# **CERTIFICATE**

# Type Examination

- (2) Product intended for use in potentially explosive atmospheres Directive 2014/34/EU
- (3) Type Examination Certificate Number: **KEMA 03ATEX1508 X** Issue Number: **6**
- (4) Product: 2-wire Transmitter with HART protocol Type 5335A, and Type 5337A.
- (5) Manufacturer: PR Electronics A/S
- (6) Address: Lerbakken 10, 8410 Rønde, Denmark
- (7) This product 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 product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014.

The examination and test results are recorded in confidential test report no. NL/KEM/ExTR10.0074/04.

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

EN 60079-0 : 2012 + A11 : 2013 / EN 60079-11 : 2012 / / / / EN 60079-15 : 2010

except in respect of those requirements listed at item 18 of the Schedule

- (10) If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.
- (11) This Type Examination Certificate relates only to the design and construction of the specified product and not to the manufacturing process and its monitoring.
- (12) The marking of the product 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 IIIC Dc

Date of certification: 25 October 2019.

DEKRA Certification B.V.

R. Schuller

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# (13) SCHEDULE

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

Issue No. 6

#### (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 or equivalent.

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 I = 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 (I = 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:  $U_i = 35 \text{ V}$ ;  $C_i = 1 \text{ nF}$ ;  $L_i = 10 \text{ µH}$ .

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:

 $U_0 = 9.6 \text{ V}$ ;  $I_0 = 28 \text{ mA}$ ;  $P_0 = 67 \text{ mW}$ ;  $C_0 = 28 \mu\text{F}$ ;  $L_0 = 45 \text{ mH}$ .

## Installation instructions

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

#### (16) **Test Report**

No. NL/DEK/ ExTR10.0074/04

#### (17) Specific conditions of use

For 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 painted metal, electrostatic charging shall be avoided.

# (18) Essential Health and Safety Requirements

Covered by the standards listed at item (9).

# (13) SCHEDULE

(14) to Type Examination Certificate KEMA 03ATEX1508 X

Issue No. 6

(19) Test documentation

As listed in Test Report No. NL/DEK/ExTR10.0074/04.

(20) Certificate history

Issue 1 - 209088000 Initial assessment,

Issue 2 - 212919900 Addition for dust-protection

Issue 3 - 213583500 Addition of type 5336A.

Issue 4 - 214349600 Addition of type 5337A.

Issue 5 - 216967600 Assessment to new edition of the standards, Removal of Type 5336A.

Issue 6 - 223390900 Minor constructional changes, EN 60079-0:2012/A11:2013 added.