

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 03ATEX1508 X**

Issue Number: **5**

(4) Equipment: **2-Wire Transmitter with HART Protocol
Type 5335A, Type 5337A**

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

(6) Address: **Lerbakken 10, 8410 Rønede, 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. 214349600/2.

(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 T6 or T4 Gc or

II 3 G

Ex ic IIC T6 or T4 Gc or

II 3 D

Ex ic IIC Dc

This certificate is issued on 28 May 2014 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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(13) **SCHEDULE**

(14) **to Type Examination Certificate KEMA 03ATEX1508 X**

Issue No. **5**

(15) **Description**

The 2-Wire Transmitters Type 5335A with HART 5 protocol and Type 5537A with HART 7 protocol, are used to convert temperature measurement signals from a temperature sensor or a mV signal into a 4 ... 20 mA current signal with digital communication (HART).
The Transmitters are suitable for mounting in an enclosure form B according to DIN 43729.

For use in an explosive dust atmosphere, the transmitter shall be mounted in an enclosure providing a degree of protection of at least IP 6X in accordance with EN 60529, e.g. a form B enclosure according to DIN 43729. The surface temperature of the enclosure is equal to the ambient temperature +20 K, for a dust layer with a maximum thickness of 5 mm.

Ambient temperature range:

-40 °C to +60 °C for temperature class T6,

-40 °C to +85 °C for temperature class T4, and for use in an explosive dust atmosphere.

Electrical data

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

supply and output circuit, 4 ... 20 mA (terminals 1 and 2), in type of protection intrinsic safety Ex ic IIC or Ex ic IIIC, with the following maximum values: $U_i = 35$ V; $C_i = 1$ nF; $L_i = 10$ μ H.

Sensor circuit (terminals 3, 4, 5 and 6) intended for connection to a thermocouple, RTD, resistance or mV-source, in type of protection intrinsic safety Ex ic IIC or Ex ic IIIC, with the following maximum values:

$U_o = 9,6$ V; $I_o = 28$ mA; $P_o = 67$ mW; $C_o = 28$ μ F; $L_o = 45$ mH.

Installation instructions

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

(16) **Test Report**

No. 214349600/2.

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

In type of protection non sparking Ex nA, the transmitter shall be mounted in an enclosure providing a degree of protection of at least IP54 in accordance with EN 60529, which is suitable for the application and correctly installed.

If the enclosure is made of non-metallic materials, or of painted metal, electrostatic charging shall be avoided.

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

Covered by the standards listed at (9).

(13) **SCHEDULE**

(14) **to Type Examination Certificate KEMA 03ATEX1508 X**

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(19) **Test documentation**

As listed in Test Report No. 214349600/2.