

Flow Sensor

FXFF102

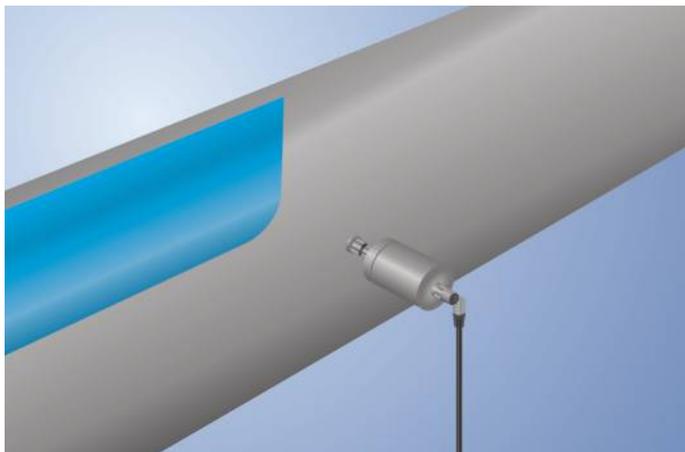
Part Number

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 |
| Setting Range | 10...400 cm/s |
| Medium | Water |
| Measuring error (total) | ≤ 2 % |
| MTTFd (EN ISO 13849-1) | 1210,41 a |
| Response time in case of temperature jump | 10 s |

Environmental conditions

| | |
|--------------------------------------------|--------------------|
| Ambient temperature | -25...80 °C |
| Storage temperature | -25...80 °C |
| Pressure Resistance | 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 |
| Number of analog outputs | 2 |
| Analog Output | 4...20 mA |
| Signal source | Flow |
| Signal source | Temperature |
| 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 |

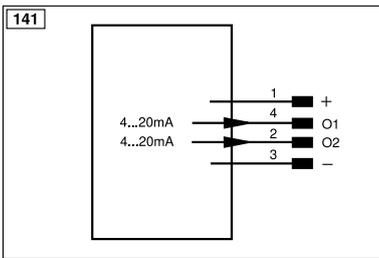
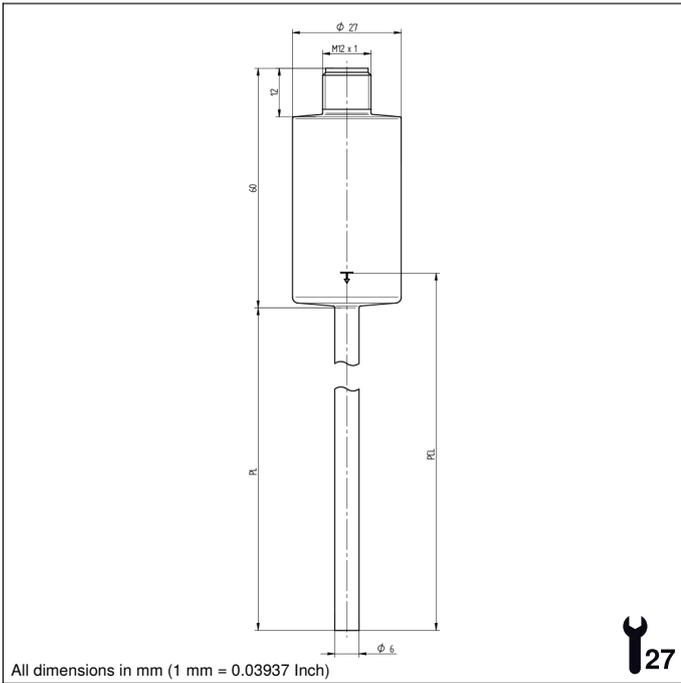
| | |
|-----------------------------------|-----------|
| Analog output flow | ● |
| Analog output temperature | ● |
| Connection Diagram No. | 141 |
| Suitable Connection Equipment No. | 2 |
| Suitable Mounting Technology No. | 907 908 |

* Certified 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 an application below 0 °C must be tested individually for the mixture used.

Complementary Products

| | |
|----------|--------------------------|
| Software | ZH6C00x Adapter to G1/4" |
|----------|--------------------------|



| Legend | | | | | |
|-------------------------------------------------------------------------------------|--------------------------------------------|----------|--------------------------------|----------------------------------------|---------------------|
| + | Supply Voltage + | nc | Not connected | ENBRS422 | Encoder B/B̄ (TTL) |
| - | Supply Voltage 0 V | U | Test Input | ENA | Encoder A |
| ~ | Supply Voltage (AC Voltage) | Ü | Test Input inverted | ENb | Encoder B |
| A | Switching Output (NO) | W | Trigger Input | AMIN | Digital output MIN |
| Ā | Switching Output (NC) | W- | Ground for the Trigger Input | AMAX | Digital output MAX |
| V | Contamination/Error Output (NO) | O | Analog Output | AOK | Digital output OK |
| ȳ | Contamination/Error Output (NC) | O- | Ground for the Analog Output | SY In | Synchronization In |
| E | Input (analog or digital) | BZ | Block Discharge | SY OUT | Synchronization OUT |
| T | Teach Input | Amv | Valve Output | OLT | Brightness output |
| Z | Time Delay (activation) | a | Valve Control Output + | M | Maintenance |
| S | Shielding | b | Valve Control Output 0 V | rsv | Reserved |
| RxD | Interface Receive Path | SY | Synchronization | Wire Colors according to DIN IEC 60757 | |
| TxD | Interface Send Path | SY- | Ground for the Synchronization | BK | Black |
| RDY | Ready | E+ | Receiver-Line | BN | Brown |
| GND | Ground | S+ | Emitter-Line | RD | Red |
| CL | Clock | ± | Grounding | OG | Orange |
| E/A | Output/Input programmable | SnR | Switching Distance Reduction | YE | Yellow |
|  | IO-Link | Rx+/- | Ethernet Receive Path | GN | Green |
| PoE | Power over Ethernet | Tx+/- | Ethernet Send Path | BU | Blue |
| IN | Safety Input | Bus | Interfaces-Bus A(+)/B(-) | VT | Violet |
| OSSD | Safety Output | La | Emitted Light disengageable | GY | Grey |
| Signal | Signal Output | Mag | Magnet activation | WH | White |
| Bl_D+/- | Ethernet Gigabit bidirect. data line (A-D) | RES | Input confirmation | PK | Pink |
| ENo RS422 | Encoder 0-pulse 0/0̄ (TTL) | EDM | Contact Monitoring | GNYE | Green/Yellow |
| PT | Platinum measuring resistor | ENARS422 | Encoder A/Ā (TTL) | | |

