

- \* INTERNAL SIGNAL CONDITIONING
- \* WIDE VARIETY OF RANGES
- \* COMPACT SEALED PACKAGE
- \* 100% COMPUTER TESTED
- \* FULLY TEMPERATURE COMPENSATED (-10° to 60°C)



### APPLICATIONS

- HYDRAULIC SYSTEMS
- STEAM PRESSURES
- ENGINE TEST
- INJECTION MOLDING
- PUMP & PIPELINE PRESSURES
- HOSTILE GAS & FLUID PRESSURES
- VACUUM MEASUREMENT
- BUBBLE LINE PRESSURES

### GENERAL DESCRIPTION

This series of low-pressure transducers is specifically designed for demanding industrial applications where the primary criteria are reliability and economy. These units provide repeatable, precision measurements under the most hostile condition.

Available in vacuum and pressure ranges from 5 through 2,000 PSI, these transducers feature stainless steel and Viton wetted surfaces. Operating from an unregulated DC supply, they provide standard outputs and are available in both voltage and current loop versions.

All transducers incorporate our isolated diaphragm sensors, which are specifically designed for use with corrosive fluids and gases. These sensors utilize a silicon pressure cell that has been fitted into a stainless steel housing with an integral, compliant stainless steel barrier diaphragm.

Each transducer is shipped with a calibration card specific to that transducer. The card specifies I/O conditions, as well as actual data reflecting the unit's static accuracy and thermal characteristics. Custom calibration is available for those applications where more extensive data is required.

**SPECIFICATIONS** MODEL 27, 28, 30

**Performance:**

Range: 0-5 to 0-2000 PSIA, PSIS, PSIG  
 Accuracy:<sup>1</sup> ±0.1% FSO BFSL (Series 30)  
 ±0.25% FSO BFSL (Series 27)  
 ±0.50% FSO BFSL (Series 28)  
 Thermal Error:<sup>2</sup> 0.05% FSO/°C ref at 25°C  
 Proof Pressure: 1.5 × rated pressure  
 Burst Pressure: 2.0 × rated pressure  
 Resolution: Infinitesimal

1 Static Accuracy includes the combined errors due to non-linearity, hysteresis, and non-repeatability on a Best Fit Straight Line (BFSL) basis at 25°C per ISA SS1.1

2 Thermal error is the maximum allowable deviation from the Best Fit Straight Line (BFSL) due to a change in temperature, per ISA SS1.1

**Environmental:**

Compensated Temperature Range:<sup>3</sup> -10° to 60°C  
 Operating Temperature Range: -30° to 125°C

3 Tighter tolerances on static accuracy, thermal error and/or wider compensated temperature range are available on request. Consult the sales office.

**Electrical:**

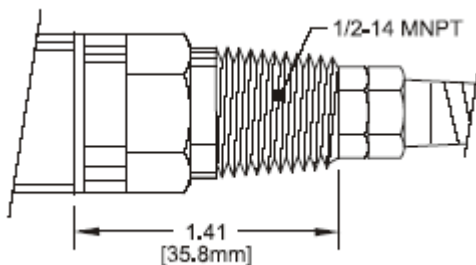
Excitation: 9-30 VDC  
 Polarity, Surge & Shorted Output Circuit Protection  
 Output: 0-5 VDC (3-wire)  
 4-20 mA  
 Zero Offset, Max. ±60 mV (0-5 VDC)  
 ±0.12 mA (4-20 mA)  
 Output Impedance: < 10 Ohms  
 Insulation Resistance: > 100 mega-Ohms @ 50 VDC  
 Power Supply Rejection: < ± 0.001%  
 FSO/VDC (VDC Output)

**Physical:**

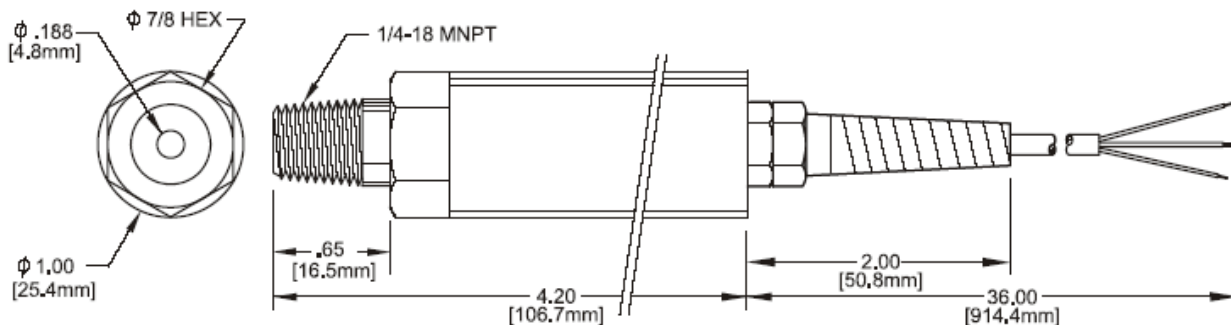
Weight: 5 oz.  
 Wetted Materials: 316 SS/Viton  
 Case Material: 315SS  
 Pressure Connection: 1/4" PVC jacketed cable,  
 2 or 3 conductors

**Warranty:**

1 year



All Series 27, 28, 30 above ground Pressure Transducers are FM, UL & CSA certified for installation in a Class 1, Division 1, Groups A, B, C and D, Class II, Division I, Groups E, F, and G, Class III, Division 1, Hazardous location when connected to the appropriate Stahl apparatus.



Custom lengths may be specified

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