



UNITED KINGDOM CONFORMITY ASSESSMENT

1 **UK TYPE EXAMINATION CERTIFICATE**

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

3 Certificate Number: **CSAE 21UKEX2537X** Issue: **1**

4 Product: **Series EX07 Position Sensor**

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

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

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 EN 60079-11:2012

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:

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

Name: Michelle Halliwell

Title: Director of Operations

Certificate No. CSAE 21UKEX2537X

CSA Group Testing UK Ltd., Unit 6 Hawarden Industrial Park, Hawarden, CH5 3US, UK

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SCHEDULE

UK TYPE EXAMINATION CERTIFICATE

CSAE 21UKEX2537X
Issue 1

13 DESCRIPTION OF PRODUCT

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 change:

- 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

14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Refer to Certificate Annexe.

14.2 Associated Reports and Certificate History

Issue	Date	Report number	Comment
0	06 April 2022	R80092441A	The release of the prime certificate.
1	12 January 2024	R80192704A	The introduction of Variation 1.

SCHEDULE

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Issue 1

- 15 **SPECIFIC CONDITIONS OF USE** (denoted by X after the certificate number)
- 15.1 The apparatus does not meet the 500V r.m.s dielectric strength test between circuit and frame, in accordance with clause 6.3.13 of EN 60079-11:2012. 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 $\leq 200\text{pF/m}$;
 - Inductance $\leq 0.81\mu\text{H/m}$;
 - Length $\leq 1000\text{m}$.
- 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.
- 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



Certificate Annexe

Certificate Number: CSAE 21UKEX2537X
Product: Series EX07 Position Sensor
Manufacturer: 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)
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
LB24-10	1 of 1	D	21 Jan 22	Labels for IS Sensors Gas, Dust & Mining

Issue 1. No new drawings were introduced.

