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 UL 13.0061X

Issue No: 3

Certificate history:
Issue No. 3 (2016-09-30)
Issue No. 2 (2015-05-08)
Issue No. 1 (2014-02-10)
Issue No. 0 (2013-10-29)

Status: **Current**

Date of Issue: **2016-09-30**

Applicant: **BEI Sensors, Industrial Encoders Division**
1461 Lawrence Drive
Thousand Oaks, CA 91320
United States of America

Equipment: **Galvanic Isolating Barrier, 60004-00**
Optional accessory:

Type of Protection: **Intrinsic safety "ia", Non-sparking "nA"**

Marking:
Ex nA [ia Ga] IIC T4 Gc

-55°C to +75°C

Approved for issue on behalf of the IECEx Certification Body: Paul T. Kelly

Position: Principal Engineer - Global Hazardous Locations

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:

UL LLC
333 Pfingsten Road
Northbrook IL 60062-2096
United States of America

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Date of Issue: **2016-09-30**

Manufacturer: **BEI Sensors, Industrial Encoders Division**
1461 Lawrence Drive
Thousand Oaks, CA 91320
United States of America

Additional Manufacturing location(s):

Custom Sensors & Technologies de Mexico S.A. de C.V
Avenida Produccion 2181
Parque Industrial Internacional Tijuana
Tijuana, Baja California 22425
Mexico

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 Edition:6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-11 : 2011 Edition:6.0	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
IEC 60079-15 : 2010 Edition:4	Explosive atmospheres - Part 15: Equipment protection by type of protection "n"
IEC 60079-26 : 2006 Edition:2	Explosive atmospheres - Part 26: Equipment with equipment protection level (EPL) Ga

*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:

US/UL/ExTR13.0062/03

Quality Assessment Report:

US/UL/QAR09.0004/06 US/UL/QAR15.0002/01

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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The models 60004-00* are galvanically isolated barriers that provide isolation by way of three or six optical isolators. Additional isolation is provided by a signal transformer. The maximum safe area voltage is Um = 250 V.

See Annex for Nomenclature details.

SPECIFIC CONDITIONS OF USE: YES as shown below:

The barriers must be mounted in an enclosure with a minimum ingress protection rating of at least IP54 that encloses all current carrying components including wiring terminals. The enclosure must be IECEx Certified and used in an environment of not more than pollution degree 2.

All models covered under an IECEx certificate must be used with an IECEx certified power supply that is evaluated to the requirements of IEC 60079-0 Edition 6 and IEC 60079-15 Edition 4.

Provision shall be made to prevent the rated voltage being exceeded by the transient disturbances of more than 140%.

The barriers are to be installed in accordance with BEI Control Drawing No. 08067-003.

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Certificate No: IECEx UL 13.0061X Issue No: 3

Date of Issue: **2016-09-30** Page 4 of 4

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

Issue 1: Minor revisions to marking and control drawings, not affecting protection technique.

Issue 2: An alternate manufacturing location was added.

Issue 3: The manufacturer submitted updated label drawings, control drawings and transformer drawing for examination.

Annex:

Annex to IECEx UL 13.0061X Issue 3.pdf

The following is a nomenclature for the barriers:

Supply Voltage	No. of Channels	Model No.	Description
12 - 28 V dc	3 - Channel	60004-002	Line Driver 28V/5 100mA Source/Sink
		60004-003	Line Driver 28V/V 100mA Source/Sink
		60004-004	Open Collector 28V/OC 80mA Sink
	6 – Channel (Open Wire Detect)	60004-005	Line Driver 28V/5 100mA Source/Sink
		60004-006	Line Driver 28V/V 100mA Source/Sink