

Low-Cost General-Purpose Pressure Sensor **SPX 2000 Series**



The SPX 2000 Series pressure sensors are designed using field-proven piezoresistive silicon technology, coupled with advanced ASIC electronic compensation techniques, that result in a true, high-performance, low-cost family of products. The use of NACE-compatible 316L SS and Hastelloy wetted parts ensure material compatibility in harsh environments. The modular construction is well suited for customization for OEM, reseller, and large end-user applications.

The small size, flexible pressure ports and electrical interconnection options make the SPX 2000 Series an excellent choice for a wide variety of applications including plant automation, refrigeration, compressors, pumps, train braking and suspension systems and many others.

Features

- High Performance, low cost
- Customized electrical connection
- Ranges 15 psi through 2000 psig or psia
- Accuracy $\pm 0.5\%$
- Small diameter 0.69"



**In-Stock for
Fast Delivery!**



SPX 2000 Series Specifications

Pressure Measurement

Operating Pressure Ranges	Full scale pressure ranges between 15 and 2000 psig or psia
Proof Pressure (Overpressure)	2X FS
Burst Pressure	4X FS minimum
Media Compatibility	Media compatible with 316L SS and Hastelloy C276 (NACE MR-01-75)

Electrical Specifications

Excitation Voltage	8-28 Vdc (SPX 2001)
Output	2-wire, 4-20mA (SPX 2001) 0-5Vdc, 1-5Vdc (SPX 2002), and 0-10Vdc also available All voltage outputs are true zero, 3-wire; output voltage +3Vdc (example: for 0 to 10Vdc, a minimum excitation of 13Vdc is required)
Zero Offset	±0.5% FS (factory set)
Accuracy	±0.5% FS including non-linearity, hysteresis, repeatability and span offset
Total Error Band	±1.0%FS over 15° to 120°F ±2.0%FS over -5° to 175°F (includes non-linearity, hysteresis, repeatability, temperature effects, and zero and span offset)
Long Term Stability	Typically ±0.2% FS per year maximum
DC Output Impedance	20 Ohms Max (SPX 2002)
Minimum Load Resistance	RL = 100K Ohms min. (SPX 2002)
Supply Current	10mA Max, 4mA typical (SPX 2002)
Frequency Response	2 KHz 500 microsecond time constant (63% response to step change in pressure)

Environmental Specifications

Temperature Limits	Operating Temperature -40° to 212°F Storage Temperature -50° to 250°F Process Temperature -40° to 275°F
Cycle Life	10,000,000 Pressure Cycles Minimum
Humidity	Vented Gauge: 99% RH, non-condensing Sealed Gauge and Absolute: 100% RH Environment
Mechanical Vibration	20g Sinusoidal per MIL-STD-202, Method 202, Condition C
Mechanical Shock	100g, 11ms, 1/2 sine per MIL-STD-202F, Method 213B, Condition A 1000g, 1/2ms, 1/2 sine per MIL-STD 202F
Electrical Environments	CE marked heavy industrial
Insulation Resistance	Greater than 10 Megohms @ 500 Vdc

Physical Specifications

Environmental Protection	NEMA 4X (IP 65)
Weight	7 oz nominal excluding cable
Pressure Connections	1/4"NPT Female. Other pressure ports available
Physical Size	Length: 3.4 inches not including connector Diameter: 0.69 inches (not including hex)

Ordering Information

S P X 2 0 0 **A** - **B B B B** - **C** - **D**

Box A: Output

Other outputs available. Please call.

1 = 4-20mA	\$ 189
2 = 1-5V	\$ 189

Box B: Pressure Range

Specify required pressure range in psi, for example:

0015 = 15 psi	N/C
0030 = 30 psi	N/C
0050 = 50 psi	N/C
0100 = 100 psi	N/C
0150 = 150 psi	N/C
0300 = 300 psi	N/C
0500 = 500 psi	N/C
0750 = 750 psi	N/C
1000 = 1,000 psi	N/C
1500 = 1,500 psi	N/C
2000 = 2,000 psi	N/C

Box C: Electrical Connection

1 = Integral cable	N/C
2 = 6-pin bayonet	N/C
3 = DIN micropin plug/socket	N/C

Box D: Options

0 = None	
1 = 3-Point NIST calibration certificate	\$ 100