

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



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

[3] EEC-Type Examination Certificate Number: **DEMKO 01 ATEX 127484**

[4] **Equipment: Hart-Transparent Driver 5107B\_**

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

[6] **Address: Lerbakken 10, 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. 127484

[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.

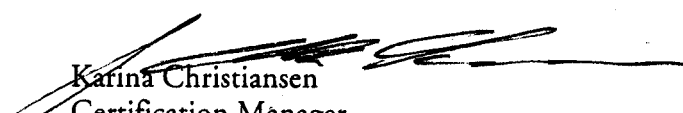
[11] This EC-Type examination certificate relates only to the design, examination and tests of the specified equipment or protective system in accordance to the Directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system.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

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

**Ex II (1)GD [EEx ia] IIC**

On behalf of UL International Demko A/S

Herlev, 2002-03-01  
Revised 2003-12-04

  
Karina Christiansen  
Certification Manager

**UL International Demko A/S**

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Certificate: 01 ATEX 127484

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[13]

# Schedule

[14]

## EC-TYPE EXAMINATION CERTIFICATE No. DEMKO 01 ATEX 127484

[15]

### Description of Equipment:

The Hart-Transparent Driver Type 5107B\_\_ 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:

5107B

Input	Output	Channels
B: 4 - 20 mA	2: 4 - 20 mA	A: one
	9: 20 - 4 mA	B: two

- The Hart-Transparent Driver 5107B\_ 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
- Project is updated to EN 50020: 2002 E.

[16]

### Report No.:

Report 127484-02  
Report 127484-03  
Report 127484-04

### Drawings:

The Schedule drawings are listed in the document entitled "5107G0xx"

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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Certificate: 01 ATEX 127484

Report: 127484-04

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# Schedule

## EC-TYPE EXAMINATION CERTIFICATE No. DEMKO 01 ATEX 127484

[17] Special conditions for safe use:

- For correct installation and use, the manufacturer's manual shall be strictly followed.
- Temperature range:  $-20^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$
- Intrinsically safe specifications

Terminals 31-33, 11-13 and  
21-23:

$U_m$ : 250V

Terminals 41-43 and  
Terminal 51-53:

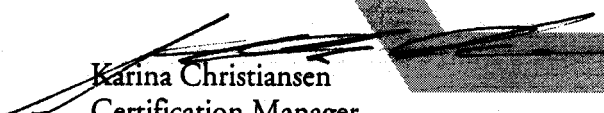
$U_o$ : 28V  
 $I_o$ : 93mA  
 $P_o$ : 0,69W  
 $L_o$ : 3mH  
 $C_o$ : 80nF

[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, 2003-11-25

  
Karina Christiansen  
Certification Manager

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