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 FME 19.0003X**	Page 1 of 4	Certificate history:
Status:	**Current**	Issue No: 2	Issue 1 (2020-05-20) Issue 0 (2019-06-20)
Date of Issue:	2021-04-20		

Applicant: **INOV8 Systems Ltd**
Unit 6,
Edgewater Road Office Park
Belfast BT3 9JQ
United Kingdom

Equipment: **EXS-1/-2 Series Sidestream Controllers and EXP-1/02 Series Probe Controllers**

Optional accessory:

Type of Protection: **Flameproof "db" and Inherently Safe Optical Radiation "op is"**

Marking: Ex db [op is T6 Gb] IIB T4...T3 Gb Ta = -20°C to 60°C

Approved for issue on behalf of the IECEx Certification Body: **Nicholas Ludlam**

Position: **Certification Manager**

Signature:
(for printed version)

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

Certificate issued by:

FM Approvals Ltd
Voyager Place
Maidenhead
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FM Approvals
Member of the FM Global Group

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Certificate No.: **IECEx FME 19.0003X**

Date of issue: 2021-04-20 Issue No: 2

Manufacturer: **INOV8 Systems Ltd**
Unit 6,
Edgewater Road Office Park
Belfast BT3 9JQ
United Kingdom

Additional 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

IEC 60079-0:2017 Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

IEC 60079-1:2014-06 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition:7.0

IEC 60079-28:2015 Explosive atmospheres - Part 28: Protection of equipment and transmission systems using optical radiation
Edition:2

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 Reports:

GB/FME/ExTR19.0002/00 GB/FME/ExTR19.0002/01 GB/FME/ExTR19.0002/02

Quality Assessment Report:

GB/FME/QAR19.0010/01

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

The EXS Sidestream model is made from stainless steel, comprising of the following major components; main enclosure and sample measuring section.

Main Enclosure - The main enclosure is a stainless steel enclosure incorporating a cemented viewing window. This enclosure contains the control circuits' assembly for this model and there is also a channel through the rear flanged cover that connects to the sample measurement section. The viewing window is cemented on the rear end cap using the DOW CORNING 736 Oil Resistant Sealant.

The rear flange cover has two cable entry ports which can be manufactured as M20 x 1.5mm or ¾ inch NPT. There are (18) M8 screws that is used to secure the flanged cover to the enclosure.

Sample Measuring Section - The sample monitoring section contains the transducer assembly that includes a pair of solid optical fibre wires and a viewing window where the sample monitoring takes place. The window in this sample measuring section is cemented unto the housing and the voids inside this probe is completely filled with the DOW CORNING 736 Oil Resistant Sealant.

The EXP Probe model comprises of the following major components; Main Housing and the Measurement Housing.

Main Housing - The main housing enclosure is a cylindrical stainless steel enclosure having two end caps. This enclosure contains the control circuits' assembly for this model and the connection to the transducer assembly in the front measurement housing. The viewing window is cemented on the rear end cap using the DOW CORNING 736 Oil Resistant Sealant.

There are (8) M8 screws at each end used to secure the end caps to the housing. The rear end cap has up to three cable entry ports in the enclosure which can be configured as M20 X 1.5mm or ¾ inch NPT.

Measurement Housing - The measurement housing contains the transducer assembly that includes a pair of solid optical fibre wires and a viewing window where the sample monitoring takes place. This window is cemented unto the housing and the voids inside this probe is completely filled with the DOW CORNING 736 Oil Resistant Sealant. This measurement housing is welded to both the mounting flange and the rear housing enclosure assembly.

The EXS Series and EXP Series incorporate a laser diode model with a maximum power output rating of 10mW.

Operation Temperature Ranges and Working Pressure:

The ambient temperature range for the EXP Probe and EXS Sidestream models is -20°C to 60°C. The process temperature range is -20°C to 200°C for T3 ratings and -20°C to 135°C for T4 ratings. The maximum working pressure is 35 bar (3500kPa/507 psi).

Electrical data:

The EXP Probe and EXS Sidestream models are rated as 24Vdc, 6 Amps; 20W nominal, 140W peak.

SPECIFIC CONDITIONS OF USE: YES as shown below:

1. The equipment includes flamepath joints. Should any repair of the flame paths be required, consultation with Inov8 is necessary.
2. The process temperature shall not exceed 200°C for T3 ratings and shall not exceed 135°C for T4 ratings.

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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)
Revisions to documentation for expanded temperature ratings, incorporate additional light sources, correct electrical ratings.