



850 SERIES

- Utilizes PT1000 technology for continuous temperature monitoring, electronic temperature switching, and transmission of analog output while providing local digital indication
- Allows for one or two switching outputs as well as optional current and voltage outputs
- Three buttons on top allow simple adjustment of the temperature set points, reset points, switching functions and the measuring range of the optional analog output
- 1/2" NPT Male standard connection
- A variety of stem lengths are available for maximum versatility; also available with adjustable insertion lengths via the sliding compression fitting
- Durable stainless steel housing and wetted parts
- Display and electrical connection can be rotated independently
- RoHS compliant

SPECIFICATIONS

Temperature ranges	Standard -4 °F to 176 °F (-20 °C to 80 °C) Optional -4 °F to 248 °F (-20 °C to 120 °C) Selectable display for °F or °C
Temperature sensor	Platinum resistor (PT1000 2-wire, DIN EN 60751 Class A)
Wetted materials	316Ti stainless steel
Housing material	304 Stainless steel
Max. operating pressure	2,000 psi (1/2" NPT Male fixed process connection); 725 psi (1/2" NPT Male sliding compression fitting process connection)
Power requirement*	15 Vdc to 35 Vdc
Signal output adjustment	Zero point: 0-25% of span Full scale: 75-100% of span
Switch points	Individually adjustable via external control keys
Number	1 or 2 (PNP)
Function	N.O. / N.C.; windows-and hysteresis function freely adjustable
Adjustment accuracy	≤ 0.5% of span
Switch rating	Max. 250 mA
Electrical connection	M12 x 1 (4-pin), M12 x 1 (5-pin)
Accuracy	
Analog signal	≤ ±0.5% of span + temperature sensor error
Switching output	≤ ±0.8% of span + temperature sensor error
Display	≤ ±(0.8% of span + temperature sensor error) ±1 digit
Temperature sensor	For °F: ±[1.8*(0.15 + 0.002 (t - 32) / 1.8)] For °C: ±(0.15 K + 0.002 t) per EN 60751
Display	14 segment-LED, red 4-digit, height 0.35"
Environmental protection	IP65 and IP67 (IEC 60529)

* Unregulated

APPLICATIONS

- Mechanical engineering
- Heating and cooling circuits
- Air conditioning technology
- Plant construction
- Environmental technology

Thermowells are recommended for pressure, corrosive fluids and high velocity applications, see pages 48-50.

ORDERING INFORMATION			
SERIES	850		
SWITCH FUNCTIONS	1 2 N.O. or 2 N.C. switch (PNP *) 2 1 N.O. or 1 N.C. switch (PNP *) with 4 mA to 20 mA 3-wire analog output 3 1 N.O. or 1 N.C. switch (PNP *) with 0 Vdc to 10 Vdc 3-wire output	4 2 N.O. or 2 N.C. switch (PNP*) with 4 mA to 20 mA 3-wire analog output ** 5 2 N.O. or 2 N.C. switch (PNP*) with 0 Vdc to 10 Vdc 3-wire output **	
PROCESS CONNECTIONS	2 1/4" NPT Male 8 1/2" NPT Male	47 1/4" NPT Male sliding compression fitting 48 1/2" NPT Male sliding compression fitting	
TEMPERATURE RANGES	-4/176 -4 °F to 176 °F (-20 °C to 80 °C)	-4/248 -4 °F to 248 °F (-20 °C to 120 °C) † This range is available with sliding compression fitting ONLY	
ELECTRICAL CONNECTION	2 M12 x 1 (4-pin)	3 M12 x 1 (5-pin) ††	
STEM LENGTHS	010 1" *** 020 2" *** 025 2.5" ***	040 4" 060 6" 090 9"	120 12" 140 14"
STEM DIAMETERS	6 6 mm		

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

* NPN available, consult factory

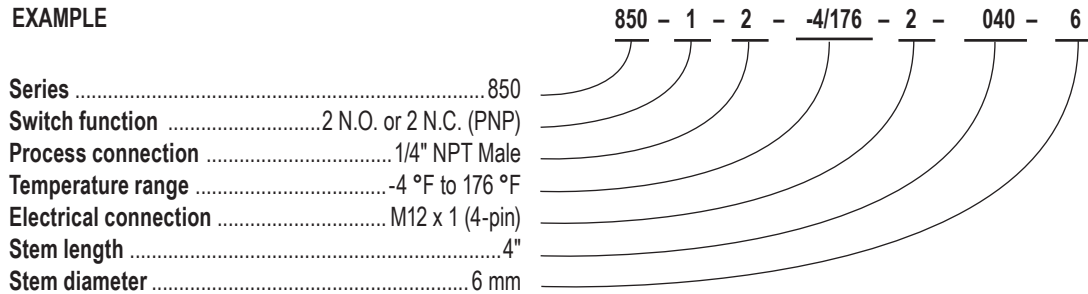
** Available only with M12 x 1 (5-pin) connector

*** Not available with sliding compression fitting

† Available only with sliding compression fitting process connection and stem lengths ≥4"

†† Switch function 4 and 5 only

EXAMPLE



850 Series

