AMETEK®
SENSORS, TEST & CALIBRATION

Model SPT Amplified Output Pressure Transducer

DESCRIPTION

The Model SPT general purpose industrial pressure transducer is designed for everyday use in a variety of industries and applications. All wetted parts are 316 stainless steel, making the SPT perfectly suited for applications where media compatibility is a problem. Featuring superb stability, low cost, and proven reliability, it's the transducer of choice for OEM applications.

The SPT 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. Rugged construction and a standard Packard electrical connector make it truly cost effective.

SUPPLY

Excitation: **8 to 15 VDC**

ACCURACY

Null Offset (at 25° C): **1 VDC ± 2% span**

Span (at 25° C): **5 VDC ± 1% span**

Accuracy: **± 0.25% span from best fit straight line (includes repeatability, hysteresis, non-linearity - BFSL)**

Stability: **± 0.25% span/year**

Thermal Effect on Zero (Null): **± 0.5% span (typical) over compensated temperature range, 2% max**

Thermal Effect on Span: **± 0.5% span (typical) over compensated temperature range, 2% max**

Thermal effect error is calculated with respect to 25°C and expresses the deviation that could occur as temperature is raised or lowered to limits indicated.

TEMPERATURE RANGE

Operating Temperature Range: **-40 to 105° C**

Compensated Temperature Range: **-5 to 55° C**

ENCLOSURE

Shock: **50 g; MIL-STD-202F, Method 213B Condition A**

Weight: **73 grams**

Electrical Terminations: **Packard connector #12162189 with 18 inch leads; 20 AWG**

Media Compatibility: **316/316L stainless steel wetted parts**

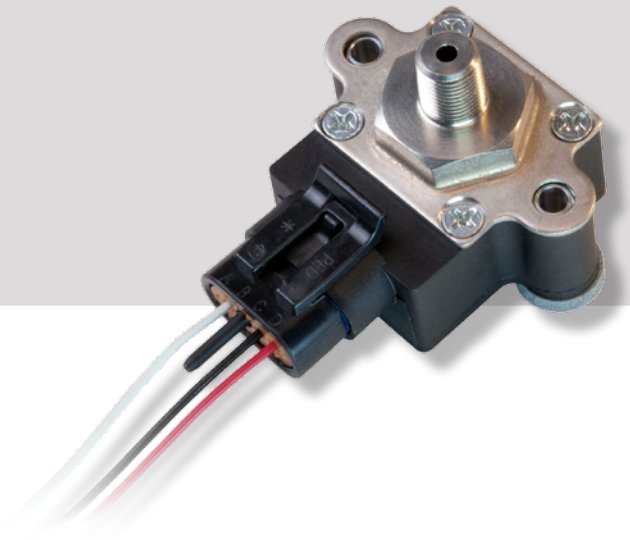
Humidity: **0% RH to 95% RH, non-condensing; MIL-STD-202F, Method 103B, Condition A**

Protection Class: **IP64**

Process Connection: **1/8 NPT**

APPLICATIONS

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



RESPONSE TIME

< 20 milliseconds

OUTPUT IMPEDANCE

> 50K ohms

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PRESSURE RANGE

Maximum Overpressure: **2x full scale**

Burst Pressure: **3x full scale or 12,500 psi, whichever is less**

MODEL NUMBERING

Model	Pressure Range	Input/Output
SPTG	———	———
	Vacuum to 10 psig **V010**	8-15 VDC/1-6 VDC... **E**
	Vacuum to 35 psig **V035**	
	0-25 psig **0025**	
	0-50 psig **0050**	
	0-100 psig **0100**	
	0-200 psig **0200**	
	0-500 psig **0500**	
	0-1000 psi **1000**	
	0-2000 psi **2000**	
	0-3000 psi **3000**	
	0-5000 psi **5000**	

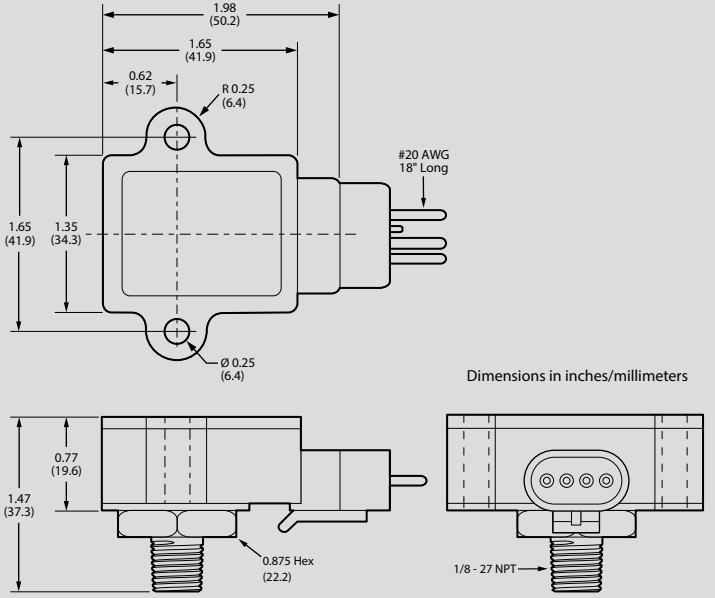
SAMPLE PART NUMBERS

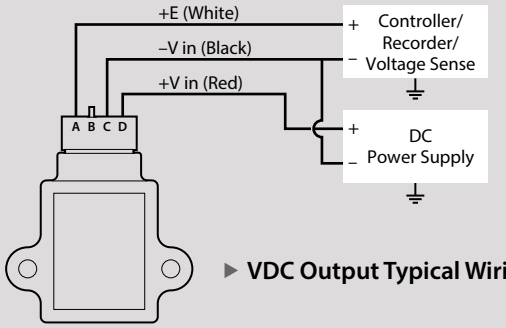
SPTGV010E... Vacuum to 10 psig pressure transducer with input of 8-15 VDC and output of 1-6 VDC.

SPTG3000E ... 3000 psi pressure transducer with input of 8-15 VDC and output of 1-6 VDC.

FEATURES

- 316 /316L 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
- 11 standard pressure ranges from vacuum to 5000 psi
- Amplified output (1-6 VDC standard)
- Unregulated supply requirement (8-15 VDC)
- Vacuum and compound pressure ranges available
- Automotive-style Packard connector





▶ **VDC Output Typical Wiring**

The SPT features a solid state silicon piezoresisitive sensing element, electro-statically bonded to glass to virtually eliminate the effects of induced stress and vibrations. 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.