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: **DEKRA 20ATEX0105 X** Issue Number: **0**

(4) Product: **2-wire Programmable Transmitter type 5333D, 6333B** and 2-wire Level Transmitter type 5343B**

(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., 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/DEK/ExTR20.0065/00.

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

EN IEC 60079-0 : 2018 **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 … T4 Ga
II 2 D Ex ia IIIC Db
I M 1 Ex ia I Ma

Date of certification: 29 June 2021

DEKRA Certification B.V.

R. Schuller
Certification Manager

PRODUCTS RvA C 001

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Correction 2024-03-05

DEKRA Certification B.V. Meander 1051, 6825 MJ Arnhem P.O. Box 5185, 6802 ED Arnhem The Netherlands
T +31 88 96 83000 F +31 88 96 83100 www.dekra-product-safety.com Registered Arnhem 09085396

(13) # SCHEDULE

(14) **to EU-Type Examination Certificate DEKRA 20ATEX0105 X** Issue No. **0**

(15) **Description**

The 2-wire Programmable Transmitter, head mounted type 5333D and rail mounted type 6333B**, is used to convert the temperature measurement signal of a resistive temperature sensor (RTD) into a 4 ... 20 mA current signal with digital communication.
The 2-wire Level Transmitter, head mounted type 5343B, is used to convert the signal of a resistive level sensor into a 4-20 mA current signal with digital communication.

The 5*** series transmitter is suitable for mounting in a metal enclosure form B according to DIN 43729 and consists of one channel.
The 6*** series transmitter is suitable for rail mounting, with one or two independent channels.

Type designation

Following models numbers are applicable depending on the Equipment Protection Level (EPL), mounting type and number of channels:

EPL	Head mounted	Rail mounted	
	1 channel	1 channel	2 channels
Ga, Db, Ma	5333D 5343B	6333B*A	6333B*B

Thermal data

For EPL Ga (head mounted Types 5333D, 5343B):
The relation between ambient temperature range and temperature class:

Temperature class	P_i = 0,84 W	P_i = 0,75 W
	Ambient temperature range	Ambient temperature range
T6	-40 °C to +47 °C	-40 °C to +50 °C
T5	-40 °C to +62 °C	-40 °C to +65 °C
T4	-40 °C to +85 °C	-40 °C to +85 °C

For EPL Ga (rail mounted Type 6333B**):
The relation between ambient temperature range and temperature class:

Temperature class	P_i = 0,84 W	P_i = 0,75 W
	Ambient temperature range	Ambient temperature range
T6	-40 °C to +40 °C	-40 °C to +45 °C
T5	-40 °C to +55 °C	-40 °C to +60 °C
T4	-40 °C to +85 °C	-40 °C to +85 °C

For EPL Db:
The surface temperature of the outer enclosure is +20 K above the ambient temperature, determined without a dust layer.
Ambient temperature range: -40 °C to +85 °C

For EPL Ma:
Ambient temperature range: -40 °C to +85 °C

(13) # SCHEDULE

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Electrical data

Supply / output circuit (terminals 1 and 2, for head mounted):
Supply and output circuit (terminals 11 - 13, respectively 21 – 23, for rail mounted):
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 (per circuit):
U_i = 30 V; I_i = 120 mA; P_i = 0,84 W or P_i = 0,75 W; C_i = 1 nF (head mounted), C_i = 6,2 nF (rail mounted); L_i = 10 µH.

Sensor circuit (terminals 3, 4 and 6, for head mounted):
Sensor circuit (terminals 41 ... 44, respectively 51 … 54, for rail mounted):
in type of protection intrinsic safety Ex ia IIC, Ex ia IIIC and Ex ia I, with the following maximum values (per circuit):
U_o = 30 V; I_o = 8 mA; P_o = 60 mW; C_o = 66 nF (head mounted), C_o = 60,8 nF (rail mounted); L_o = 35 mH.

The sensor circuit is not infallibly galvanic isolated from the input circuit.

Installation instructions

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

(16) **Report Number**

No. NL/DEK/ExTR20.0065/00.

(17) **Specific conditions of use**

For ambient temperature range see (15).

If the enclosure is made of non-metallic plastic materials, electrostatic charges on the transmitter enclosure shall be avoided.

If the transmitter is installed in an explosive atmosphere requiring the use of equipment protection level Ga or Ma, and if the enclosure is made of aluminium, it must be installed such, that ignition sources due to impact and friction sparks are excluded.

If the transmitter is installed in an explosive atmosphere requiring the use of equipment protection level Ga, the transmitter shall be mounted in enclosure that provides a degree of protection of at least IP20 according to IEC 60529, and that is suitable for the application and correctly installed.

If the transmitter is installed in an explosive atmosphere requiring the use of equipment protection level Db, the transmitter shall be mounted in enclosure that provides a degree of protection of at least IP5X according to IEC 60079-0, and that is suitable for the application and correctly installed.

If the transmitter is installed in an explosive atmosphere requiring the use of equipment protection level Ma, the transmitter shall be mounted in enclosure that provides a degree of protection of at least IP54 according to IEC 60529, and that is suitable for the application and correctly installed.

(13) # SCHEDULE

(14) **to EU-Type Examination Certificate DEKRA 20ATEX0105 X** Issue No. **0**

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

Covered by the standards listed at item (9).

(19) **Test documentation**

As listed in Report No. NL/DEK/ExTR20.0065/00.

(20) **Certificate history**

Issue 0 - 224097400 initial certificate