PPT55 Series

- -40-150°C Operating Temperature
- Compact Size .625” Diameter
- +-.15% Linearity FS
- 0.5 - 4.5V ratiometric
- 100-5000 psi pressure ranges
- Absolute or Gage
- Media – Harsh Liquid, Air, & Gas

DESCRIPTION

The PPT55 is a miniature pressure transducer manufactured for a high operating temperature range for the most challenging of applications. This silicon pressure transducer was designed for demanding industrial and commercial applications. The stainless steel media isolated port design allows for pressure measurement of liquid or gas media.

The PPT55 series utilizes MEMS piezo-resistive sensors pressurized on the passive backside of the SS housing which has superior long term stability and accuracy (.15% Linearity).

The two piece design is simple and proves valuable for OEM customers. Please contact us for Custom design availability.

APPLICATIONS

- Mil/Aero
- Industrial Automation
- HVAC
- Automotive Engine
- Compressor
- Pneumatic

Maximum Environmental Ratings

Operating Temperature ……..... -40°C to 150°C
Storage Temperature Range ……..-55°C to 170°C

Proof pressure ……..……... 3x full scale pressure
Burst pressure ……..……... 5x full scale pressure

PPT55 Operational Characteristics

V_+ = 5V, V_- = 0V, Temperature = 25°C

PARAMETER	SYMBOL	MIN	TYP	MAX	UNITS
Supply Voltage	V_{DD}	0	5	5.5	V
Supply Current	I_{DD}	.25	1	1.5	mA
Upper Output Voltage (Note 1)	V_{OUT}		4.5	5.2	V
Lower Output Voltage	V_{OUT}	.18	.5		V
Linearity (Note 2)		-0.15		0.15	%FS
Temperature Error (Null and Span) (Note 3)		-1		+1	%FS
Response Time	t_R		.25	1	ms
Total Error Band (Note 4)		-.25		.25	%FS
Compensated Temperature Range	C	-25		85	C
Operating Temperature Range	C	-40		150	C

Notes:

1) Measured with Supply Voltage at 5V. Output is ratiometric. 2) Defined as best straight line 3) Measured from 0°C to 70°C 4) Measured over compensated temperature range -25-85C

Application Information

Package

The one piece body design is made of stainless steel (SS316L), which allows for easy manufacturability and long term stability. Automotive grade vibration proof design for engine mount. 1M output cable. Other cable lengths available at request for OEM customers.

Stability

The silicon MEMS pressure sensor has a Pyrex base and is mounted to a ceramic base and sealed into the SS housing. Flexible die attach materials help reduce the mechanical stress which results in greater stability over time and temperature.

Additional stability is gained from factory stabilization of all sensors.

Pressure port

1/8" -18NPT and 4mm threads are standard SS fittings. Other port fittings such as 7/16-20UNF, and ¼" BSP are available for OEM customers.

Media

The pressure port is tolerant to most media including but not limited to oil, air, gas, some corrosive media, and salt water.

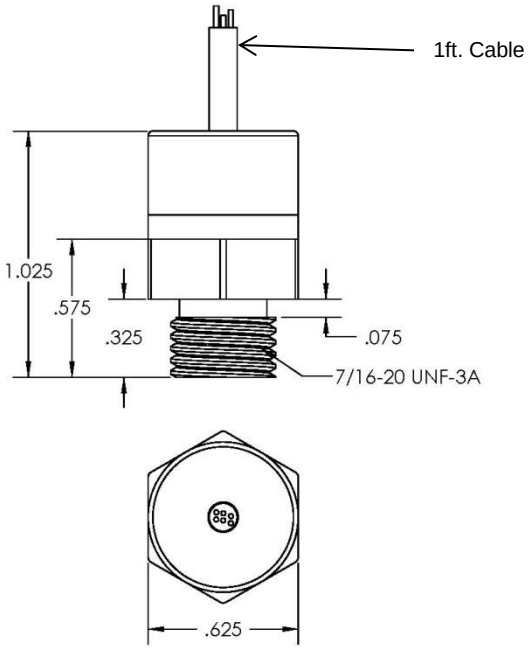
Wetted parts

The wetted surfaces are composed of stainless steel, vitron, pyrex, or Brass.

Pressure ranges

Standard pressure ranges are 500, 1000, 3000, and 5000 psi in absolute. Custom pressure ranges are available for OEM customers.

Mechanical Dimensions (inches)



Part Number Configuration

PPT550 - 1KA 1

Model

0=0-5V, 1=0-100mV, 2= .5-4.5V

1= 1/4" NPT Male, 2= 1/8" NPT Male,
3= 7/16-20 UNF-3A, 4= Custom

Type (A=Absolute G=Gauge)

Pressure Range 500=500PSI, 1k=1000PSI

Standard Part Numbers

Model	Pressure Range PSI	Type	Max Over Pressure
PPT550-1KA1	1000	Abs/Gage	3000
PPT550-3KA1	3000	Abs/Gage	9000
PPT550-5KA1	5000	Abs/Gage	10000

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