



IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: **IECEX SIR 09.0129** issue No.:1
Status: **Current**
Date of Issue: **2010-06-09** Page 1 of 4

Certificate history:
Issue No. 1 (2010-6-9)
Issue No. 0 (2010-2-17)

Applicant: **Hohner Automation Limited**
Units 14-16
Whitegate Industrial Estate
Wrexham LL13 8UG
United Kingdom

Electrical Apparatus: **DXE Series Shaft Encoders**
Optional accessory:

Type of Protection: **Flameproof, Dust and Increased Safety,**

Marking: **Ex d IIC Gb T6**
Ex d I Mb
Ex tb IIIC Db T85°C IP6X
(Ta - 40°C to +60°C) - DLXX-XXXX-XXXX
(Ta - 20°C to +60°C) - DEXX-XXXX-XXXX
Ex d e IIC Gb T6
Ex d e I Mb
Ex tb IIIC Db T85°C IP6X
(Ta - 40°C to +60°C) - TLXX-XXXX-XXXX
(Ta - 20°C to +60°C) - TEXX-XXXX-XXXX

Approved for issue on behalf of the IECEx Certification Body: **D R Stubbings BA MIET**

Position: **Certification Manager**

Signature:
(for printed version)

Date:

2010-06-09

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the [Official IECEx Website](http://www.iecex.com).

Certificate issued by:

SIRA Certification Service
Rake Lane
Eccleston
Chester
CH4 9JN
United Kingdom

sira
CERTIFICATION



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Manufacturer: **Hohner Automation Limited**
Units 14-16
Whitegate Industrial Estate
Wrexham LL13 8UG
United Kingdom

Manufacturing location(s):

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

STANDARDS:

The electrical apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

IEC 60079-0 : 2007-10 Edition: 5	Explosive atmospheres - Part 0: Equipment - General requirements
IEC 60079-1 : 2007-04 Edition: 6	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
IEC 60079-31 : 2008 Edition: 1	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
IEC 60079-7 : 2006-07 Edition: 4	Explosive atmospheres - Part 7: Equipment protection by increased safety "e"

This Certificate does not indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in

Test Report:

[GB/SIR/ExTR10.0006/00](#)
[GB/SIR/ExTR10.0131/00](#)

Quality Assessment Report:

[GB/SIR/QAR06.0038/02](#)



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

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 and has the following three flamepaths:

1. A thread cable entry in the lid
2. A rotating joint between the body and shaft
3. A spigot joint between the lid and body

Design Options

1. The equipment shaft may be rotated at a maximum speed of 6000 RPM.
2. The use of an alternative DXE Radial Lid design casting.
3. The markings to be engraved onto alternative lid designs or applied to a stainless steel plate that is secured to the equipment by fasteners
4. D*XX-XXXX-XXXX is the product code where D* is either DE to indicate -20°C type or DL for -40°C type, XX-XXXX-XXXX refers to the electronic circuit, connection and resolution

CONDITIONS OF CERTIFICATION: NO

Empty box for conditions of certification.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

Issue 1 – this Issue introduced the following changes:	
1	Following appropriate re-assessment to demonstrate compliance with the requirements of the latest technical knowledge, IEC 61241-1:2004 was replaced by IEC 60079-31:2008, the dust markings of the existing products being modified accordingly.
2	The introduction of the TXXX-XXXX-XXXX variant that incorporates an 'Ex e' terminal compartment. The main body of the TXXX-XXXX-XXXX has an M16 threaded hole on its rear face that is fitted with a Type LE* * ** * ** flameproof line bushing manufactured by Quintex GmbH as detailed in certificate no. Bureau Veritas EPS 08ATEX1105X. The 'Ex e' terminal compartment, which is secured to the rear face with four, M4, socket-head cap screws, contains a Type TOP1.5GS 08/180 5.08 Terminal Block manufactured by Weidmuller Interface GmbH & Co. and detailed in certificate no. DEMKO 03ATEX134439U, or a Type 256-408/000-009/999-950 Terminal Block manufactured by Wago and detailed in certificate no. PTB 06ATEX1061U. The cover of the terminal compartment is secured by four, M4, socket-head cap screws and cables enter the terminal compartment via an M16 threaded hole in the sidewall. There are two versions of the TXXX-XXXX-XXXX, the TXXX-XXXX-XXXX and the TLXX-XXXX-XXXX.