

# GEN<sup>2</sup>

# OTIS

## OI-6000-X-X-X-X-O Sensor Assembly

### Explosion Proof Wired Powered Ambient Air Hazardous Gas Detector

The Otis Instruments OI-6000 Series Ambient Air Hazardous Gas Detector is a versatile assembly that uses an electrochemical, infrared, catalytic bead or PID sensor element to detect a variety of gases. Wired powered (12 to 35 VDC) with 4-20 mA analog and RS-485 Modbus outputs standard. Magnetic switches allow for non-intrusive calibration while in the field as well as full system settings and diagnostics.



| Gas Type  | Range                  | T <sub>90</sub> | Warranty             |
|-----------|------------------------|-----------------|----------------------|
| EC-AsH3   | 0-1 ppm                | < 30 sec.       | 10 months            |
| EC-CH2O   | 0-10ppm                | < 30 sec.       | 12 months            |
| EC-CH3SH  | 0-10 ppm               | < 100 sec.      | 12 months            |
| IR-CH4    | 0-100% vol.            | < 30 sec.       | 60 months            |
| EC-CL2    | 0-20 ppm               | < 60 sec.       | 12 months            |
| EC-CLO2   | 0-5 ppm                | < 120 sec.      | 12 months            |
| EC-CO     | 0-1000 ppm             | < 30 sec.       | 24 months            |
| IR-CO2    | 0-5% vol.              | < 30 sec.       | 60 months            |
| EC-ETO    | 0-10 ppm               | < 80 sec.       | 12 months            |
| EC-F2     | 0-1 ppm                | < 80 sec.       | 12 months            |
| EC-H2     | 0-4%                   | < 60 sec.       | 18 months            |
| EC-H2S    | 0-100 ppm              | < 30 sec.       | 24 months            |
| EC-H2S2K  | 0-2000 ppm             | < 25 sec.       | 24 months            |
| EC-HBr    | 0-30 ppm               | < 40 sec.       | 12 months            |
| EC-HCL    | 0-30 ppm               | < 300 sec.      | 12 months            |
| EC-HCN    | 0-50 ppm               | < 70 sec.       | 12 months            |
| EC-HF     | 0-10 ppm               | < 90 sec.       | 12 months            |
| IR-LEL    | 0-100% LEL (0-5% vol.) | < 30 sec.       | 60 months            |
| EC-NH3    | 0-100 ppm              | < 90 sec.       | 12 months            |
| EC-NH3300 | 0-300 ppm              | < 120 sec.      | 12 months            |
| EC-NH3A   | 0-1000 ppm             | < 120 sec.      | 12 months            |
| EC-NO     | 0-250 ppm              | < 40 sec.       | 12 months            |
| EC-NO2    | 0-20 ppm               | < 25 sec.       | 12 months            |
| EC-O2     | 0-25% vol.             | < 15 sec.       | 24 months            |
| EC-O3     | 0-5 ppm                | < 60 sec.       | 12 months            |
| EC-O3H    | 0-100 ppm              | < 60 sec.       | 12 months            |
| EC-PH3    | 0-5 ppm                | < 30 sec.       | 12 months            |
| EC-SO2    | 0-20 ppm               | < 35 sec.       | 24 months            |
| PID-VOC10 | 0-10 ppm               | < 3 sec.        | 6 months / 24 months |
| PID-VOC20 | 0-20 ppm               | < 3 sec.        | 6 months / 24 months |
| PID-VOC50 | 0-50 ppm               | < 3 sec.        | 6 months / 24 months |
| PID-VOC1K | 0-1000 ppm             | < 3 sec.        | 6 months / 24 months |
| PID-VOC2K | 0-2000 ppm             | < 3 sec.        | 6 months / 24 months |

