

# 800/810 SERIES



## FEATURES

- Pressure ranges from -14.5 psig to 9,999 psig
- 330° Rotatable display-head
- Integrated password protection
- Simple 2-key programming
- Four-digit LED display
- Scaleable analog output
- Fast response time

## OPTIONAL FEATURES

- 330° rotatable pressure connection
- Minimum/maximum value memory
- Output dampening up to 2,000 msec
- Switching time delay

## APPLICATIONS

- Hydraulic and pneumatic systems
- Molding and extruding equipment
- Stamping and forming presses
- Pumps and compressors
- HVAC
- Power generation
- Transportation equipment
- Marine

## 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



- 3 switching output options available:
  - 2 switching outputs
  - 1 switching output and 1 analog output (4 mA to 20 mA or 0 Vdc to 10Vdc)
  - 2 switching outputs and 1 analog output (4 mA to 20 mA)
- Provides continuous pressure monitoring, allows programming of set points without applying pressure
- Simple 2-key programming for set points, contact functions (N.O./N.C.), reset points, contact types (NPN/PNP) and switching function (hysteresis/gate)
- 330° rotatable display head
- Integrated password protection
- Four-digit LED display
- Scalable analog output
- Fast response time
- CE compliant to suppress RFI, EMI, and ESD
- Optional features: 330° rotatable pressure connection, minimum/maximum value memory, output dampening up to 2,000 ms, and switching time delay

## SPECIFICATIONS

<b>Pressure ranges</b>	Standard gauge ranges from -14.5 psig to 30 psig through 0 psig to 9,999 psig
<b>Pressure sensor</b>	Thick film ceramic strain gage for ranges through -15 psig to 750 psig Sputtered thin film strain gage for all higher pressure ranges
<b>Proof pressure</b>	2 times full scale for ranges vacuum through 0 psig to 1,450 psig 1.75 times full scale for ranges 0 psig to 1,500 psig through 0 psig to 10,000 psig
<b>Burst pressure</b>	2.5 times full scale for ranges vacuum through 0 psig to 1,450 psig, 1.75 times full scale for ranges 0 psig to 1,500 psig through 0 psig 10,000 psig
<b>Wetted materials</b>	Stainless steel with ceramic sensor and FKM seal on ranges through 0 psig to 750 psig (other sealing materials available upon request) Stainless steel only for higher pressure ranges.
<b>Housing material</b>	800-Stainless steel, 810-black anodized aluminum
<b>Power supply</b>	12 Vdc to 30 Vdc, unregulated
<b>Signal output</b>	4 mA to 20 mA or 0 Vdc to 10 Vdc; programmable and freely adjustable
<b>Switch output</b>	Individually adjustable via external control keys
<b>Number</b>	1 or 2 (PNP or NPN)
<b>Function</b>	N.O./N.C.; windows - and hysteresis function freely adjustable
<b>Switching rating</b>	0.5 A max
<b>Response time</b>	<10 ms
<b>Accuracy</b>	<1% full scale
<b>Display</b>	7-Segment-LED, red 4-digit, height 0.3"
<b>Adjustment</b>	Programmable on the display
<b>Switch point</b>	0.5 to 100% of full scale
<b>Hysteresis</b>	0.5 to 99% of full scale
<b>Current consumption</b>	< 50 mA (without load)
<b>Accuracy</b>	< 0.5% full scale (BFSL) ±1 digit
<b>Hysteresis</b>	< 0.2% full scale (< 0.3 with pressure range < 0 psi - 230 psi)
<b>Repeatability</b>	< 0.2% full scale
<b>Stability</b>	< 0.2% full scale (< 0.3 with pressure range < 0 psi - 230 psi)
<b>Temperature limits media</b>	-4 °F to 176 °F (-20 °C to 85 °C) (Thin film sensor) -4 °F to 176 °F (-20 °C to 85 °C) (Ceramic sensor)
<b>Ambient Storage</b>	-4 °F to 158 °F (-20 °C to 70 °C) -22 °F to 176 °F (-30 °C to 80 °C)
<b>Compensated temp range</b>	32 °F to 176 °F (0 °C to 80 °C)
<b>Thermal zero effect</b>	± 0.07% full scale/ °F
<b>Thermal span effect</b>	± 0.07% full scale/ °F
<b>CE compliance</b>	89/336EWG interference emission and immunity see EN 61 326 97/23/EG pressure equipment directive, appendix 1
<b>Vibration</b>	> 10 g's according to IEC 60068-2-6
<b>Shock</b>	> 50 g's according to IEC 60068-2-27
<b>Electrical protection</b>	Protected against reverse polarity, over-voltage and short circuit
<b>Environmental protection</b>	NEMA 4 Per IEC 60529/EN 60529
<b>Durability</b>	>10 million full scale cycles
<b>Weight</b>	Approx 0.62 lb

