

GEN²

OTIS

OI-6900-X-X-K-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
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
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-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
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-SOCI₂) Chloride Battery with Connector (Non-Rechargeable)
- Battery Life: 1-Year Maximum - Low-Power Infrared, 14 Days+ - PID
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
- UL/CSA/FM Explosion/Flame-Proof Certification for Main Enclosure, QPS Explosion/Flame-Proof Certification for Sensor Housing
- 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-K-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	-20 to +60°C	
WireFree Radio Options	GEN II 900 MHz (200 mW) Radio or GEN II 2.4 GHz (125 mW) Radio	
Networks	52 Networks (GEN II 900 MHz Radio) or 78 Networks (GEN II 2.4 GHz Radio) 255 Addresses per Network	
Product Dimensions	5.30 in. L x 8.26 in. W x 17.76 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	UL/CSA/FM Certified Explosion/Flame-Proof Main Enclosure QPS Certified Explosion/Flame-Proof Sensor Housing	
Hazardous Location Certifications and Approvals	<i>Main Enclosure</i>	<i>Sensor Housing</i>
	Class I, Div. 1 & 2, Groups B, C, D	Class I, Division 1, Groups B, C and D
	Class I, Zones 1 & 2, Groups IIB + H2, IIA	T _{Amb} = -40 °C to +60 °C
	Class II, Div. 1 & 2, Groups E, F, G	
	Class III, Type 3, 4, 4X	
	NEMA 3, 4, 4X, 7 (B, C, D) 9 (E, F, G)	
	T _a = -20°C to +60°C	
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-K-2B	