CERTIFICATE

(1) EU-Type Examination

(2) **Equipment or protective systems intended for use in potentially explosive atmospheres - Directive 2014/34/EU**

(3) EU-Type Examination Certificate Number: **DEKRA 20ATEX0018X** Issue Number: **0**

(4) Product: **Pulse isolator, type: 5202B1, 5202B2 and 5202B4**

(5) Manufacturer: **PR electronics A/S**

(6) Address: **Lerbakken 10, 8410 Rønde, Denmark**

(7) This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

(8) DEKRA Certification B.V., Notified Body number 0344 in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential test report mentioned in item (16).

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN IEC 60079-0 : 2018 + A11 : 2024 **EN 60079-11 : 2012**

except in respect of those requirements listed at item 18 of the Schedule.

(10) If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.

(11) This EU-Type Examination Certificate relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

(12) The marking of the product shall include the following:

II (1) G [Ex ia Ga] IIC / IIB / IIA
II (1) D [Ex ia Da] IIIC

Date of certification: 20 March 2025

DEKRA Certification B.V.

R. Schuller
Certification Manager

Throughout this document, a point is used as the decimal separator.

DEKRA Certification B.V. Meander 1051, 6825 MJ Arnhem P.O. Box 5185, 6802 ED Arnhem The Netherlands
T +31 88 96 83000 F +31 88 96 83100 www.dekra-product-safety.com Registered Arnhem 09085396

(13) # SCHEDULE

(14) **to EU-Type Examination Certificate DEKRA 20ATEX0018X** Issue No. **0**

(15) **Description**

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: U_m : 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_o = 10.6 V; I_o = 13.8 mA; P_o = 38 mW,
C_o = 2.3 µF(IIC) or 16 µF (IIB, IIIC) or 72 µF (IIA),
L_o = 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.

Installation instructions

The instructions provided with the product shall be followed in detail to assure safe operation.

(16) **Report Number**

NL/DEK/ExTR24.0016/00.

(13) # SCHEDULE

(14) **to EU-Type Examination Certificate DEKRA 20ATEX0018X** Issue No. **0**

(17) **Specific conditions of use**

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.

(18) **Essential Health and Safety Requirements**

Covered by the standards listed at item (9).

(19) **Test documentation**

As listed in test report mentioned in item (16).