

# CERTIFICATE OF CONFORMITY



## 1. HAZARDOUS (CLASSIFIED) LOCATION ELECTRICAL EQUIPMENT PER US REQUIREMENTS

2. Certificate No: FM22US0012
3. Equipment:  
(Type Reference and Name) SENTRY io
4. Name of Listing Company: MSA Innovation LLC dba MSA - The Safety Company
5. Address of Listing Company: 1000 Cranberry Woods Drive, Cranberry Township, Pennsylvania 16066, United States of America
6. The examination and test results are recorded in confidential report number:

PR453809 dated 10<sup>th</sup> November 2023

7. FM Approvals LLC, certifies that the equipment described has been found to comply with the following Approval standards and other documents:

FM 3600:2022, FM 3611:2021, FM 3810:2021, FM 6320:2018, FM 6325:2005, FM 6340:2014, ANSI/FM/UL 60079-29-1:2019, ANSI/FM/UL 60079-29-4:2018, ANSI/FM/UL 62990-1:2023, ANSI/UL 50E:2015, ANSI/ISA 92.00.01:2010, ANSI/ISA 92.04.01:2007, ANSI/IEC 60529:2020, ANSI/UL 61010-1:2012, ANSI/UL 121201:2021

8. If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to specific conditions of use specified in the schedule to this certificate.
9. This certificate relates to the design, examination and testing of the products specified herein. The FM Approvals surveillance audit program has further determined that the manufacturing processes and quality control procedures in place are satisfactory to manufacture the product as examined, tested and Approved.
10. Equipment Ratings:

Non-Incendive for Class I, Division 2, Groups A, B, C and D and Class I, Zone 2, Group IIC hazardous locations, indoors and outdoors (Type 3X, IP65) with an ambient temperature rating of -20°C to +65°C.

Certificate issued by:

J.E. Marquedant  
VP, Manager - Electrical Systems

19 September 2024

Date

To verify the availability of the Approved product, please refer to [www.approvalguide.com](http://www.approvalguide.com)

**THIS CERTIFICATE MAY ONLY BE REPRODUCED IN ITS ENTIRETY AND WITHOUT CHANGE**

FM Approvals LLC. One Technology Way, Norwood, MA 02062 USA

T: +1 (1) 781 762 4300 F: +1 (1) 781 762 9375 E-mail: [information@fmaprovals.com](mailto:information@fmaprovals.com) [www.fmaprovals.com](http://www.fmaprovals.com)

F 347 (Jul 24)



## **SCHEDULE**

US Certificate of Conformity No: FM22US0012

### **11. The marking of the equipment shall include:**

Class I, Division 2, Groups A, B, C, D; T5 Ta = -20°C to +65°C; Type 3X, IP65  
Class I, Zone 2, IIC T5 Ta = -20°C to +65°C, Type 3X, IP65  
62990-1 SM

### **12. Description of Equipment:**

The SENTRY io is a wall-mount multi-channel and oxygen enrichment separate gas detection control unit intended for use with any combination of MSA fixed combustible/explosive, toxic, or oxygen-depletion gas detectors. The separate gas detection control unit 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 +60°C.

#### **7SENTRY io, a, b, c, d, CONTROLLER FM21US0012X**

NI / I / 2 / ABCD / T5, -20°C < Ta < 65°C; Type 3X, IP65

I / 2 / IIC / T5, -20°C < Ta < 65°C; Type 3X, IP65

a = Digital Input: 16PT or 8PT

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

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

d = Entry Type; M20 or STD

Firmware 5.7

### **13. Specific Conditions of Use:**

To verify the availability of the Approved product, please refer to [www.approvalguide.com](http://www.approvalguide.com)

**THIS CERTIFICATE MAY ONLY BE REPRODUCED IN ITS ENTIRETY AND WITHOUT CHANGE**

FM Approvals LLC. One Technology Way, Norwood, MA 02062 USA

T: +1 (1) 781 762 4300 F: +1 (1) 781 762 9375 E-mail: [information@fmaprovals.com](mailto:information@fmaprovals.com) [www.fmaprovals.com](http://www.fmaprovals.com)

F 347 (Jul 24)



## **SCHEDULE**

US Certificate of Conformity No: FM22US0012

None

### **14. Test and Assessment Procedure and Conditions:**

This Certificate has been issued in accordance with FM Approvals US Certification Requirements.

### **15. Schedule Drawings**

A copy of the technical documentation has been kept by FM Approvals.

### **16. Certificate History**

Details of the supplements to this certificate are described below:

Date	Description
10 November 2023	Original Issue.
26 January 2024	<u>Supplement 1:</u> Report Reference: PR467941 dated 26 January 2024. Description of the Change: Firmware updated to 5.5
19 September 2024	<u>Supplement 2:</u> Report Reference: PR468951 dated 19 September 2024. Description of the Change(s): Examined to 62990-1 and updated label to reflect that. Also examined a minor firmware update.

To verify the availability of the Approved product, please refer to [www.approvalguide.com](http://www.approvalguide.com)

**THIS CERTIFICATE MAY ONLY BE REPRODUCED IN ITS ENTIRETY AND WITHOUT CHANGE**

FM Approvals LLC. One Technology Way, Norwood, MA 02062 USA

T: +1 (1) 781 762 4300 F: +1 (1) 781 762 9375 E-mail: [information@fmaprovals.com](mailto:information@fmaprovals.com) [www.fmaprovals.com](http://www.fmaprovals.com)

F 347 (Jul 24)

