



SERIES 850

With two programmable switching outputs, or one programmable switching output and one programmable analog output

The NOSHOK 850 Temperature Switch measures and displays temperature and has one or two switching outputs as well as an optional analog output. The temperature set points, reset points, switching functions and the measuring range of the optional analog output are simple to adjust via two buttons. All these features and measuring range between -300°F and 1100°F (-200°C and 600°C) cover the majority of temperature measuring and switching tasks. Different process connections, which are also available as adjustable screw connections, underline the versatility of the NOSHOK 850 Series. For fast response times a version with tapered stem is also available. All wetted parts as well as the housing are made of stainless steel. The housing and the replaceable measuring insert are screwed together. This allows the exchange of the measuring insert without opening the connection to the process.

FEATURES

- Compact dimensions
- Simple handling
- Cost effective
- Service-friendly
- Customized solutions

APPLICATIONS

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

TEMPERATURE RANGES

- 50 to $+400^{\circ}\text{F}$
- 50 to $+1100^{\circ}\text{F}$
- 50 to $+750^{\circ}\text{F}$
- 300 to $+1100^{\circ}\text{F}$

SPECIFICATIONS

Temperature Ranges	Standard ranges from -300°F to 1100°F (-200°C to 600°C) Selectable display for $^{\circ}\text{F}$ or $^{\circ}\text{C}$
Temperature Sensor	Platinum resistor (PT100 2-Wire, ClassB)
Wetted Materials	316Ti Stainless steel
Housing Material	Stainless steel
Working Pressure	6 mm Stem Diameter; 600 psi 8 mm Stem Diameter; 1500 psi
Power Supply	12 Vdc to 30 Vdc, unregulated
Power Consumption	≤ 50 mA, without load
Signal Output	4 mA to 20 mA Scaleable from 20-100% of range
Switch Points Number Function Adjustment	Individually adjustable via external control keys 1 or 2 (PNP) NO / NC; windows-and hysteresis function freely adjustable 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 $+0.1\%$ of the temperature range
Display	7 Segment-LED, red 4-digit, height $0.3''$
Temperature Ranges Storage Ambient Influence	-22°F to 176°F (-30°C to 80°C) -13°F to 158°F (-25°C to 70°C) $\pm 0.006\%$ of measuring range per $^{\circ}\text{F}$
Environmental Protection	NEMA 4; IP65 (IEC 529)
Weight	0.66 lbs. depending on stem length

ORDERING INFORMATION				
SERIES 850				
SWITCH FUNCTION	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°F to 400°F -50/400	-50°F to 1100°F -50/1100	
		-50°F to 750°F -50/750	-300°F to 1100°F -300/1100	
ELECTRICAL CONNECTIONS	2 M12 x 1 (4-PIN)			
STEM LENGTH	025	2.5 inch	060	6 inch
	040	4 inch	090	9 inch
STEM DIAMETER	3	Tapered from 6mm - 3mm tip	6	6mm
			8	8mm

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

EXAMPLE

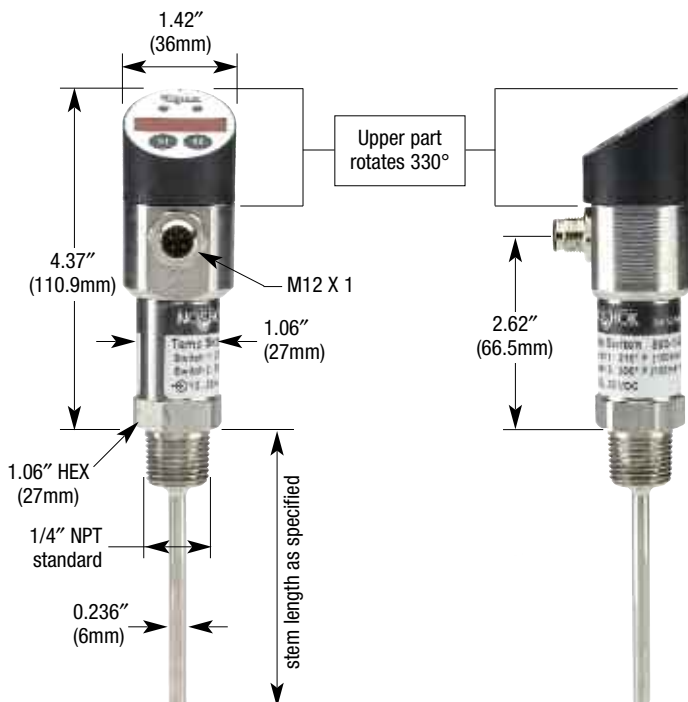
Series850
 Switch Function2 N.O. or N.C. -pnp
 Process Connection1/4" NPT male
 Temperature Range50°F to 400°F
 Electrical ConnectionM12 x 1 (4-pin)
 Stem Length2.5"
 Stem Diameter6mm

850 - 1 - 2 - 50/400 - 2 - 025 - 6



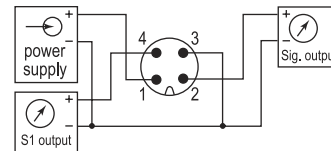
Additional Ordering Information Switch Set Point(s) (please specify)

Outline Dimensions



Wiring Diagrams

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



**2 switching output (M12 x 1)
p-switching**

