



800 SERIES

- Proven 100 Ω platinum resistance sensor provides reliability, stability and unbeatable performance
- Economical price
- Standard temperature ranges from -40 °F to 120 °F through 0 °F to 1,000 °F
- Custom temperature ranges available from -300 °F to 1,100 °F (-200 °C to 600 °C)
- Wide variety of temperature ranges and connections
- Quick response time
- Optional USB programmable output available
- 316 stainless steel housing
- Burnout protection from 3.3 mA to 23 mA
- Also available with our 1800 Series attachable loop indicator
- CE compliant to suppress RFI, EMI, and ESD

APPLICATIONS

- Water systems
- Storage tanks
- Industrial machinery and machine tools
- HVAC systems
- Refrigeration systems



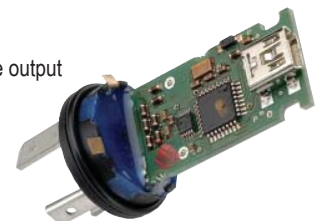
Also available with our 1800 Series attachable loop indicator. See www.noshok.com for details.

SPECIFICATIONS

| | |
|------------------------|--|
| Output signals | 4 mA to 20 mA 2-wire, 0 Vdc to 5 Vdc 3-wire 0 Vdc to 10 Vdc 3-wire, 1 Vdc to 5 Vdc 3-wire |
| Temperature ranges | Standard ranges from -40 °F to 1,000 °F |
| Accuracy | |
| Measuring element | Class B per EN 60751 (IEC 751) |
| Output | ±[0.30 +0.005* t] °C ±0.5% full scale |
| Sensor protection | Burnout protected from 3.3 mA to 23 mA |
| Power requirement* | 10 Vdc to 30 Vdc (4 mA to 20 mA, 2-wire) 10 Vdc to 30 Vdc (0 Vdc to 5 Vdc, 3-wire) 10 Vdc to 30 Vdc (1 Vdc to 5 Vdc, 3-wire) 14 Vdc to 30 Vdc (0 Vdc to 10 Vdc, 3-wire) |
| Load limitations | ≤ (VPower -10)/0.020 Amp for 4 mA to 20 mA output ≤ 5,000 Ω for 1 Vdc to 5 Vdc output ≤ 10,000 Ω for 0 Vdc to 10 Vdc output ≤ 4,500 Ω for 0.5 Vdc to 4.5 Vdc output |
| Wetted materials | 316 stainless steel |
| Housing material | 316 stainless steel |
| Ambient temperature | -40 °F to 185 °F (-40 °C to 85 °C) |
| Storage temperature | -40 °F to 185 °F (-40 °C to 85 °C) |
| Environmental rating | IP65 according to EN 60529/IEC 529 |
| Electromagnetic rating | CE compliant to EMC norm EN 61326:1997/A1:1998 RFI, EMI and ESD protection |
| Electrical protection | Reverse polarity, over-voltage and short circuit protection |
| Weight | Approximately 4 oz. |

* Unregulated

Optional USB programmable output



Thermowells are recommended for pressure, corrosive fluids and high velocity applications, see pages 36-37.

| ORDERING INFORMATION | | | | | | | | |
|------------------------|--------------------------|---------------------------------------|--------|-------------------------|--------|---|---|------------------|
| SERIES | 800 | | | | | | | |
| TEMPERATURE RANGES | -40/120 | -40 °F to 120 °F | 0/200 | 0 °F to 200 °F | 0/300 | 0 °F to 300 °F | 0/750 | 0 °F to 750 °F |
| | 25/125 | 25 °F to 125 °F | 20/240 | 20 °F to 240 °F | 50/300 | 50 °F to 300 °F | 0/1000 | 0 °F to 1,000 °F |
| | 0/140 | 0 °F to 140 °F | 0/250 | 0 °F to 250 °F | 50/500 | 50 °F to 500 °F | Custom ranges from -300 °F through 1,100 °F available on request (30K minimum span) | |
| ACCURACY | 1 Class B + (±0.5% BFSL) | | | | | | | |
| OUTPUT SIGNALS | 1 | 4 mA to 20 mA, 2-wire | 3 | 1 Vdc to 5 Vdc, 3-wire | 34 | 4 mA to 20 mA, 2-wire, USB programmable | | |
| | 2 | 0 Vdc to 5 Vdc, 3-wire | 5 | 0 Vdc to 10 Vdc, 3-wire | | | | |
| PROCESS CONNECTIONS | 2 | 1/4" NPT Male | | | | 48 | 1/2" NPT Male w/adjustable compression fitting | |
| ELECTRICAL CONNECTIONS | 1 | 36" cable (connected to option 8) | | | | 14 | Hirschmann connection w/ISO 4400 1/2" NPT conduit | |
| | 8 | Hirschmann (DIN EN 175301-803 Form A) | | | | 25 | M12 x 1 (4-pin) | |
| STEM LENGTHS | 025 | 2.5" | | | | 060 | 6" | 120 12" |
| | 040 | 4" | | | | 090 | 9" | |
| STEM DIAMETERS | 3 | Tapered from 6 mm - 3 mm tip | | | | 6 | 6 mm | 8 8 mm |

Please consult your local NOSHOK Distributor or NOSHOK, Inc. for availability and delivery information.

EXAMPLE

800 - 50/300 - 1 - 1 - 8 - 8 - 040 - 6

Series800

Temperature range50 °F to 300 °F

Accuracy±0.5% BFSL

Output signal4 mA to 20 mA, 2-wire

Process connection1/2" NPT Male

Electrical connectionHirschmann

Stem length4"

Stem diameter6 mm

800 Series Platinum Resistance Temperature Transmitter

2-WIRE WIRING

| Wiring | Hirschmann | Cable |
|----------|------------|-------|
| + Supply | 1 | Red |
| + Output | 2 | Black |

3-WIRE WIRING

| Wiring | Hirschmann | Cable |
|----------|------------|-------|
| + Supply | 1 | Red |
| Common | 2 | Black |
| + Output | 3 | White |

Dimensions:

- Stem length: 1.10" (28 mm)
- Adjustable stem length: 2.05" extension
- Hirschmann connection: 1.65" (42 mm) diameter, 1.06" sq. (27 mm) face
- ISO 4400 conduit: 1.85" (47 mm) diameter, 1.06" (27 mm) width
- Transmitter body: 2.16" (55 mm) height
- Stem diameter: 0.75" (19 mm)
- Stem diameter (6 mm standard)
- Process connection: 1.06" HEX (27 mm)
- Electrical connection: 1/2" NPT