



1 **EC TYPE-EXAMINATION CERTIFICATE**

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

3 Certificate Number: Sira 02ATEX1018

4 Equipment: DXE Series Shaft Encoders

5 Applicant: Hohner Automation Limited

6 Address: Units 14-16
Whitegate Industrial Estate
Wrexham
LL13 8UG
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 confidential report number R51A8336A.

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 50014:1997 (amendments A1 & A2)

EN 50018:2000

EN 50281-1-1:1998

EN 13463-1:2001

prEN 13463-5:2001

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 2GDc
EEx d IIC T6 Ta -20°C to +60°C



I M2c
EEx d I Ta -20°C to +60°C

Project Number 51V9476
Date 9 July 2002
Re-issued 25 September 2002
Re-issued 05 January 2004
C. Index 12

D R Stubbings BA MIEE
Certification Manager

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SCHEDULE

EC TYPE-EXAMINATION CERTIFICATE

Sira 02ATEX1018

Re-issued 25 September 2002 To permit report number R51A8336B to replace R51A8336A.

Re-issued 05 January 2004 To include EN 13463-1 in section 9 and correct marking. Revised label drawing.

13 DESCRIPTION OF EQUIPMENT

The DXE Series Shaft Encoder is used to indicate shaft angle movement from an arbitrary datum. It operates on the Moiré fringe principle using a light source and radially graduated discs to produce two square-wave outputs. The phase difference between the two series pulses indicates the direction of shaft rotation and a marker pulse indicates complete revolutions of the shaft.

The DXE Series Shaft Encoder is constructed from stainless steel or aluminium and has the following three flamepaths:

- A thread cable entry in the lid
- A rotating joint between the body and shaft
- A spigot joint between the lid and body

14 DESCRIPTIVE DOCUMENTS

14.1	Drawing No.	Sheet	Rev.	Date	Title
	DXEASSY-XXX-03	1 of 8	-	27 May 02	DXE Assembly Drawing
	BDDXE-XXX-03	2 of 8	-	08 Feb 02	DXE Body
	SHDXE-XXX-03	3 of 8	-	08 Feb 02	DXE Shaft
	LDDXE-AXIAL-04	4 of 8	-	23 Mar 02	DXE Axial Lid 1
	LDDXE-AXIAL 2-03	5 of 8	-	08 Feb 02	DXE Axial Lid 2
	LDDXE-RAD-03	6 of 8	-	08 Feb 02	DXE Radial Lid
	LDDXE-RAD2-03	7 of 8	-	08 Feb 02	DXE Radial Lid 2
	DXE-LB-02	8 of 13	-	05 Jan 03	Certification Label for DXE Encoder

14.2 Report No. R51A8336A

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 Report No. R51A8336A.

17 CONDITIONS OF CERTIFICATION

17.1 The use of this certificate is subject to the Regulations Applicable to Holders of SCS 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 cable entry thread shall conform to the requirements of clause 5.3 of EN 50018:2000.

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