EC-TYPE EXAMINATION CERTIFICATE

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



- [3] EC-Type Examination Certificate Number: DEMKO 00 ATEX 127483
- [4] Equipment: Hart® Transparent Repeater Type 5106BB__
- [5] Manufacturer: PR electronics A/S

[1]

[2]

- [6] Address: Lerbakken 10, 8410 Rønde, Denmark
- [7] This equipment of 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. 127483

- [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
- 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:

On behalf of UL International Demko A/S

Herley, 2001-04-20 Revised 2003-12-04

Karina Christiansen Certification Manager

UL International Demko A/S

Lyskaer 8, P.O. Box 514 DK-2730 Herlev, Denmark Telephone: +45 44856565 Fax: +45 44856500 Certificate: 00 ATEX 127483



[13]

Schedule

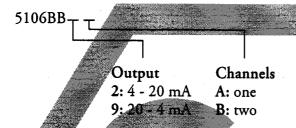
[14]

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[15] Description of Equipment or protective system:

The Repeater/Power Supply Type 5106BB_ is designed for mounting on a DIN rail in safe area. The input is a 4-20mA whereas the output may be chosen between 4-20mA or 20-4mA. The product can be delivered in 1 and 2 channel versions. Inputs, outputs and power supply are galvanic separated from each other by means of opto-couplers and a transformer.

Type variants comprised by the certificate:



- The Transparent Repeater 5106BB 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: (1) GD
- Project is updated to EN 50020: 2002 E.

[16] <u>Report No.:</u>

127483-01 Report 127483-02 Report 127483-03 Report

Drawings:

The Schedule drawings are listed in the document entirled "\$106G0".

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.

- [17] Special conditions for safe use
 - For correct installation and use, the manufacturer's manual shall be strictly followed.
 - Temperature range: $-20^{\circ}\text{C} \le \text{Ta} \le +60^{\circ}\text{C}$

UL International Demko A/S

Lyskaer 8, P.O. Box 514 DK-2730 Herlev, Denmark Telephone: +45 44856565 Fax: +45 44856500 Certificate: 00 ATEX 127483 Report: 127483-03



Schedule

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• Intrinsically safe specifications

Terminals 31, 32 and 33:

U_m: 250 V

Terminal 44 to 42,41 and

U_o: 28 V

Terminal 54 to 52,51:

I_o: 91 mA

P_o: 0,65 W

L: 3 mH

Terminal 41 to 42 and

U_c: 10 V

Terminal 51 to 52:

 I_{o} : 2 mA

 $P_o: 5 \text{ mW}$

L₂: 1 H

 C_0 : 3 μ F

Terminal nos. 43 and 53 are not connected.

[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

Herley, 2003-11-25

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Karina Christiansen Certification Manager