



1 **EU-TYPE EXAMINATION CERTIFICATE**

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

3 Certificate Number: **Sira 15ATEX1190X** Issue: **6**

4 Equipment: **FlowPod**

5 Applicant: **KEM Kueppers Elektromechanik GmbH**

6 Address: **Liebigstraße 5
Karlsfeld
Bavaria 85757
Germany**

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 60079-0:2012/A11:2013 EN 60079-1:2014 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 G D

Ex db IIC T5

Ex tb IIIC 80 °C

Refer to Description of Equipment for ambient temperature.



Signed: M Halliwell

Title: Director of Operations

Project Number 80204376

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SCHEDULE

EU-TYPE EXAMINATION CERTIFICATE

Sira 15ATEX1190X
Issue 6

13 DESCRIPTION OF EQUIPMENT

Direct Mount FlowPod

The FlowPod is used to measure the flow of process liquids with the measurement electronics and display housed in the stainless-steel enclosure body. The sensor assembly is contained in the meter cap which is connected to the enclosure body with a stainless-steel union. The enclosure body is an Ex d certified IME Type 8080SM flameproof enclosure with certification Sira 07ATEX1331U which has two cable entries for the connection of suitably certified cable entry devices, adaptors or blank plugs. The FlowPod meets the ingress protection requirements of IP66/IP68 (2m) and is rated, 12 – 30 V, 2 W maximum.

Direct Mount FlowPod as option with KEM sensor

For use in gas atmospheres, the sensor assembly and the stainless-steel union can be replaced by an Ex d certified "FLOWPOD SENSOR ADAPTOR" by KEM Küppers Elektromechanik GmbH with certification Sira 16ATEX1261U.

Remote Mounting Option

The FlowPod enclosure body can be mounted remotely from the sensor with a junction box fitted in place of the FlowPod enclosure body on the meter cap. The stainless-steel junction box is an Ex d certified IME Type 1080SM flameproof enclosure with certification Sira 09ATEX1023U.

Remote Mounting Option with KEM sensor

The remote mounting option is also possible with the "FLOWPOD SENSOR ADAPTOR" by KEM Küppers Elektromechanik GmbH.

Stand-alone FlowPod Option

The FlowPod enclosure body can also be mounted remotely from the sensor with a cable gland fitted in place of the sensor.

Ambient Temperature

| | |
|--|-----------------------|
| Ambient temperature range for equipment marked with Ex tb: | Ta = -20 °C to +75 °C |
| Extended ambient temperature range for stainless steel FlowPod and junction box marked with Ex db: | Ta = -40 °C to +75 °C |
| Ambient temperature range for aluminium FlowPod marked with Ex db (not subjected to a routine overpressure test): | Ta = -20 °C to +75 °C |
| Extended ambient temperature range for aluminium Flowpod marked with Ex db (subjected to a routine overpressure test): | Ta = -40 °C to +75 °C |

Variation 1 - This variation introduced the following changes:

- i. The introduction of alternative stainless-steel grades for the meter cap.
- ii. The addition of a lock nut to the sensor assembly.
- iii. The recognition of minor, editorial amendments to Drawing K0013-CERT-003-F.

Variation 2 - This variation introduced the following changes:

- i. Change the lower ambient temperature limit from -20 °C to -40 °C for the stainless-steel FlowPod, the junction box and the aluminium FlowPod, subjected to a routine overpressure test, marked with Ex db.



SCHEDULE

EU-TYPE EXAMINATION CERTIFICATE

**Sira 15ATEX1190X
Issue 6**

- ii. Optional combination of the component certified 'KEM Sensor' certified under Sira 16ATEX1261U for the Ex db versions of the equipment, with the subsequent addition of the suffix 'X' to the certificate number.
- iii. Introduce an alternate pcb design for the FlowPod and the junction box.
- iv. The introduction of the direct mount option and junction box made of aluminium as alternative to the stainless-steel options.
- v. Introduce a stand-alone Flowpod option.

Variation 3 - This variation introduced the following change:

- i. Reinstatement of changes which have been introduced under Sira 15ATEX1190X issue 2 (Report R70182181A), which have been omitted under Sira 15ATEX1190 issue 3.

Variation 4 - This variation introduced the following change:

- i. The introduction of an additional manufacturing location:
KEM Küppers Elektromechnik GmbH
Wetzellerstrasse 22
93444 Bad Kötzing
Deutschland

Variation 5 - This variation introduced the following change:

- i. To update the company name and address on the certificate:

| | |
|---|---|
| From: Litre Meter Ltd Hart Hill Barn Granborough Rd North Marston Buckinghamshire MK18 3RZ United Kingdom | To: KEM Kueppers Elektromechnik GmbH Liebigstraße 5 Karlsfeld Bavaria 85757 Germany |
|---|---|

14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Refer to Certificate Annexe.

