

# Flow Sensor

2 x Analog Output

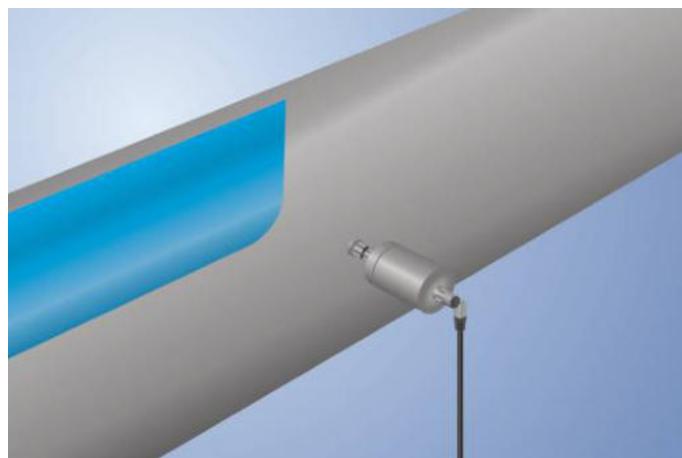
## FXFF148

Part Number



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

weFlux<sup>2</sup> 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 (Ub = 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 x 1; 4-pin
Process Connection	G 1/2" CIP-capable
Process Connection Length (PCL)	75,5 mm
Probe Length (PL)	32 mm

#### Analog output flow

●

#### Analog output temperature

●

#### Connection Diagram No.

141

#### Suitable Connection Technology No.

21

#### Suitable Mounting Technology No.

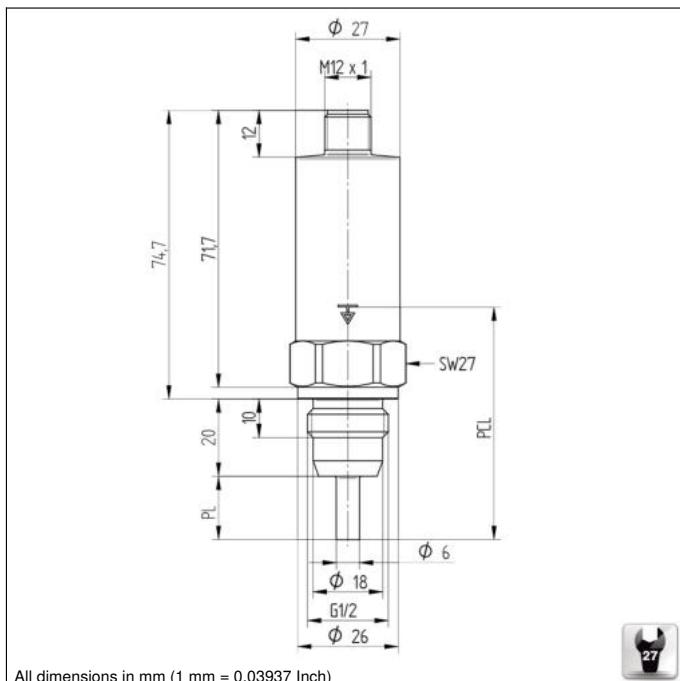
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\* Tested by wenglor

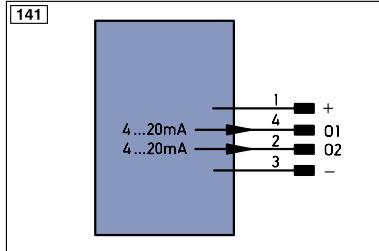
\*\* The sensors were calibrated and specified for the medium water. Technically, the sensors are suitable for a medium temperature of up to -25 °C. To achieve a temperature below 0 °C, a different medium must be added to the water. This leads to a different measurement result, which is why a use under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

### Complementary Products

Software



All dimensions in mm (1 mm = 0.03937 Inch)


**Legend**

+	Supply Voltage +	PT	Platinum measuring resistor
-	Supply Voltage 0 V	nc	not connected
~	Supply Voltage (AC Voltage)	U	Test Input
A	Switching Output (NO)	Ü	Test Input inverted
Å	Switching Output (NC)	W	Trigger Input
V	Contamination/Error Output (NO)	O	Analog Output
Å	Contamination/Error Output (NC)	O-	Ground for the Analog Output
E	Input (analog or digital)	BZ	Block Discharge
T	Teach Input	AW	Valve Output
Z	Time Delay (activation)	a	Valve Control Output +
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
SSD	Safety Output	Mag	Magnet activation
Signal	Signal Output	RES	Input confirmation
BL-D	Ethernet Gigabit bidirect. data line (A-D)	EDM	Contactor Monitoring
EN0RS422	Encoder 0-pulse 0-0 (TTL)	ENArS422	Encoder A/A (TTL)
ENBrS422	Encoder B/B (TTL)		

EN <sub>A</sub>	Encoder A
EN <sub>B</sub>	Encoder B
A <sub>MIN</sub>	Digital output MIN
A <sub>MAX</sub>	Digital output MAX
A <sub>OK</sub>	Digital output OK
SY <sub>IN</sub>	Synchronization IN
SY <sub>OUT</sub>	Synchronization OUT
0 <sub>LT</sub>	Brightness output
M	Maintenance
rsv	reserved

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

