

# GEN<sup>2</sup>

# OTIS

## OI-6900-X-X-O-2B Sensor Assembly

### WireFree Dual Battery Ambient Air Toxic Gas Detector

The Otis Instruments WireFree OI-6900 Series Ambient Air Toxic Gas Detector is a versatile assembly that uses an electrochemical, PID or low-power infrared sensor element to detect a variety of gases. WireFree, dual battery power (3.6 V Lithium-Thionyl Chloride battery) with 900 MHz or 2.4 GHz Radio options. 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   | 0-10 ppm                | < 30 sec.       | 12 months            |
| EC-CH3SH  | 0-10 ppm                | < 100 sec.      | 12 months            |
| EC-CL2    | 0-10 ppm                | < 60 sec.       | 12 months            |
| EC-CLO2   | 0-1 ppm                 | < 120 sec.      | 12 months            |
| EC-CO     | 0-1000 ppm              | < 30 sec.       | 24 months            |
| LPIR-CO2  | 0-1.5% vol.             | < 30 sec.       | 24 months            |
| EC-ETO    | 0-10 ppm                | < 80 sec.       | 12 months            |
| EC-F2     | 0-1 ppm                 | < 80 sec.       | 12 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            |
| LPIR-LEL  | 0-100% LEL (0-5 % vol.) | < 30 sec.       | 24 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, PID or Low-Power Infrared Sensor
- WireFree (Wireless) Communication; Dual Battery-Powered: 3.6 V (19 Ah each, 38 Ah total) Lithium-Thionyl (Li-SOCl<sub>2</sub>) Chloride Battery with Connector (Non-Rechargeable)
- Battery Life: 1-Year Maximum - Low-Power Infrared, 2-Year Maximum - Electrochemical
- Graphical LCD with LED Backlight

- 3 Push-Button Interface (ADD, MENU, SUB) with 3 Corresponding Magnetic, Non-Intrusive Switches
- Adjustable Background Gas Setting
- 102x64 Resolution Graphical LCD Screen; Transflective (Sunlight Readable) with LED Backlight
- QPS Explosion/Flame-Proof Certification for Select Gases
- Radio Options: 900 MHz Radio and 52 Networks or 2.4 GHz Radio and 78 Networks
- Sensor Element Warranty Varies with Gas Type
- Battery Warranty is 90 Days from Product Ship Date
- 1-Year Limited Hardware Warranty
- Optional OI-501 Remote Sensor Kit with Enclosure



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### OI-6900-X-X-O-2B Product Specifications

| Product Specifications                          |   |
|---|---|
| Sensor Type                                     | Electrochemical, PID or Low-Power Infrared Sensor   |
| Power Type                                      | Dual Battery-Powered  |
| Operating Voltage                               | 3.6 V (19 Ah each, 38 Ah total) Lithium-Thionyl (Li-SOCl <sub>2</sub> ) Battery, with Connector (Non-Rechargeable)  |
| Battery Life                                    | 1-Year Max. (Low-Power Infrared), 2-Year Max. (Electrochemical), 14+ Days (PID)   |
| RF Connection                                   | External N-Female Radio Frequency (RF) Connector  |
| Display Screen                                  | 102x64 Resolution Graphical LCD Screen<br>Transflective (Sunlight Readable) with LED Backlight  |
| Interface                                       | 3 Push-Buttons (MENU, ADD, and SUB)<br>3 Magnetic Non-Intrusive Switches for Calibration (MENU, ADD, and SUB)   |
| Customizable Settings                           | Adjustable Background Gas Setting   |
| T <sub>amb</sub> Temperature Range              | -40 to +54°C  |
| WireFree Radio Options                          | GEN II 900 MHz (200 mW) Radio (1-1.5 Miles Range) or GEN II 2.4 GHz (125 mW) Radio (1-1.5 Miles Range)  |
| Networks  | 52 Networks (GEN II 900 MHz Radio) or 78 Networks (GEN II 2.4 GHz Radio)<br>255 Addresses per Network   |
| Product Dimensions                              | 5.42 in. L x 6.03 in. W x 17.03 in. H (Max. Dimensions w/ Attachments)  |
| Total Weight                                    | 6 lbs.  |
| Remote Sensor Kit                               | OI-501 Remote Sensor Kit with Enclosure (7 pin)   |
| Additional Feature                              | Available in lengths of up to 250 feet for Electrochemical and lengths of up to 40 feet for Low Power IR  |
| Approvals                                       | QPS Certified Explosion/Flame Proof   |
| Hazardous Location Certifications and Approvals | <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/>Tamb -40°C to +54°C</p> <p><b>ATEX</b><br/>Models w/ Radio Option<br/>⊕ II 2 (1) G<br/>Ex db mb ia [ia Ga] IIB T6 Gb<br/>Ta= -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 ≤ Ta ≤ +54°C</p> <p>Models w/out Radio Option<br/>⊕ II 2 G<br/>Ex db mb IIB T6 Gb<br/>Ta= -40°C to +54°C</p> <p>Models w/out Antenna Fitting<br/>Ex db mb IIB T6 Gb<br/>-40°C ≤ Ta ≤ +54°C</p> |
| Hardware Warranty                               | Limited one year  |
| Sensor Element Warranty                         | Varies with Sensor Element and Type   |
| Battery Warranty                                | 90 Days from Ship Date  |
| Part Number Formula                             | OI-6900-[Gas]-[Radio]-[Enclosure]-[2 Battery]<br>OI-6900-X-X-O-2B   |