IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: **IECEx FMG 22.0007**

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Certificate history:
Issue 1 (2024-01-26)
Issue 0 (2023-11-10)

Status: **Current**

Issue No: 2

Date of Issue: 2024-09-19

Applicant: **MSA Innovation, LLC**
1000 Cranberry Woods Drive
Cranberry Township, PA 16066
United States of America

Equipment: **SENTRY io Gas detector controller**

Optional accessory:

Type of Protection: **General locations**

Marking: IEC 60079-29-1
IEC 60079-29-4

62990-1 SM

Approved for issue on behalf of the IECEx Certification Body: **J. E. Marquedant**

Position: **VP, Manager - Electrical Systems**

Signature:
(for printed version)

Date:
(for printed version)

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting www.iecex.com or use of this QR Code.

Certificate issued by:

FM Approvals LLC
One Technology Way
Norwood MA 02062
United States of America

Member of the FM Global Group

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Manufacturer: **MSA Innovation, LLC**
1000 Cranberry Woods Drive
Cranberry Township, PA 16066
United States of America

Manufacturing locations: **MSA SE Asia Pte Ltd.**
BLK 35, Marsiling Industrial Estate Road 3,
#01-05, #01-06, #02-03, #04-01,
Singapore 739257
Singapore

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements.This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended

STANDARDS :
The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

IEC 60079-29-1:2016 Edition:2.0	Explosive atmospheres – Part 29-1: Gas detectors – Performance requirements of detectors for flammable gases
IEC 60079-29-4:2009 Edition:1.0	Explosive atmospheres - Part 29-4: Gas detectors - Performance requirements of open path detectors for flammable gases
IEC 62990-1:2019 Edition:1.0	Workplace atmospheres - Part 1: Gas detectors - Performance requirements of detectors for toxic gases

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:
A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Reports:

US/FMG/ExTR22.0006/00 US/FMG/ExTR22.0006/01 US/FMG/ExTR22.0006/02

Quality Assessment Reports:

FR/INE/QAR08.0011/13 GB/FME/QAR23.0002/00

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EQUIPMENT:
Equipment and systems covered by this Certificate are as follows:

SENTRY io Controller

SPECIFIC CONDITIONS OF USE: NO

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Equipment (continued):

The SENTRY io is a wall-mount multi-channel and oxygen enrichment controller intended for use with any combination of MSA fixed combustible/explosive, toxic, or oxygen-depletion gas detectors. The controller is housed within a fiberglass enclosure along with the system power supply, input/output modules, field wiring terminals, and a graphic user interface screen with touch panel and alarm sounder mounted in the enclosure door. An optional Expansion Module is available for configurations requiring the maximum allowable inputs/outputs.

The Sentry io is designed to accept standard 4-20 mA analog signal inputs from connected MSA or generic gas detectors and will also accept up to six (6) discrete inputs from contact closure devices such as switches or relay contacts. The system provides discrete relay outputs for use in energizing notification devices such as sounders, strobes, or horns. Optional analog 4-20 mA outputs are also available when specified. All systems include an internal field wiring termination strip to enable easy connection of interconnecting field wiring conductors.

The Sentry io graphic user interface (GUI) with touchscreen provides a field configuration tool enabling easy configuration of user language, date/time, connected gas detectors, discrete input and output signals, and user-specified cause & effect operating logic.

Multiple Sentry io system configuration options are available depending upon the number and type of input/output channels required.

Ratings - The SENTRY io operates at 100…240 VAC and 200 VA (max). The SENTRY io is rated for use in an ambient temperature range of -20°C to +65°C.

SENTRY io, a, b, c, d, CONTROLLER

a = Digital Input: 16PT or 8PT

b = Relay Output; 16RLY, 32RLY, or 56RLY

c = Analog Output; 0AO, 8AO or 16AO

d = Entry Type; M20 or STD

Firmware 5.7

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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)
examination to 62990-1 standard and firmware update to version 5.7