The #1 PID sensor of choice by OEMs for over 15 years

As one of the most widely used gas detection techniques, the Photoionization Detector (PID), in general, is commonly applied in both portable and fixed instruments for detection of a wide variety of organic compounds and some inorganic gases in ambient air.

MOCON’s patented, award-winning piD-TECH eVx plug-in sensor provides complete photoionization detection capabilities and is designed to be mechanically similar with major brands of electrochemical sensors using the 4P cell platform*. Outstanding features make the piD-TECH line of sensors the right choice for OEM manufacturers looking to include VOC detection capabilities in their handheld, mobile, or fixed devices.

Offering better value and design flexibility for OEM markets, and incorporating state of the art technology that cannot be matched in the marketplace, the piD-TECH eVx detection capabilities and minimum detection quantity (MDQ) come in eight ranges depending upon lamp energy and application requirements.

Our dedicated sensor engineers will assist you in integrating our intrinsically safe PID sensor into your products, reducing the time and high cost associated with product development.

*Verify height dimensions for designs that enclose the sensor, or seal on the top surface.

**Range and MDQ (Minimum Detectable Quantity) are based on isobutylene.

### 10.0 eV

<table>
<thead>
<tr>
<th>Part Number</th>
<th>045-010</th>
<th>045-011</th>
<th>045-012</th>
<th>045-013</th>
<th>045-014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Range**</td>
<td>10,000 ppm</td>
<td>2,000 ppm</td>
<td>200 ppm</td>
<td>20 ppm</td>
<td>2 ppm</td>
</tr>
<tr>
<td>MDQ**</td>
<td>500 ppb</td>
<td>100 ppb</td>
<td>10 ppb</td>
<td>1.5 ppb</td>
<td>0.5 ppb</td>
</tr>
<tr>
<td>T90 Response Factor</td>
<td>≤ 2 sec (typical)</td>
<td>≤ 2 sec (typical)</td>
<td>≤ 2 sec (typical)</td>
<td>≤ 4 sec (typical)</td>
<td>≤ 4 sec (typical)</td>
</tr>
</tbody>
</table>

### 10.0 eV

<table>
<thead>
<tr>
<th>Part Number</th>
<th>045-017</th>
<th>045-015</th>
<th>045-018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Range**</td>
<td>6,000 ppm</td>
<td>600 ppm</td>
<td>60 ppm</td>
</tr>
<tr>
<td>MDQ**</td>
<td>500 ppb</td>
<td>50 ppb</td>
<td>5 ppb</td>
</tr>
<tr>
<td>T90 Response Factor</td>
<td>≤ 2 sec (typical)</td>
<td>≤ 2 sec (typical)</td>
<td>≤ 4 sec (typical)</td>
</tr>
</tbody>
</table>
piD-TECH® eVx™
OEM PHOTOIONIZATION SENSORS

Physical Characteristics
All sensors calibrated with Isobutylene
Complete sensing unit includes detector cell, UV lamp, lamp driver, amplifier and sample filter
- Weight: < 8 grams
- Package Type: 4P cell dimensional profile
- Serviceable Parts: Lamp, detector cell, filters (2), cap, spacer
- Lamp Life: Guaranteed 6000 hours (typical life significantly longer)
- Onboard Filters: Removes liquids / particles
- Warranty Period: 18 months

Electrical Characteristics
- Supply Voltage: 3.2 V to 5.5 V (input voltage regulator included)
- Current: 24 mA to 36 mA
- Power Consumption: 80 mW to 200 mW (dependent upon supply voltage)
- Output Signal: 0.045 V to 2.5 V linear

Operating Specifications
- Temperature Range: -20 °C to 60 °C (-4 °F to 140 °F)
- Relative Humidity Range: 0 to 90% non-condensing
- Humidity Response: ≤ 1% @ 90% relative humidity
- Humidity Quenching Effect: ≤ 15% @ 90% relative humidity
- Accuracy: ± 3% of reading, with constant temperature and pressure

Certifications & Approvals*
piD-TECH eVx is a UL certified component; Intrinsically safe - no external components required.
- ATEX certificates: DEMKO 13 ATEX 1304446U Rev. 1; 0539
- Other: IECEx Standards: 60079-0 Ed. 6; 60079- 11, Ed. 6; Certificate IECEx UL 13.0050U Issue: 1; CAN/CSA C22.2 No. 157-92
- Patents: US Pat 6,646,444; Japan Pat 3,793,757

* Detailed documentation for specific certification is available upon request. Above certifications are issued for piD-TECH eVx sensor only and are not applicable to the equipment in which it is incorporated.

Designed for Continuous Use
Long-life in continuous operation
Stable Gain in High Humidity Environments
(90% RH at 40 °C)

Mechanical Specifications
Dimensions are in millimeters (± 0.1).
Use of socketed connection is required.
Soldering or cutting the connection pins may permanently damage the sensor and void the warranty.