



UNITED KINGDOM CONFORMITY ASSESSMENT

1 UKCA UK TYPE EXAMINATION CERTIFICATE

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

3 Certificate Number: CSAE 21UKEX1162X Issue: 0

4 Product: HART Port 5000

5 Manufacturer: MSA – The Safety Company

6 Address: MSA - The Safety Company
1000 Cranberry Woods Drive
Cranberry Township, PA 16066
United States of America

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

8 CSA Group Testing UK Limited, Approved Body number 0518, 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 the confidential reports listed in Section 14.2.

9 Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN IEC 60079-0:2018/AC:2020-02 EN 60079-1:2014/COR1:2018 EN 60079-11: 2012 EN 60079-31: 2014

Except in respect of those requirements listed at Section 16 of the schedule to this certificate. The above standards may not appear on the UKAS Scope of Accreditation, but have been added through flexible scope of accreditation, which is available on request.

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

11 This UK TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product. Further requirements of the Regulations apply to the manufacturing process and supply of this product. These are not covered by this certificate.

12 The marking of this product shall be in accordance with Regulation 41 and include the following:



II 2 (1) G
II 2 (1) D
Ex db [ia Ga] IIC T5 Gb
Ex tb [ia Da] IIIC T100°C Db
Ta = -40°C to +60°C

Name: Michelle Halliwell
Title: Director of Operations



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Certificate No. CSAE 21UKEX1162X
CSA Group Testing UK Ltd., Unit 6 Hawarden Industrial Park, Hawarden, CH5 3US, UK
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13 DESCRIPTION OF PRODUCT

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.

14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Refer to Certificate Annexe.

14.2 Associated Reports and Certificate History

Issue	Date	Report number	Comment
0	03 August 2022	R80131042A	The release of the prime certificate.

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.



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- 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 (REGULATIONS SCHEDULE 1)**
In addition to the Essential Health and Safety Requirements covered by the standards listed in Section 9, all other requirements are demonstrated in the relevant reports.
- 17 **PRODUCTION CONTROL**
- 17.1 Holders of this certificate are required to comply with production control requirements defined in Schedule 3A, as applicable, and CSA Group Testing UK Regulations for Certificate Holders
- 17.2 **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.



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Certificate Annexe

Certificate Number: CSAE 21UKEX1162X
Product: HART Port 5000
Manufacturer: MSA – The Safety Company

Issue 0

Drawing	Sheets	Rev.	Date (Stamp)	Title
10076889	1 of 1	0	24 Aug 20	Printed Circuit Board Assembly, HART Barrier
10076888	1 of 1	1	7 Feb 22	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
SK3098-1458	1 to 5	1	23 Jun 22	HART Port 5000 Approval Drawing
SK3098-1459	1 to 2	1	23 Jun 22	HART Port 5000, Control Drawing



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