



1 **EU-TYPE EXAMINATION CERTIFICATE**

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

3 Certificate Number: **BAS 02ATEX1274X** Issue: **4**

4 Equipment: **Flexidip Portable Gauging Tape Type D-2401-2****

5 Applicant: **MMC International Corporation**

6 Address: **60 Inip Drive
Inwood
Long Island
New York 11096
USA**

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 BS EN 60079-11:2012

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 1G
Ex ia IIC T4 Ga
Ta = -20°C ≤ Ta ≤ +40°C

Signed: Michelle Halliwell

Title: Director of Operations



Project Number 80075420

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SCHEDULE

EU-TYPE EXAMINATION CERTIFICATE

BAS 02ATEX1274X
Issue 4

13 DESCRIPTION OF EQUIPMENT

A Flexidip Portable Gauging Tape Type D-2401-2** is designed to provide ullage, interface and temperature indications for liquids in a tank. Various models provide either all three indications, or combinations of just two out of the three.

It comprises a probe head fitted to the end of a graduated flexible tape wound on drum, so that the probe may be lowered to the required depth in the tank. The tape incorporates two conductors in addition to the graduated tape. Electronic circuits on printed circuit boards are fitted both in the probe and in the centre of the drum, and a liquid crystal display and push buttons are mounted on the drum.

A terminal for connection of an earthed wire is provided on the main unit and the steel tape provides earthed continuity to the probe head.

This certificate covers various model numbers of the form D-2401-2**. The ** signifies combinations of letters which cover the exact combination of temperature, ullage or interface options provided.

Use only battery type:

- Duracell Procell Alkaline-Manganese MN1604 (6LR61)

Sira Variation 1 - This variation introduced the following changes:

- Following appropriate re-assessment to demonstrate compliance with the requirements of the EN 60079 series of standards, the documents previously listed in section 9, EN 50014:1997 (amendments A1 to A2), EN 50020:1994 and EN 50284:1999, were replaced by those currently listed, the markings in section 12 were updated accordingly.
- The removal of battery type options, Kodak Ultralife Lithium Type U9VL and Z -Carbon Type 6F22 or Z -Chloride Type 6F22P.
- The gas group was changed from IIB to IIC.
- A new Condition of Certification/Manufacture was added.
- The Special Conditions for Safe Use were amended.

Sira Variation 2 - This variation introduced the following change:

- The option to use surface mount components on a revised HUB assembly PCB was approved.
- The Special Conditions for Safe Use were amended.

Variation 3 - This variation introduced the following changes:

- Addition of optical indication with associated components.
- Drawing corrections – minimum size of components to 1206.
- Upgrade to the latest standards:
 - Removal of EN 60079-26
 - Amendment to special conditions associated with static generation
 - Copper contented limited on external surface
 - Revised spark assessment due to open circuit voltage increase in table 13 of 60079-0
 - Revision of combination of inductance and capacitance

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EU-TYPE EXAMINATION CERTIFICATE

BAS 02ATEX1274X
Issue 4

14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Refer to Certificate Annexe.

14.2 Associated Reports and Certificate History

| Issue | Date | Report number | Comment |
|-------|-------------------|---------------|---|
| 0 | 30 September 2002 | 02(C)0176 | The release of the prime certificate. |
| 1 | 27 September 2011 | R23626A/00 | This Issue covers the following changes: <ul style="list-style-type: none">All previously issued certification was rationalised into a single certificate, Issue 1, Issue 0 referenced above is only intended to reflect the history of the previous certification and has not been issued as a document in this format.The introduction of Sira Variation 1. |
| 2 | 20 February 2012 | R26910A/00 | The introduction of Sira Variation 2. |
| 3 | 15 October 2019 | 2393 | <ul style="list-style-type: none">Transfer of certificate BAS 02ATEX1274X from Sira Certification Service to CSA Group Netherlands B.V.EC Type-Examination Certificate in accordance with 94/9/EC updated to EU Type-Examination Certificate in accordance with Directive 2014/34/EU. (In accordance with Article 41 of Directive 2014/34/EU, EC Type-Examination Certificates referring to 94/9/EC that were in existence prior to the date of application of 2014/34/EU (20 April 2016) may be referenced as if they were issued in accordance with Directive 2014/34/EU. Variations to such EC Type-Examination Certificates may continue to bear the original certificate number issued prior to 20 April 2016.) |
| 4 | 09 August 2022 | R80075420A | The introduction of Variation 3. |

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

- 15.1 The user's attention is drawn to the fact that there may be a possible hazard created by electrostatic charges that may be held by the liquid being measured, the user shall therefore operate this instrument in accordance with the necessary precautions detailed in CENELEC Technical Report Number CLC/TR 50404, June 2003, Electrostatics - Code of practice for the avoidance of hazards due to static electricity.
- 15.2 The apparatus shall not be subjected to a prolific charge generating mechanism (such as might occur in pneumatic transfer of powders or charge spraying in a powder coating process).

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.

