

# CERTIFICATE

## (1) EC-Type Examination

(2) **Equipment and protective systems intended for use in potentially explosive atmospheres - Directive 94/9/EC**

(3) EC-Type Examination Certificate Number: **KEMA 05ATEX1105 X** Issue Number: **2**

(4) Equipment: **Loop Powered LCD Indicator, type 5531B and 5531B2**

(5) Manufacturer: **PRelectronics A/S**

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

(7) This equipment 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 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the 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 test report no. 215363200.

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

**EN 60079-0 : 2009**

**EN 60079-11 : 2007**

**EN 60079-26 : 2007**

(10) If the sign "X" is placed after the certificate number, it indicates that the equipment 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 according to the Directive 94/9/EC. Further requirements of the directive apply to the manufacturing process and supply of this equipment. These are not covered by this certificate.

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



**II 2 G Ex ia IIC T6 Gb (Type 5531B and Type 5531B2)**  
**II 2 D Ex ia IIIC T85°C Db (Type 5531B2)**

This certificate is issued on 24 May 2012 and, as far as applicable, shall be revised before the date of cessation of presumption of conformity of (one of) the standards mentioned above as communicated in the Official Journal of the European Union.

DEKRA Certification B.V.

C.G. van Es  
Certification Manager

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(13) **SCHEDULE**

(14) **to EC-Type Examination Certificate KEMA 05ATEX1105 X**

Issue No. 2

(15) **Description**

The Loop Powered LCD indicator Type 5531B and Type 5531B2 is used for local readout of 4...20 mA current signals scaled directly in process units.

For application in explosive dust atmospheres, LCD Indicator Type 5531B2 is built into a metal enclosure providing a degree of protection of at least IP6X.

Ambient temperature range -20 °C ... +60 °C for gas.

Ambient temperature range -5 °C ... +60 °C for dust.

**Electrical data**

Supply and input circuit:

in type of protection intrinsic safety Ex ia IIC, Ex ia IIIC, only for connection to a certified intrinsically safe circuit, with the following maximum values:

$U_i = 45 \text{ V}$ ;  $I_i = 120 \text{ mA}$ ;  $P_i = 0,9 \text{ W}$ ;  $C_i = 0 \text{ nF}$ ;  $L_i = 0 \text{ mH}$ .

**Installation instructions**

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

(16) **Test Report**

No. 215363200.

(17) **Special conditions for safe use**

For applications in explosive dust atmospheres, the Loop Powered LCD Indicator shall be installed in such a way that the risk of mechanical danger is low, and that it is protected from exposure to UV light.

Electrostatic charging of the plastic display and the label shall be avoided.

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

Covered by the standards listed at (9).

(19) **Test documentation**

As listed in Test Report No. 215363200.