

CERTIFICATE

(1) Type Examination

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

(3) Type Examination Certificate Number: **KEMA 10ATEX0002 X** Issue Number: **2**

(4) Equipment: **2-wire Programmable Transmitter Type 5331A3B and 5334A3B**

(5) Manufacturer: **PR Electronics A/S**

(6) Address: **Lerbakken 10, 8410 Rønde, 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., 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. NL/DEK/ExTR13.0037/**.

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

EN 60079-0 : 2012

EN 60079-11 : 2012

EN 60079-15 : 2010

(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 Type Examination Certificate relates only to the design, examination and tests of the specified equipment and not to the manufacturing process and supply of this equipment.

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



II 3 G Ex nA [ic] IIC T4 ... T6 Gc
II 3 G Ex ic IIC T4...T6 Gc
II 3 D Ex ic IIIC Dc

This certificate is issued on 23 August 2013 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.


R. Schuller
Certification Manager

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DEKRA Certification B.V. Meander 1051, 6825 MJ Arnhem P.O. Box 5185, 6802 ED Arnhem The Netherlands
T +31 88 96 83000 F +31 88 96 83100 www.dekra-certification.com Registered Arnhem 09085396

(13) **SCHEDULE**

(14) **to Type Examination Certificate KEMA 10ATEX0002 X**

Issue No. 2

(15) **Description**

The 2-wire Programmable Transmitter, Type 5331A and Type 5334A, suitable for mounting in a metal enclosure form B according to DIN 43729, is used to convert the temperature measurement signal of a temperature sensor or a mV signal into a 4 ... 20 mA current signal.

The relation between ambient temperature range and temperature class is as follows:

T4 (Ta -40 to +85 °C),

T6 (Ta -40 to +60 °C).

For explosive dust atmospheres, the surface temperature of the outer enclosure is 20 K above the ambient temperature.

Electrical data

Either,

supply / output circuit (terminals 1 and 2):

in type of protection Ex nA: $U_{max} = 35 \text{ V}$,

sensor circuit (terminals 3, 4, 5 and 6):

in type of protection intrinsic safety Ex ic IIC and Ex ic IIIC, with the following maximum values:

$U_o = 9,6 \text{ V}$; $I_o = 25 \text{ mA}$; $P_o = 60 \text{ mW}$; $C_o = 2,4 \text{ }\mu\text{F}$; $L_o = 33 \text{ mH}$.

or,

supply / output circuit (terminals 1 and 2):

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

$U_i = 35 \text{ V}$; $I_i = 110 \text{ mA}$; $C_i = 1 \text{ nF}$; $L_i = 10 \text{ }\mu\text{H}$,

sensor circuit (terminals 3, 4, 5 and 6):

in type of protection intrinsic safety Ex ic IIC or Ex ic IIIC, with the following maximum values:

$U_o = 9,6 \text{ V}$; $I_o = 25 \text{ mA}$; $P_o = 60 \text{ mW}$; $C_o = 2,4 \text{ }\mu\text{F}$; $L_o = 33 \text{ mH}$.

Installation instructions

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

(16) **Test Report**

No. NL/DEK/ExTR13.0037/**.

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

For type of protection Ex nA, the transmitter shall be mounted in a metal enclosure providing a degree of protection of at least IP54 according to EN60529.

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

Covered by the standards listed at (9).

(19) **Test documentation**

As listed in Test Report No. NL/DEK/ExTR13.0037/**.