### Product Features

- Electrochemical, Infrared, Catalytic Bead or PID Sensor Element
- Wired Powered (3-Wire), 12 to 35 VDC Operating Voltage
- Operating Temperature Range of -40°C to +54°C
- Graphical LCD with LED Backlight
- 3 Push-Button Interface (ADD, MENU, SUB) with 3 Corresponding Magnetic, Non-Intrusive Switches
- 2 Individually Configurable Alarm Set-Points: Two Front Panel LED Indicators (Amber and Red); Optional 2 Dry-Contact Relays
- Output Options: 4-20 mA (3-Wire) Analog, RS-485 Modbus, Optional GEN II 900 MHz or GEN II 2.4 GHz Radio
- Sensor Element Warranty Subject to Otis Verification
- 1-Year Limited Hardware Warranty



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### OI-6000-X-X-X-X-O Product Specifications

| Product Specifications                          |  |
|---|--|
| Sensor Type                                     | Electrochemical, Infrared, Catalytic Bead or PID   |
| Operating Voltage                               | Wired Powered (3-Wire) 12 to 35 VDC  |
| Power Draw                                      | 2 Watts Maximum  |
| Protection                                      | Power Electromagnetic Interference (EMI) Filter<br>4-20 mA Surge Suppression<br>RS-485 Surge Suppression   |
| Display Screen                                  | 102x64 Resolution Graphical LCD Screen<br>Transflective (Sunlight Readable) with White LED Backlight   |
| Interface                                       | 3 Push-Buttons (MENU, ADD and SUB)<br>3 Magnetic, Non-Intrusive Switches for Calibration   |
| Customizable Settings                           | 2 Individually-Configurable Alarm LED/Relay Set-Points   |
| T <sub>amb</sub> Temperature Range              | -40°C to +54°C   |
| Output (Digital)                                | RS-485 Modbus  |
| Wired (Analog) Output                           | 4-20 mA (3-Wire)<br>Fault Terminal<br>Optional 2 Dry-Contact Relays with Replaceable 4 Amp Fuses   |
| Remote Sensor Kit (Optional Additional Feature) | OI-501-5 Remote Sensor Kit with Enclosure (5 Pin) <ul style="list-style-type: none"> <li>• Electrochemical Sensor Max. Length: 250 Feet</li> <li>• Infrared Sensor Max. Length: 40 Feet</li> <li>• PID Sensor Max. Length: 35 Feet</li> <li>• Catalytic Bead Sensor Max. Length: 15 Feet</li> </ul>  |
| Product Dimensions                              | 5.5 in. T x 6 in. W x 7 in. H (8 in. W x 17 in. H Max. with Attachments)   |
| Total Weight                                    | 6 lbs.   |
| Hazardous Location Certifications and           | <p><b>CSA</b><br/>Class I, Division 1, Groups C &amp; D<br/>Ex d IIB T6 Gb<br/>Class I, Zone 1, AEx db IIB T6 Gb<br/>T<sub>amb</sub> -40°C to +54°C</p> <p><b>ATEX</b><br/>Models w/ Radio Option<br/> <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">Ex</span> II 2 (1) G<br/> Ex db mb ia [ia Ga] IIB T6 Gb<br/> T<sub>a</sub>= -40°C to +54°C</p> <p>Models w/out Radio Option<br/> <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">Ex</span> II 2 G<br/> Ex db mb IIB T6 Gb<br/> T<sub>a</sub>= -40°C to +54°C</p> <p><b>IECEX</b><br/>Models w/ Antenna Fitting<br/> Ex db mb ia [ia Ga] IIB T6 Gb<br/> -40°C ≤ T<sub>a</sub> ≤ +54°C</p> <p>Models w/out Antenna Fitting<br/> Ex db mb IIB T6 Gb<br/> -40°C ≤ T<sub>a</sub> ≤ +54°C</p> |
| Hardware Warranty                               | 1-Year, Limited  |
| Sensor Element Warranty                         | Varies with Gas Type   |
| Part Number Formula                             | OI-6000-[Sensor Type]-[Gas]-[Radio Option]-[Relay Option]-O<br>OI-6000-X-X-X-X-O   |