



# 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](http://www.iecex.com)

Certificate No.: IECEx SIR 16.0022X issue No.:1

Status: **Current**

Certificate history:  
Issue No. 1 (2016-11-9)  
Issue No. 0 (2016-9-12)

Date of Issue: **2016-11-09** Page 1 of 4

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

Equipment: **DLS-00X**  
Optional accessory:

Type of Protection: **Mechanical**

Marking: Ex h IIC T4 Ga  
Ta = -20°C to +60°C

Approved for issue on behalf of the IECEx Certification Body: N Jones

Position: Certification Manager

Signature:  
(for printed version)

  
\_\_\_\_\_  
2016-11-09

Date:

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**  
CSA Group  
Unit 6, Hawarden Industrial Park  
Hawarden, Deeside, CH5 3US  
United Kingdom

**sira**  
CERTIFICATION





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

Additional 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:

**ISO 80079-36 : 2016** Explosive atmospheres - Part 36: Non-electrical equipment for explosive atmospheres -  
Edition: 1.0 Basic methods and requirements

*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/ExTR16.0225/00](#)

[GB/SIR/ExTR16.0284/00](#)

Quality Assessment Report:

[GB/SIR/QAR06.0038/08](#)



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## Schedule

### EQUIPMENT:

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

The DLS-00x is a sensing device comprised of an optical encoder fitted to a rotating shaft that has an arm attached, which is kept under tension via a spring contained in two round spring housings fitted on the opposite side of the main block. The shaft and spring housing are stainless steel. This rotating assembly is fitted onto a main block, which is cast or machined from solid stainless steel and rotates via bushings. The entire assembly is bolted to a base plate made of stainless steel.

This base plate has various mounting holes for fastening to a closed pipe return line or an open trough return line. A paddle is attached to the arm in order to allow it to move with the drilling fluids, thus rotating the encoder shaft.

The device produces an electrical signal directly proportional to the height of a liquid (usually drilling fluid or mud) flowing through a closed or open trough pipe or conduit. As the mud level increases beyond the lowest point of the paddle plate component of the flow line sensor, the entire arm (wherein the plate is connected) is deflected upwards. As the arm is pivoted on a main shaft, the deflection causes an angular movement of the shaft. Finally, with an absolute encoder mounted on this shaft, this angular displacement (or partial rotation) is translated into an electronic signal. The arm and shaft has a maximum angular displacement of 90 degrees and thus the absolute encoder is specified to have its full span (20 mA) equivalent to a full 90 degree turn.

The DLS-00x assembly uses the following Intrinsically Safe certified part:

Shaft Encoder: Manufactured by Hohner Automation Ltd., Certificate number IECEx SIR 10.0105X coded "Ex ia IIC T4 Ga" (Ta = -20°C to +60°C). The intrinsically safe shaft encoder does not fall under the provision of this certificate.

### SPECIFIC CONDITIONS OF USE: YES as shown below:

1. It is the user's responsibility to ensure that the equipment is connected to earth appropriately.
2. It is the responsibility of the user to ensure that the Shaft Encoder certification is complied with and that it is supplied from an intrinsically safe source in accordance with IECEx SIR 10.0105X
3. It is the responsibility of the user to maintain the integrity and effectiveness of the bushing for this equipment; refer to maintenance instructions in the User's Manual.
4. At regular intervals and as specified by the manufacturer, appropriate maintenance / cleaning cycles shall be carried out to ensure dust/debris deposits do not accumulate between moving parts of the equipment.



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

**Issue 1** – this Issue introduced the following change:

- 1 To recognise a change to the equipment's marking; drawing EXI-LB-DLS-01 as well as the equipment's description have been updated to reflect this change.