



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 EXV 17.0017

Issue No: 0

Certificate history:

[Issue No. 0 \(2017-09-12\)](#)

Status: **Current**

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Date of Issue: **2017-09-12**

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

Equipment: **Galvanic Isolator**

Optional accessory:

Type of Protection: **Intrinsic Safety "ia"**

Marking:

[Ex ia Ma] I

[Ex ia Ga] IIC

[Ex ia Da] IIIC

Tamb -40°C to +60°C

(equipment may be marked with any range within these limits)

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

Sean Clarke CEng MSc MIET

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 8UG, UK
United Kingdom

Additional Manufacturing location(s):

These products may be manufactured at any Hohner Automation Facility listed on Quality Assessment Report GB/SIR/QAR06.0038 that has been audited for the manufacture of the type of protection listed

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

*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/ExTR17.0017/00](#)

Quality Assessment Report:

[GB/SIR/QAR06.0038/09](#)



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The galvanic isolation interfaces are designed to provide power and optically isolated signal inputs/outputs to a series of Hohner shaft encoders mounted in the hazardous gas or dust areas. The Interface is housed in a non-conducting, IP20 plastic enclosure. The interface circuitry is mounted on a single, double-sided, FR4, PCB, which is mounted within the plastic housing. The interfaces utilise a type 2b transformer and suitable opto-isolators that are rated for a maximum non-hazardous area fault voltage (Um) of up to 250 V.

There are four types of galvanic isolation interfaces, a type IB and type ID and type SP-IB-XXX and type SP-ID-XXX, which are intended to be used with ATEX approved, Hohner apparatus. All types are intended for use with incremental encoders, one has an Extended Line Driver Output (Type IB) and the other type has a Sink Open Collector Output (Type ID) to the safe area. SP-IB-XXX and SP-ID-XXX are special variants of 'IB' and 'ID', where 'XXX' are alpha numeric characters.

The galvanic isolation interfaces have the following safety description:

Non-Hazardous Area Terminals 1 through to 8

Um: 250 V The interface, terminals 1 through to 8 are intended to be connected to equipment operating on a d.c. supply that has voltages up to 30 Vdc.

Hazardous Area Terminals A through to H $U_o = 27.8 \text{ V}$ $I_o = 98 \text{ mA}$ $P_o = 680 \text{ mW}$ $C_i = 12 \text{ nF}$

Conditions of Manufacture

- Each manufactured sample of the Type 2b transformers (B5520) shall be subjected to an electric strength test using a test voltage of 2500 V rms applied between the input and output windings as per clause 11.2 of EN6079-11. Additionally the transformers shall be subjected to an electric strength test using a voltage of 1500 Vrms between all windings and the screen. Alternatively a voltage of 20% higher may be applied for 1s. There shall be no evidence of flashover or breakdown and the maximum current flowing shall not exceed 5mA.

SPECIFIC CONDITIONS OF USE: NO

Annex:

[IECEX EXV 17.0017 Issue 0 - Annex.pdf](#)

Manufacturer's documents:				
Title:	Drawing No.:	Sheets	Rev	Date:
IB/ID Galvanic Isolator Schematic	IB/ID Schematic	1 of 1	1.0	05/04/2011
IB/ID Galvanic Isolator Assembly	IB/ID Assembly	1 of 1	1.1	21August 2017
IB/ID Galvanic Isolator BOM	IB/ID Drawing BOM	1 of 1	2.0	21August 2017
IB/ID Galvanic Isolator Label	IB/ID Label	1 of 1	1.1	18/08/2017
IB/ID Galvanic Isolator Artwork	IB/ID PCB	1 to 3	1.1	22/08/2017
B5520 Final Assembly	B5520	1 of 1	2	15.03.11
B5520 PCB Assembly	PCA1001	1 of 1	1	28.09.10
B5520 PCB & Transformer Assembly	PCA 1002	1 to 2	2	28.09.10
Bobbin Wound	WBS 1192	1 to 2	1	28.09.10