control Output +	rsv reserved
S Shielding	b Valve Control Output 0 V	
RxD Interface Receive Path	SY Synchronization	
TxD Interface Send Path	E+ Receiver-Line	
RDY Ready	S+ Emitter-Line	
GND Ground	± Grounding	
CL Clock	SnR Switching Distance Reduction	
E/A Output/Input programmable	Rx+/- Ethernet Receive Path	
IO-Link	Tx+/- Ethernet Send Path	
PoE Power over Ethernet	Bus Interfaces-Bus A(+)/B(-)	
IN Safety Input	La Emitted Light disengageable	
OSSD Safety Output	Mag Magnet activation	
Signal Signal Output	RES Input confirmation	
BI-D+/- Ethernet Gigabit bidirect. data line (A-D)	EDM Contactor Monitoring	
EN0 RS422 Encoder 0-pulse 0-0 (TTL)	ENAR5422 Encoder A/Ā (TTL)	
	ENBR5422 Encoder B/B̄ (TTL)	

Wire Colors according to DIN IEC 757

BK Black
BN Brown
RD Red
OG Orange
YE Yellow
GN Green
BU Blue
VT Violet
GY Grey
WH White
PK Pink
GNYE Green/Yellow

