



1 **EC TYPE-EXAMINATION CERTIFICATE**

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

3 Certificate Number: **Sira 02ATEX1122** Issue: **6**

4 Equipment: **I/P Converter Types 122 and 122E**

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 60079-0:2009                      EN 60079-1:2007                      IEC 60079-31:2008 Ed 1

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 2GD

Ex d IIC T6 Gb     $T_a = -40^{\circ}\text{C to } +55^{\circ}\text{C}$

Ex d IIC T5 Gb     $T_a = -40^{\circ}\text{C to } +70^{\circ}\text{C}$

Ex d IIC T4 Gb     $T_a = -40^{\circ}\text{C to } +85^{\circ}\text{C}$

Ex t IIIC T90°C Db     $T_a = -40^{\circ}\text{C to } +55^{\circ}\text{C}$

Project Number    20589

C Ellaby  
Deputy Certification Manager

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## SCHEDULE

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#### 13 DESCRIPTION OF EQUIPMENT

The 122 I/P converter is mounted in a machined aluminium or stainless steel housing consisting of a main body with an M60 or M68 threaded lid. One M20 or ½" NPT threaded cable entry point is provided. Three sinters are mounted in the enclosure by means of an interference fit. One sinter is fitted to the inside of the enclosure and therefore mechanical backup is provided by the enclosure wall itself.

Electrically, the I/P converter comprises a printed circuit board connected to a coil, which is capable of limited movement within the confines of a permanent magnet. The maximum input power is 0.8 W.

**Variation 1** - This variation introduced the following change:

- i. The introduction of the Type 122E model that incorporates the following changes were approved:
  - A new enclosure design.
  - The metal baffle is replaced with a plastic baffle.
  - The layout of the marking on the label has been modified.

**Variation 2** - This variation introduced the following change:

- i. A change in type designation of the equipment marketed by Watson Smith from Type 122 to Type 122E for builds housed in a flameproof enclosure (triple-certified builds); the Type 122 designation will be retained for builds that are not housed in a flameproof enclosure was endorsed.

**Variation 3** - This variation introduced the following changes:

- i. A reduction in the wall thickness of the Type 122E batch castings from 3.9 mm minimum to 2.45 mm minimum was accepted, in consequence, the stainless steel option has been removed from this casting.
- ii. The company name change was recognised to be changed from IMI Watson Smith Ltd. to IMI Norgren Ltd. (Watson Smith Instrumentation).
- iii. The recognition of minor amendments of the product certification labels were approved

**Variation 4** - This variation introduced the following changes:

- i. Following appropriate re-assessment to demonstrate compliance with the requirements of later standards, the documents previously listed in section 9, EN 50014:1997 and EN 50018:2000, were replaced by those currently listed, the markings in section 12 were updated accordingly.
- ii. The company name change was recognised to be changed from IMI Watson Smith Ltd. to Norgren Ltd. (Watson Smith Instrumentation).
- iii. The recognition of a new threadform, the description being modified accordingly.

#### 14 DESCRIPTIVE DOCUMENTS

##### 14.1 Drawings

Refer to Certificate Annexe.

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#### 14.2 Associated Sira Reports and Certificate History

Issue	Date	Report/File no.	Comment
0	6 November 2002	R52A8700A	The release of prime certificate.
1	31 March 2003	R52A10016A	The introduction of Variation 1.
2	6 June 2003	52V9894	The introduction of Variation 2.
3	17 November 2003	R52A8700A	Issued to include the lower ambient temperature
4	22 July 2004	R52V12213A	Issued 22 July 2004 to encompass the changes detailed in report number R52V12213A Variations 1 and 2 listed above were also re-issued at this time.
5	17 November 2005	52A13789A	The introduction of Variation 3
6	12 January 2012	R20589E/00	This Issue covers the following changes: <ul style="list-style-type: none"><li>All previously issued certification was rationalised into a single certificate, Issue 6, Issues 0 to 5 referenced above are only intended to reflect the history of the previous certification and have not been issued as documents in this format.</li><li>The introduction of Variation 4</li></ul>

