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 10.0133X issue No.:3

Status: **Current**

Date of Issue: **2011-11-03**

Certificate history:
Issue No. 3 (2011-11-3)
Issue No. 2 (2011-7-13)
Issue No. 1 (2011-2-15)
Issue No. 0 (2010-12-8)

Applicant:
CorDEX Instruments Ltd
Unit 1 Owens Road
Skippers Lane Industrial Estate
Middlesbrough
Cleveland TS6 6HE
United Kingdom

Electrical Apparatus: **Laser Distance Meter LM3000XP**
Optional accessory:

Type of Protection: **Flameproof**

Marking: **Ex d I/IIC T4**
Ta = -20°C to +50°C

Approved for issue on behalf of the IECEx Certification Body: C Ellaby

Position: Deputy Certification Manager

Signature:
(for printed version)

Date: 2011-11-03

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.

Certificate issued by:

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

sira CERTIFICATION

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Manufacturer: **CorDEX Instruments Ltd**
Unit 1 Owens Road
Skippers Lane Industrial Estate
Middlesbrough
Cleveland TS6 6HE
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 : 2004 Edition: 4.0	Electrical apparatus for explosive gas atmospheres - Part 0: General requirements
IEC 60079-1 : 2007-04 Edition: 6	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"

*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/ExTR10.0275/00 GB/SIR/ExTR11.0039/00 GB/SIR/ExTR11.0151/00
GB/SIR/ExTR11.0252/00

Quality Assessment Report:

GB/SIR/QAR10.0010/00 GB/SIR/QAR10.0010/01 GB/SIR/QAR10.0010/02

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Schedule

EQUIPMENT:
Equipment and systems covered by this certificate are as follows:

The LM3000XP is a flameproof enclosure containing a laser distance meter. The device comprises a main enclosure with a bolt on external battery pack and a non-metallic overmoulding.
For a full description refer to the Annexe.

CONDITIONS OF CERTIFICATION: YES as shown below:

1 In accordance with clause 5.1 of IEC 60079-1, the critical dimensions of the flamepaths are:

Flamepath	Maximum Gap (mm)	Minimum Gap (mm)
Main body/cover	0.04	11.0
Main body/battery pack	0.04	10.0
Front lens/main body	0.10	13.8
Top lens/main body	0.10	13.8

2 This equipment shall only be used where there is a low risk of mechanical impact. The equipment is manufactured in aluminium alloy, in Group I applications this equipment must not be utilised where there is a risk of thermite reaction frictional ignition.

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

Issue 1 – this Issue introduced the following changes:	
1	The battery pack part number was changed.
2	The fuse details were modified to include the CorDEX fuse part number.
3	The flamepath 'A' was changed.
Issue 2 – this Issue introduced the following change:	
1	The company address was changed from Unit 6 Farfield, Main Road, Wykeham, Scarborough YO13 9QD to that currently shown.
Issue 3 – this Issue introduced the following change:	
1	Some non-critical enclosure dimensions were changed.

Annexe: IECEx SIR 10.0133X Issue 3 Annexe.pdf

Annexe to:	**IECEx SIR 10.0133X Issue 3**
Applicant:	**CorDEX Instruments Ltd**
Apparatus:	**Laser Distance Meter LM3000XP**

The LM3000XP is a flameproof enclosure containing a laser distance meter. The device comprises a main enclosure with a bolt on external battery pack and a non-metallic overmoulding.

The main enclosure comprises three main parts the body, the battery pack and the cover. These are all cast in aluminium 6082T6 and subsequently machined. The main body incorporates a void provided for the installation of the laser distance meter. The end of the main body is machined to allow the installation of a rectangular toughened glass laser window, the joint between the glass window and the main body forming a spigotted flamepath. The window is secured in place by means of a steel retaining plate which in turn is secured by four M3 x 10 mm hexagonal socket cap head screws, the heads of these screws being protected by their location behind the external overmoulding.

The top part of the main enclosure is provided with a cover, the joint between the cover and main body forming a flanged flamepath. The cover is secured to the main body by nine M3 x 8 mm hexagonal socket cap head screws, the heads of these screws being protected by their location in appropriate counter bored holes. The top of the cover is machined to allow the installation of a toughened glass, LCD viewing window, the joint between the glass window and the main body forming a spigotted flamepath. The window is secured in place by means of a steel retaining plate which in turn is secured by four M3 x 10 mm hexagonal socket cap head screws, the heads of these screws being protected by their location behind the external overmoulding.

Located on the side of the main enclosure is a detachable battery pack. The battery pack comprises an aluminium housing contain two rechargeable AAA size batteries and associated circuitry. The joint between the battery pack and the front cover forms a flanged flamepath. The battery cover is secured by six M4 x 12 mm hexagonal socket cap head screws, the heads of these screws being protected by their location in appropriate counter bored holes.

All fasteners are stainless steel to ISO 4762, grade A2-70.

The assembly is provided externally with a permanent, non-metallic, anti-static protective overmoulded case.

Sira Certification Service
Rake Lane, Eccleston, Chester, CH4 9JN, England
Tel: +44 (0) 1244 670900
Fax: +44 (0) 1244 681330
Email: info@siracertification.com
Web: www.siracertification.com