

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 06ATEX0062 X** Issue Number: **4**

(4) Product: **2-wire Programmable Transmitter Type 5331B3B, 5331C3B, 5331D3B, 5332D, 5334B3B**

(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 2143719000/1 Issue 2.

(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 T4 ... T6 Ga
II 1 D Ex ia IIIC Da
I M1 Ex ia I Ma

Date of certification: 3 October 2018

DEKRA Certification B.V.

R. Schuller
Certification Manager



(13) **SCHEDULE**

(14) **to EU-Type Examination Certificate KEMA 06ATEX00062 X**

Issue No. 4

(15) **Description**

The 2-wire Programmable Transmitter, Type 5331B3B, Type 5331C3B, Type 5331D3B, 5332D and Type 5334B3B, 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.

Type 5331 is designed to convert thermocouple or a RTD sensor signals.

Type 5332 is designed to convert RTD sensors signals

Type 5334 is designed to convert thermocouples signals

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

T4 (Ta: -40 to +85 °C),

T5 (Ta: -40 to +60 °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

Supply / output circuit (terminals 1 and 2):

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

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

The sensor circuit is not infallibly galvanic isolated from the input 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. 2143719000/1 Issue 2.

(17) **Specific conditions of use**

If the transmitter is installed in an explosive atmosphere requiring the use of equipment of category 1 G, 1 M or 2 M, and if the enclosure is made of aluminum, it must be installed such, that ignition sources due to impact and friction sparks are excluded.

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

Covered by the standards listed at item (9)

(13) **SCHEDULE**

(14) **to EU-Type Examination Certificate KEMA 06ATEX00062 X** Issue No. 4

(19) **Test documentation**

As listed in Report No. 2143719000/1 Issue 2.

(20) **Certificate history**

Issue 0 - 209146200 Initial certificate
Issue 1 - 212043500 Minor design changes (TR 209146200-1)
Issue 2 - 212575000 Upgrade to 60079 and 61241 series
Issue 3 - 214371900 Upgrade to newer edition of EN 60079-0 and EN 60079-11
Issue 4 - 223085900 Added model 5332D, minor design changes, EN 60079-0 A11 : 2013 added and removal of EN 60079-26 (no longer required for this equipment per latest edition)