

GEN²

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 ₉₀	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-CI2	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, PID or Low-Power Infrared Sensor
- WireFree (Wireless) Communication; Dual Battery-Powered: 3.6 V (19 Ah each, 38 Ah total) Lithium-Thionyl (Li-SOCl₂) Chloride Battery with Connector (Non-Rechargeable)
- Battery Life: 1-Year Maximum - Low-Power Infrared, 2-Year Maximum - Electrochemical
- 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

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 ₂) 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 Transflective (Sunlight Readable) with LED Backlight
Interface	3 Push-Buttons (MENU, ADD, and SUB) 3 Magnetic Non-Intrusive Switches for Calibration (MENU, ADD, and SUB)
Customizable Settings	Adjustable Background Gas Setting
T _{amb} 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) 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>CSA Class I, Division 1, Groups C & D Ex d IIB T6 Gb Class I, Zone 1, AEx db IIB T6 Gb Tamb -40°C to +54°C</p> <p>ATEX Models w/ Radio Option  II 2 (1) G Ex db mb ia [ia Ga] IIB T6 Gb Ta= -40°C to +54°C</p> <p>IECEX Models w/ Antenna Fitting Ex db mb ia [ia Ga] IIB T6 Gb -40°C ≤ Ta ≤ +54°C</p> <p>Models w/out Radio Option  II 2 G Ex db mb IIB T6 Gb Ta= -40°C to +54°C</p> <p>Models w/out Antenna Fitting Ex db mb IIB T6 Gb -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] OI-6900-X-X-O-2B