

1 **EC TYPE-EXAMINATION CERTIFICATE**

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

3 Certificate Number: **Sira 08ATEX1266X** Issue: **1**

4 Equipment: **Valve Position Monitor**

5 Applicant: **Intex Controls Limited**

6 Address: Unit 5A
Valley Industries
Hadlow Road
Tonbridge
Kent TN11 0AH
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 60079-1:2007 EN 61241-0:2006 EN 61241-1:2004
IEC 60079-0:2007 (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:

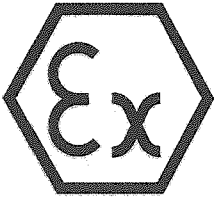


II 2 G D
Ex d IIC T* Gb
Ex tb IIIC T*°C Db IP6X
(Tamb -*°C to +*°C)
* Refer to Description of Equipment for specific marking

Project Number 51A20477
C. Index 22

C. Ellaby
Certification Officer

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SCHEDULE

EC TYPE-EXAMINATION CERTIFICATE

**Sira 08ATEX1266X
Issue 1**

13 DESCRIPTION OF EQUIPMENT

The IQxx Series Valve Position Indicator is constructed from cast stainless steel and consists of a main enclosure base and threaded lid cover, providing a flameproof threaded joint. The cover is secured in place by an M4 x 0.7 set screw through the base flange. The base has provision for up to three cable entries that are used with suitably certified cable glands allowing the equipment to be connected to an external electrical power source. Unused cable entries are closed off with suitably certified, blanking devices. A drive shaft passing through the base creates a flameproof cylindrical joint. The drive shaft, which rotates intermittently at less than 1 m/s through a maximum of 180°, operates various internal switch configurations. The drive shaft also operates a polycarbonate visual position indicator, which is secured externally to the under side of the base and shows the status of the valve.

Product Nomenclature IQ-a-b-c-d-e-f	
a)	Alternative internal switches
b)	Enclosure material
c)	Entry thread types
d)	Output drive shaft type
e)	Indicator
f)	Feature

Equipment markings and electrical ratings					
Type	Marking for gas	Marking for dust	Ambient temp. range	Max. power dissipation	Cable entry temp. rise
Monitor with tall cover	Ex d IIC T6 Gb	Ex tb IIIC T85°C Db IP6X	Ta -40°C to +40°C	18.63 W	25.8°C
	Ex d IIC T6 Gb	Ex tb IIIC T85°C Db IP6X	Ta -40°C to +60°C	8.13 W	12.8°C
	Ex d IIC T4 Gb	Ex tb IIIC T135°C Db IP6X	Ta -15°C to +80°C	24.45 W	32.2°C
Monitor with short cover	Ex d IIC T6 Gb	Ex tb IIIC T85°C Db IP6X	Ta -40°C to +40°C	12.42 W	25.5°C
	Ex d IIC T6 Gb	Ex tb IIIC T85°C Db IP6X	Ta -40°C to +60°C	6.12 W	12.7°C
	Ex d IIC T4 Gb	Ex tb IIIC T135°C Db IP6X	Ta -15°C to +80°C	15.22 W	30.7°C

Variation 1 - This variation introduced the following changes:

- i. The introduction of 6 alternative VCT module options to the interior of the valve position monitor.

14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Refer to Certificate Annexe.

14.2 Associated Sira Reports and Certificate History

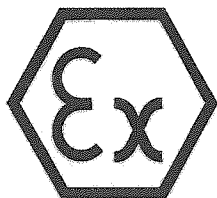
Issue	Date	Report No.	Comment
0	24 February 2009	R51L18616B	The release of the prime certificate.
1	26 August 2009	R51A20477A	The introduction of Variation 1, and the inclusion of clause 17.4 applied in Report R51L18616B

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Sira Certification Service

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SCHEDULE

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Sira 08ATEX1266X
Issue 1

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

- 15.1 The maximum constructional gap (i_c) is less than that required by Table 2 of EN 60079-1:2007 clause 5.2.2 as detailed below:

Flamepath	Maximum Gap (mm)	Comment
Push rod and main body	0.1	Cylindrical spigot joint

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.
- 17.3 The label shall bear the marking for gas, marking for dust and ambient temperature range that are specific to the particular maximum power dissipation and cable entry temperature rise that are marked on the product, as defined in the table in the Description of Equipment.
- 17.4 The equipment can only be marked suitable for a temperature class T4 Ta = -40° to +80°C when fitted with the viton seals specified on the manufacturer's drawings.

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Certificate Annexe

Certificate Number: Sira 08ATEX1266X
Equipment: Valve Position Monitor
Applicant: Imtex Controls Limited



Issue 0

Drawing No.	Sheets	Rev.	Date	Description
A160147	1 of 1	E	18 Feb 09	Name plate
A190180	1 of 1	D	11 Dec 08	Design option/product nomenclature
C110130	1 of 1	B	27 Nov 08	Enclosure low cover
C110131	1 of 1	B	27 Nov 08	Enclosure high cover
C100150	1 of 1	C	04 Dec 08	Enclosure body
J100306	1 of 1	D	05 Dec 08	Shaft assembly
J100310	1 of 1	-	28 Sep 08	Typical internal clearances – short housing
J100311	1 of 1	-	29 Sep 08	Typical internal clearances – tall housing
J100305	1 of 1	B	27 Nov 08	General arrangement detail drawing
J100309	1 of 1	A	27 Nov 08	Free volume enclosure calculation drawings
407003	1 of 1	C	08 Dec 08	Shaft O-ring drawing
A170027	1 of 1	C	08 Dec 08	Shaft O-ring drawing
A170026	1 of 1	C	08 Dec 08	Housing O-ring drawing
407001	1 of 1	C	08 Dec 08	Housing O-ring drawing
A100353	1 of 1	-	22 Sep 08	External earth clamp

Issue 1

Drawing	Sheets	Rev.	Date	Description
J100323	1 of 1	-	1 Jun 09	VCT Module General Arrangement
A190180-X	1 of 1	E	1 Jun 09	Design Options/Product Nomenclature

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