(1) # TYPE EXAMINATION CERTIFICATE

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

(3) Type Examination Certificate Number: **KEMA 10ATEX0003 X** Issue Number: **1**

(4) Equipment: **2-Wire Programmable Transmitter Type 5333A**

(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) KEMA Quality 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. 213096400/1.

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

EN 60079-0 : 2006 **EN 60079-11 : 2007** **EN 60079-15 : 2005**

(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 GD **Ex nA[nL] IIC T4 ... T6** or
II 3 GD **Ex nL IIC T4 ... T6** or

II 3 GD **Ex nA[ic] IIC T4 ... T6** or
II 3 GD **Ex ic IIC T4 ... T6**

This certificate is issued on January 8, 2010 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.

KEMA Quality B.V.

C.G. van Es
Certification Manager

PRODUCTS RvAC 001

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(13) # SCHEDULE

(14) **to Type Examination Certificate KEMA 10ATEX0003 X** Issue No. **1**

(15) **Description**

The 2-Wire Programmable Transmitter Type 5333A, suitable for mounting in an enclosure form B according to DIN 43729, is used to convert the temperature measurement signal of a resistive temperature sensor into a 4 ... 20 mA current signal with digital communication.

Ambient temperature range: -40 °C to +85 °C for temperature class T4,
-40 °C to +60 °C for temperature class T6.

Electrical data

Supply and output circuit (terminals 1 and 2):
in type of protection non sparking Ex nA;
$U \leq 35$ Vdc; I = 4 ... 20 mA; or

Supply and output circuit (terminals 1 and 2):
in type of protection energy limitation Ex nL IIC or intrinsic safety Ex ic IIC, with the following maximum values:
$U_i = 35$ V; $C_i = 1$ nF; $L_i = 10$ µH.

Sensor circuit (terminals 3, 4, 5 and 6):
in type of protection energy limitation Ex nL IIC or intrinsic safety Ex ic IIC, with the following maximum values:
$U_o = 27$ V; $I_o = 7$ mA; $P_o = 45$ mW; $C_o = 90$ nF; $L_o = 35$ mH.

The above mentioned circuits are galvanically connected with each other.

(16) **Test Report**

KEMA No. 213096400/1.

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

1. For use in potentially explosive atmospheres of flammable gasses, vapours or mists, the transmitter shall be mounted in an enclosure providing a degree of protection of at least IP 54 in accordance with EN 60529.
2. For use in the presence of combustible dusts, the transmitter shall be mounted in an enclosure providing a degree of protection of at least IP 6X in accordance with EN 60529. The surface temperature of the enclosure shall be determined after installation of the transmitter.
3. For an ambient temperature ≥ 60 °C, heat resistant cables shall be used with a rating of at least 20 K above the ambient temperature.

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

Covered by the standards listed at (9).

(19) **Test documentation**

As listed in Test Report No. 213096400/1.