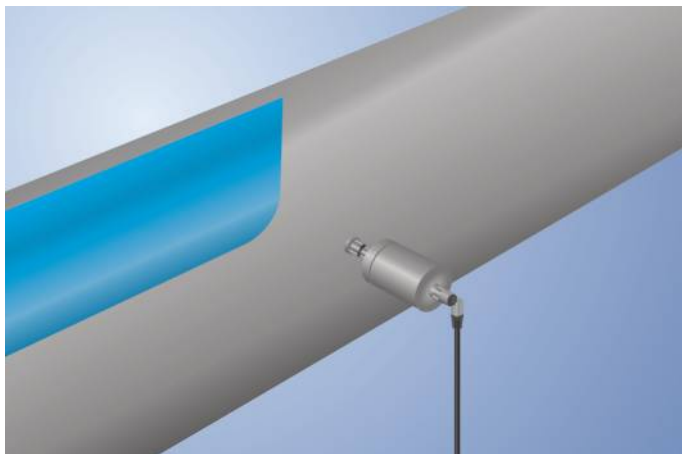# Temperature Sensor
**with IO-Link**

## FXTT014
Part Number

weFlux² InoxSens

- **FDA compliant**
- **Ready for Industry 4.0 with IO-Link 1.1**
- **Response time T90: < 2 seconds**
- **Temperature measuring range: -50 ... +150° C**

weFlux² Temperature Sensors ensure precise temperature measurement of liquids and gases in closed piping systems. Either 2 switching outputs, 1 switching output and 1 analog output or one 2-wire analog output is available depending on settings and connection configuration. The outputs can be configured as desired via IO-Link in order to flexibly adapt the sensors to the respective application.

## Technical Data

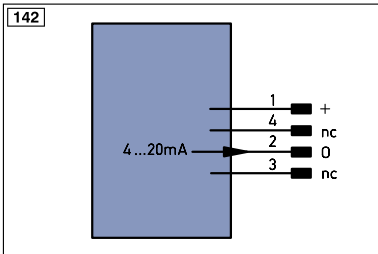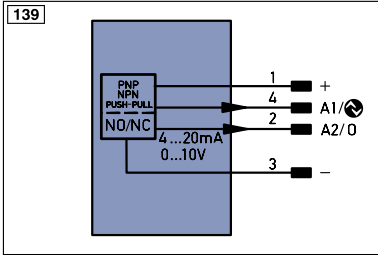| Sensor-specific data | |
|---|---|
| Temperature Measurement Range | -50...150 °C |
| Adjustable Range | -50...150 °C |
| Medium | Liquids, gases |
| Measuring error | ± 0,5 °C |
| Resolution | 0,01 °C |
| Response Time | < 2 s |
| **Environmental conditions** | |
| Temperature of medium | -50...150 °C |
| Ambient temperature | -25...80 °C |
| Storage temperature | -25...80 °C |
| Mechanical Strength | 16 bar |
| EMC | DIN EN 61326-1 |
| Shock Resistance | IEC 60751 |
| Vibration resistance | IEC 60751 |
| **Electrical Data** | |
| 2-wire supply power | 12...32 V DC |
| 3-wire supply power | 12...32 V DC |
| Current Consumption (Ub = 24 V) | < 15 mA |
| Switching Outputs | 2 |
| Switching Output/Switching Current | ± 100 mA |
| Switching Output Voltage Drop | < 1,5 V DC |
| Analog Output | 0...10 V/4...20 mA |
| Current Output Load Resistance | (Ub-Ubmin)/0,02A |
| Short Circuit Protection | yes |
| Reverse Polarity Protection | yes |
| Protection Class | III |
| Interface | IO-Link V1.1 |
| **Mechanical Data** | |
| Setting Method | IO-Link |
| Housing Material | 1.4404 |
| Material in contact with media | 1.4404 |
| Degree of Protection | IP68/IP69K * |
| Connection | M12 × 1; 4-pin |
| Process Connection | Varivent N |
| Process Connection Length (PCL) | 58 mm |
| Probe Length (PL) | 32 mm |
| Analog Output | ● |
| Configurable as PNP/NPN/Push-Pull | ● |
| Switchable to NC/NO | ● |
| IO-Link | ● |
| Connection Diagram No. | 139 |
| Suitable Connection Technology No. | 21 |

