

[1] **EC-TYPE EXAMINATION CERTIFICATE**



[2] **Equipment or Protective System intended for use
in Potentially Explosive Atmospheres
Directive 94/9/EC**

[3] EC-Type Examination Certificate Number: **DEMKO 99 ATEX 127186**

[4] Equipment or Protective System: **Pulse Isolator 5202B_.**

[5] Manufacturer: **PR electronics A/S**

[6] Address: **Lerbakken 10, DK-8410 Rønde, Denmark.**

[7] This equipment or protective system and any acceptable variation there to is specified in the schedule to this certificate and the documents therein referred to.

[8] UL International Demko A/S, notified body number 0539 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential report no. 127186

[9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
EN 50014: 1997 E incl. A1+A2, EN 50020: 2002 E, EN 50281-1-1:1998 incl. A1

[10] If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.

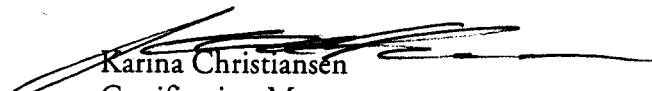
[11] This EC-Type examination certificate relates only to the design, examination and tests of the specified equipment or protective system in accordance to the Directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by the certificate.

[12] The marking of the equipment or protective system shall include the following:

⊕ II (1)GD [EEx ia] IIC

On behalf of UL International Demko A/S

Herlev, 2000-05-02
Revised 2003-12-04


Karina Christiansen
Certification Manager

UL International Demko A/S

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Certificate: 99 ATEX 127186

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Schedule

[13]

[14]

EC-TYPE EXAMINATION CERTIFICATE No. DEMKO 99 ATEX 127186

[15]

Description of Equipment or protective system:

The apparatus is a two channel Pulse Isolator for mounting in the non hazardous area. The intrinsically safe input signals may be from 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. Power supply, inputs and outputs are all galvanic isolated from each other. Possibility for cable fault detection. The apparatus is housed in a plastic enclosure for DIN rail mounting.

Type variants comprised by the certificate:

5202B1: Open collector output

5202B2: Two Relay outputs

5202B4: Four Relay outputs

- The Pulse Isolator 5202B_ _ _ has been evaluated according to EN 50281-1-1: 1998 in order to include D (dust) in this certificate. Therefore the marking plate include the following:

⊕ II (1) GD

[16]

Report No.:

127186 Report Numbers: 127186-01, 127186-02, 127186-03, 127186-04 and 127186-05

Drawings:

The Schedule drawings are listed in the document entitled "5202G002".

The manufacturer shall inform the notified body concerning all modifications to the technical documentation as described in ANNEX III to Directive 94/9/EC of the European Parliament and the Council of 23 March 1994.

UL International Demko A/S

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Report: 127186-05

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Schedule

EC-TYPE EXAMINATION CERTIFICATE No. DEMKO 99 ATEX 127186

[17] Special conditions for safe use:

- For correct use and installation the manufacturer's manual must be followed.
- The instrument shall be located in non hazardous area. It shall be connected to hazardous area via terminal no. 41-43 and 51-53 only
- Temperature range: $-20^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$

Supply: 24-250 VDC / 24-230 VAC: Terminal 31,33: $U_M : 250 \text{ V}$

Intrinsically safe specifications

NAMUR/Contact Input:

Terminals: Channel 1: 41, 42 and 43. Channel 2: 51, 52 and 53:

U_o : 10,6 V

I_o : 13,8 mA

P_o : 38 mW

L_o : 160 mH

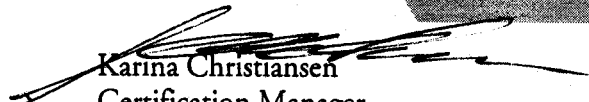
C_o : 1,9 μF

[18] Essential Health and Safety Requirements

Concerning ESR this Schedule verifies compliance with the Ex standards only. The manufacturer's Declaration of Conformity declares compliance with other relevant Directives.

On behalf of UL International Demko A/S

Herlev, 2003-11-27


Karina Christiansen
Certification Manager

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