1 **EC TYPE-EXAMINATION CERTIFICATE**

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

3 Certificate Number: **Sira 02ATEX2123X** Issue: **4**

4 Equipment: **I/P Converter Type 122**

5 Applicant: **Norgren Ltd. (Watson Smith Instrumentation)**

6 Address: Cross Chancellor St
Leeds LS6 2RT
England

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 60079-26:2007
EN 60079-0:2009 (used for guidance in respect of 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:

II 1G
Ex ia IIC T4 Ga Ta = (-40°C to +80°C) (P_i = 1.1 W)
Ex ia IIC T6 Ga Ta = (-40°C to +55°C) (P_i = 0.33 W)

Project Number 28837

C Ellaby
Deputy Certification Manager

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13 **DESCRIPTION OF EQUIPMENT**

The 122 I/P Converter comprises a single printed circuit board mounted on an electro-magnetic coil assembly. A five-sided cover fits over the end of the assembly. A two-way connector is fitted to the circuit board for external connections. As an alternative to the two-way connector, the apparatus is fitted with a flying lead. The whole assembly is then mounted into a loosely-specified enclosure by the end-user.

The I/P Converter has two safety descriptions:

	Temperature class T4	**Temperature class T6**
U_i	30 V	30 V
I_i	110 mA	110 mA
P_i	1.1 W	0.33 W
C_i	0	0
L_i	0	0

Variation 1 - This variation introduced the following change:

i. The company name was approved to be changed from IMI Watson Smith Ltd to IMI Norgren Ltd. (Watson Smith Instrumentation).

Variation 2 - This variation introduced the following changes:

i. Following appropriate re-assessment to demonstrate compliance with the requirements of the EN 60079 series of standards, the documents previously listed in section 9, EN 50014:1997, EN 50020:2002 and EN 50284:1999, were replaced by those currently listed, the markings in section 12 were updated accordingly and the Special Conditions For Safe Use were amended to recognise the new standards

Variation 3 - This variation introduced the following change:

i. The use of an alternative connection arrangement was approved.

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14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Refer to Certificate Annexe.

14.2 Associated Sira Reports and Certificate History

Issue	Date	Report no.	Comment
0	6 November 2002	R52A8700A	The release of prime certificate.
1	22 July 2004	R52V12213A	Re-issued to implement the changes detailed in report number R52V12213A
2	17 November 2005	52A13789A	The introduction of Variation 1.
3	4 January 2012	R20589A/00	This Issue covers the following changes: • All previously issued certification was rationalised into a single certificate, Issue 3, Issues 0 to 2 referenced above are only intended to reflect the history of the previous certification and have not been issued as documents in this format. • The introduction of Variation 2.
4	30 November 2012	R28837A/00	The introduction of Variation 3.

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

15.1 The I/P Converter Type 122 shall be installed in separate enclosure that provides a minimum degree of protection of IP54. When the separate enclosure is made from light metal it could cause ignition due to impact. This shall be taken into consideration when the apparatus is installed in locations that specifically require Equipment Protection Level Ga. When the separate enclosure is made from plastic material it could cause ignition due to a build up of electrostatic. This must be taken into consideration when the apparatus is installed in locations that specifically require Equipment Protection Level Ga.

15.2 When installed, the electrical apparatus in the hazardous area must be capable of withstanding a test of 500 Vrms to earth or frame for 1 minute in accordance with clause 6.3.12 of EN 60079-11:2007.

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.

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Certificate Annexe

Certificate Number: **Sira 02ATEX2123X**

Equipment: **I/P Converter Type 122**

Applicant: **Applicant**

Issue 0 and 1

Drawing	Sheet	Rev.	Date	Title
94-140	1 of 1	I	25 Sep 02	Type 122 I/P I.S Electrical Details
96-062	1 of 1	A	11 Apr 96	Type 120 I.S. Coil Detail
96-078	1 of 1	A	25 Apr 96	Type 120 CENELEC I.S. Optional Base Details
96-079	1 of 1	B	27 Feb 02	Type 120 Module I.S. Mechanical Detail (Sira)
96-105	1 of 1	C	27 Sep 02	Type 122 Watson Smith I.S. Label (Certification – Sira)
96-186	1 of 1	B	25 Sep 02	Type E5-IS (PMV) alternative terminal connections

Issue 2 (No new drawings were introduced.)

Issue 3

Drawing	Sheets	Rev.	Date (Sira Stamp)	Title
96-078	1 of 1	b	07 Dec 11	Type 120 CENELEC I.S. Optional Base Details
96-079	1 of 1	c	07 Dec 11	Type 120 Module I.S. Mechanical Details (Sira)
96-105	1 of 1	e	04 Jan 12	Type 122 Watson Smith I.S Label (Sira)

Issue 4

Drawing	Sheets	Rev.	Date (Sira stamp)	Title
96-079	1 of 1	d	29 Nov 12	Type 120 Module I.S. Mechanical Details (Sira)

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