

## Product Bulletin

# 3PP8 Series

## Hermetic Pressure Transducer

- **Silicon MEMs strain gauge sensor**
- **Temperature compensated and accurate performance over a wide temperature range**
- **EEPROM memory – stores calibration coefficients and serialization**
- **Expanded user diagnostic capability**

The 3PP8 series transducer is silicon MEMs strain gauge which is glass bonded to a stainless steel diaphragm. This transducer is designed to operate with a 5 Vdc supply, and provide a linear voltage output. The hermetic

design makes this product compatible with most any media. With the added benefits of digital temperature compensation, EEPROM memory, and self diagnostic capability, it is ideal for

those applications that demand premium accuracy and performance at a competitive price. It is available in pressure ranges from 0 – 500 to 0 – 5000 psis in a variety of thread configurations.



### Applications

- HVAC/Refrigeration
- Transportation & Off Road Vehicles
- Compressor & Pumps
- Process Control & Automation
- Agriculture & Construction Equipment
- Engine Controls & Monitors
- Alternative Energy Management
- Hydraulics & Pneumatics

### Technical Specifications

#### Pressure Ranges

0 – 500 to 0 – 5000 psis

#### Performance

Accuracy: .....  $\pm 0.7\%$  at 25°C span  
(linearity, hysteresis, repeatability, and calibration)

Total Error Band

0°C to 50°C .....  $\pm 1.0\%$  span  
–40°C to 125°C .....  $\pm 1.7\%$  span

Operating Temp: ..... –40°C to 125°C

Storage Temp: ..... –40°C to 150°C

#### Electrical

Supply: ..... 5  $\pm$  0.25Vdc

Output: ..... 0.5 to 4.5Vdc typical

Supply Current: ..... 15mA max

Output Load: ..... 1.1K ohm pull-up typical

Output

Response Time: ..... 10ms max

EMC 1–400MHz: ..... 100V/m

400MHz–1GHz: ..... 50V/m

ESD: ..... 15kV air discharge  
(human body model)

Supply Over-voltage

Protection: ..... 16Vdc

Supply Reverse-voltage

Protection: ..... 16Vdc

Output Short Circuit

Protection: ..... 0V / 16Vdc  
Ground / Supply

#### Physical

Proof: ..... 2X F.S. 500 - 3500 psi  
1.5X 3500 + psi

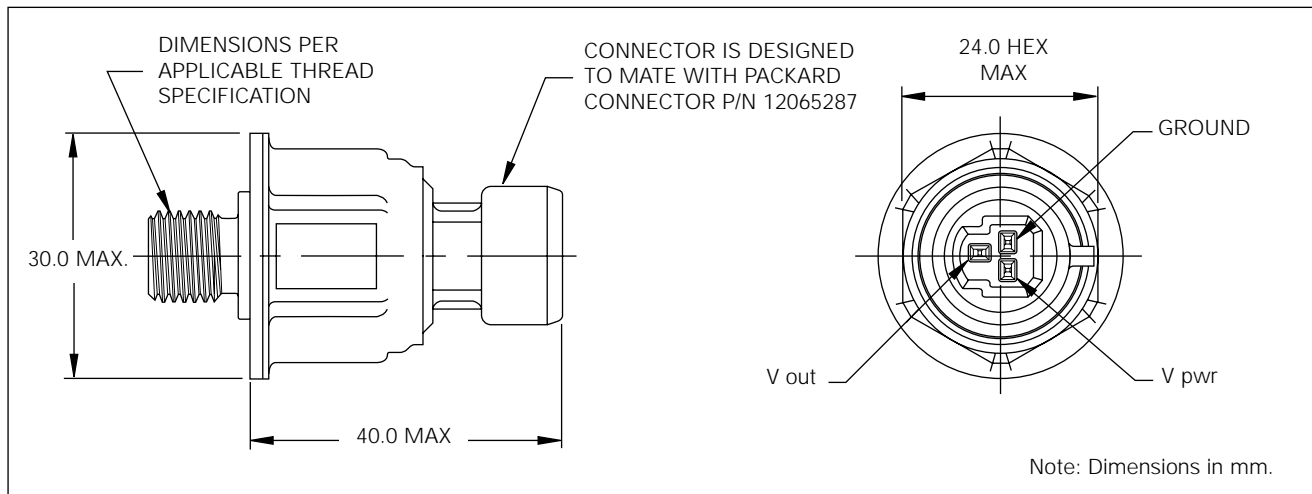
Burst: ..... 3X Full Scale (Typical)

Cycle Life: ..... 10 million +  
F.S. cycles

Vibration: ..... 26g rms 20 – 2800 Hz  
Random Profile

Drop: ..... 1.5m

## Dimensions



## Standard Offerings

Order as TI/PN	Pressure Connection	Pressure Range	Electrical Connection
• 3PP8 – 5	1/4" – 18 NPTF male	0 – 500 psis	Standard Packard Metri-Pack™
• 3PP8 – 11	1/8" NPTF male	0 – 500 psis	Standard Packard Metri-Pack
• 3PP8 – 12	1/4" – 18 NPTF male	0 – 1000 psis	Standard Packard Metri-Pack
• 3PP8 – 13	3/8" – 24 UNF male O-ring	0 – 3000 psis	Standard Packard Metri-Pack
• 3PP8 – 14	7/16" – 20 UNF male O-ring	0 – 3500 psis	Standard Packard Metri-Pack
• 3PP8 – 15	3/8" – 24 UNF male O-ring	0 – 5000 psis	Standard Packard Metri-Pack

### Custom P/N Example:

	<b>3PP8</b>	<b>03</b>	<b>2</b>	<b>00500</b>
<b>Series</b>	3PP8			
<b>Pressure Connection (24mm hex body)</b>				
<b>02</b>	1/8" NPTF male			
<b>03</b>	1/4"-18 NPTF male			
<b>05</b>	3/8"-24 UNF male o-ring			
<b>07</b>	7/16"-20 UNF male o-ring			
<b>10</b>	M10 x 1 male o-ring			
<b>11</b>	M12 x 1.5 male o-ring			
For other pressure connections please contact TI.				
<b>Electrical Connection</b>				
<b>2</b>	Standard Packard Metri-Pack™			
<b>3</b>	AMP MQS™			
<b>Pressure Range</b>				
<b>00500</b>	0 – 500 psis			
<b>01000</b>	0 – 1000 psis			
<b>03000</b>	0 – 3000 psis			
<b>03500</b>	0 – 3500 psis			
<b>05000</b>	0 – 5000 psis			
For other pressure ranges, including for pressure ranges greater than 0–5000 psi, please contact TI.				

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