



# MODEL PI-500

## UNIVERSAL VOC GAS SENSOR

ISO 9001:2008  
Certified

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## SPECIFICATIONS

**Sensor Type**  
Photo Ionization Detector (PID)

**Gases Detected**  
All gases with ionization potential <10.6 eV

**Measurement Range**  
Gas Dependent, ranges as low as 0-10 ppm or as high as 0-5,000ppm (consult Detcon)

**Accuracy/Repeatability**  
±10% of reading (greater of)  
±2.5% of range

**Response/Clearing Time**  
T50 <10 seconds  
T90 <30 seconds

**Span Drift**  
<10% of reading per 6 months

**Operating Temperature Range**  
-20°C to +50°C

**Operating Humidity Range**  
0-100% RH non-condensing

**Pressure Range**  
Ambient ±10%

**Outputs**  
Linear 4-20 mA DC

**Input Voltage**  
11.5-28 VDC

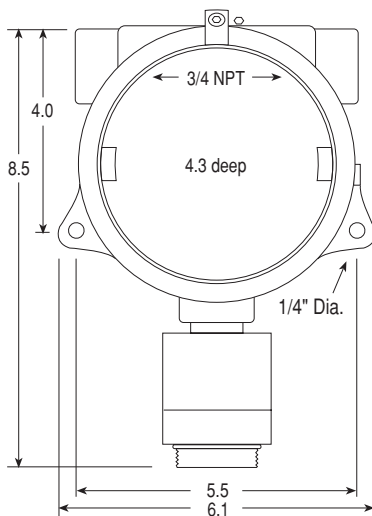
**Power Consumption**  
<2 watts @ 24 VDC

**Electrical Classification**  
Explosion proof  
Class I, Division 1, Groups B, C, D

**Safety Approvals**  
CSA/NRTL (Pending)

**Sensor Life/Warranty**  
Sensor: 1 year  
Transmitter: 2 year warranty

## DIMENSIONS



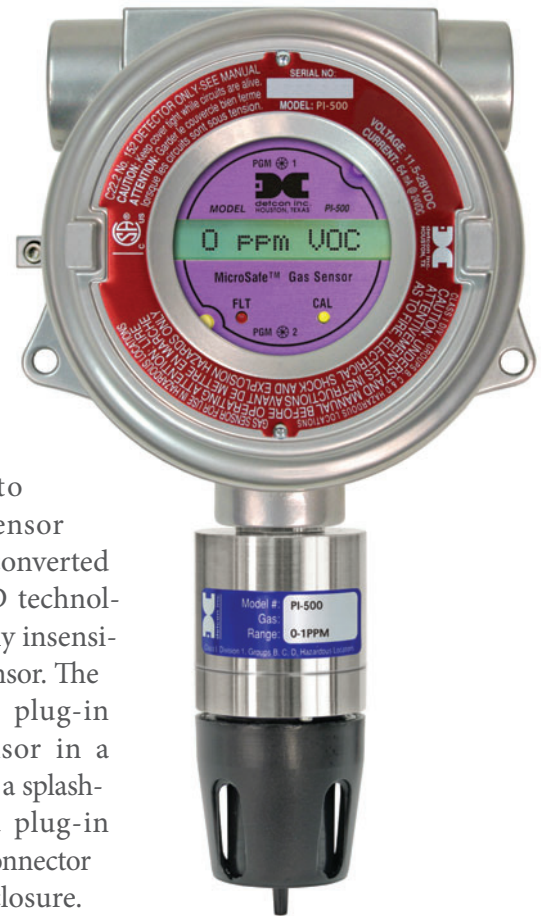
Splashguard 2"H x 2"Dia.

Photo Ionization  
Detector (PID)

**MicroSafe™**  
Intelligent Sensor

## DESCRIPTION

Detcon Model PI-500 sensors are non-intrusive "Smart" sensors that use photo-ionization detector technology to monitor VOC gases over ranges from 0-10ppm to 0-5,000ppm. In the PI-500 sensor design, Detcon has successfully converted the sensitive laboratory style PID technology into a rugged, environmentally insensitive, and long-life industrial gas sensor. The sensor assembly consists of a plug-in replaceable miniature PID sensor in a stainless steel housing that includes a splash-guard with integral cal port, a plug-in control transmitter circuit, a base connector board and an explosion proof enclosure.



## FEATURES

- ▶ Unique miniature field-replaceable PID sensor
- ▶ Non-selective measurement provides reading of numerous VOC compounds
- ▶ Ranges as low as 0-10ppm
- ▶ Heated sensor compartment for use in condensing environments
- ▶ Self-diagnostic for PID sensor functional status
- ▶ Simple menu driven calibration - takes less than 3 minutes
- ▶ Backlit LCD and LED indicators for FAULT and CAL status
- ▶ Electrical Classification: Class I, Division 1, Groups B, C, & D

## ORDER GUIDE

PN 965-P15420-010	Model PI-500 10 ppm in Aluminum Junction Box
PN 965-P1542B-010	Model PI-500-316SS in 10 ppm Stainless Steel Junction Box
PN 965-P25420-01K	Model PI-500 1,000 ppm in Aluminum Junction Box
PN 965-P2542B-01K	Model PI-500-316SS in 1,000 ppm Stainless Steel Junction Box

[www.detcon.com](http://www.detcon.com)