



pressure products

## PSI-5000

### High Level Output Pressure Transducer

- Low cost
- Accuracy (linearity, hysteresis, repeatability):  $\pm 0.25\%$  F.S. (B.F.S.L.)
- Hybrid compensation circuit for reliability
- Compact size and very low weight (3 oz.)
- Zero and span adjustments
- High overpressure capability
- True 0-5 or 0-10 VDC, can cross zero
- CE approved
- **Options**
  - Special fittings, outputs and metric ranges available on request
  - For custom designs or special applications, consult factory
  - Color coded cable "pigtail"
  - $\pm 0.10\%$  F.S.

#### ■ Operational Description

##### Strain Gage Transducer Accepts Unregulated Input

The PSI-5000 offers pressure ranges of vacuum to 10,000 psi, gage or absolute, all stainless steel construction, high burst pressure, and high accuracy of  $\pm 0.25\%$  F.S. (B.F.S.L.).

The sensor consists of silicon piezoresistive strain gages arranged in a wheatstone bridge configuration and mounted on a flat diaphragm. The output is conditioned for 5 V output for all ranges (1 to 6 V and 10 V optional).

The highly accurate sensor and electronics are packaged in a stainless steel housing for use in most environments, yet still provides access to zero and span adjustments.

#### ■ Applications

The PSI-5000 is the economical answer for all applications requiring high accuracy over a wide range of pressures. The unit's small size (3 oz.), integrated electronics, wide operating temperature range ( $-40$  to  $180^{\circ}\text{F}$ ), exceptional reliability, durability, and long life, make the PSI-5000 the perfect instrument for most static and dynamic pressure measurements where a high level output signal is desired.

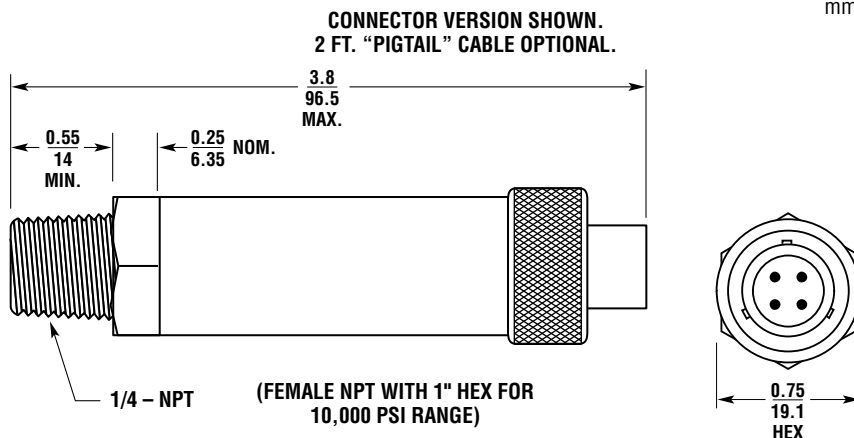


# PSI-5000 – High Level Output Pressure Transducer

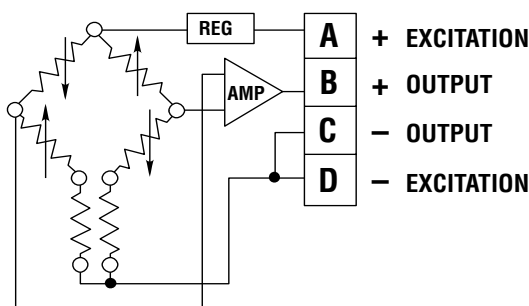
## ■ Specifications

<b>PERFORMANCE</b>
<b>Standard Pressure Ranges:</b> Vacuum to 10,000 psi gage or absolute
<b>Overpressure:</b> 2x full scale
<b>Burst Pressure:</b> 10x full scale or 20,000 psi (whichever is less)
<b>Accuracy (linearity, hysteresis, and repeatability):</b> $\pm 0.25\%$ of full scale (B.F.S.L.)
<b>Thermal Zero Shift:</b> $\pm 0.01\%$ F.S./°F
<b>Thermal Sensitivity Shift:</b> $\pm 0.01\%$ F.S./°F
<b>Zero Balance:</b> $\pm 1\%$ of full scale
<b>Life:</b> 10 million cycles minimum
<b>ENVIRONMENTAL</b>
<b>Compensated Temperature:</b> 0 to 130°F
<b>Storage Temperature:</b> -40 to 180°F
<b>Operating Temperature:</b> -40 to 180°F
<b>Humidity:</b> 0 to 90% relative
<b>ELECTRICAL</b>
<b>Excitation:</b> 8.5 to 33 VDC
<b>Input Current:</b> 10 mA max.
<b>Output:</b> 0.000 to 5.000 VDC $\pm 0.050$ VDC
<b>Output/Input:</b> Non-isolated, 3 wire
<b>Resolution:</b> Infinite
<b>Protection:</b> Reversed polarity
<b>PHYSICAL</b>
<b>Weight:</b> 3 oz.
<b>Wetted Materials:</b> SS15-5 or 17-4 P.H.
<b>Media:</b> Compatible with 15-5 or 17-4 SS
<b>Connector:</b> Electrical receptacle: Bendix PT1H-8-4 P or equivalent
<b>Mating Connector:</b> Bendix PT06A-8-4S (SR) or equivalent (not supplied)
<b>Cavity Volume:</b> 0.05 <sup>3</sup> in.

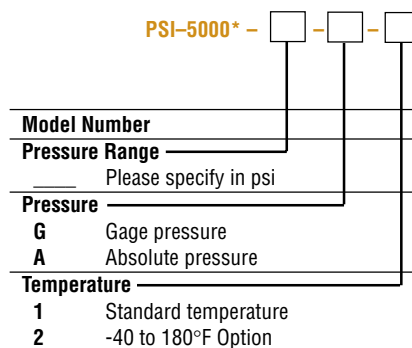
## ■ Dimensions



## ■ Circuit Diagram



## ■ Ordering Information



\* psi-10,000 with 0-10 V output option  
Excitation 13.5 V to 33 VDC



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