

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 DEK 24.0013X** Page 1 of 3 Certificate history:

R. Schuller

Issue No: 0 Status: Current

2025-03-20 Date of Issue:

Applicant: PR Electronics A/S

Lerbakken 10, 8410 Rønde

Denmark

Pulse isolator, types 5202B1, 5202B2 and 5202B4 Equipment:

Optional accessory:

Type of Protection: Ex i

[Ex ia Ga] IIC / IIB / IIA or Marking:

[Ex ia Da] IIIC

Approved for issue on behalf of the IECEx

Certification Body:

Position: **Certification Manager**

Signature:

(for printed version)

2025-03-20

(for printed version)

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Certificate issued by:

DEKRA Certification B.V. Meander 1051 6825 MJ Arnhem **Netherlands**





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Manufacturer: PR Electronics A/S

Lerbakken 10, 8410 Rønde

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Manufacturing PR Electronics A/S

locations: Lerbakken 10, 8410 Rønde

Denmark

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:

NL/DEK/ExTR24.0016/00

Quality Assessment Report:

NL/DEK/QAR13.0017/06



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

General product information:

The apparatus is a two channel pulse isolator for DIN rail mounting in the non-hazardous area. The intrinsically safe input signals are for connection to NAMUR sensors or simple contacts. The input signals are transferred to non-hazardous area via galvanic isolated barriers. The output signals for the non-hazardous area may be in the form of relay or open collector output.

Type variants:

5202B1: 2 x 1 open collector output

5202B2: 2 x 1 relay output 5202B4: 2 x 2 relay output

Ambient temperature range -20 °C to +60 °C.

Electrical data

All non-intrinsically safe terminals: Um: 253 V

Supply input: (Terminal 31, 33):

19.2 - 253 VDC or 21.6 - 253 VAC (50..60 Hz)

Pmax 5202B1 and 5202B2: 1.5 W

Pmax 5202B4: 2.0 W

Open collector

5202B1: (Terminals: Ch1: 11,12. Ch2: 21,22)

DC: 30 V / 80 mA maximum

Relay output

5202B2: (Terminals: Ch1: relay1: 11-13. Ch2: relay2: 21-23):

5202B4: (Terminals: Ch1: relay1: 11,12, relay2: 13,14. Ch2: relay1: 21,22, relay2: 23,24):

DC: 24 V / 1 A or AC: 253 V / 2 A / 100 VA maximum

Sensor input (Terminals: Ch1: 41-43. Ch2: 51-53):

in type of protection intrinsic safety Ex ia IIC/IIB/IIA and IIIC, with following maximum values per channel:

 $U_0 = 10.6 \text{ V}$; $I_0 = 13.8 \text{ mA}$; $P_0 = 38 \text{ mW}$,

 C_0 = 2.3 μ F(IIC) or 16 μ F (IIB, IIIC) or 72 μ F (IIA), L_0 = 180 mH (IIC) or 740 mH (IIB, IIIC) or 1.4 H (IIA).

The power supply port, inputs and outputs are all galvanic isolated from each other.

SPECIFIC CONDITIONS OF USE: YES as shown below:

The circuits connected in the non-hazardous area shall be limited to overvoltage category II.

The module shall be installed within a controlled environment with reduced pollution, limited to pollution degree 2.