# IECEx Certificate of Conformity

## INTERNATIONAL ELECTROTECHNICAL COMMISSION
## IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

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| Certificate No.: | **IECEx DEK 16.0029X** | Page 1 of 4 | Certificate history: |
| Status: | **Current** | Issue No: 4 | Issue 3 (2019-12-04)<br>Issue 2 (2019-03-27)<br>Issue 1 (2018-04-05)<br>Issue 0 (2017-11-01) |
| Date of Issue: | 2021-06-30 | | |

Applicant: **PRelectronics A/S**
Lerbakken 10
8410 Rønde
**Denmark**

Equipment: **2-wire TC Temperature Transmitter, type 5434... , 2-wire universal Temperature Transmitter, type 5431... and 6431... , 2-wire HART Temperature Transmitter, type 5435...., 5437.... and type 6437....**

Optional accessory:

Type of Protection: **Ex ia, ic, nA, ec**

Marking:

For type 5431D..., 5434D.., 5435D..., 5437D..., 6431D... and type 6437D...:
Ex ia IIC T6 ...T4 Ga
Ex ib [ia Ga] IIC T6...T4 Gb
Ex ia IIIC Db
Ex ia I Ma

For type 5431A..., 5434A.., 5435A..., 5437A..., 6431A... and type 6437A...:
Ex nA IIC T6...T4 Gc
Ex ec IIC T6...T4 Gc
Ex ic IIC T6...T4 Gc
Ex ic IIIC Dc

Approved for issue on behalf of the IECEx Certification Body: **R. Schuller**

Position: **Certification Manager**

Signature: (for printed version)

Date: 2021-06-30

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 www.iecex.com or use of this QR Code.

Certificate issued by:

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

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Manufacturer: **PRelectronics A/S**
Lerbakken 10
8410 Rønde
**Denmark**

Additional manufacturing locations:

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 equipment 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

**IEC 60079-0:2017** Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

**IEC 60079-11:2011** Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

**IEC 60079-15:2010** Explosive atmospheres - Part 15: Equipment protection by type of protection "n"
Edition:4

**IEC 60079-7:2017** Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
Edition:5.1

This Certificate **does not** indicate compliance with 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/ExTR16.0035/05

Quality Assessment Report:

NL/DEK/QAR13.0017/04

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**EQUIPMENT:**
Equipment and systems covered by this Certificate are as follows:

The 2-Wire Temperature Transmitters, type 543..… and type 643....., are used to convert temperature measurement signals from one or two temperature sensors or mV signals, into a 4 ... 20 mA current signal with digital communication (HART).

The 2-Wire Temperature Transmitters, type 643... and type 5825-3.… are the DIN Rail mounted versions. They have the same electronics, same thermal and electrical data and the same safety instructions.
The transmitter, type 5825-3..., is just a 'dummy' version, meant to support a second license certificate for Siemens.

Note that type 543.A… and 543.D…, respectively type 5825-3.A... , 5825-3.D...and type 5825-3.N... are identical, only the label differs.

An extra connection 'TEST', next to terminal 1 of the 543.... resp. on terminal 1 and 2 of the 5825-3...., resp. on terminals 13, 14 and 23, 24 of type 643..., enables connection of an external intrinsically safe current meter, to measure the supply current. Intrinsic safety parameters of the supply circuit also apply for the 'TEST' connection.

The dedicated extension port 'EXT' (8-pin-header hidden under a small plastic lid on the 543..... and the front connector and contact pads on the 643.....) may only be connected to equipment that is predefined by PRelectronics A/S.

The transmitters type 543..... are suitable for mounting in an enclosure form B according to DIN 43729 or equivalent.
The transmitters type 643....., are suitable for rail mounting.

For Thermal data, Electrical data and Type designation, see Annex 1 to this certificate.

**SPECIFIC CONDITIONS OF USE: YES as shown below:**
For ambient temperature range see Annex 1.

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 or Gc and applied in type of protection Ex ia or Ex ic, 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 or Dc and applied in type of protection Ex ia or Ex ic, 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.

If the transmitter is installed in an explosive atmosphere requiring the use of equipment protection level Gc and applied in type of protection Ex nA or Ex ec, the transmitter shall be mounted in enclosure that provides a degree of protection of at least IP54 according to IEC 60079-0, and that is suitable for the application and correctly installed.

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**DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)**
assessed per IEC 60079-0 : 2017 (Ed.7.0)

**Annex:**

224097400-ExTR16.0035.05-Annex1.pdf