



- -.5-4.5V, 4-20mA Output
- -40-150°C Operating Temperature (175C available)
- +/- .25% Linearity FS
- 100 -5k psi pressure ranges
- Gage
- Media – Harsh Liquid, Air, & Gas
- Compact Size

DESCRIPTION

The PPT85 is a pressure transducer manufactured for a high operating temperature range for the most challenging of applications. This thin film based transducer was designed for industrial, Oil/Gas, Aerospace, and commercial applications. The stainless steel design and high temperature analog component selection allows the sensor to be used in high temperature and high pressure applications.

The PPT85 series utilizes thin film sensors manufactured to Phoenix Sensors precise specifications in a single piece of 316SS housing to ensure long term stability and accuracy (.15% Linearity).

The design is simple, cost effective, and proves reliable for OEM customers. Please contact us for Custom design availability.

APPLICATIONS

- Mil/Aero
- Industrial Automation
- HVAC
- Automotive Engine
- Oil/Gas
- Hydraulic

Maximum Environmental Ratings

Operating Temperature -40°C to 150°C
 Storage Temperature Range -50°C to 150°C

Proof pressure 3x full scale pressure (or 15kPSI)
 Burst pressure 5x full scale pressure (or 15kPSI)

PPT85 Operational Characteristics

V ₊ = 5V, V ₋ = 0V, Temperature = 25°C					
PARAMETER	SYMBOL	MIN	TYP	MAX	UNITS
Supply Voltage	V _{DD}	5	9	27	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
Response Time	t _R		5	10	ms
Total Error Band (Note 4)		-.5		.5	%FS
Compensated Temperature Range	C	-20		100	C
Operating Temperature Range(175C option)	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 85°C 4) Measured over compensated temperature range -20-100C

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 element is mounted to a ceramic base and sealed into the SS housing. The selection of themally capability materials reduce the mechanical stress on the sensor resulting 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 1/4" 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.

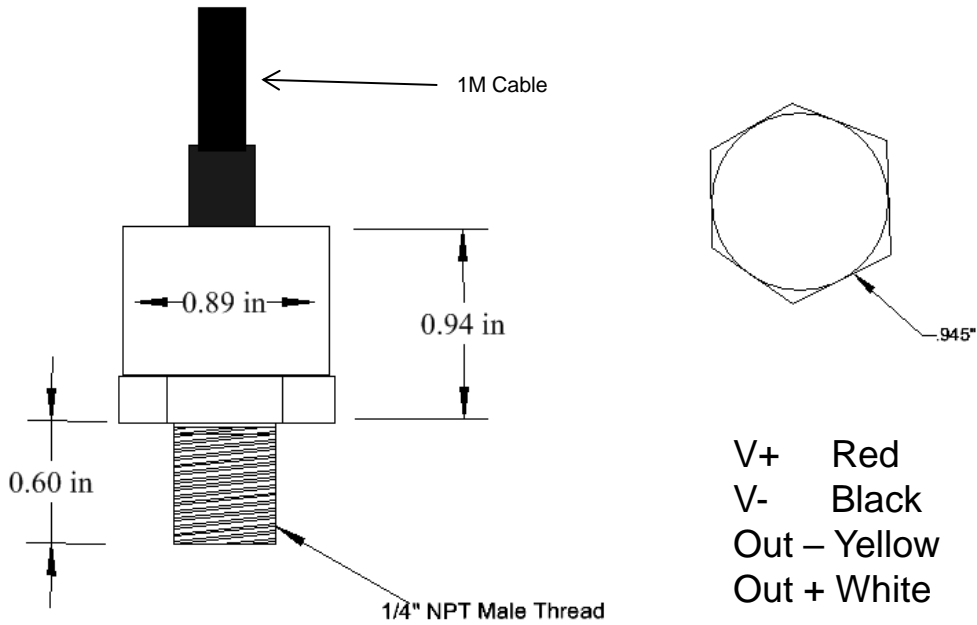
Wetted parts

When checking media capability, the wetted surface is composed of only stainless steel (316).

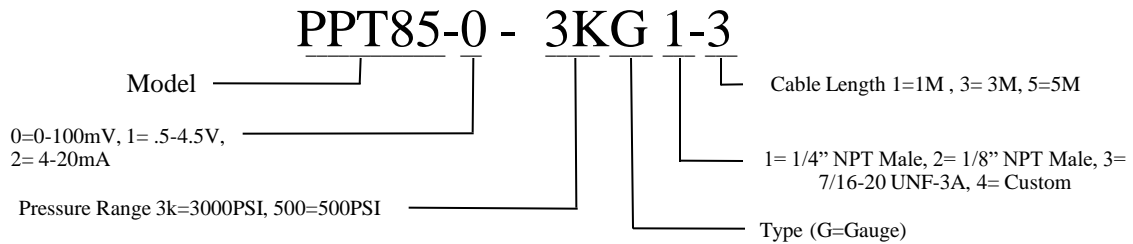
Pressure ranges

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



Standard Part Numbers

Model	Pressure Range PSI	Type	Max Over Pressure
PPT85-0-1KG1	1000	Gauge	3000
PPT85-0-3KG1	3000	Gauge	9000
PPT85-0-5KG1	5000	Gauge	10000

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