



# IECEX Certificate of Conformity

## INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit [www.iecex.com](http://www.iecex.com)

Certificate No.: IECEx DEK 14.0047X Issue No: 0 Certificate history:  
Issue No. 0 (2014-06-30)

Status: **Current** Page 1 of 3

Date of Issue: **2014-06-30**

Applicant: **PR electronics A/S**  
Lerbakken 10  
8410 Rønne  
**Denmark**

Electrical Apparatus: **2-Wire Programmable Transmitter, Type 6331A\*\*, Type 6331B\*\*, Type 6334A\*\* and Type 6334B\*\***

*Optional accessory:*

Type of Protection: **Ex ia, Ex nA[ic]**

Marking: Ex ia IIC T6 ... T4 Ga  
Ex ia IIIC Da  
Ex ia I Ma  
Ex nA [ic] IIC T6 ... T4 Gc or  
Ex ic IIC T6 ... T4 Gc or  
Ex ic IIIC Dc

Approved for issue on behalf of the IECEx  
Certification Body:

R.H.D. Pommé

Position:

Certification manager

Signature:  
(for printed version)

Date:

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the [Official IECEx Website](http://www.iecex.com).

Certificate issued by:

**DEKRA Certification B.V.**  
Meander 1051,  
6825 MJ Arnhem  
The Netherlands





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Manufacturer: **PR electronics A/S**  
Lerbakken 10  
8410 Rønede  
Denmark

Additional Manufacturing  
location(s):

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

## STANDARDS:

The electrical apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

<b>IEC 60079-0 : 2011</b> Edition:6.0	Explosive atmospheres - Part 0: General requirements
<b>IEC 60079-11 : 2011</b> Edition:6.0	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
<b>IEC 60079-15 : 2010</b> Edition:4	Explosive atmospheres - Part 15: Equipment protection by type of protection "n"
<b>IEC 60079-26 : 2006</b> Edition:2	Explosive atmospheres - Part 26: Equipment with equipment protection level (EPL) Ga

*This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

## TEST & ASSESSMENT REPORTS:

*A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in*

Test Report:

[NL/DEK/ExTR13.0058/00](#)

Quality Assessment Report:

[NL/DEK/QAR13.0017/00](#)



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## Schedule

### EQUIPMENT:

*Equipment and systems covered by this certificate are as follows:*

### General product information:

The 2-wire Programmable Transmitter Type 6331A\*\*, Type 6331B\*\*, Type 6334A\*\* and Type 6334B\*\*, for rail mounting, with one or two independent channels is used to convert the temperature measurement signal of a temperature sensor or a mV signal into a 4 ... 20 mA current signal.

### Thermal and electrical data:

Refer to the Annex to this certificate.

### CONDITIONS OF CERTIFICATION: YES as shown below:

If the transmitter is applied in type of protection "Ex nA", it shall be installed in an enclosure that is Ex nA certified according to IEC 60079-15, suitable for the application and correctly installed.

Electrostatic charges on the transmitters enclosure shall be avoided.

### Annex:

[Annex1 to IECEx DEK 14.0047X-Iss0\\_ExTR\\_DEK13.0058.00\\_KEMA 06ATEX0115 X-Iss3.pdf](#)

**Annex 1 to Certificate of Conformity IECEx DEK 14.0047 X, issue 0**  
**Annex 1 to NL/DEK/ExTR/13.0058/00**  
**Annex 1 to KEMA 06ATEX0115 X, issue 3**

**General product information:**

The 2-wire Programmable Transmitter Type 6331A\*\*, 6331B\*\*, 6334A\*\* and 6334B\*\*, for rail mounting, with one or two independent channels is used to convert the temperature measurement signal of a temperature sensor or a mV signal into a 4 ... 20 mA current signal.

For marking Ex ia IIC T6 ... T4 Ga

The transmitter shall be mounted in an enclosure that provides a degree of protection of at least IP20 according to EN/IEC 60529 and that is suitable for the application and correctly installed.

Ambient temperature range: -40 °C to +40 °C for temperature class T6  
-40 °C to +60 °C for temperature class T5  
-40 °C to +85 °C for temperature class T4

For marking Ex ia IIIC Da and Ex ic IIIC Dc

The transmitter shall be mounted in an enclosure that provides a degree of protection of at least IP6X according to EN/IEC 60529, and that is suitable for the application and correctly installed.

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

For marking Ex ia I Ma

The transmitter shall be mounted in an enclosure that provides a degree of protection of at least IP6X according to EN/IEC 60529.

Ambient temperature range: -40 °C to +85 °C

For marking Ex nA [ic] IIC T6 ... T4 Gc and Ex ic IIC T6 ... T4 Gc

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

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

**Electrical data**

Type of protection Ex ia:

Supply and output circuit (terminals 11 - 13, respectively 21 - 23):  
in type of protection intrinsic safety Ex ia IIC, Ex ia IIIC or Ex ia I, only for connection to a certified intrinsically safe circuit, with the following maximum values (per circuit):  
 $U_i = 30 \text{ V}$ ;  $I_i = 120 \text{ mA}$ ;  $P_i = 0.84 \text{ W}$ ;  $C_i = 1 \text{ nF}$ ;  $L_i = 10 \text{ }\mu\text{H}$ .

Sensor circuit (terminals 41 ... 44, respectively 51 ... 54):  
in type of protection intrinsic safety Ex ia IIC, Ex ia IIIC or Ex ia I, with following maximum values (per circuit):  
 $U_o = 9.6 \text{ V}$ ;  $I_o = 25 \text{ mA}$ ;  $P_o = 60 \text{ mW}$ ;  $C_o = 2.4 \text{ }\mu\text{F}$ ;  $L_o = 33 \text{ mH}$ .

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

**Annex 1 to Certificate of Conformity IECEx DEK 14.0047 X, issue 0**  
**Annex 1 to NL/DEK/ExTR/13.0058/00**  
**Annex 1 to KEMA 06ATEX0115 X, issue 3**

Types of protection Ex ic and Ex nA

Supply and output circuit (terminals 11 - 13, respectively 21 - 23):  
in type of protection non sparking Ex nA, with

$U_{max} \leq 35 \text{ Vdc}$ , or

supply and output circuit (terminals 11 - 13, respectively 21 - 23):  
in type of protection intrinsic safety Ex ic IIC or Ex ic IIIC, with the following maximum values (per circuit):  
 $U_i = 35 \text{ V}$ ;  $C_i = 1 \text{ nF}$ ;  $L_i = 10 \text{ }\mu\text{H}$ .

Sensor circuit (terminals 41 ... 44, respectively 51 ... 54), in type of protection intrinsic safety Ex ic IIC or Ex ic IIIC, with the following maximum values (per circuit):

$U_o = 9.6 \text{ V}$ ;  $I_o = 25 \text{ mA}$ ;  $P_o = 60 \text{ mW}$ ;  $C_o = 2.4 \text{ }\mu\text{F}$ ;  $L_o = 33 \text{ mH}$ .

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