



1 **EU-TYPE EXAMINATION CERTIFICATE**

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

3 Certificate Number: **Sira 13ATEX2371X** Issue: **1**

4 Equipment: **Series EX07 Position Sensor**

5 Applicant: **Positek Ltd.**

6 Address: L6 Andoversford link  
Andoversford Industrial estate  
Andoversford Cheltenham  
Gloucester GL54 4LB

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 60079-11:2012

EN 60079-26:2007

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

Project Number 1917

Signed:

Title: Director of Operations

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**CSA Group Netherlands B.V.**  
Utrechtseweg 310,  
6812 AR, Arnhem,  
Netherlands



## SCHEDULE

### EU-TYPE EXAMINATION CERTIFICATE

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Issue 1

#### 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;
- Model series M, metal enclosure of at least ingress protection level IP54 for Group I.

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)

#### 14 DESCRIPTIVE DOCUMENTS

##### 14.1 Drawings

Refer to Certificate Annexe.

##### 14.2 Associated Sira Reports and Certificate History

Issue	Date	Report no.	Comment
0	04 <sup>th</sup> April 2014	R31630A/00	The release of the prime certificate.
1	15th October 2019	1917	<ul style="list-style-type: none"> <li>• Transfer of certificate <b>Sira 13ATEX2371X</b> from Sira Certification Service to CSA Group Netherlands B.V..</li> <li>• 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></li> </ul>



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- 15 **SPECIAL CONDITIONS FOR SAFE 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  $\leq 200\text{pF/m}$ ;
  - 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 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.

# Certificate Annexe



**Certificate Number:** Sira 13ATEX2371X  
**Equipment:** Series EX07 Position Sensor  
**Applicant:** Positek Ltd

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## Issue 0

Drawing	Sheets	Rev.	Date (Sira 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

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