#### 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 02ATEX1122  
 Equipment: I/P Converter Types 122 and 122E  
 Applicant: Norgren Ltd. (Watson Smith Instrumentation)



## Issues 0, 3 and 4

Drawing	Sheet	Rev.	Date	Title
96-230	1 of 1	F	25 Sep 02	M001 (Masoneilan) enclosure machining [aluminium]
96-225	1 of 1	G	25 Sep 02	M001 (Masoneilan) enclosure casting [aluminium]
96-227	1 of 1	G	25 Sep 02	M001 (Masoneilan) enclosure general details [aluminium]
97-137	1 of 1	C	25 Sep 02	M001 (Masoneilan) cap casting details [aluminium]
2000-042	1 of 1	B	25 Sep 02	P001(PMV) enclosure machining
2000-044	1 of 1	A	02 May 00	P001(PMV) cap machining
2000-058	1 of 1	A	07 Jul 00	P001 (PMV) General Details
2001-067	1 of 1	C	17 Oct 01	M001 (Masoneilan) cap casting details [s/steel]
2001-068	1 of 1	B	17 Oct 01	M001 (Masoneilan) cap casting details [s/steel]
2001-069	1 of 1	D	17 Oct 01	M001 (Masoneilan) enclosure machining [s/steel]

## Issue 1

Number	Sheet	Rev.	Date	Description
2003-015	1 of 1	A	21 Feb 03	Type 12E (STI) Explosion Proof General Details
2003-016	1 of 1	A	21 Feb 03	Type 12E (STI) Explosion Proof Housing Detail Certification Drawing
2003-017	1 of 1	A	21 Feb 03	Type 12E (STI) Explosion Proof Lid Certification Drawing
2003-018	1 of 1	A	21 Feb 03	Certification label

## Issue 2

Number	Sheet	Rev.	Date	Description
2003-002	1 of 1	B	06 Feb 03	Type 122 Triple Certification Label (Certification – Sira)

## Issue 5

Number	Sheet	Rev.	Date	Description
2005-090	1 of 1	A	04 Aug 05	Type 122E Flame-proof Body Casting Detail (Certification)
2003-002	1 of 1	C	23 May 05	Type 122 Triple Certification Label (Certification – Sira)
2003-018	1 of 1	B	23 May 05	Type 122E ATEX Only Certification Label

## Issue 6

Drawing	Sheets	Rev.	Date (Sira stamp)	Title
96-227	1 of 1	h	07 Dec 11	Type 122E General Details
97-137	1 of 1	d	07 Dec 11	Type 122E Flameproof Cap
2000-042	1 of 1	d	12 Jan 12	Type E5-Ex MKII Explosion Proof Housing
96-230	1 of 1	h	12 Jan 12	Type 122E Flameproof Body Machining
2000-058	1 of 1	b	07 Dec 11	P001 E5-Ex Explosion Proof Details
2000-044	1 of 1	b	07 Dec 11	P001 E5-Ex MKII Explosion Proof Lid
2001-067	1 of 1	d	07 Dec 11	Type 122E (M001) Flameproof Casting Detail
2001-068	1 of 1	c	07 Dec 11	Type 122E M001 Cap Flameproof Cert
2001-069	1 of 1	f	12 Jan 12	Type 122E M001 Flameproof Body Machining Cert
2003-016	1 of 1	c	12 Jan 12	Type 122E (STI) Explosion Proof Housing
2003-015	1 of 1	b	07 Dec 11	Type 122E (STI) Explosion Proof General Details
2003-017	1 of 1	b	07 Dec 11	Type 122E (STI) Explosion Proof Lid
96-225	1 of 1	h	07 Dec 11	Type 122E Flameproof Body Casting Detail
2003-002	1 of 1	e	04 Jan 12	Type 122E Triple Certification Label
2003-018	1 of 1	d	04 Jan 12	Type 112E ATEX Only Certification Label

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## Sira Certification Service

Rake Lane, Eccleston, Chester, CH4 9JN, England

Tel: +44 (0) 1244 670900  
 Fax: +44 (0) 1244 681330  
 Email: [info@siracertification.com](mailto:info@siracertification.com)  
 Web: [www.siracertification.com](http://www.siracertification.com)