



850 SERIES

- Utilizes PT100 technology to provide continuous temperature monitoring, electronic temperature switching, and transmission of analog output of 4 mA to 20 mA while providing local digital indication
- Allows for one or two switching outputs as well as an optional analog output
- Two buttons on top allow simple adjustment of the temperature set points, reset points, switching functions and the measuring range of the optional analog output
- Wide measuring range (between -300 °F and 1,100 °F / -200 °C and 600 °C) covers the majority of temperature measuring and switching applications
- 1/2" NPT Male standard connection, 1/4" NPT optional
- A variety of stem lengths are available for maximum versatility (also available with adjustable insertion lengths)
- A version with tapered stem is also available for rapid response times
- Durable stainless steel housing and wetted parts
- The housing and replaceable measuring insert are screwed together to allow the exchange of the measuring insert without opening the connection to the process

SPECIFICATIONS

Temperature ranges	Standard ranges from -300 °F to 1,100 °F (-200 °C to 600 °C) Selectable display for °F or °C
Temperature sensor	Platinum resistor (PT100 2-wire, Class B)
Wetted materials	316Ti stainless steel
Housing material	Stainless steel
Working pressure	6 mm stem diameter; 600 psi 8 mm stem diameter; 1,500 psi
Power requirement*	12 Vdc to 30 Vdc
Power consumption	≤ 50 mA, without load
Signal output	4 mA to 20 mA scalable from 20-100% of range
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	Set point: 0.1° steps within temperature range Reset point: 0.1° steps from beginning temperature range until (set point -0.1°)
Switch rating	100 mA per switch
Electrical connection	M12 x 1 (4-pin)
Accuracy	Class B +0.25% of the temperature range
Display	7 segment-LED, red 4-digit, height 0.3"
Temperature ranges	
Storage	-22 °F to 176 °F (-30 °C to 80 °C)
Ambient	-13 °F to 158 °F (-25 °C to 70 °C)
Influence	±0.006% of measuring range per °F
Environmental protection	NEMA 4; IP65 (IEC 529)
Weight	Approximately 0.66 lb.

* Unregulated

APPLICATIONS

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

Protective Cover Option

- Made of a thermoplastic polyurethane (TPU) material which is resistant to oil, grease and abrasion
- Protects the sensor while maintaining clear viewing and rotation of the display
- The elastic properties of the material allows set point programming without having to remove the cover
- Increases environmental protection to IP67 for indoor and outdoor use

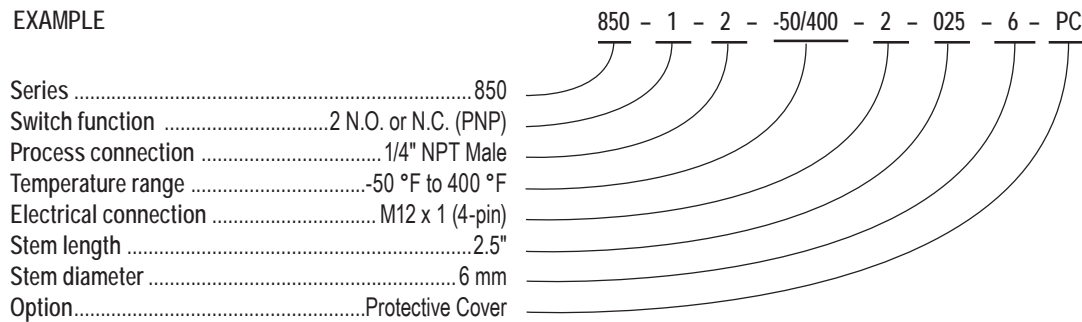


Thermowells are recommended for pressure, corrosive fluids and high velocity applications, see pages 46-48.

ORDERING INFORMATION			
SERIES	850		
SWITCH FUNCTIONS	1	2 N.O. or N.C. switch-PNP	
	2	1 N.O. or N.C. switch-PNP (with 4 mA to 20 mA analog output)	
PROCESS CONNECTIONS	2	1/4" NPT Male	8 1/2" NPT Male
TEMPERATURE RANGES	-50/400	-50° F to 400° F	32/1100 32° F to 1,100° F
	32/750	32° F to 750° F	-300/1100 -300° F to 1,100° F
ELECTRICAL CONNECTION	2	M12 x 1 (4-pin)	
	3	M12 x 1(5-pin, 2 switch and output)	
STEM LENGTHS	25mm	25 millimeters	100mm 100 millimeters 250mm 250 millimeters
	50mm	50 millimeters	150mm 150 millimeters 350mm 350 millimeters
STEM DIAMETERS	6	6 mm	

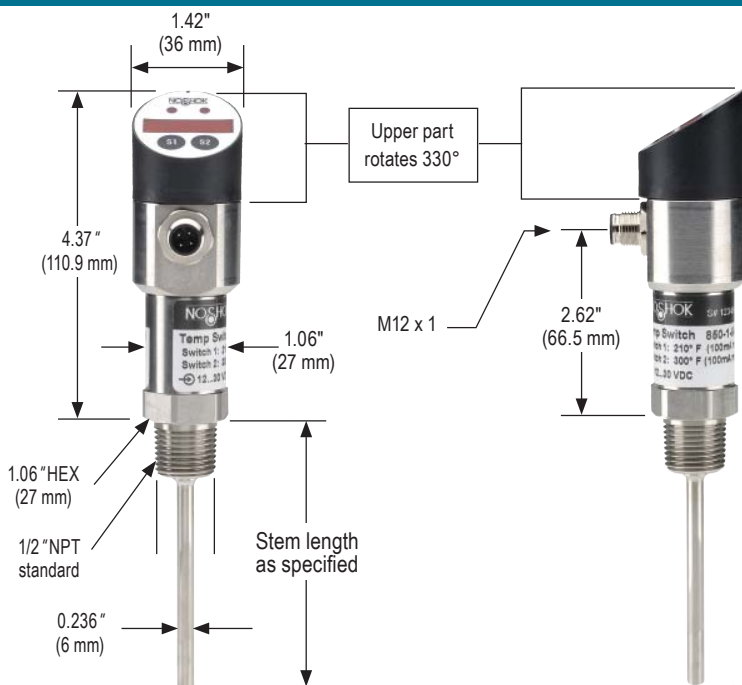
Please consult your local NOSHOK Distributor or NOSHOK, Inc. for availability and delivery information.

EXAMPLE

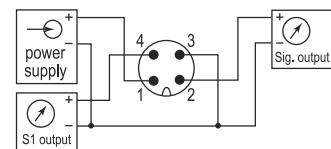


Additional Ordering Information Switch Set Point(s) (please specify)

850 Series



1 switching output (M12 x 1)
with 4 mA to 20 mA signal
p-switching



2 switching output (M12 x 1)
p-switching

