



## SERIES 500

The NOSHOK Mag-Switch is an electronic pressure switch that utilizes proven diaphragm pressure sensing technology coupled with hall effect magnetic field sensing technology and semiconductor switching technology to provide a highly reliable, accurate, repeatable, cost effective pressure switch without mechanical contacts.

NOSHOK Mag-Switches are available with either one or two switch functions of either PNP (positive) output or NPN (negative) output in either N.O. (normally open) or N.C. (normally closed) configurations. The switch points are field adjustable utilizing readily accessible adjustment screws with an adjustment range of 10-100% of full scale value.

NOSHOK Mag-Switches come in a wide variety of pressure ranges to suit a wide variety of applications. The standard electrical connection is a 4 pin M12 x 1 threaded connector.

### FEATURES

- Measuring range from 30 vacuum through 15,000 PSIG
- Field adjustable switch points
- Semiconductor switching relays (no mechanical contacts)
- Suitable for direct connection to PLC's
- Integrated LED switching indication
- N.O. or N.C. switching functions
- Positive (PNP) or negative (NPN) switch functions
- Single or dual switch setpoint functions

### APPLICATIONS

- Hydraulic and pneumatic systems
- Industrial machinery and machine tools
- Stamping and forming presses
- Pumps and compressors
- Laboratory and test equipment
- HVAC systems
- Medical
- Refrigeration equipment
- Transportation equipment

### SPECIFICATIONS

<b>Pressure Ranges</b>	0-30 inHg vac through 15,000 PSI
<b>Proof Pressure</b>	30 PSI & lower . . . . . 5x 60 PSI . . . . . 4x 150 PSI & higher . . . . . 2x
<b>Process Connection</b>	Brass (1/4 " NPT standard)
<b>Wetted Parts</b>	Copper Alloy 316 SS above 600 PSI
<b>Case</b>	Brass through 350 PSI Aluminum Anodized 600 PSI and higher
<b>Switching Functions</b>	1 N.O. or 1 N.C. contact standard 2 N.O. or 2 N.C. contacts are optional p-switching or n-switching
<b>Adjustability</b>	Adjustment screw Switching point 5 ... 100% of F.S.
<b>Accuracy &amp; Repeatability</b>	≤ 1% of F.S.
<b>Switching Hysteresis</b>	≤ 5% of F.S.
<b>Power Supply</b>	10...30 VDC, unregulated
<b>Contact Rating</b>	Max. 100 mA (max. 30 VDC)
<b>Temperature Compens. Range</b>	32° to 175°F/0° to 80°C
<b>Temperature Effect</b>	0.02% full scale/°F
<b>Temperature Ranges</b>	Storage -22° to 175°F/-30° to 80°C Media -5° to 175°F/-20° to 80°C Ambient -5° to 175°F/-20° to 80°C
<b>Environmental Protection</b>	Cable conn. NEMA 6: IP 67 (IEC 529) M12x1 conn. NEMA 4: IP 65 (IEC 529)
<b>Electromagnetic Capability per IEC 1000 (EN 50081, EN 50082)</b>	ESD Level 1 Fields (RF) Level 2 Burst Level 2 Surge Level 2 CE Compliant
<b>Electrical Protection Types</b>	Reverse polarity and overvoltage protection
<b>Weight</b>	0.2 lbs. on 400 PSI & below, 0.6 lbs. on 600 PSI & higher

ORDERING INFORMATION								
<b>SERIES 500</b>								
<b>SWITCH FUNCTION</b>	1	1 N.O. (PNP)	3	2 N.O. (PNP)	5	1 N.O. (NPN)	7	2 N.O. (NPN)
	2	1 N.C. (PNP)	4	2 N.C. (PNP)	6	1 N.C. (NPN)	8	2 N.C. (NPN)
<b>PROCESS CONNECTIONS</b>	1	1/8" NPT Male		2	1/4" NPT Male			
<b>PRESSURE RANGES</b>		-30 inHg to 0 psig	<b>30V</b>	0 psig to 100 psig	<b>100</b>	0 psig to 600 psig	<b>600</b>	0 psig to 3000 psig
		0 psig to 15 psig	<b>15</b>	0 psig to 150 psig	<b>150</b>	0 psig to 750 psig	<b>750</b>	0 psig to 5000 psig
		0 psig to 30 psig	<b>30</b>	0 psig to 250 psig	<b>250</b>	0 psig to 1000 psig	<b>1000</b>	0 psig to 7500 psig
		0 psig to 60 psig	<b>60</b>	0 psig to 350 psig	<b>350</b>	0 psig to 2000 psig	<b>2000</b>	0 psig to 10000 psig
<b>ELECTRICAL CONNECTIONS</b>	1	5 foot cable			2	4 pin M12x1 connector		
<b>OPTIONS</b>	1	Additional Cable Length (specify length) (available with cable connection only)			<b>ORF</b>	THREADED ORIFICE		
					<b>note:</b>	M12 mating connectors & cordsets are available as separate options. Please refer to price list for details.		

