

# P981-01XX Series



## Rolling Mill Series

Schaevitz® Sensors, introduces the P981-01XX media isolated pressure transducer. Designed specifically for harsh environments found in steel and aluminum rolling mill applications. Based on the popular P980 two wire, 4-20mA digitally compensated series, the P981-01XX offers unique features not found on other types of pressure transducers.

The Rolling Mill Series offers an exceptionally fast response rate of 900Hz while maintaining an accuracy of less than  $\pm 0.20\%$  F.R.O. The P981-010XX has built-in transient suppressor to eliminate the effects of line voltage transient and is EMC compliant to CE Standards. The pressure transducer has also been fitted with an integral pressure restrictor virtually eliminating the possibility of damage due to high over pressure spikes.

All Schaevitz® high pressure transducers incorporate a proprietary fatigue enhanced diaphragm, which extends long term reliability and reduces degradation caused by a high number of pressure cycles.

### Features and Options

- 2 Wire, 4 to 20mA output**
- Transient suppressor to protect against voltage spikes**
- Built in pressure restrictor**
- 1/2" BSP male pressure port**
- 7/16" - 20 UNF BSP male pressure port**
- Bleed screw to eliminate air from the system**
- Pressure connector with 'O' ring groove**
- Reverse polarity protected**
- High overload and burst capabilities**
- CE certified**



### Specifications

#### Pressure Ranges

psi.....	1500, 2200, 2500, 3500, 5000, 7500, 10000
bar.....	100, 150, 200, 250, 350, 500, 700

**Pressure Reference** ..... Sealed gauge

**Pressure Limit** .....  $\geq 5x$  rated pressure or 830 bar (12,000 psi) whichever is less

**Burst Pressure Limit** .....  $\geq 20x$  rated pressure or 22,000 psi (1500 bar) whichever is less

**Pressure Media** ..... Liquids and gases compatible with 17-4 pH or 17-7 pH stainless steel

**Input Supply Voltage** ..... 10 to 36 VDC

**Residual Unbalance** ..... 4mA,  $\pm 0.3\%$  F.R.O.

**Full Range Output** ..... 4 - 20mA (16mA  $\pm 0.3\%$  FRO)

**Load Impedance (ohms)** .. 1625 max @ 36V

**Frequency Response** ..... 100/900Hz

**Combined Non-Linearity, Hysteresis and**

**Non-Repeatability** .....  $< \pm 0.920\%$  F.R.O.

**Combined Thermal Zero**

**and Sensitivity Error** .....  $\pm 0.008\%$  F.R.O./°F ( $\leq \pm 0.075\%$  FRO/°C)

#### Temperature Ranges

**Compensated** ..... -4°F to 176° F (-20°C to 80°C)

**Operational** ..... -40°F to 212° F (-40°C to 100°C)

**Storage** ..... -40°F to 257°F (-40°C to 125°C)

**Humidity** ..... Immersible to IP67

**Vibration** ..... Surpasses Mil Std 810C

Method 514-2 Curve L

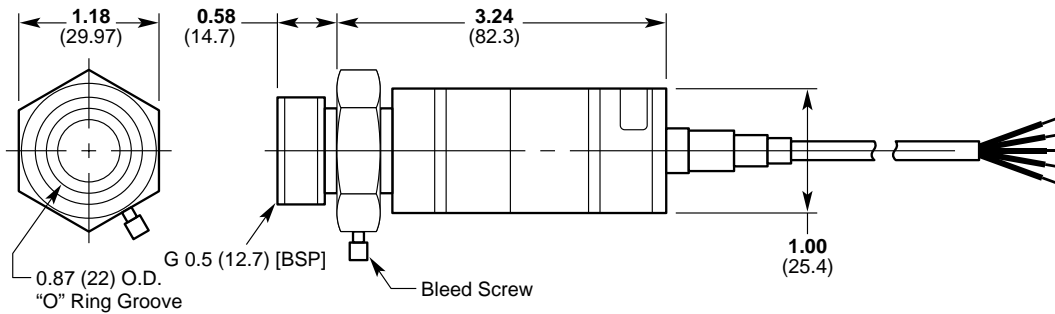
**Shock** ..... 1000 g's for 2 msec will not damage sensor

**Insulation Resistance** ..... 500 Mohm at 50 Vdc

**Long Term Drift** .....  $< 0.1\%$  FRO/year

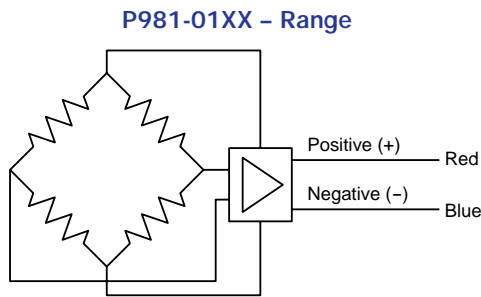
**EMC** ..... The P980 Series when correctly installed comply with the EMC Directive 89/336/EEC Generic Standards for Residential Commercial, Light Industrial and Industrial environments.

**Dimensions** in (mm)



Typical dimensions for unit with bleed screw and 1/2" BSP pressure port.

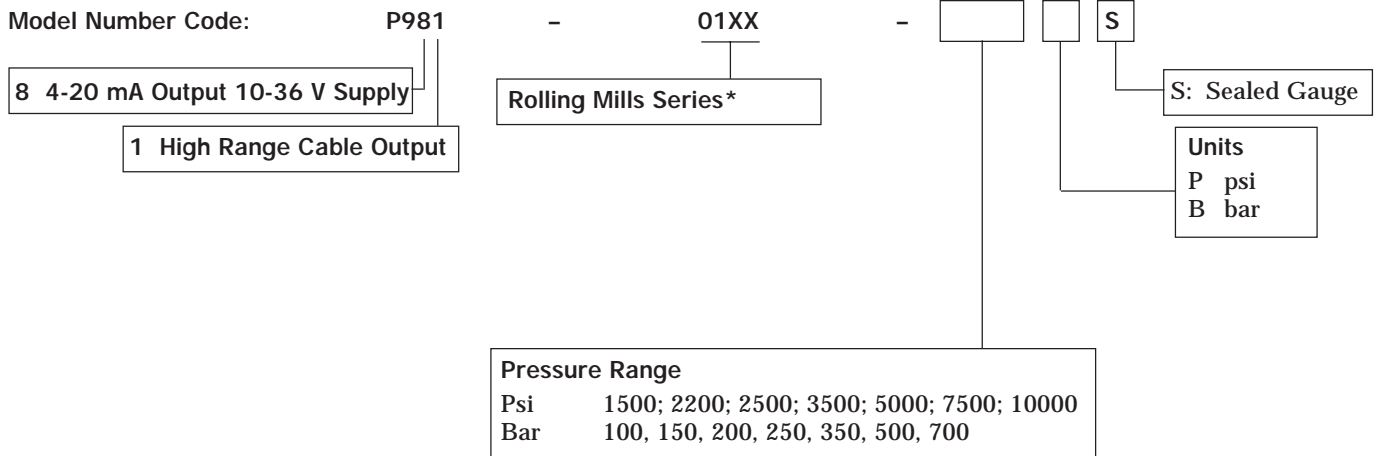
**Wiring**



Voltage Output Units Available  
(See P900 Standard)

**How to Order**

The P981 Rolling Mill specific pressure transducer can be ordered as shown below. Please use the non-standard part number P981-01XX, and the pressure range required as illustrated below. For cable lengths greater than 1 meter (39.5") please specify required lengths.



\*Call factory for available pressure port and connector options.