

OI-6900-O-2B Sensor Assembly

WireFree Dual Battery Ambient Air Hazardous Gas Detector

The Otis Instruments WireFree OI-6900 Series Ambient Air Hazardous Gas Detector is a wireless, dual battery-powered assembly that uses an Electrochemical, PID, or Low-Power Infrared sensor element to detect a variety of toxic or combustible gases. The OI-6900 offers non-intrusive calibration, allowing the device to remain Class I, Division 1, Groups B, C, and D certified, while adjustments are made in the field. The OI-6900 continuously monitors the gas level of the surrounding environment and reports once a minute, the reporting rate will increase to once every five seconds when the detected gas is above the Background Gas Set point. This set-point is adjustable to account for sites that may have a constant low level of gas always present. The display screen always shows the present gas concentration.



Gas Type	Range	T ₉₀	Warranty
CO	0-1000 ppm	< 210 sec.	24 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
IR-CO2	0-5% vol.	< 30 sec.	60 months
EC-H2	0-4% vol.	< 60 sec.	18 months
EC-H2S	0-100 ppm	< 30 sec.	24 months
EC-H2S2K	0-2000 ppm	< 25 sec.	24 months
EC-HCL	0-30 ppm	< 300 sec.	12 months
EC-HCN	0-50 ppm	< 70 sec.	12 months
IR-LEL	0-100% LEL	< 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-NO2	0-20 ppm	< 25 sec.	12 months
EC-O2	0-25% vol.	< 15 sec.	24 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
PID-VOC20	0-20 ppm	< 3 sec.	6 months
PID-VOC50	0-50 ppm	< 3 sec.	6 months
PID-VOC1K	0-1000 ppm	< 3 sec.	6 months
PID-VOC2K	0-2000 ppm	< 3 sec.	6 months

Reliable monitoring of hazardous gases in harsh conditions by use of the Otis wireless dual battery-powered detector.

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OI-6900-O-2B Product Specifications	
Sensor Type	Electrochemical, Photo Ionization Detector, 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)
Estimated Battery Life	<ul style="list-style-type: none"> • Low Power Infrared—1-Year Max Battery Life • Photo Ionization Detector—14+ Days Battery Life • Electrochemical—2-Year Max Battery Life
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 (1% to 10% of Full Scale)
T _{amb} Temperature Range	-40 to +54°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	5.42 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	<ul style="list-style-type: none"> • Electrochemical Sensor Max Length: 250 Feet • Low Power Infrared Sensor Max Length: 40 Feet • Photo Ionization Detector Max Length: 35 Feet
Hazardous Location Certifications and Approvals	Class I, Division 1, Groups B, C, and D T _{amb} -40°C to +60°C
QPS Component Certified	
Ex Location Certifications	Ex db mb ia [ia Ga] IIB T6 Gb
ATEX QPS 23ATEX5008X	 2460  II 2 (1) G
IECEX QPS 19.0025X	-40°C ≤ Ta ≤ +54°C
Hardware Warranty	Limited one year
Sensor Element Warranty	Varies with Sensor Element and Type
Part Number Formula	OI-6900-[Gas]-[Radio]-[Enclosure]-[2 Battery] OI-6900-X-X-O-2B