



1. EU-TYPE EXAMINATION CERTIFICATE

2. Equipment or Protective systems intended for use in Potentially Explosive Atmospheres - Directive 2014/34/EU

3. EU-Type Examination Certificate No: FM22ATEX0006

4. Equipment or protective system:
(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 equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and documents therein referred to.

8. FM Approvals Europe Ltd, notified body number 2809 in accordance with Article 17 of Directive 2014/34/EU of 26 February 2014, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.

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

PR453809 dated 10th 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. 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.

11. This EU-Type Examination certificate relates only to the design, examination and tests of the specified equipment or protective system in accordance to the directive 2014/34/EU. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.

Certificate issued by:

 Richard
Zammitt
Dublin,
Ireland
2024.3.0

Certification Manager, FM Approvals Europe Ltd.

Date 09 October 2024

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SCHEDULE

EU-Type Examination Certificate No. FM22ATEX0006

FM Approvals

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



II (2) G -20°C < Ta < +65°

EN 60079-29-1

EN 60079-29-4

EN 50104

13. Description of Equipment or Protective System:

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 +65°C.

SENTRY io, a, b, c, d, CONTROLLER
FM22ATEX0006

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. Specific Conditions of Use:

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 EU-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 CE Marking, FM Approvals Europe Ltd accepts no responsibility for the compliance of the equipment against all applicable Directives in all applications.

This Certificate has been issued in accordance with FM Approvals Europe Ltd's ATEX 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 Notified Body.

18. Certificate History

Details of the supplements to this certificate are described below:

Date	Description
16 November 2023	Original Issue.
22 February 2024	<u>Supplement 1:</u> Report Reference: PR467941 dated 26 th January 2024. Description of the Change: Firmware updated to 5.5, clarification to Section 13.
09 October 2024	<u>Supplement 2:</u> Report Reference: PR468951 dated 19 September 2024. Description of the Changes: Examined to 62990-1 for other certification schemes and updated label to reflect that. 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. FM22ATEX0006

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