ORDERING INFORMATION					
<b>SERIES</b>	<b>800</b>	Stainless steel housing	<b>810</b>	Black anodized aluminum housing	
<b>SWITCH FUNCTIONS</b>	<b>1</b>	2 N.O. or N.C. (PNP or NPN)	<b>3</b>	1 N.O. or 1 N.C. (PNP or NPN) with 0 Vdc to 10 Vdc analog output	
	<b>2</b>	1 N.O. or 1 N.C. (PNP or NPN) with 4 mA to 20 mA analog output	<b>4</b>	2 N.O. or 2 N.C. (NPN) with 4 mA to 20 mA analog output*	
<b>PROCESS CONNECTIONS</b>	<b>2</b>	1/4" NPT male	<b>10</b>	G 1/4 B male	
	<b>5</b>	1/4" NPT female	<b>11</b>	G 1/2 B male	
	<b>8</b>	1/2" NPT male	<b>19</b>	G 1/4 B female	
			<b>45</b>	SAE J1926-3:7/16-20	
<b>ADJUSTABLE RANGES</b> (Max. working pressure)	<b>14.5/30</b>	-14.5 psig to 30 psig	<b>145</b>	0 psig to 145 psig	
	<b>14.5/75</b>	-14.5 psig to 75 psig	<b>300</b>	0 psig to 300 psig	
	<b>14.5/145</b>	-14.5 psig to 145 psig	<b>750</b>	0 psig to 750 psig	
	<b>30</b>	0 psig to 30 psig	<b>1450</b>	0 psig to 1,450 psig	
	<b>75</b>	0 psig to 75 psig	<b>2400</b>	0 psig to 2,400 psig	
			<b>3750</b>	0 psig to 3,750 psig	
			<b>6000</b>	0 psig to 6,000 psig	
			<b>9000</b>	0 psig to 9,000 psig	
			<b>10000</b>	0 psig to 10,000 psig	
<b>ELECTRICAL CONNECTIONS</b>	<b>2</b>	M12 x 1 (4-pin)	<b>3</b>	M12 x 1 (5-pin), 2 switch and analog output	
<b>OPTIONS</b>	<b>ORF</b>	Threaded Orifice	<b>RB</b>	Rotatable Base	
			<b>EH</b>	Enhanced Software <sup>1</sup>	
			<b>PC</b>	Protective Cover (IP67)	

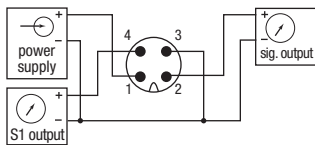
\* Available only with a M12 x 1 (5-pin) connector

<sup>1</sup> Includes minimum/maximum value memory, output dampening, switching time delay

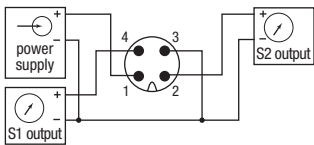
Please consult your local NOSHOK Distributor or NOSHOK, Inc. for availability and delivery information.

### Wiring Diagrams

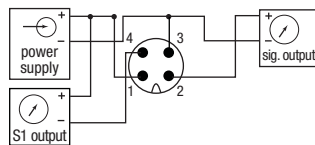
**1 switching output (M12x1)  
with 4 mA to 20 mA signal  
p-switching**



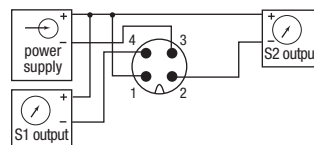
**2 switching output (M12x1)  
p-switching**



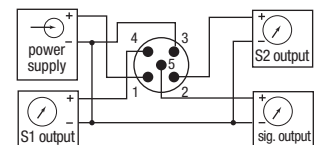
**1 switching output (M12x1)  
with 4 mA to 20 mA signal  
n-switching**



**2 switching output (M12x1)  
n-switching**



**2 switching output (M12x1)  
with 4 mA to 20 mA signal  
p-switching**

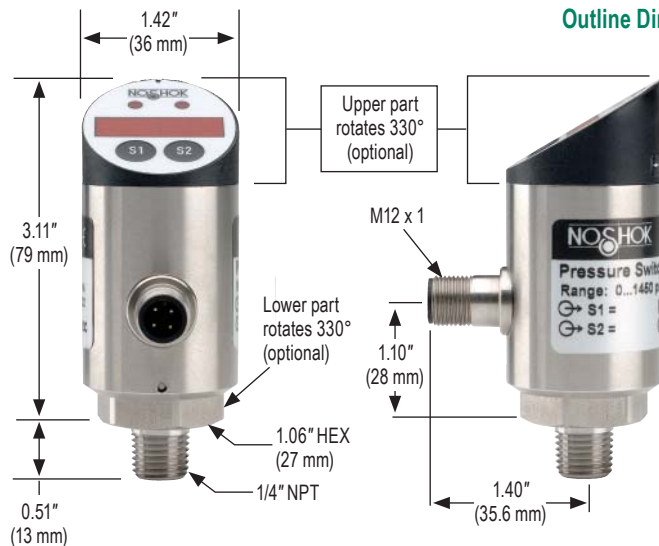


### EXAMPLE

Series .....800  
 Switch function .... 2 N.O. or N.C. (PNP or NPN)  
 Process connection .....1/4" NPT Male  
 Switch adjustment range .....0 psig to 145 psig  
 Electrical connection .....M12 x 1 (4-pin)  
 Option ..... Threaded orifice

800 - 1 - 2 - 145 - 2 - ORF

### Outline Dimensions



800 Series Stainless - Steel Housing



810 Series - Black Anodized Aluminum Housing