



Process Automation



Process Automation

Level Sensors | Level Switches | Overfill Prevention
Pressure Sensors | Temperature Sensors

Sensors and Systems: www.fafnir.com



Accurate



Flexible



Reliable

TEMPERIX S

The Reliable Solution for Sure Measurement: Resistance Thermometer

The resistance thermometer is suitable for measurement on tanks and pipes. All standard types of process connections are available. A variety transmitters for head mounting (4 to 20 mA/HART®) are available for different applications.

Why Choose TEMPERIX S?

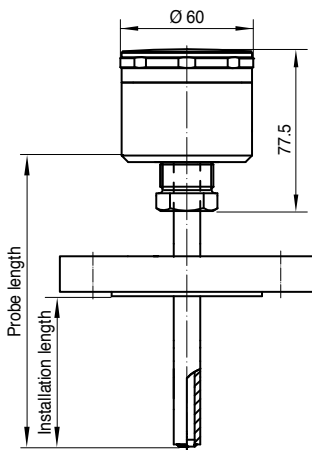
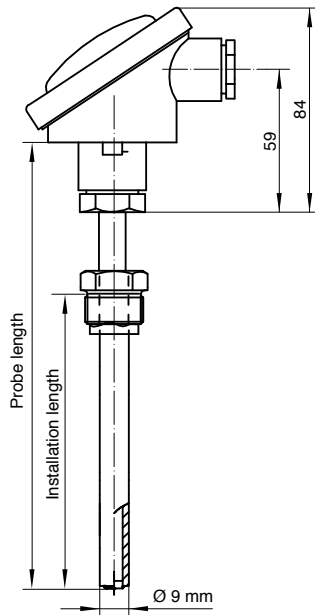
Main Features and Benefits

- + Pt100 connection in 3-wire technology or a 4 to 20 mA/HART® head transmitter
- + Measuring insert interchangeable
- + Process connection
 - for screw-in
 - with flange connection
- + ATEX approval
- + Approved for SIL 2 applications

Applications

- + General process application
- + Machine and tank construction
- + Water and waste-water systems
- + Plant engineering





TEMPERIX S – Technical Data

Sensor head

Standard housing

Protection class IP54

Material Aluminium

Field housing

Protection class IP67

Material Stainless steel 1.4305 (303)

Cable terminal M12 x 1.5 cable gland for cable diameter 3 to 6.5 mm;
M16 x 1.5 cable gland for cable diameter 5 to 10 mm;
M12 connector

Ambient temperature -40 °C to +85 °C

Sensor

Material Stainless steel 1.4571 (316Ti); other on request

Process connection G ½", G ¾", G1;
½" NPT, ¾" NPT;
DN 25, DN 50 Flange

Measurement technology Pt100

Accuracy class A

Temperature range -50 °C to +400 °C

Electrical connection

Output 3-wire Pt100;
2-wire 4 to 20 mA (with Transmitter Sitrans T100);
2-wire 4 to 20 mA/HART® (with Transmitter Sitrans T300)

Voltage 8.5 to 36 V_{DC}, Ex-version 8.5 to 30 V_{DC}

Signal Output power: 4 to 20 mA/HART®

Response time <0.7 sec

Offset Configurable -100 °C to +100 °C

Accuracy >0.25 °C or 0.1 % of nominal range

Temperature effect <0.01 %/°C

Optional ATEX approval



TEMPERIX C

Resistance Thermometer for OEM Applications

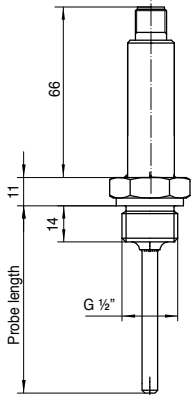
The resistance thermometer TEMPERIX C is suited for temperature measurement in tanks and pipes. Due to its compact design, TEMPERIX C can also be used in OEM applications.

Why Choose TEMPERIX C?

