



Member of the FM Global Group

FM Approvals
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CERTIFICATE OF COMPLIANCE

HAZARDOUS (CLASSIFIED) LOCATION ELECTRICAL EQUIPMENT

This certificate is issued for the following equipment:

IR5500

Open Path Gas Monitors

The IR5500, part numbers, 329000-a, 329001-a is a fixed open path gas detector, comprising of a Source and Receiver module operating over a distance of 5-150 meters. The IR5500 is Explosionproof for Class I, Division 1, Groups B, C, and D, T4 Ta = -55°C to +65°C; Dust-ignitionproof for Class II/III, Division 1 applicable Groups E, F and G, T4 Ta = -55°C to 65°C; Nonincendive for installations in Class I/II/III, Division 2, applicable Groups B, C, D, E, F, G, T4 Ta = -55°C to 65°C; Hazardous Locations, indoor/outdoor locations Type 4X and IP66/67. The operating temperature range is -55°C to +65°C and the power consumption is: for the Source = 12W and for the Receiver = 10W. The enclosures are manufactured from 316L stainless steel. Field accessories comprise of Attenuation plate P/N 329113-1, Pan-Tilt Base assembly P/N 329071-1, Pan-Tilt Arm assembly P/N 329073-1, Pan-Tilt Basic Arm assembly P/N 329123-1, Long Range Alignment Kit P/N 329082 and gas filter kits P/N 329083 & 329084. Depending on the model selected, the system communications are Dual Modbus or Single Modbus with HART. Each variation comes complete with (2) 4-20mA outputs for detection of Propane with measurement ranges of 0-1 LEL•m and 0-2000ppm•m and Methane with measurement ranges of 0-5 LEL•m and 0-5000ppm•m, with minimum alarm set point of 10% FSD and repeatability of ±6% FSD. The apparatus complies with ANSI/ISA 12.13.04: 2007; Performance Requirements for Open Path Combustible Gas Detectors.

IR5500 Receiver:

329000-a

a: Output & Terminals - 1, 2, 3, 4, 9, 10, 11, 12, 25, 26, 27, 28, 29, 30, 31, 32

IR5500 Source:

329001-a

a: Terminals – 1, 2, 5, 6, 9, 10, 13, 14, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26 and 29 - 34

Specifications - The manufacturer's specifications are as follows:

Operating Temperature:	-55°C to +65°C
Relative Humidity:	10 to 95% (Non- condensing)
Supply Parameters:	+24 V nominal, 20-36 VDC
Measurement Signal:	4-20mA
Calibration:	Units are supplied factory calibrated for the specified target gas or gases. Units should not require recalibration in service.

XP / I / 1 / BCD / T4 Ta = -55°C to 65°C
 DIP / II,III / 1 / EFG / T4 Ta = -55°C to 65°C
 NI / I,II,III / 2 / BCDEFG / T4 Ta = -55°C to 65°C
 Type 4X, IP66/67

Specific Conditions of Safe Use:

1. For Source supply wires, use wires suitable for 32°C above surrounding ambient.
2. For Receiver supply wires, use wires suitable for 16°C above surrounding ambient.
3. At temperatures below -35°C propane cannot be detected due to the boiling point of propane being at -44°C.

FM Approved for:

General Monitors Inc
 26776 Simpatica Circle
 Lake Forest, California 92630
 USA



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This certifies that the equipment described has been found to comply with the following Approval Standards and other documents:

Class 6325	2005
Class 3600	2011
Class 3611	2004
Class 3615	2006
Class 3616	2011
Class 3810	2005
ANSI/NEMA 250	2003
ANSI/ISA 60529	2004
ANSI/FM 6325	2007
ANSI/FM 12.13.04	2007

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3041466	February 16, 2011		
3046962	October 12, 2014		
3051421	May 8, 2014		
141021	November 6 2014		
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FM Approvals LLC

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29 January 2015

Date