

FM Approvals
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CERTIFICATE OF COMPLIANCE

HAZARDOUS (CLASSIFIED) LOCATION ELECTRICAL EQUIPMENT

This certificate is issued for the following equipment:

COMBUSTIBLE GAS DETECTORS, Fixed

Stationary Single Channel 4-20mA, Modbus, or Hart Combustible Gas Detector. Stand Alone Sensor/Transmitter model IR400. IR400 is suitable for installation in Class I, Division 1, 2 Groups B, C and D, indoor/outdoor (TYPE 4X, IP65) hazardous (classified) locations with a temperature class of T5, Ta = -40°C to +75°C. The IR400 monitors 0-100% LEL of either; methane, propane, hexane, pentane, ethane, butane, or ethylene (Ta = -40 °C to +60 °C for ethylene). The IR400 provides a 4-20mA output. The operating voltage range is 20-36 Vdc, with a maximum power consumption of 4.8W. The apparatus complies with ANSI/ISA-12.13.01-2000; Performance Requirements for Combustible Gas Detectors. This Approval covers use of the instruments when connected to FM Approvals stand alone combustible gas control unit and when calibration is performed using the gas to be monitored and when the higher of the alarm points is preset within 10% LEL of the calibration gas concentration.

32500-a

a: 1, 2, 5 through 8, 11, 12, 15, 16, 17, 18, 21 through 32, 65, 66, 68

Stationary single or dual channel Control Unit for Combustible Gas Detectors. Stand alone controller model IR4000M and IR4000S monitor FM Approved Combustible Gas Detectors which monitor 0-100% LEL gas-in-air atmospheres. Suitable for installation in Class I, Division 1, 2 Groups B, C and D, and Class I, Zone 1, IIB +H₂; indoor/outdoor (TYPE 4X) hazardous (classified) locations with a temperature class of T5 Ta = -40°C to +75°C. The IR4000M and IR4000S controllers' operating temperature range is -40°C to +75°C and operating voltage is 24VDC at 2W. The apparatus also complies with ANSI/ISA-12.13.01-2000; Performance Requirements for Combustible Gas Detectors. This Approval covers use of the instruments when connected to FM Approvals stand alone combustible gas detector and when calibration is performed using the gas to be monitored and when the higher of the alarm points is preset within 10% LEL of the calibration gas concentration.

325a-b

a= Controller model: 63 or 80

b= 1, 2, 3, 4, 5*, 6*, 7*, 8*, 9, 10, 11, 12, 17*, 18*, 19*, 20*, 21*, 22*, 23*, 24*

* = only available when a = 80

FM Approved for:

General Monitors
26776 Simpatica Circle
Lake Forest, CA 92630

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

Class 3600	1998
Class 3611	2004
Class 3615	2006
Class 3810	2005
ANSI/ISA-12.13.01	2000
FM6310/6320	2001
ANSI/NEMA 250	2003
ANSI/IEC 60529	2003

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Subsequent Revision Reports / Date Approval Amended

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3041478	January 17, 2011		

FM Approvals LLC



J.E. Marquedant
Group Manager, Electrical

17 January 2011
Date