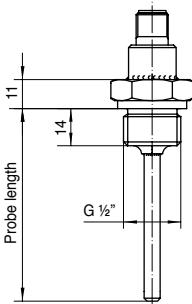
Main Features and Benefits

- + Compact design
- + High measurement accuracy
- + Output signal:
 - Pt100, 3-wire technology (4-wire optionally)
 - 4 to 20 mA, 2-wire technology
- + Circular connector M12





TEMPERIX C with 2-wire
4 to 20 mA output



TEMPERIX C with 3-wire
Pt100 output

TEMPERIX C – Technical Data

Sensor head

| | |
|---------------------|------------------------------|
| Protection class | IP65 |
| Material | Stainless steel 1.4301 (304) |
| Cable terminal | M12 connector |
| Ambient temperature | -40 °C to +85 °C |

Sensor

| | |
|------------------------|---------------------------------------|
| Material | Stainless steel 1.4404 (316L) |
| Process connection | G 1/4"; G 1/2"; 1/4" NPT, 1/2" NPT |
| Measurement technology | Pt100 |
| Precision class | A |
| Temperature range | -50 °C to +200 °C |

Electrical connection

| | |
|---------|---|
| Output | 3-wire Pt100; 2-wire 4 to 20 mA |
| Voltage | 8.5 to 36 V _{DC} (only for 2-wire 4 to 20 mA output) |



TEMPERIX S Clamp

Resistance Thermometer for Measuring Temperatures of Pipes with “Clamp-On” Technology

The TEMPERIX S resistance thermometer can be quickly and easily fitted to all existing pipework. There are no changes necessary to the piping and no welding required. The resistance thermometer can also be supplied with a built-in head-mounted transmitter.

Main Features and Benefits

- + Temperature measurement, no contact to medium, for pipe diameter between 4 and 57 mm
- + Measuring system patented
- + High accuracy, fast response
- + Quick and cost-efficient installation
- + No welding, no interruption of process
- + Measuring range: -40 °C to $+150\text{ °C}$



TEMPERIX S Clamp – Technical Data

Sensor head

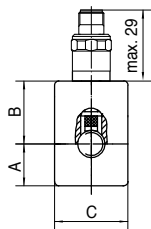
| | |
|---------------------|--|
| Protection class | IP65 |
| Material | Stainless steel 1.4305 (303) |
| Cable terminal | M12 x 1.5 cable gland for cable diameter 3 to 6.5 mm; M16 x 1.5 cable gland for cable diameter 5 to 10 mm; M12 connector |
| Ambient temperature | -40 °C to +85 °C |
| Optional | ATEX approval |

Sensor

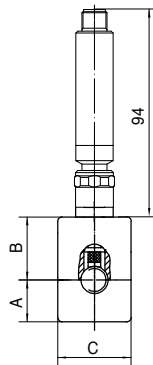
| | |
|------------------------|---|
| Material | Stainless steel 1.4571 (316Ti); other on request; plastic |
| Process Connection | "Clamp-on" for pipes 4 mm to 57 mm in diameter |
| Measurement technology | Pt100 |
| Precision class | A |
| Temperature range | -20 °C to +160 °C |

Electrical connection

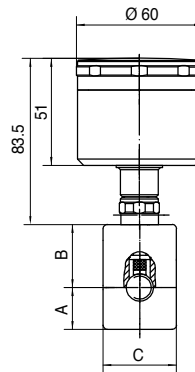
| | |
|--------------------|--|
| Output | 3-wire Pt100; 2-wire 4 to 20 mA; 2-wire 4 to 20 mA/HART® |
| Voltage | 8.5 to 36 V _{DC} Ex-version 8.5 to 30 V _{DC} |
| Signal | 4 to 20 mA/HART® |
| Response time | <0.7 sec |
| Offset | Configurable 0 °C to +100 °C |
| Accuracy | >0.25 °C or 0.1 % of nominal range |
| Temperature effect | <0.01 %/°C |



TEMPERIX S clamp with 3-wire Pt100 output and an M12 connector



TEMPERIX S Clamp with 2-wire 4 to 20 mA output and an M12 connector



TEMPERIX S Clamp with field housing (required for HART® output)

| Pipe Ø | A | B | C |
|---------|----|----|----|
| 4–17.9 | 20 | 30 | 35 |
| 18–38 | 30 | 40 | 70 |
| 38.1–57 | 40 | 50 | 85 |





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