Platinum Resistance Temperature Transmitter

CE

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 50 °F to 400 °F
- Wide variety of temperature ranges and connections
- Quick response time
- 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.

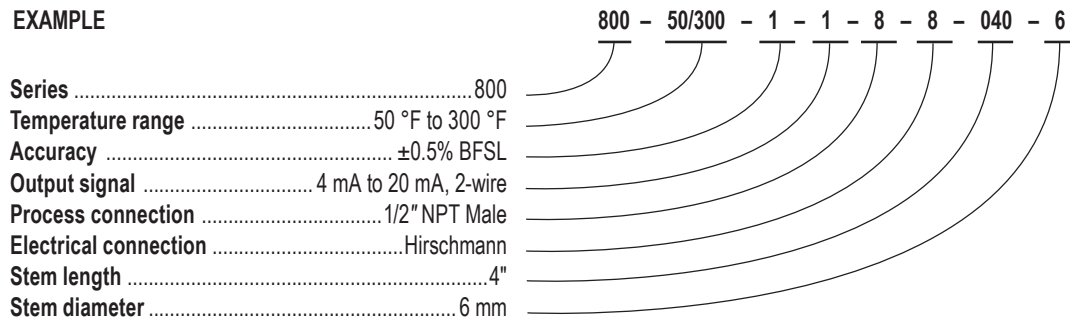| SPECIFICATIONS	
Output signals	4 mA to 20 mA 2-wire, 0 Vdc to 5 Vdc 3-wire 0 Vdc to 10 Vdc 3-wire, 1 Vdc to 5 Vdc 3-wire
Temperature ranges	Standard ranges from -40 °F to 400 °F
Accuracy	
Measuring element	Class B per EN 60751 (IEC 751)
Output	±[0.30 +0.005*ItI] °C ±0.5% full scale
Sensor protection	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
Max. operating pressure	6 mm: 725 psi 8 mm: 1,500 psi
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

Thermowells are recommended for pressure, corrosive fluids and high velocity applications, see pages 46-48.

ORDERING INFORMATION							
SERIES	**800**						
TEMPERATURE RANGES	**-40/120**	-40 °F to 120 °F	**0/200**	0 °F to 200 °F	**25/125**	20 °F to 240 °F	
	0/100	0 °F to 100 °F	**0/250**	0 °F to 250 °F	**50/300**	50 °F to 300 °F	
	0/140	0 °F to 140 °F	**20/240**	20 °F to 240 °F	**50/400**	50 °F to 400 °F	
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			
	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	
	8	1/2″ NPT Male					
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	**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

Series 800
Temperature range ....50 °F to 300 °F
Accuracy ....±0.5% BFSL
Output signal ....4 mA to 20 mA, 2-wire
Process connection ....1/2″ NPT Male
Electrical connection ....Hirschmann
Stem length ....4"
Stem diameter ....6 mm

800 Series Platinum Resistance Temperature Transmitter

Stem length

Adjustable
stem length

Adjustable
compression fitting

1.65″
(42 mm)

1.06″ sq.
(27 mm)

Hirschmann with
1/2″ NPT Female
ISO 4400 conduit

1.85″
(47 mm)

1.10″
(28 mm)

1.06″
(27 mm)

2.16″
(55 mm)

0.75″
(19 mm)

Stem
length

Stem diameter
(6 mm standard)

1.06″HEX
(27 mm)

1/2″NPT

1.06″
(27 mm)

Hirschmann

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