



1 **EC TYPE-EXAMINATION CERTIFICATE**

2 Equipment intended for use in Potentially Explosive Atmospheres Directive 94/9/EC

3 Certificate Number: **Sira 10ATEX2204** Issue: **1**

4 Equipment: **An X005 3-Port Galvanic Isolation Amplifier**

5 Applicant: **Positek Limited**

6 Address: **L6 The Link  
Andoversford Industrial Estate  
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 Sira Certification Service, notified body number 0518 in accordance with Article 9 of Directive 94/9/EC of 23 March 1994, 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 60079-0:2006 EN 60079-11:2007  
EN 60079-0:2009 and EN60079-26:2007 were used for guidance with marking

10 If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.

11 This EC 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:



I (M1)  
[Ex ia Ma] I  
Ta = -20°C ≤ Ta ≤ +60°C



II (1)GD  
[Ex ia Ga Da] IIC  
Ta = -20°C ≤ Ta ≤ +60°C

Project Number 21492  
C. Index 11

C Ellaby  
Deputy Certification Manager

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**SCHEDULE**

**EC TYPE-EXAMINATION CERTIFICATE**

Sira 10ATEX2204  
Issue 1

**13 DESCRIPTION OF EQUIPMENT**

An X005 3-Port Galvanic Isolation Amplifier is designed to restrict the transfer of energy, from unspecified safe area equipment to intrinsically safe circuits, by the limitation of voltage and current. The unit comprises a single printed circuit board housed in a plastic enclosure which may be clipped to a DIN rail. Hazardous and safe area connections are made via two sets of two three-way terminal connectors on the top of the unit. The printed circuit board contains isolating transformers, fuses, zener diodes and current limiting resistors together with other electronic components.

The circuit connected to the safe area terminals V+ & 0V is designed to operate from a d.c. supply voltage of up to 35V. Outputs O/P+ and O/P- are designed to drive a nominal 0 to 10 Volts or 4 to 20mA load.

Terminal J3:1, J3:3, J4:1 and J4:3	Terminals J1:2, J1:3, J2:2, J2:1, J1:1
Um = 253 V	Uo = 10.66 V Io = 50.5 mA Po = 121 mW Ci = 0 Li = 0

**14 DESCRIPTIVE DOCUMENTS**

**14.1 Drawings**

Refer to Certificate Annexe.

**14.2 Associated Sira Reports and Certificate History**

Issue	Date	Report no.	Comment
0	21 September 2010	R21492A/00	The release of the prime certificate.
1	20 December 2011	R21492A/01	Issued to allow Sira R21492A/01 to replace Sira R21492A/00

**15 SPECIAL CONDITIONS FOR SAFE USE (denoted by X after the certificate number)**

None

**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 CERTIFICATION**

17.1 The use of this certificate is subject to the Regulations Applicable to Holders of Sira Certificates.

17.2 Holders of EC type-examination certificates are required to comply with the production control requirements defined in Article 8 of directive 94/9/EC.

# Certificate Annexe

Certificate Number: Sira 10ATEX2204  
Equipment: An X005 3-Port Galvanic Isolation Amplifier  
Applicant: Positek Limited



## Issue 0

Drawing	Sheets	Rev.	Date (Sira stamp)	Title
EX05-59	1 of 2	A	16 Sep 10	Galvanic Isolation Barrier – Input Power
EX05-59	2 of 2	A	16 Sep 10	Galvanic Isolation Barrier – Input/Output Power
X005-20	1 to 6	G	16 Sep 10	Galvanic Isolation Barrier – Parts List
TR01-10	1 & 2	C	16 Sep 10	TR01 Specification
TR02-10	1 & 2	C	16 Sep 10	TR02 Specification
X005-13	1 of 1	A	16 Sep 10	Connector Coding
X005-12	1 of 1	B	16 Sep 10	Case Artwork

## Issue 1

Drawing	Sheets	Rev.	Date (Sira stamp)	Title
X005-12	1 of 1	C	20 Dec 11	Case Artwork

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