

[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 126256**

[4] **Equipment or Protective System: Ex Power Supply 5420B2.**

[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. 126256

[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, 1999-10-05  
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: 99 ATEX 126256

This certificate may only be reproduced in its  
entirety and without any change, schedule included



An Affiliate of  
**Underwriters  
Laboratories Inc.®**

# Schedule

## EC-TYPE EXAMINATION CERTIFICATE No. DEMKO 99 ATEX 126256

[13]

[14]

[15] The Power Supply Type 5420B2 is designed for mounting on a DIN rail in safe area. The power supply, intrinsically safe outputs, and relay outputs are galvanic separated from each other by means of relays and a transformer.

- The Ex Power Supply 5420B2. 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 50014:1997 E incl. A1+A2 and EN 50020: 2002 E.

[16] Report No.:

126256 Report 99-02217  
126256 Report 99-04388  
126256 Report 126256-03

Drawings:

Number	Date	Description
5420 - 9003	1999-10-29	PCB layout (track 1) 5420 - 9103
5420 - 9003	1999-10-29	PCB layout (track 2) 5420 - 9003
5420 - 9003	1999-10-29	PCB layout (comp. location 1) 5420 - 3103
5420 - 9003	1999-10-29	PCB layout (comp. location 2) 5420 - 3003
5420 - 9003	1999-10-29	PCB layout (segregation1) 5420 - 3103
5420 - 9003	1999-10-29	PCB layout (segregation2) 5420 - 3003
5420 - 9003 (2 pages)	1999-10-29	PCB layout (production)
5420 - S102	2003-09-26	Label. Marking of 5420B
5420 - 1003 (p. 1 of 4)	1999-10-29	Diagram. 5420 Block
5420 - 1003 (p. 2 of 4)	1999-10-29	Diagram. 5420 Power
5420 - 1003 (p. 3 of 4)	1999-10-29	Diagram. 5420 Channel 1
5420 - 1003 (p. 4 of 4)	1999-10-29	Diagram. 5420 Channel 2
5420B2	1999-11-26	Part-list. Ex Power Supply 2Ch. ATEX II (1) G
5420L	1999-11-30	Part-list. Leaded. 2 Ch.
5420SMD (p. 1-4)	1999-11-26	Part-list. SMD. 2 Ch.
5420 - Q102 (p. 1-13)	1999-11-30	EEx Technical description
5420 - 5C01 (p. 1-2)	1999-08-05	EEx Routine Test specification
5420B - Yxxx	1999	Data Sheet 5420B
5420B - Vxxx	1999	Manual 5420B

**UL International Demko A/S**

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

Certificate: 99 ATEX 126256  
Report: 126256-03

This certificate may only be reproduced in its  
entirety and without any change, schedule included



An Affiliate of  
**Underwriters  
Laboratories Inc.®**

P2/3

# Schedule

## EC-TYPE EXAMINATION CERTIFICATE No. DEMKO 99 ATEX 126256

[17] Special conditions for safe use:

For correct use and installation the manufacturers manual must be followed.  
The attention is drawn to the load of the relay contacts. Specifications must not be exceeded, as this may impair intrinsically safety.  
Temperature range:  $-20^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$ .

Intrinsically safe specifications

$U_o$ : 28 VDC  
 $I_o$ : 93.0 mA DC  
 $P_o$ : 0.65 W  
 $L_o$ : 3 mH  
 $C_o$ : 0.08  $\mu\text{F}$   
 $U_m$ : 250 V

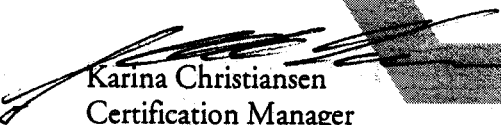
[18] Essential Health and Safety Requirements

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

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.

On behalf of UL International Demko A/S

Herlev, 2003-11-25

  
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: 99 ATEX 126256  
Report: 126256-03

This certificate may only be reproduced in its  
entirety and without any change, schedule included



An Affiliate of  
**Underwriters  
Laboratories Inc.®**

P3/3