

CERTIFICATE

(1) EU-Type Examination

(2) **Equipment or protective systems intended for use in potentially explosive atmospheres - Directive 2014/34/EU**

(3) EU-Type Examination Certificate Number: **KEMA 03ATEX1537** Issue Number: **11**

(4) Product: **2-Wire Transmitter with HART Protocol Type 5335D and Type 5337D**

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

(6) Address: **Lerbakken 10, 8410 Rønede, 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., Notified Body number 0344 in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, 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 the Directive.

The examination and test results are recorded in confidential test report number 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

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 EU-Type Examination Certificate relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

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



II 1 G Ex ia IIC T6 orT4 Ga
II 1 D Ex ia IIIC Da
I M 1 Ex ia I Ma

Date of certification: 25 October 2019

DEKRA Certification B.V.

R. Schuller
Certification Manager



(13) **SCHEDULE**

(14) **to EU-Type Examination Certificate KEMA 03ATEX 1537**

Issue No. 11

(15) **Description**

The 2-Wire Transmitters Type 5335D with HART 5 protocol, and Type 5337D with HART 7 protocol, are used to convert the measurement signals of a temperature sensor or a mV signal into a 4 ... 20 mA current signal with digital communication (HART).

The transmitter is suitable for mounting in an enclosure form B according to DIN 43729 or equivalent.

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

Type of protection Ex ia IIC Ga

The transmitter shall be mounted in an enclosure that provides a degree of protection of at least IP20 according to EN 60529.

Type of protection Ex ia I Ma

The transmitter shall be mounted in an enclosure that provides a degree of protection of at least IP54 according to EN 60529, that is suitable for the application and is correctly installed.

Type of protection Ex ia IIIC Da

The transmitter shall be mounted in a metal enclosure that provides a degree of protection of at least IP6X according to EN 60529. 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 +85 °C

Electrical data

Supply and output circuit (terminals 1 and 2):

in type of protection intrinsic safety Ex ia IIC, Ex ia IIIC or Ex ia I Ma, only for connection to a certified intrinsically safe circuit, with the following maximum values:
 $U_i = 30 \text{ V}$; $I_i = 120 \text{ mA}$; $P_i = 0,84 \text{ W}$; $C_i = 1 \text{ nF}$; $L_i = 10 \text{ }\mu\text{H}$

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

in type of protection intrinsic safety Ex ia IIC, Ex ia IIIC or Ex ia I Ma, with the following maximum values:
 $U_o = 9,6 \text{ V}$; $I_o = 28 \text{ mA}$; $P_o = 67 \text{ mW}$; $C_o = 3,5 \text{ }\mu\text{F}$; $L_o = 35 \text{ mH}$

The sensor circuit is not infallibly galvanically isolated from the supply and output circuit. However, the galvanic isolation between the circuits is capable of withstanding a test voltage of 500 Vac during 1 minute.

Installation instructions

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

(16) **Report Number**

No. NL/KEM/ ExTR10.0074/04.

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(17) **Specific conditions of use**

None

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

Covered by the standards listed at item (9).

(19) **Test documentation**

As listed in Report No. NL/KEM/ExTR10.0074/04.

(20) **Certificate history**

Issue 1	- 203794700	Initial assessment.
Issue 2-6	-	Assessment to new edition of the standards, minor changes.
Issue 7	- 212575000	Assessment to new edition of the standards, minor changes.
Issue 8	- 213583500	Addition of type 5336D with HART 6 protocol.
Issue 9	- 214349600	Addition of type 5337D with HART 7 protocol.
Issue 10	- 216967600	Assessment to new edition of the standards, removal of Type 5336.
Issue 11	- 223390900	Minor constructional changes, EN 60079-0:2012/A11:2013 added, EN 60079-26 removed