* Tested by wenglor

## Complementary Products

| |
|---|
| IO-Link Master |
| wTeach2 software DNNF005 |
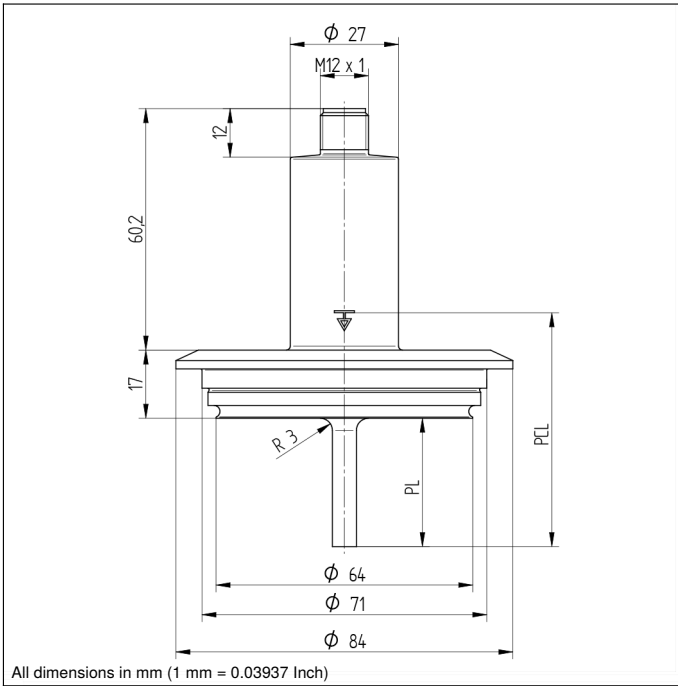
**Fluid Sensors**

All dimensions in mm (1 mm = 0.03937 Inch)

**139**



| | |
|---|---|
| PNP NPN PUSH-PULL | |
| NO/NC | |
| 4...20mA 0...10V | |

1 +
4 A1/⊘
2 A2/O
3 −

**142**



4...20mA

1 +
4 nc
2 O
3 nc

## Legend

| | | |
|---|---|---|
| + | Supply Voltage + | |
| − | Supply Voltage 0 V | |
| ~ | Supply Voltage (AC Voltage) | |
| A | Switching Output | (NO) |
| Ā | Switching Output | (NC) |
| V | Contamination/Error Output | (NO) |
| V̄ | Contamination/Error Output | (NC) |
| E | Input (analog or digital) | |
| T | Teach Input | |
| Z | Time Delay (activation) | |
| S | Shielding | |
| RxD | Interface Receive Path | |
| TxD | Interface Send Path | |
| RDY | Ready | |
| GND | Ground | |
| CL | Clock | |
| E/A | Output/Input programmable | |
| ⊘ | IO-Link | |
| PoE | Power over Ethernet | |
| IN | Safety Input | |
| OSSD | Safety Output | |
| Signal | Signal Output | |
| BI_D+/− | Ethernet Gigabit bidirect. data line (A-D) | |
| EN0RS422 | Encoder 0-pulse 0-0̄ (TTL) | |

| | |
|---|---|
| PT | Platinum measuring resistor |
| nc | not connected |
| U | Test Input |
| Ū | Test Input inverted |
| W | Trigger Input |
| O | Analog Output |
| O− | Ground for the Analog Output |
| BZ | Block Discharge |
| AMW | Valve Output |
| a | Valve Control Output + |
| b | Valve Control Output 0 V |
| SY | Synchronization |
| E+ | Receiver-Line |
| S+ | Emitter-Line |
| ⏚ | Grounding |
| SnR | Switching Distance Reduction |
| Rx+/− | Ethernet Receive Path |
| Tx+/− | Ethernet Send Path |
| Bus | Interfaces-Bus A(+)/B(−) |
| La | Emitted Light disengageable |
| Mag | Magnet activation |
| RES | Input confirmation |
| EDM | Contactor Monitoring |
| ENARS422 | Encoder A/Ā (TTL) |
| ENBRS422 | Encoder B/B̄ (TTL) |

| | |
|---|---|
| ENA | Encoder A |
| ENB | Encoder B |
| AMIN | Digital output MIN |
| AMAX | Digital output MAX |
| AOK | Digital output OK |
| SY In | Synchronization In |
| SY OUT | Synchronization OUT |
| OLT | Brightness output |
| M | Maintenance |

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 |