



Certificate of Compliance

Certificate: 1369892 **Master Contract:** 161129 (025993_0_000)
Project: 70107307 **Date Issued:** 2017-01-12
Issued to: General Monitors, Incorporated
26776 Simpatica Circle
Lake Forest, California 92630
USA
Attention: Larry Vlagea

The products listed below are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US or with adjacent indicator 'US' for US only or without either indicator for Canada only.



Issued by: Jack Chin
Jack Chin

PRODUCTS

CLASS - C482801 - SIGNAL APPLIANCES --Combustible Gas Detection Instruments--For Hazardous Locations
CLASS - C482881 - SIGNAL APPLIANCES--Combustible Gas Detection Instruments--For Hazardous Location--
Certified to U.S. Standards

Class I, Div. 1&2, Groups B, C and D; TYPE 4X

Model IR400, Stand Alone Sensor/Transmitter, input rated 24 Vdc, 4.8 W Max., provides a 4-20mA output with Modbus or optional Hart output. May be used with Calibration Cup p/n 32554 and Splash Guard p/n 32545 or IR Remote Gas Calibrator Cup p/n 32541. Temperature Code of T5, Ta = -40°C to +75°C. The IR400 monitors 0-100% LEL of either; methane, propane, hexane, pentane, ethane, ethylene or butane. May be connected to IR4000S, IR4000M, or junction box P/N 31305 (Class I, Div. 1, Group B, C and D, Type 4X).

Part number: 32500-a

a: Output -1, 2, 5 through 8, 11, 12, 15, 16, 17, 18, 21 through 32, 65, 68, 86, 100, 101 which denotes gas detected, material of enclosure and outputs.

Model IR4000S, Stationary single or dual channel, standalone control unit for combustible gas detectors, input rated 24 Vdc, 2 W Max., provides a 4-20mA output. Temperature Code of T5, Ta = -40°C to +75°C. Control unit monitors 0-100% LEL gas-in-air atmospheres from the IR400. If provided with relays, contacts rated 8A, 250V ac or 8A, 30V dc resistive.

Part number: 32563-a



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a: 1 through 4, 9 through 12, 29, 38, 39 which denotes relay options, field wiring termination combinations, and material and color of enclosure.

Model IR4000M, Stationary single or dual channel, standalone control unit for combustible gas detectors, input rated 24 Vdc, 2 W Max., provides a 4-20mA output with optional Modbus or Hart output. Temperature Code of T5, Ta = -40°C to +75°C. Control unit monitors 0-100% LEL gas-in-air atmospheres from the IR400. If provided with relays, contacts rated 8A, 250V ac or 8A, 30V dc resistive.

Part number: 32580-a

a: 1 through 8 and 17 through 24 which denotes relay options, field wiring termination, HART and Modbus combinations and material of enclosure.

CLASS - C482802 - SIGNAL APPLIANCES-Toxic Gas Detection Instruments - For Hazardous Locations
CLASS - C482882 - SIGNAL APPLIANCES-Toxic Gas Detection Instruments-For Hazardous Locations.
Certified to U.S. Standards

Class I, Div. 1&2, Groups B, C and D; TYPE 4X

Model IR700, Stand Alone Sensor/Transmitter, input rated 24 Vdc, 4.8 W Max., provides a 4-20mA output with Modbus or optional Hart output. May be used with Calibration Cup p/n 32554 and Splash Guard p/n 32545 or IR Remote Gas Calibrator Cup p/n 32541. Temperature Code of T5, Ta = -40°C to +75°C. The IR700 monitors 0-5000 ppm of Carbon Dioxide. May be connected to IR4000S CO2 or junction box P/N 31305.

Part number: 32700-a

a: Output -1, 2, 3, 4 which denotes material of enclosure and outputs.

Model IR4000S CO2, Stationary single or dual channel, standalone control unit for the IR700, input rated 24 Vdc, 2 W Max., provides a 4-20mA output. Temperature Code of T5, Ta = -40°C to +75°C. Control unit monitors 0-5000 ppm of CO2 from the IR700. If provided with relays, contacts rated 8A, 250V ac or 8A, 30V dc resistive.

