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 TUR 20.0025X**

Certificate history:

Status: **Current**

Issue No: 0

Date of Issue: 2020-04-17

Applicant: **DEHN SE + Co KG**
Hans-Dehn-Strasse 1
92318 Neumarkt
Germany

Equipment: **Surge protector type BlitzductorConnect BCO *L2 BD EX 24**

Optional accessory:

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

Marking: Ex ia [ia Ga] IIC T6 Gb
Ex ib IIC T6 Gb
[Ex ia Da] IIIC

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

Position: **Assigned certifier**

Signature: (for printed version)

Date: 2020-04-17

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:

TUV Rheinland Industrie Service GmbH
Am Grauen Stein
51105 Cologne
Germany

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Certificate No.: **IECEx TUR 20.0025X**

Date of issue: 2020-04-17 Issue No: 0

Manufacturer: **DEHN SE + Co KG**
Hans-Dehn-Strasse 1
92318 Neumarkt
Germany

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 60079-11:2011 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

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:

DE/TUR/ExTR20.0025/00

Quality Assessment Report:

NL/DEK/QAR12.0084/05

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

General product information:
Surge protector type BlitzductorConnect BCO *L2 BD EX 24
The asterisks in the type designation will be replaced by letters and indicate the respective type of the construction of the equipment.
Type **BCO CL2 BD EX 24** is a compact version
Type **BCO ML2 BD EX 24** is a modular version with module type **BCO MOD ML2 BD EX 24**
The surge protector is a universal lightning and surge arrester.
The differential voltage is limited by a gas-arrester (90 V) and a TVS diode (36 V). The common mode voltage to earth is limited by two gas-arresters (600 V).
The intrinsically safe variants type BCO * L2 BD EX 24 can be installed inside areas with gas that require zone 1 equipment.
The intrinsically safe output circuits of this equipment may be connected to areas with gas or dust that require category 1 equipment. In this case, it shall be noted, that the electrical output values of the equipment correspond to their input values and the output circuits of the upstream equipment correspond to zone 0.
If the intrinsically safe output circuit of BlitzductorConnect equipment is routed to areas with dust, the intrinsically safe circuit must correspond to groups IIB (or IIC). If the apparatus to be connected, is not protected by an enclosure of at least IP5X, the maximum input power of this apparatus shall be limited to 0.75 W (Ta = 40 °C) or 0.65 W (Ta = 70 °C) or 0.55 W (Ta = 100 °C) and the continuous short-circuit current shall be limited to 250 mA (see electrical data above); this intrinsically safe apparatus shall be marked T135 °C.

Electrical data
Intrinsically safe input circuit
Terminals No. 1 – 2

Maximum input votage Ui	30 V
Maximum input current Ii	500 mA
Maximum input power Pi	5,32 W
Maximum internal inductance Li	0 µH
Maximum internal capacitance Ci	0 nF

When used inside areas with dust without enclosure of at least IP5X, depending on each

Ambient temperature Ta	40/70/100 °C
Maximum input power Pi	750/650/550 mW
Maximum input power Ii	250 mA

Intrinsically safe output circuit (protected)
Terminals No. 1‘ – 2‘

The maximum values of the output circuit are identical to those that are connected to the input circuit according to intrinsically safe input circuit.

The functional earth connection via the DIN rail is not a connection facility according to IEC 60079-0.

This equipment meets the requirements of a FISCO field device with the following maximum values:
Ui = 17,5 V; Ii = 380 mV; Pi = 5,32 W; Ci = 0 nF; Li = 0 µH

Ambient temperature range:
-40 °C to +50 °C for T6;
-40 °C to +75 °C for T5;
-40 °C to +80 °C for T4.

SPECIFIC CONDITIONS OF USE: YES as shown below:
When used in areas that require Group IIC or Group III equipment, the risk of electrostatic charges shall be minimized – see operating instructions.

The insulation between the intrinsically safe circuit and the parts which may be earthed (here the functional earth connection via the DIN rail) is not capable to withstand a test with of 500 V AC RMS, because of the surge arresters used for the overvoltage protection and connected between the intrinsically safe circuit and earth connection.

The environmental data must be taken into account – see ambient temperature rages above.