

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

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

Certificate No.:	IECEx EXV 16.0013X	Issue No: 0	Certificate history:

Issue No. 0 (2017-03-07)

Status: Current

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Date of Issue: 2017-03-07

Applicant: Hohner Automation Ltd

Units 14-16, Whitegate Industrial Estate, Wrexham LL13 9UZ

United Kingdom

Equipment: Incremental IIB Shaft Encoder

Optional accessory:

Type of Protection: Intrinsic Safety "i"

Marking:

Ex ia I Ma

Ex ia IIB T4 Ga

Tamb -40°C to +60°C

Approved for issue on behalf of the IECEx S D'Henin

Certification Body:

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 the Official IECEx Website.

Certificate issued by:

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





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Manufacturer: Hohner Automation Ltd

Units 14-16, Whitegate Industrial Estate, Wrexham LL13 9UZ

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:

IEC 60079-0 : 2011 Explosive atmospheres - Part 0: General requirements

Edition:6.0

IEC 60079-11: 2011 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"

Edition:6.0

IEC 60079-26: 2014-10 Explosive atmospheres – Part 26: Equipment with Equipment Protection Level (EPL) Ga

Edition:3.0

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/EXV/ExTR16.0017/00

Quality Assessment Report:

GB/SIR/QAR06.0038/09



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

Build Option 1 (One Circuit)

The incremental Shaft encoder is an optical reading system that converts light interference patterns from a rotating disk into a digital voltage output. The encoder circuit is designed to be housed in a range of metallic or plastic enclosures with various dimensions. The encoder is fitted with one of two slightly different circuits and can be supplied with up to three enclosure entries with either flying lead(s), connector(s) or a junction box with terminals.

Build Option 2 (One or Two Circuits)

The incremental Shaft encoder is an optical reading system that converts light interference patterns from a rotating disk into a digital voltage output. The encoder may contain one or two circuits that are designed to be housed specifically in the NAMFPX range of encoders. An encoder is fitted with one of two slightly different circuits and can be supplied with up to three enclosure entries with either flying lead(s) or connector(s). Each circuit of the dual circuit version has the same safety description as the single circuit version (Build Option One).

The Part Numbering system for build option 2 is as follows:

SPNF-XXX Where: SP = Special Product

NF = NAMFPX Series

XXX = Unique Identifier

Input parameters for both build options

Ui = 28V	li = 100mA	Pi = 0.7W	Ci = 0.58 μF	Li = 6μH
Alternatively				
Ui = 25V	li = 390mA	Pi = 0.8W	Ci = 0.58µF	Li = 6µH

SPECIFIC CONDITIONS OF USE: YES as shown below:

- 1. As light metal may be used in the construction of this equipment, for Ga/1G installations only, consideration should be given that in rare events, ignition sources due to impact and/or frictional sparks could occur.
- 2. Some versions of the equipment are manufactured with an enclosure made from plastic materials. Under certain extreme conditions such parts may generate an ignition capable level of electrostatic charge. Therefore, when the encoder is used for applications that specifically require group II, category 1 equipment, it shall not be installed in a location where the external conditions are conducive to the build-up of electrostatic charge on such surfaces. Additionally the equipment shall only be cleaned with a damp cloth.
- 3. When the equipment is used in a Zone 0, the user should be aware of the potential for failure of the shaft and bearing resulting in frictional heating that could exceed the temperature class of the equipment. The user should periodically check the encoder bearing for signs of wear and heating.



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Annex:

IECEx EXV 16.0013X Certificate Annex.pdf



Annex to: IECEx EXV 16.0013X Issue 0

Title:	Drawing No.:	Sheets	Rev. Level:	Date:
IECEX & ATEX Label drawing for NAMFPX	LB-INC-IIB-NOV-02	1 of 1	2.0	17 Feb 2017
Incremental IIB Shaft encoder ATEX and IECEx markings	LB-IIB-005-01	1 of 1	1.0	17 Feb 2017
Hollow Shaft Encoder General Assembly	AS-HS-005-01	2 of 2	1	15 Sep 2016
Solid Shaft Encoder General Assembly	AS-SS-005-01	2 of 2	1	15 Sep 2016
Hollow Shaft Assembly for NAMFPX (NOV dependency)	AS-HS-NOV-02	1 of 4	2.0	15 Sep 2016
NAMFPX Shaft	NF-HS-NOV-01	1 of 1	1.0	16/12/2014
Lid for Namfpx	NF-LD-NOV-01	1 of 1	1.0	15/09/2016
NAMFPX redundancy Body -back	NF-BD-NOV-01	1 of 2	1.0	15/09/2016
IIB Incremental Circuit Type A	SCH-IIB-TYPEA-02	1 of 1	2.0	17/02/2017
IIB Incremental Circuit Type B	SCH-IIB-TYPEB-02	1 of 1	2.0	17/02/2017

FO-CB-34 V1