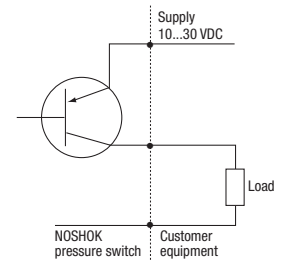
**EXAMPLE**

Series .....500  
 Switch Function.....2 N.O. (PNP)  
 Process Connection.....1/4" NPT Male  
 Adjustable Range .....0 psig to 750 psig  
 Electrical Connection .....4 pin M12 x 1 connector  
 Options.....ORIFICE

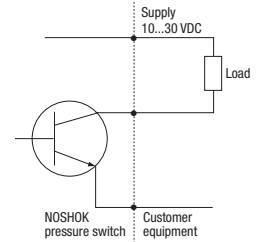
**500 - 3 - 2 - 750 - 2 - ORF**

**Switching Output Schematic**

**P-switching output**

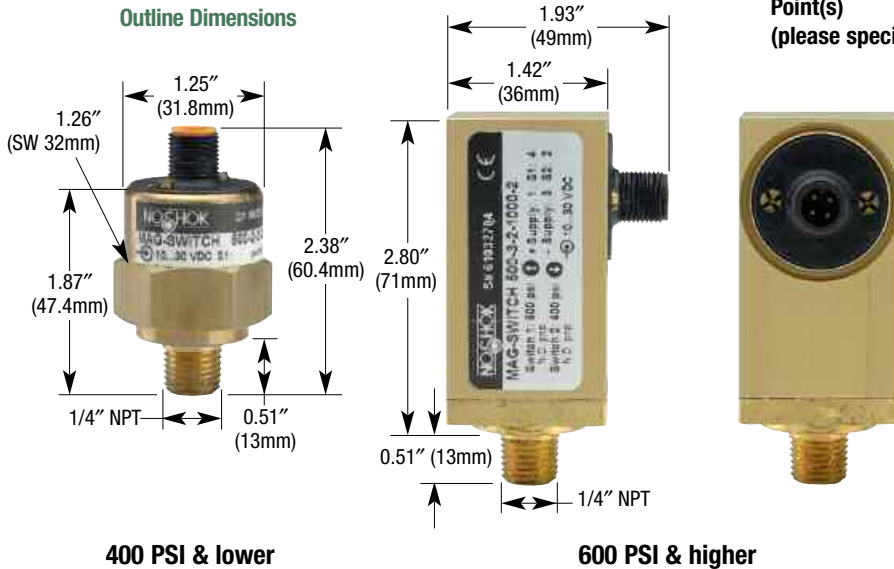


**N-switching output**



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

**Outline Dimensions**



**400 PSI & lower**

**600 PSI & higher**

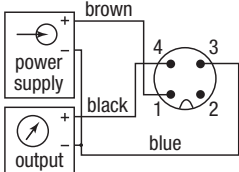
**Connection table for 4 PIN M12x1 connector**

Function	Connector M12x1
Power supply: +	1 brown
Power supply: -	3 blue
Switching output: S1	4 black
Switching output: S2	2 white

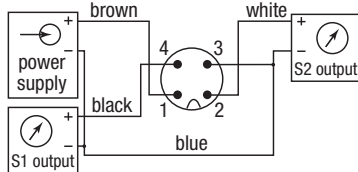
**Wiring Diagrams**

**P-switching, cable or connector**

1 switching output

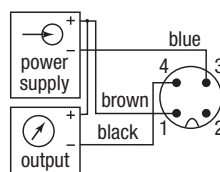


2 switching outputs



**N-switching, cable or connector**

1 switching output



2 switching outputs

