IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification System for Explosive Atmospheres

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

Certificate No.: **IECEx EXV 22.0064X**

Certificate history:

Status: **Current**

Issue No: 0

Date of Issue: 2022-12-18

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

Equipment: **Intrinsically Safe Flow Sensor DLS-00X**

Optional accessory:

Type of Protection: **Non-electrical Ex 'h'**

Marking: Ex h IIC T4 Ga

Ta = -20°C to +60°C

Approved for issue on behalf of the IECEx Certification Body: **Sean Clarke CEng MSc FIET**

Position: **Certification Manager**

Signature:
(for printed version)

Date:
(for printed version)

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 www.iecex.com or use of this QR Code.

Certificate issued by:

ExVeritas Limited
Units 16-18 Abenbury Way
Wrexham Ind. Est.
Wrexham LL 139UZ
United Kingdom

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Certificate No.: **IECEx EXV 22.0064X**

Date of issue: 2022-12-18 Issue No: 0

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

Manufacturing locations:

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 equipment 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 Edition:1.0 — Explosive atmospheres - Part 36: Non-electrical equipment for explosive atmospheres - Basic methods and requirements

This Certificate **does not** indicate compliance with 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/EXV/ExTR22.0102/00

Quality Assessment Report:

GB/SIR/QAR06.0038/16

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

The DLS-00X has two different mechanical build options (Build A and B). Both builds are fitted with any suitably certified intrinsically safe encoder (Ex ia IIC T4 Ga -20C to +60C).

The DLS-00x is a sensing device comprised of an intrinsically safe encoder fitted to a rotating shaft that has an arm attached, which is kept under tension via a spring contained in a round spring housing 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 the 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 encoder is specified to have its full span (20 mA) equivalent to a full 90 degree turn.

SPECIFIC CONDITIONS OF USE: YES as shown below:

- It is the user's responsibility to ensure that the equipment is connected to earth appropriately.
- It is the responsibility of the user to ensure that any encoder certification special conditions are complied with.
- 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.
- 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.
- User repair – only Hohner supplied parts are to be used, contact manufacturer for spares.

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Equipment (continued):

Compliance Drawings:

Title:	Drawing No.:	Rev. Level:	Date:
Assembly for DLS Flow Sensor – Build A	EX-AS-DLS-001-03	3.0	21st October 2022
Assembly for DLS Flow Sensor – Build B	EX-AS-DLS-002-01	1.0	21st September 2022
Flow Sensor DLS-00X Markings	EX-LB-DLS-001-01	1	14th November 2022
DLS-00X Bill of Material - Build A	EX-BOM-DLS-001-02	2.0	14th November 2022
DLS-00X Bill of Material – Build B	EX-BOM-DLS-002-01	1.0	14th November 2022
Dragon Flowline Sensor Control Drawing	EX-CON-DLS-02	1.2	21st Nov 2022