



# 3PP8 SERIES | HERMETIC PRESSURE SENSORS

5 Vdc Supply, Ratiometric Output

## Introduction

The 3PP8 series sensor uses silicon MEMs strain gage technology. The strain gage is glass bonded to a stainless steel diaphragm. Additional benefits include digital temperature compensation, EEPROM memory and self diagnostic capability. It is ideal for the most demanding applications.

Sensata Technologies has been a leading global supplier of pressure sensors & switches for over 50 years.

## Features and Benefits

- High accuracy
- Stainless steel housing
- Hermetically sealed
- Low cost
- Capable of pressure ranges up to 15000 psi
- Small size

## Applications

- Agriculture & Construction Equipment
- Vehicle Systems
- CO2 Compressors
- Pumps
- Hydraulics & Pneumatics
- Engine Controls & Monitors
- Air Conditioning & Refrigeration



## TECHNICAL SPECIFICATIONS

### Performance

<b>Accuracy</b>	±0.7% at 25°C span (linearity, hysteresis, repeatability, and calibration)	
<b>Total Error Band</b>	0°C to 50°C -40°C to 125°C	±1.0% span ±1.7% span
<b>Operating Temperature</b>	-40°C to 125°C	
<b>Storage Temperature</b>	-40°C to 150°C	

## Physical

<b>Proof</b>	2X F.S. 500 - 3500 psi 1.5X F.S. 3500 - 15000 psi
<b>Burst</b>	3X Full Scale (Typical)
<b>Cycle Life</b>	10 Million + F.S. Cycles
<b>Vibration</b>	26g rms 20-2800 Hz Random Profile
<b>Drop</b>	1.5 m

## Pressure Ranges

0-500 psis to 0-15000 psis

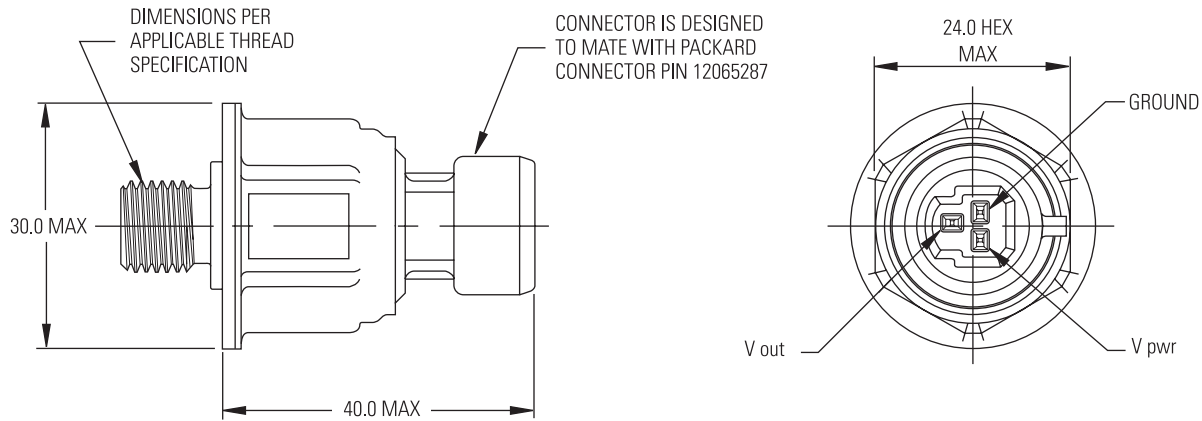
## Electrical

<b>Supply</b>	5 ± 0.25 Vdc	
<b>Output</b>	0.5 to 4.5 Vdc typical	
<b>Supply Current</b>	15 mA max	
<b>Output Load</b>	1.1K ohm pull-up typical	
<b>Output Response Time</b>	10 ms max	
<b>EMC</b>	1-400MHz 400MHz-1GHz	100 V/m 50 V/m
<b>ESD</b>	15 kV air discharge (human body model)	
<b>Supply Overvoltage Protection</b>	16 Vdc	
<b>Supply Reverse Voltage Protection</b>	-16 Vdc	
<b>Output Short Circuit Protection</b>	0 V / 16 Vdc Ground / Supply	



# DIMENSIONS

Dimensions in mm [Inch]



Typical configuration for pressures up to 5000 psi

## Standard Offerings

<p><b>Pressure Connections (24mm hex body)</b></p>	<ul style="list-style-type: none"> <li>• 1/8" NPTF male (for pressures up to 10,000 psi)</li> <li>• 1/4" NPTF male (for pressures up to 10,000 psi)</li> <li>• 3/8"-24 UNF male o-ring</li> <li>• M10 x 1 male o-ring</li> <li>• M12 X 1.5 male o-ring</li> </ul> <p>For other pressure connections please contact Sensata Technologies</p>		
<p><b>Electrical Connection</b></p>	<ul style="list-style-type: none"> <li>• Standard Packard Metri-Pack™ (for pressures up to 5000 psi)</li> <li>• AMP MQS™</li> <li>• AMP EJII™ (for pressures over 5000 psi)</li> </ul> <p>For other electrical connections please contact Sensata Technologies</p>		
<p><b>Pressure Ranges</b></p>	<table border="0"> <tr> <td> <ul style="list-style-type: none"> <li>• 0 - 500 psis</li> <li>• 0 - 1000 psis</li> <li>• 0 - 3000 psis</li> <li>• 0 - 5000 psis</li> </ul> </td> <td> <ul style="list-style-type: none"> <li>• 0 - 7500 psis</li> <li>• 0 - 10000 psis</li> <li>• 0 - 12500 psis</li> <li>• 0 - 15000 psis</li> </ul> </td> </tr> </table> <p>For other pressure ranges please contact Sensata Technologies</p>	<ul style="list-style-type: none"> <li>• 0 - 500 psis</li> <li>• 0 - 1000 psis</li> <li>• 0 - 3000 psis</li> <li>• 0 - 5000 psis</li> </ul>	<ul style="list-style-type: none"> <li>• 0 - 7500 psis</li> <li>• 0 - 10000 psis</li> <li>• 0 - 12500 psis</li> <li>• 0 - 15000 psis</li> </ul>
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