

# 1. UNITED KINGDOM CONFORMITY ASSESSMENT UK-TYPE EXAMINATION CERTIFICATE



2. Component intended for use in Potentially Explosive Atmospheres  
UKSI 2016:1107 (as amended) – Schedule 3A, Part 1

3. Type Examination Certificate No: FM23UKEX0046

4. Component:  
(Type Reference and Name) SENTRY io

5. Name of Applicant: MSA Innovation LLC dba MSA - The Safety Company

6. Address of Applicant 1000 Cranberry Woods Drive, Cranberry Township,  
Pennsylvania 16066, United States of America

7. This component and any acceptable variation thereto is specified in the schedule to this certificate and documents therein referred to.

8. FM Approvals Ltd, Approved Body number 1725, in accordance with Regulation 42 of the Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2016, UKSI 2016:1107 (as amended), certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Schedule 1 of the Regulations.

The examination and test results are recorded in confidential report number:

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

9. Compliance with the Essential Health and Safety Requirements, with the exception of those identified in item 15 of the schedule to this certificate, has been assessed by compliance with the following documents:

EN 50104:2019, EN 50271:2018, EN 60079-29-1:2020+A11:2022, EN 60079-29-4:2010

10. The sign 'U' placed after the certificate number indicates that this certificate must not be mistaken for a certificate for equipment or a protective system. This certificate may only be used as the basis for the certification of equipment or a protective system.

11. This UK-Type Examination certificate relates only to the design, examination and tests of the specified component in accordance with the Regulations. Further requirements of the Regulations apply to the manufacturing process and supply of this component. These are not covered by this certificate.

Certificate issued by:

9 October 2024

Victor Aluko-Oginni  
Certification Manager, FM Approvals Ltd.

Date

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

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F UKEX 027 (Jul/2024)



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## SCHEDULE

to UK-Type Examination Certificate No. FM23UKEX0046

12. The marking of the equipment or protective system shall include:



II (2) G  $-20^{\circ}\text{C} < T_a < +65^{\circ}$

EN 60079-29-1

EN 60079-29-4

EN 50104

### 13. Description of Component:

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  $-20^{\circ}\text{C}$  to  $+65^{\circ}\text{C}$ .

#### **SENTRY io, a, b, c, d, CONTROLLER FM23UKEX0046**

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

### 14. Schedule of Limitations:

None

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**15. Essential Health and Safety Requirements:**

The relevant EHSRs that have not been addressed by the standards listed in this certificate have been identified and assessed in the confidential report identified in item 8.

**16. Test and Assessment Procedure and Conditions:**

This UK-Type Examination Certificate is the result of testing of a sample of the product submitted, in accordance with the provisions of the relevant specific standard(s), and assessment of supporting documentation. It does not imply an assessment of the whole production.

Whilst this certificate may be used in support of a manufacturer's claim for UKCA Marking, FM Approvals Ltd accepts no responsibility for the compliance of the equipment against all applicable Regulations in all applications.

This Certificate has been issued in accordance with FM Approvals Ltd's UKCA Certification Scheme.

**17. Schedule Drawings**

A list of the significant parts of the technical documentation is annexed to this certificate and a copy has been kept by the Approved Body.

**18. Certificate History**

Details of the supplements to this certificate are described below:

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

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# Blueprint Report

**MSA Innovation LLC dBA MSA - The Safety Company (1000001671)**

**Class No 3611**

**Original Project I.D. 453809**

**Certificate I.D. FM23UKEX0046**

<u>Drawing No.</u>	<u>Revision Level</u>	<u>Drawing Title</u>	<u>Last Report</u>	<u>Electronic Drawing</u>
10225296	5	Operating Manual SENTRY io	PR468951	Yes (pdf)
J2016HPL	3/30/00	ENCLOSURE (STAHLIN)	PR453809	Yes (pdf)
SK3025-1174	1	Label, Approval, SENTRY IO	PR468951	Yes (pdf)
SK3098-1557	0	SENTRY io Approval Drawing	PR453809	Yes (pdf)