14.2 Associated Reports and Certificate History

| Issue | Date | Report number | Comment |
|-------|-------------------|---------------|---------------------------------------|
| 0 | 24 July 2015 | R70006282A | The release of the prime certificate. |
| 1 | 23 September 2015 | R70044344A | The introduction of Variation 1. |

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SCHEDULE

EU-TYPE EXAMINATION CERTIFICATE

Sira 15ATEX1190X
Issue 6

| Issue | Date | Report number | Comment |
|-------|------------------|---------------|--|
| 2 | 18 February 2019 | R70182181A | This Issue covers the following changes: <ul style="list-style-type: none">• EC Type-Examination Certificate in accordance with 94/9/EC updated to EU Type-Examination Certificate in accordance with Directive 2014/34/EU. <i>(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.)</i>• The introduction of Variation 2. |
| 3 | 15 October 2019 | 1543 | Transfer of certificate Sira 15ATEX1190 from Sira Certification Service to CSA Group Netherlands B.V. |
| 4 | 26 March 2021 | R80068897A | The introduction of Variation 3. |
| 5 | 22 November 2022 | R80147539A | The introduction of Variation 4. |
| 6 | 28 June 2024 | R80204376A | This Issue covers the following changes: <ul style="list-style-type: none">• The Description of Equipment was amended to retrospectively reinstate the ambient temperature table. Report R80068897A recognises this correction.• The introduction of Variation 5. |

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

- 15.1 The flamepaths of the KEM "FLOWPOD SENSOR ADAPTOR", certified under Sira 16ATEX1261U, shall not be repaired.
- 15.2 CAUTION – USE FASTENERS WITH YIELD STRESS ≥ 450 MPa for models with KEM "FLOWPOD SENSOR ADAPTOR". - This condition shall be considered for the combinations of the FlowPod or junction box with the Flowpod Sensor Adaptor, certified under Sira 16ATEX1261U.
- 15.3 For the Stand-alone FlowPod Option the end-user shall use suitably certified Ex d cable glands, suitable for the operating temperature range of -40 °C to +85 °C to which they may be subjected in service.

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.

Project Number 80204376

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SCHEDULE

EU-TYPE EXAMINATION CERTIFICATE

Sira 15ATEX1190X
Issue 6

- 17.3 The equipment covered by this certificate incorporates previously certified devices; it is therefore the responsibility of the manufacturer to continually monitor the status of the certification associated with these devices, and the manufacturer shall inform CSA of any modifications of the devices that may impinge upon the explosion safety design of the equipment.
- 17.4 The manufacturer shall conduct a routine overpressure test for the FlowPod enclosure manufactured from aluminum together with the sensor cap at a minimum of 32.1 bar according to clause 16 of EN 60079-1, if marked with a minimum ambient temperature of -40°C.

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Certificate Annexe



Certificate Number: Sira 15ATEX1190X

Equipment: FlowPod

Applicant: KEM Kueppers Elektromechnik GmbH

Issue 0

| Drawing | Sheets | Rev. | Date (Sira Stamp) | Title |
|----------------|--------|------|-------------------|-----------------------------|
| K0013-CERT-001 | 1 of 1 | F | 8 Jul 15 | FlowPod General Arrangement |
| K0013-CERT-002 | 1 of 1 | C | 8 Jul 15 | FlowPod Arrangement |
| K0013-CERT-003 | 1 of 1 | E | 8 Jul 15 | FlowPod Union Arrangement |
| K0013-CERT-004 | 1 of 1 | B | 8 Jul 15 | FlowPod Arrangement |
| K0013-CERT-005 | 1 of 1 | C | 8 Jul 15 | Junction Box Mount |
| K0013-CERT-006 | 1 of 1 | A | 8 Jul 15 | Junction Box Mount |

Issue 1

| Drawing | Sheets | Rev. | Date (Sira stamp) | Description |
|------------------|--------|------|-------------------|---------------------------|
| K0013-CERT-003-F | 1 of 1 | F | 26 Aug 15 | FlowPod Union Arrangement |

Issue 2

| Drawing | Sheets | Rev. | Date (Sira stamp) | Title |
|----------------|--------|------|-------------------|-------------------------------------|
| K0013-CERT-001 | 1 of 1 | G | 23 Jan 19 | FlowPod General Arrangement |
| K0013-CERT-002 | 1 of 1 | D | 23 Jan 19 | FlowPod Arrangement |
| K0013-CERT-005 | 1 of 1 | D | 23 Jan 19 | Junction Box Mount |
| K0013-CERT-009 | 1 of 1 | A | 23 Jan 19 | KEM Junction Box Mount |
| K0013-CERT-010 | 1 of 1 | A | 23 Jan 19 | KEM Non EXi FlowPod Arrangement |
| K0013-CERT-011 | 1 of 1 | A | 23 Jan 19 | FlowPod Arrangement |
| K0013-CERT-012 | 1 of 1 | A | 23 Jan 19 | FlowPod Arrangement |
| K0013-CERT-015 | 1 of 1 | A | 23 Jan 19 | PCB Junction Box Mount |
| K0013-MA-016 | 1 of 1 | A | 23 Jan 19 | KEM PCB Junction Box |
| K0013-CERT-017 | 1 of 1 | A | 23 Jan 19 | KEM EXi FlowPod Arrangement |
| K0013-CERT-018 | 1 of 1 | A | 23 Jan 19 | KEM Int Non EXi FlowPod Arrangement |
| K0013-CERT-019 | 1 of 1 | A | 23 Jan 19 | Junction Box Mount |
| K0013-CERT-020 | 1 to 3 | A | 23 Jan 19 | KEM Sensor Thread Arrangement |
| K0013-CERT-021 | 1 of 1 | B | 23 Jan 19 | KEM FlowPod And Junction Box Label |
| K0013-CERT-022 | 1 of 1 | A | 23 Jan 19 | FlowPod Stand Alone |

Issues 3, 4 and 5 - No new drawings were introduced.

Issue 6

| Drawing | Sheets | Rev. | Date (Stamp) | Description |
|------------------------------|--------|------|--------------|---|
| KEM-K0013-CERT-001-G-LM-CERT | 1 of 1 | R01 | 29 May 24 | Certification Flowpod Arrangement |
| KEM-K0013-CERT-021-C | 1 of 1 | - | 29 May 24 | ATEX/IECEx Label for Stainless Steel KEM Flowpod and Junction Box Label General Arrangement |

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