

Model 3000 Hydraulic Pressure Transducer



- **Designed specifically for applications where high shock and vibration are present**
- **Eliminate Drift – *Fused Bond Sensor* technology for long-term stability**
- **Sensor wetted material machined from solid stainless steel bar stock. No Silicone oil fill, no internal o-rings, no welded diaphragms!**
- **Eliminate Noise – Maximum RFI/EMI protection on every transducer**
- **Outputs - 4-20mA, 0-5V & 0-10V**
- **Pressure ranges 0-15 to 0-60,000 PSI**
- **Accuracies to 0.04% BFSL**
- **Unparalleled long-term stability**
- **Temperature compensation at the sensor element.**



The rugged design of the Spectre Model 3000 Hydraulic Series pressure transducer makes it the ideal choice when application conditions such as high vibration, shock and temperature extremes are present. Typical applications for the Model 3000 are industrial OEM equipment, injection molding, die casting and hydraulic systems with pressure spikes or highly cyclic conditions.

Performance @ 25°C (77°F)

Accuracy: $<\pm 0.25\%$ BFSL (0.08% and 0.04% optional)
Stability (1 year): $<\pm 0.1\%$ FS, typical
Over pressure protection: 4X Rated Pressure
Burst Pressure: 6X minimum (higher on request)
Pressure Cycles: >50 Million
Temperature range: -40 to +100°C (-40 to + 212°F)
Temperature Accuracy: $\pm 1^\circ\text{C}$ ($\pm 2^\circ\text{F}$)

Environmental Data

Operating temp: -40 to +100°C (-40 to +212°F)
(Optional to +275°F, cons ult factory)
Storage temp: -50 to +125°C (-60 to +250°F)
Compensated range: 0 to 50°C (-32 to +125°F)
Temp comp Zero: $<\pm 1.5\%$ FS
Temp comp Span: $<\pm 1.5\%$ FS

Electrical Data

Excitation:
9-36 Vdc (4-20mA and 0-5 Vdc outputs)
13-36 Vdc (0-10 Vdc output)
Option C29: Maximum 29 Vdc excitation
Current consumption: $<5\text{mA}$ (voltage outputs)
Zero offset: $<\pm 0.25\%$ of FS – field adjustable
Span tolerance: $<\pm 1.0\%$ of FS
Output load: $>10\text{K Ohm}$

Physical data

Sensor wetted material: 17-4 PH stainless (optional: 316)

Pressure connection: 1/4 male NPT, SAE-4
(others on application)

Electrical Connection: Cable, DIN, Cannon, Bendix
(Others available on application)

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Ordering guide – Example: 3000-A-(0-500PSI)-2-D-25-EC2

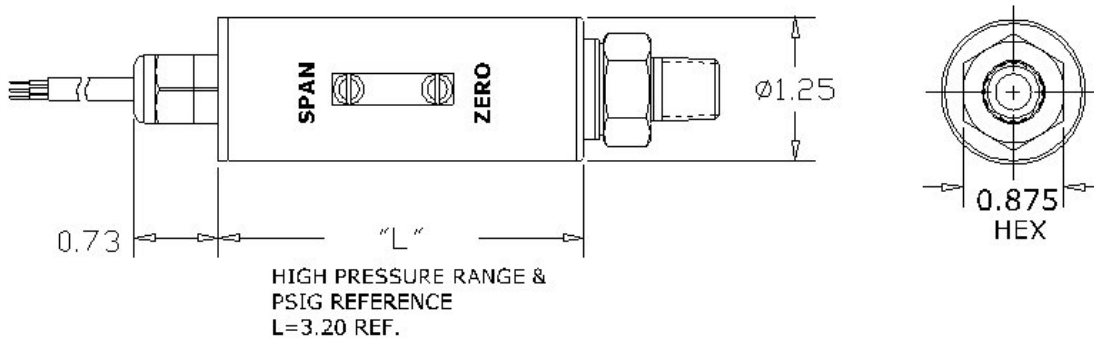
| A | (0-500) | 2 | D | 25 | EC2 |
|---|--|--|--|---------------------------------------|---|
| Pressure Port** | Range | Units | Output | Accuracy | Connector |
| A=1/4"MNPT B=SAE-4 C=other D=1/8"MNPT E=Autoclave F-250C** | Specify Pressure Range in PSI, BAR or kPa | 1=Absolute 2=Gauge 3=Vacuum 4=Sealed 5=Compound 6=Other | D=4-20mA E=0-5VDC F=0-10VDC X=Other (4-wire, isolated versions available- contact factory) | 25=0.25%BFSL* 08=0.08% 04=0.04% | EC1=36" pigtail EC2=DIN 43650 with mate. Large EC3=Mini DIN EC4=Bendix 6-pin EC9=1/2" NPT conduit connection w/leads ECX=Other |

*BFSL = Best Full Scale Line

**Must be used on ranges above 0-10,000 PSI

External zero & span adjustments and calibration shunt resistor options available. Contact factory.

Dimensions:



| Wiring | 4-20mA, DIN 43650 |
|--------|---------------------|
| Pin 1 | + excitation |
| Pin 2 | - excitation/signal |
| Pin 3 | no connection |
| Pin 4 | no connection |
| Power | 9-32 Vdc |

| Wiring | 4-20mA, Cable |
|--------|---------------------|
| White | + excitation |
| Black | - excitation/signal |
| Power | 9-32 Vdc |

| Wiring | Voltage, DIN 43650 |
|----------|---------------------|
| Pin 1 | + excitation |
| Pin 2 | + signal |
| Pin 3 | - excitation/signal |
| Pin 4 | no connection |
| Output | Power |
| 0-5 Vdc | 9-32 Vdc |
| 0-10 Vdc | 13-32 Vdc |

| Wiring | Voltage, Cable |
|----------|---------------------|
| Red | + excitation |
| Green | + signal |
| Black | - excitation/signal |
| White | no connection |
| Output | Power |
| 0-5 Vdc | 9-32 Vdc |
| 0-10 Vdc | 13-32 Vdc |