Part number: 32563-a

a: 13 through 20, which denotes relay options, field wiring termination combinations, and material of enclosure

APPLICABLE REQUIREMENTS

FM 3600-1998	Electrical Equipment for Use in Hazardous (Classified) Locations, General Requirements
FM 3611-2004	Electrical Equipment for Use in Class I, Division 2, Class II, Division 2 and Class III, Division 1 and 2 Hazardous Locations
FM 3615-2006	Explosionproof Electrical Equipment – General Requirements
FM 3810-2005	Electrical and Electronic Test, Measuring and Process Control Equipment Combustible Gas Detectors
FM 6310, 6320-2001	Combustible Gas Detectors
ANSI/NEMA 250-2003	Enclosures for Electrical Equipment (1000 Volts Maximum)
ANSI/IEC 60529-2004	Degrees of Protection Provided by Enclosures (IP Code)
CAN/CSA-C22.2 No. 0-M91	General Requirements – Canadian Electrical Code, Part II



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CSA C22.2 No 30-M1986	Explosion-proof Enclosures for Use in Class I Hazardous Locations
CAN/CSA-C22.2 No. 94-M91	Special Purpose Enclosures
CSA C22.2 No 213-M1987	Non-incendive Electrical Equipment for Use in Class I, Division 2 Hazardous Locations
CSA C22.2 No 142-M1987	Process Control Equipment
CSA C22.2 No 152-M1984	Combustible Gas Detection Instruments

MARKINGS

IR400 and IR700:

- CSA Monogram with C US indicator;
- Submitter identification;
- Model number
- Serial number, date code or month and year of manufacture;
- Electrical rating;
- Hazardous location designation is Class I, Div. 1& 2, Groups B, C and D; may also have the optional zone marking of Class I, Zone 1, Group IIB+H2
- The words C22.2 No 152 (IR400 only);
- Warning re read and understand manual;
- The words "DO NOT OPEN WHEN AN EXPLOSIVE ATMOSPHERE IS PRESENT"
- Type 4X

IR4000S, IR4000M and IR4000S CO2:

- CSA Monogram with C US indicator;
- Submitter identification;
- Model number
- Serial number, date code or month and year of manufacture;
- Electrical rating;
- Hazardous location designation is Class I, Div. 1& 2, Groups B, C and D; may also have the optional zone marking of Class I, Zone 1, Group IIB+H2
- The words C22.2 No 152 (IR4000S and IR4000M);
- Warning re read and understand manual;
- The words "DO NOT OPEN WHEN AN EXPLOSIVE ATMOSPHERE IS PRESENT"
- Type 4X
- Contact ratings, if relay option provided, see manual



Supplement to Certificate of Compliance

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*The products listed, including the latest revision described below,
are eligible to be marked in accordance with the referenced Certificate.*

Product Certification History

Project	Date	Description
70107307	2017-01-12	Update Report 1369892 with various drawings related to include new IR400 and IR4000S configurations, revised nameplates and a change to the 5V regulator on the IR4000 series.
70031200	2015-05-13	Update to Report 1369892. Changes to schematic for EMC, alternative configurations and changes to label including French warnings
2693147	2014-01-24	Update to report 1369892 to cover revised documents and a firmware change to the IR400.
2557767	2012-10-15	Update to report 1369892 to cover revised documents and a firmware change to the IR400.
2472832	2011-11-09	Update to report 1369892 to cover revised documents and a firmware change to the IR400.
2443376	2011-08-18	Update to report 1369892 to cover junction box for use with IR400 and new model IR700. Also add new model IR4000S CO2.
2375871	2010-12-07	Update report 1369892 to cover updating drawings to cover change in nameplates (non CSA related issues), addition of stainless steel housing for IR4000M/S, added IR400 Ethylene version and added tyco relays.
2308260	2010-05-13	Update report 1369892 to cover revised documentation.
2254864	2009-12-23	Update to report 1369892 to cover revised construction.
2203260	2009-07-28	Update to cover the mention of the Power /AO HART Board and other minor revised construction.
2121723	2008-12-18	Update to cover the mention of Calibration Cup p/n 32554 and Splash Guard p/n 32545 and the addition of IR Remote Gas Calibrator Cup p/n 32541, revised drawings and manuals
2062657	2008-08-21	Update to cover addition of Model IR400, deletion of Model IR2200 and revised construction of Model IR4000
1369892	2002-12-03	Original Certification