

**ELECTRONIC PRESSURE MEASUREMENT PRODUCTS**

# Model SPT Stainless Steel Isolated Amplified Output Pressure Transducer

**DESCRIPTION**

The Model SPT general purpose industrial pressure transducer is designed for use in a variety of industries. Providing excellent media compatibility with all 316 stainless steel wetted parts, it is perfectly suited for applications where media compatibility is a problem. With its superb stability, low cost and proven reliability, it is ideal for OEM applications. This model provides a high level voltage output from an unregulated supply. Each unit is shipped fully compensated for pressure and temperature and is completely interchangeable without the need for further calibrations.

The SPT features a solid state silicon piezoresistive sensing element, electrostatically bonded to glass to virtually eliminate the effects of induced stress and vibration. Behind every SPT series transducer is over 15 years of stainless steel/oil isolation technology. The silicon sensor is completely isolated from the corrosive effects of harsh media via an oil-filled chamber.

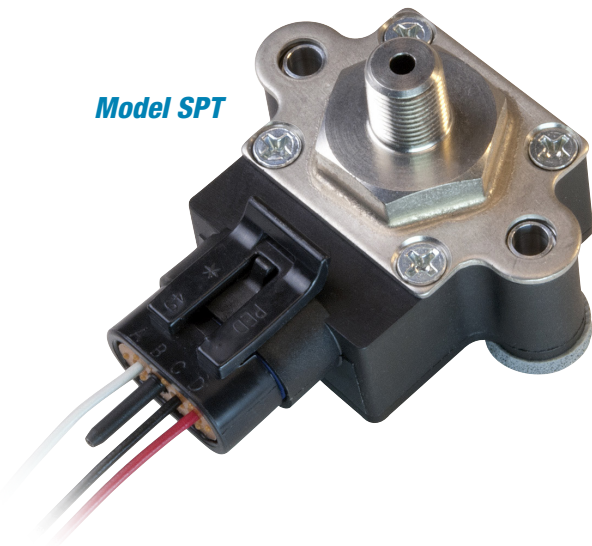
The transducer has a computer-controlled signal conditioner which standardizes output and provides precise temperature and pressure compensation. Rugged construction and a standard Packard electrical connector make it truly cost effective.

**FEATURES**

- 316 stainless steel wetted parts for maximum media compatibility
- 3X burst pressure rating standard
- 0.25% accuracy
- Excellent stability
- Solid state/industrial grade
- Temperature compensated
- Rugged VALOX® housing provides outstanding corrosion resistance
- 10 standard pressure ranges up to 5000 psig
- Amplified output (1-6 VDC standard)
- Unregulated supply requirement (8-15 VDC)
- Vacuum and compound pressure ranges available
- Automotive-style Packard connector

**APPLICATIONS**

- Refrigeration
- Compressors
- Pumps
- Hydraulic systems
- Pressure instrumentation
- Engine monitoring/control
- Engine testing
- Pneumatic systems
- Flow control
- Automotive vehicle testing

**Model SPT**



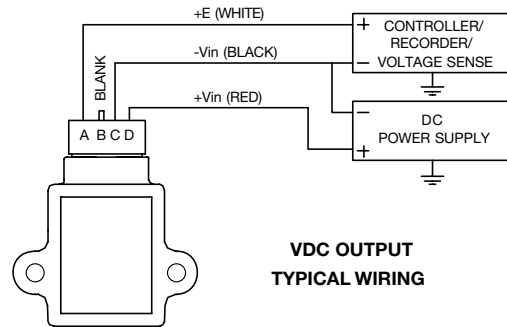
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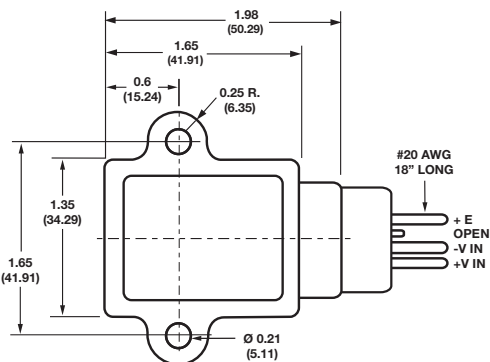
### SPECIFICATIONS

- Pressure Range<sup>1</sup>:** Reference ordering information ranges
- Maximum Overpressure:** 2 times full scale
- Burst Pressure (At 25°C):** 3 times full scale or 12500 psi, whichever is less (300 psi limited to 750 psi maximum)
- Excitation:** 8 to 15 VDC
- Null Offset (At 25°C):** 1.0 VDC  $\pm$ 2% span
- Span (At 25°C):** 5.0 VDC  $\pm$ 1% span
- Accuracy:**  $\pm$ 0.25% span from best fit straight line including non-linearity, repeatability and hysteresis
- Operating Temperature Range:** -40° to 105°C
- Compensated Temperature Range:** -5° to 55°C
- Thermal Effect On Zero (Null)<sup>2</sup>:**  $\pm$ 0.5% span (typical) overcompensated temperature range, 2% max
- Thermal Effect On Span<sup>2</sup>:**  $\pm$ 0.5% span (typical) overcompensated temperature range, 2% max
- Response Time:** <20 milliseconds
- Stability:**  $\pm$ 0.25% span/year
- Shock<sup>3</sup>:** 50 g
- Weight:** 50 grams
- Electrical Terminations:** Packard connector #12162189 with 18 inch leads
- Media Compatibility:** 316 stainless steel wetted parts
- Humidity:** Passes MIL-STD-202F Method 103B, Condition A
- Protection Class:** IP-64
- Output Impedance:** >50K ohms

1. For availability of other pressure ranges, consult factory
2. Temperature error is calculated with respect to 25°C and expresses the deviation that could occur as temperature is raised or lowered to limits indicated
3. MIL-STD-202F, Method 213B, 1/2 Sine, Condition D



Model Numbering:	
● SPT Pressure Transducer	
SPTG	Base pressure transducer
● Ranges	
V010	Vacuum to 10 psig
V035	Vacuum to 35 psig
0025	0 to 25 psig
0050	0 to 50 psig
0100	0 to 100 psig
0200	0 to 200 psig
0500	0 to 500 psig
1000	0 to 1000 psi
3000	0 to 3000 psi
5000	0 to 5000 psi
● Input/Output	
E	8-15 VDC/1-6 VDC
SPTG	0100
E	



#### Wire Legend

RED	+V IN
BLACK	-V IN
WHITE	+E

INCHES  
(MM)

