1 **EU-TYPE EXAMINATION CERTIFICATE**

2 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

3 Certificate Number: **CSANe 20ATEX1131X** Issue: **1**

4 Equipment: **HART Port 5000**

5 Applicant: **MSA – The Safety Company**

6 Address: 1000 Cranberry Woods Drive
Cranberry Township, PA 16066
United States of America

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

8 CSA Group Netherlands B.V., notified body number 2813 in accordance with Articles 17 and 21 of Directive 2014/34/EU of the European Parliament and of the Council, dated 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 the confidential reports listed in Section 14.2.

9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the schedule to this certificate, has been assured by compliance with the following documents:

EN IEC 60079-0:2018/AC:2020-2 EN 60079-1:2014/COR1:2018 EN 60079-11:2012
EN 60079-31:2014

10 If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to Specific Conditions of Use identified in the schedule to this certificate.

11 This EU-Type Examination Certificate relates only to the design and construction of the specified equipment. If applicable, further requirements of this Directive apply to the manufacture and supply of this equipment.

12 The marking of the equipment shall include the following:

II 2 (1) G
Ex db [ia Ga] IIC T5 Gb
Ta = -40°C to +60°C

II 2 (1) D
Ex tb [ia Da] IIIC T100°C Db
Ta = -40°C to +60°C

Signed: J A May

Title: Director of Operations

PRODUCTS
RvA C 652

Project Number 80103252

SCHEDULE

EU-TYPE EXAMINATION CERTIFICATE **CSANe 20ATEX1131X**
Issue 1

13 **DESCRIPTION OF EQUIPMENT**

The HART Port 5000 is an 8 – 30 VDC Class 2 or SELV powered, completely potted associated apparatus contained within a flameproof stainless-steel enclosure intended to be installed in a Zone 1 or Zone 21 area providing controlled Intrinsically Safe (IS) output. The enclosure is approximately 56 mm diameter by 116 mm high, including the threaded neck extension. The two-pin HART keyed external connector is located at one end of the HART Port 5000. The completely potted circuitry section is covered by a cemented joint that provides the enclosure seal at the other end of the HART Port 5000.

The entire internal volume is completely potted including the terminals for the HART connector portion. The minimum enclosure thickness is 2.11mm and the minimum cement joint distance is 28.47mm. Two wires extend from the internal intrinsic safety barrier through the completely potted threaded neck extension for the 4-20 mA HART communications output signal. The HART Port 5000 delivers an Intrinsically Safe (IS) output per the following entity parameters:

Maximum Voltage			Output		
Um	=	250 V	Uo	=	6.14V
			Io	=	170mA
			Po	=	260mW
			Co	=	34µF
			Lo	=	1.3mH

Ambient Temperature: -40 °C to +60 °C; Enclosure Rating: IP66.

Variation 1 - This variation introduced the following changes:

i. Update to approval drawings SK3098-1458 and SK3098-1459 to add UKCA marking.
ii. Update PCB drawing 10076888 to update PCB material specs to match company current standard.
iii. Update General Monitors address to Irvine CA per the QAN/QAR.

14 **DESCRIPTIVE DOCUMENTS**

14.1 **Drawings**

Refer to Certificate Annexe.

14.2 **Associated Reports and Certificate History**

Issue	Date	Report number	Comment
0	21 December 2020	R80042295A	The release of the prime certificate.
1	24 May 2022	R80103251A	The introduction of Variation 1.

15 **SPECIFIC CONDITIONS OF USE** (denoted by X after the certificate number)

15.1 Under certain extreme circumstances, the non-metallic parts incorporated in the enclosure of this equipment may generate an ignition-capable level of electrostatic charge. Therefore, the equipment shall only be cleaned with a damp cloth.

15.2 The flameproof joints shall not be repaired.

15.3 The HART Port 5000 is provided with ¾"-14 NPT threads and shall only be connected to a suitably certified enclosure. The installation to the certified enclosure shall be with five fully engaged threads, tightened wrench tight.

15.4 The HART Port 5000 shall only be fitted to enclosures having a maximum reference pressure of 34.4 bars.

15.5 The HART Port 5000 shall be connected directly to a suitably certified junction box or instrument for the hazardous area of installation and thereby provide Ex protection for the flying lead connections.

15.6 The manufacturer is responsible for and shall include in the instruction manual the minimum details of all applicable instructional information required for the equipment by clause 30 of EN/ IEC 60079-0 — i.e., the certificates.

15.7 The Ingress Protection rating is exclusively based upon the installation instruction for orientation specified in the operating manual.

15.8 The external bonding of the metallic enclosure may be achieved using the external bonding connection facility and/or threaded entry as part of the installation.

16 **ESSENTIAL HEALTH AND SAFETY REQUIREMENTS OF ANNEX II** (EHSRs)

The relevant EHSRs that are not addressed by the standards listed in this certificate have been identified and individually assessed in the reports listed in Section 14.2.

17 **CONDITIONS OF MANUFACTURE**

17.1 The use of this certificate is subject to the Regulations Applicable to Holders of CSA Group Netherlands B.V. certificates.

17.2 Holders of EU-Type Examination Certificates are required to comply with the conformity to type requirements defined in Article 13 of Directive 2014/34/EU.

17.3 Routine Infallible Transformer Test

At the end of manufacture, each transformer shall be subjected to an electric strength test using a test voltage of 2500 Vac applied between the primary and the secondary of the transformer for one minute. Alternatively, the test may be carried out at 3000 Vac (1.2 times the test voltage) with the reduced duration of at least 1 second. The current flowing during the test shall not exceed 5 mA r.m.s. at any time.

Certificate Annexe

Certificate Number: **CSANe 20ATEX1131X**

Equipment: **HART Port 5000**

Applicant: **MSA – The Safety Company**

Issue 0

Drawing	Sheets	Rev.	Date (Stamp)	Title
SK3098-1458	1 to 5	0	21 Dec 20	HART Port 5000 Approval Drawing - CSA
SK3098-1459	1 to 2	0	21 Dec 20	HART Port 5000, Control Drawing
10076889	1 of 1	0	24 Aug 20	Printed Circuit Board Assembly, HART Barrier
10076888	1 of 1	0	24 Aug 20	Printed Circuit Board, HART Barrier
10000014682	1 of 1	1	24 Aug 20	Commercial Specification, CAP
10077245	1 of 1	0	24 Aug 20	Commercial Specification, DIODE
10077244	1 of 1	0	24 Aug 20	Commercial Specification, FUSE
10000001077	1 of 1	1	24 Aug 20	Commercial Specification, RES
10078236	1 of 2	1	24 Aug 20	Commercial Specification, Transformer

Issue 1

Drawing	Sheets	Rev.	Date (Stamp)	Title
SK3098-1458	1 to 5	1	11 May 22	HART Port 5000 Approval Drawing - CSA
SK3098-1459	1 to 2	1	11 May 22	HART Port 5000, Control Drawing
10076888	1 of 1	1	07 Feb 22	Printed Circuit Board, HART Barrier