1 **EU-TYPE EXAMINATION CERTIFICATE**

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

3 Certificate Number: **Sira 13ATEX2371X** Issue: **4**

4 Equipment: **Series EX07 Position Sensor**

5 Applicant: **Positek a division of Variohm Eurosensor Ltd.**

6 Address: Hermes House
Andoversford Link
Andoversford
Cheltenham, GL54 4LB
UK

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 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:

Model E

II 1 GD
Ex ia IIC T4 Ga
Ex ia IIIC T135°C Da
Ta = -40°C to 80°C

Model X

II 1 G
Ex ia IIC T4 Ga
Ta = -40°C to 80°C

Model M

II 1 GD
I M1
Ex ia IIC T4 Ga
Ex ia IIIC T135°C Da
Ex ia I Ma
Ta = -40°C to 80°C

Signed: Michelle Halliwell

Title: Director of Operations

PRODUCTS
RvA C 652

Project Number 80192704

SCHEDULE

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13 **DESCRIPTION OF EQUIPMENT**

The Series EX07 Position Sensors comprises of a range of Rotary and Linear inductive position sensors. Each sensor incorporates the Positek EX07 Electronics System, which is used to excite the coils.

The electronic components are mounted on a printed circuit board and the sensing coils are either configured on a printed wiring board or wound onto a former.

The apparatus utilises an enclosure into which the electrical components are located. The enclosure construction varies as follows:

- Model series X and E, metal or plastic and metal enclosure of at least ingress protection level IP20 for Groups II & III; (EPL Ga and Da)
- Model series M, metal enclosure of at least ingress protection level IP54 for Group I; (EPL Ma).

The apparatus is to be powered via a suitably certified isolator. The EX07 has the following entity parameters:

Parameter	Value
Ui	11.4 V
Ii	0.2 A
Pi	0.51 W
Ci without integral cable	1.16 uF
Ci with integral cable (Max. length)	1.36 uF (1000 m)
Li without integral cable	50 uH
Li with integral cable (Max. length)	860 uH (1000 m)

Variation 1 - This variation introduced the following changes:

i. The certificate holder and manufacturer's name was changed:

From:	To:
Positek Limited	Positek a division of Variohm Eurosensor Ltd.

ii. The body responsible for quality was changed from 0518 to 2813 as shown on the label drawings

Variation 2 - This variation introduced the following changes:

i. Update nameplate drawing LB24-10 to add UKCA certificate information.
ii. Following appropriate assessment to demonstrate compliance with the latest technical knowledge, EN 60079-0:2012/A11:2013 was replaced by EN IEC 60079-0:2018.

Variation 3 - This variation introduced the following change:

i. Change of Applicants additional manufacturing location name and address as follows:

From	To
Positek a Division of Variohm Eurosensor Ltd, L6 Andoversford link Andoversford Industrial estate Andoversford, Cheltenham Gloucester, GL54 4LB	Positek a Division of Variohm Eurosensor Ltd Hermes House Andoversford Link Andoversford Cheltenham, GL54 4LB

SCHEDULE

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14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Refer to Certificate Annexe.

14.2 Associated Reports and Certificate History

Issue	Date	Report number	Comment
0	04 April 2014	R31630A/00	The release of the prime certificate.
1	15 October 2019	1917	• Transfer of certificate Sira 13ATEX2371X 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.)*
2	19 October 2021	R80096394A	The introduction of Variation 1.
3	30 March 2022	R80104400B	The introduction of Variation 2.
4	12 January 2024	R80192704A	The introduction of Variation 3.

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

15.1 The apparatus does not meet the 500 V r.m.s dielectric strength test between circuit and frame, in accordance with clause 6.3.13 of IEC 60079-11:2011. This must be taken into consideration on installation.

15.2 When using a Sensor that has an integral cable in a dust application, the free end of the cable shall be appropriately terminated for the zone of use.

15.3 Maximum permitted cable parameters:

- Capacitance ≤200pF/m;
- Inductance ≤0.81µH/m;
- Length ≤1000m.

15.4 Under certain extreme circumstances, the non-metallic and isolated metal parts incorporated in the enclosure of this equipment may generate an ignition-capable level of electrostatic charge. Therefore the equipment shall not be installed in a location where the external conditions are conducive to the build-up of electrostatic charge on such surfaces. This is particularly important if the equipment is installed in a zone 0 location. In addition, the equipment shall only be cleaned with a damp cloth.

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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.

Certificate Annexe

Certificate Number: **Sira 13ATEX2371X**

Equipment: **Series EX07 Position Sensor**

Applicant: **Positek a division of Variohm Eurosensor Ltd.**

Issue 0

Drawing	Sheets	Rev.	Date (Stamp)	Title
EX02-59B	1 of 1	B	17-Dec-13	Sensor board plus external feed-through capacitors (Circuit diagram)
LB24-10a	1 of 1	A	25-Mar-14	Product label for intrinsically safe sensors Gas/dust/mining (Label drawing)
M000-03a	1 to 8	A	17-Dec-13	Typical construction details for M series sensors (Mining)
EX07-20B	1 to 4	B	07-Mar-14	System Parts List For Intrinsically Safe Products

Issue 1 - No new drawings were introduced.

Issue 2

Drawing	Sheets	Rev.	Date (Stamp)	Title
LB24-10c	1 of 1	C	07 Sep 21	Labels for IS Sensors Gas, Dust & Mining

Issue 3

Drawing	Sheets	Rev.	Date (Stamp)	Title
LB24-10	1 of 1	D	21 Jan 22	Labels for IS Sensors Gas, Dust & Mining

Issue 4. No new drawings were introduced.