IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.:	IECEx SIR 13.0154X issue No.:0	Certificate history:
Status:	**Current**	
Date of Issue:	**2014-04-16**	Page 1 of 4

Applicant:

Positek Ltd
L6 Andoversford link
Andoversford Industrial estate
Andoversford
Cheltenham
Gloucester GL54 4LB
United Kingdom

Electrical Apparatus: **Series EX07 Position Sensor.**
Optional accessory:

Type of Protection: **Intrinsically Safe**

Marking:

Model E	**Model X**	**Model M**
Ex ia IIC T4 Ga Ex ia IIIC T135°C Da Ta = -40°C to 80°C	Ex ia IIC T4 Ga Ta = -40°C to 80°C	Ex ia IIC T4 Ga Ex ia IIIC T135°C Da Ex ia I Ma Ta = -40°C to 80°C

Approved for issue on behalf of the IECEx Certification Body: C Ellaby

Position: Deputy Certification Manager

Signature:
(for printed version)

Date: 2014-04-16

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the Official IECEx Website.

Certificate issued by:

SIRA Certification Service
Rake Lane
Eccleston
Chester
CH4 9JN
United Kingdom

sira CERTIFICATION

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Date of Issue: **2014-04-16** Issue No.: **0**

Manufacturer: **Positek Ltd**
L6 Andoversford link
Andoversford Industrial estate
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Cheltenham
Gloucester GL54 4LB
United Kingdom

Additional Manufacturing location (s):

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

STANDARDS:
The electrical apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

IEC 60079-0 : 2011 Edition: 6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-11 : 2011 Edition: 6.0	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
IEC 60079-26 : 2006 Edition: 2	Explosive atmospheres - Part 26: Equipment with equipment protection level (EPL) Ga

*This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

TEST & ASSESSMENT REPORTS:
A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in

Test Report:
GB/SIR/ExTR14.0091/00

Quality Assessment Report:

GB/SIR/QAR10.0029/01

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Schedule

EQUIPMENT:
Equipment and systems covered by this certificate are as follows:

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 EPL Ga and Da
- Model series M, metal enclosure of at least ingress protection level IP54 for EPL Ma

The apparatus is to be powered via a suitably-certified isolator.
Refer to Equipment (Continued) for Safety Parameters

CONDITIONS OF CERTIFICATION: YES as shown below:

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 IEC 60079-11:2011. This must be taken into consideration on installation.
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.
3. Maximum permitted cable parameters:
   - Capacitance ≤200 pF/m.
   - Inductance ≤0.81 µH/m.
   - Length ≤1000 m.
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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EQUIPMENT(continued):

The EX07 has the following entity parameters:

Parameter	
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)