

P981-01XX Series

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

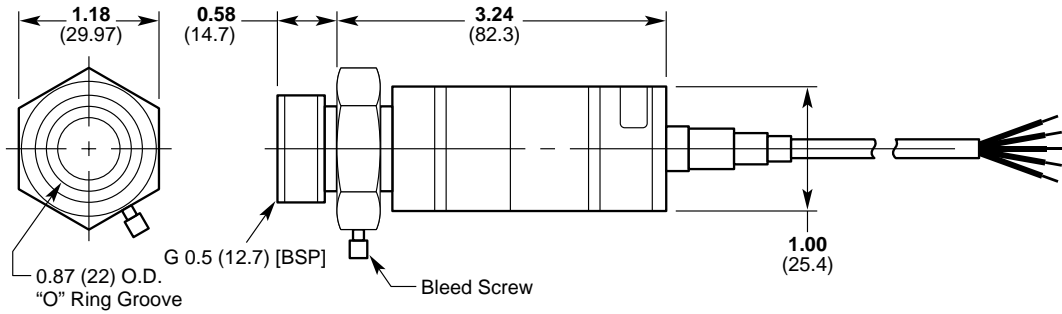
- 2 Wire, 4 to 20mA output**
- Transient suppressor to protect against voltage spikes**
- Built in pressure restrictor**
- 1/2" BSP male pressure port**
- 7/16" - 20 UNF BSP male pressure port**
- Bleed screw to eliminate air from the system**
- Pressure connector with 'O' ring groove**
- Reverse polarity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



Specifications

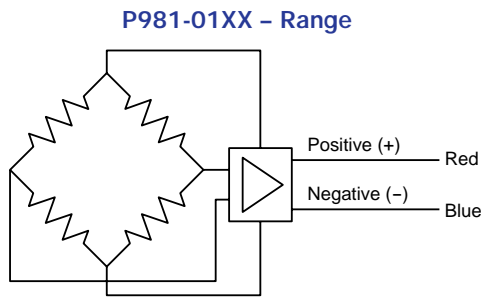
Pressure Ranges	
psi.....	1500, 2200, 2500, 3500, 5000, 7500, 10000
bar.....	100, 150, 200, 250, 350, 500, 700
Pressure Reference	Sealed gauge
Pressure Limit	$\geq 5x$ rated pressure or 830 bar (12,000 psi) whichever is less
Burst Pressure Limit	$\geq 20x$ rated pressure or 22,000 psi (1500 bar) whichever 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 ($< \pm 0.075\%$ 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.

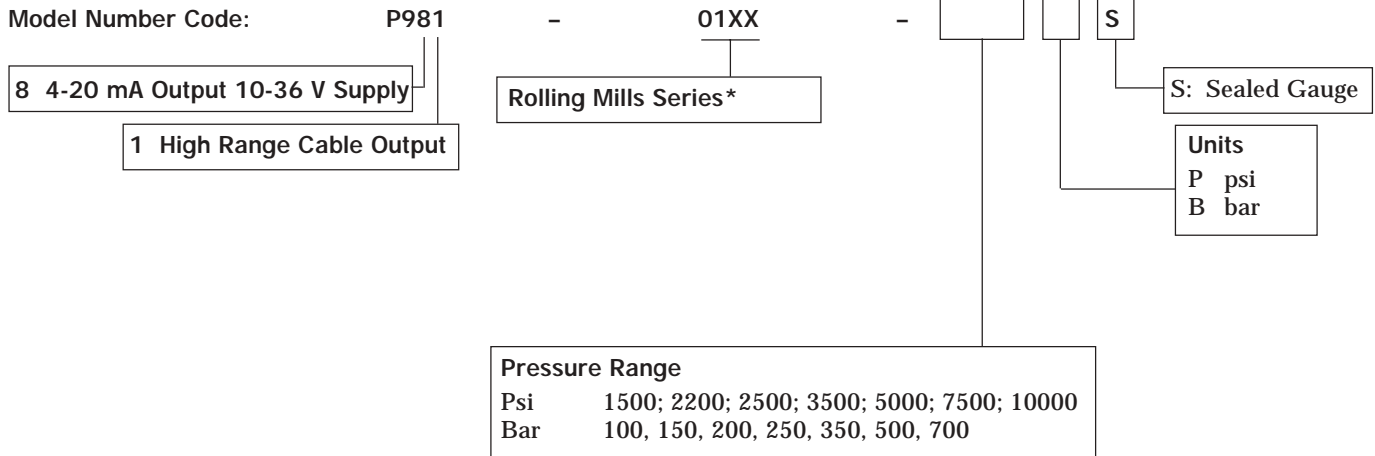
Wiring



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.