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EU-TYPE EXAMINATION CERTIFICATE

BAS 02ATEX1274X
Issue 4

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.

Project Number 80075420

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Certificate Annexe



Certificate Number: BAS 02ATEX1274X

Equipment: Flexidip Portable Gauging Tape Type D-2401-2**

Applicant: MMC International Corporation

Issue 0

| Drawing no. | Sheets | Rev. | Date | Title |
|-------------|--------|------|-----------|---|
| 71097/878 | 1 of 1 | 3 | 09 Sep 02 | General Assembly |
| 71097/687 | 1 of 1 | 4 | 09 Sep 02 | Hub & Battery Cap Sub-assy, B/D 2401/2U |
| 71097/875 | 1 of 1 | 2 | 30 Jan 01 | Hub & Battery Cap Sub-assy, B/D 2401/2U & B/D 2401/2UT |
| 71097/559 | 1 of 1 | 3 | Nov 94 | Circuit Diagram, Trimode (Ullage/Interface/Temperature) |
| 71097/689 | 1 of 1 | C | 03 Jan 95 | Circuit Diagram, Ullage/Interface |
| 71097/840 | 1 of 1 | B | 02 Jan 95 | Circuit Diagram, Ullage/Temperature |
| 71097/898 | 1 of 1 | 2 | 10 May 96 | Circuit Diagram, 2MHz Probe |
| 71097/884 | 1 of 1 | 2 | 09 Sep 02 | Probe Assembly, Trimode and Ullage/Interface |
| 71097/841 | 1 of 1 | A | 27 Jul 93 | Probe Assembly, Ullage/Temperature |
| 71097/583 | 1 of 1 | 6 | 04 Sep 02 | Label Details, MMC |
| 71097/916 | 1 of 1 | 2 | 29 Aug 02 | Probe and PCB Assembly |

Sira Issue 1

| Drawing no. | Sheets | Rev. | Date (Sira stamp) | Title |
|---------------|--------|------|-------------------|---|
| 71097/878 | 1 of 1 | 3 | 22 Jul 11 | General Assembly Portable Gauging Tapes |
| 71097/559 | 1 of 1 | 4 | 22 Jul 11 | Circuit Diagram, Trimode (Ullage/Interface/Temperature) |
| 71097/689 | 1 of 1 | D | 12 Aug 11 | Combined Ullage and Interface Gauging Tape Circuit Diagram |
| 71097/840 | 1 of 1 | C | 12 Aug 11 | Combination Ullage and Temperature Gauging Tape Circuit Diagram |
| 71097/583/UTI | 1 of 1 | 7 | 22 Jul 11 | Ullage-temperature Interface ATEX Approval Label |
| 71097/583/UT | 1 of 1 | 7 | 22 Jul 11 | Ullage-temperature ATEX Approval Label |
| 71097/583/UI | 1 of 1 | 7 | 22 Jul 11 | Ullage-interface ATEX Approval Label |

Sira Issue 2

| Drawing no. | Sheets | Rev. | Date (Sira stamp) | Title |
|--------------|--------|------|-------------------|--|
| 71097/875/R1 | 1 of 1 | - | 16-Feb-12 | Alternate hub PCB Assy. SMT components |

Issue 3. No new drawings were introduced.

Issue 4

| Drawing | Sheets | Rev. | Date (Stamp) | Title |
|---------------|--------|------|--------------|--|
| 71097/583/UI | 1 of 1 | 8 | 09-Jun-22 | Ullage-temperature interface ATEX approval label |
| 71097/583/UTI | 1 of 1 | 8 | 08-Jun-22 | Ullage-temperature interface ATEX approval label |
| 71097/559 | 1 of 1 | 5 | 16-May-22 | COMBINATION ULLAGE, INTERFACE AND TEMPERATURE GAUGING TAPE CIRCUIT DIAGRAM |
| 71097/689 | 1 of 1 | D | 01-Jul-22 | Combined Ullage and Interface Gauging Tape Circuit Diagram |
| 71097/878 | 1 of 1 | 4 | 01-Jul-22 | General Assembly Portable Gauging Tapes |
| 71097/875 | 1 of 1 | 3 | 26-Jul-22 | Hub & Battery Cap Sub-assy, B/D 2401/2U & B/D 2401/2UT |
| 71097/916 | 1 of 1 | 3 | 26-Jul-22 | Probe and PCB Assembly |

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Certificate Annexe



Certificate Number: BAS 02ATEX1274X

Equipment: Flexidip Portable Gauging Tape Type D-2401-2**

Applicant: MMC International Corporation

The following drawings are removed at this variation.

| Drawing | Sheets | Rev. | Date (Stamp) | Title |
|---------------|--------|------|--------------|--|
| 71097/583/UT | 1 of 1 | 7 | 22 Jul 11 | Ullage-temperature ATEX Approval Label |
| 71097/559/840 | 1 of 1 | B | 02 Jan 95 | Circuit Diagram, Ullage/Temperature |

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