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

Certificate No.:	IECEx KEM 10.0083X	Issue No: 3	Certificate history:
			Issue No. 3 (2014-05-29)
Status:	**Current**	Page 1 of 4	Issue No. 2 (2012-12-19)
			Issue No. 1 (2011-12-16)
Date of Issue:	**2014-05-29**		Issue No. 0 (2010-10-04)

Applicant: **PR Electronics A/S**
Lerbakken 10
8410 Rønde
Denmark

Electrical Apparatus: **2-Wire Transmitter with HART Protocol, Types 5335A, 5335D, 5337A and 5337D**

Optional accessory:

Type of Protection: **Ex i, Ex n**

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. Schuller

Position: Certification Manager

Signature:
(for printed version)

Date: 2014-05-29

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.

Certificate issued by:

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

DEKRA

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Manufacturer:	**PR electronics A/S** Lerbakken 10 8410 Rønde **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:

IEC 60079-0 : 2011 Edition:6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-11 : 2011 Edition:6.0	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
IEC 60079-15 : 2010 Edition:4	Explosive atmospheres - Part 15: Equipment protection by type of protection "n"
IEC 60079-26 : 2006 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/KEM/ExTR10.0074/03

Quality Assessment Report:

NL/DEK/QAR13.0017/00

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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

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

For further information, refer to the Attachment.

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, providing a degree of protection of at least IP54 according to IEC60529, that is suitable for the application and correctly installed.

If the transmitter is installed in an explosive atmosphere where equipment protection level Ga is required, and if the enclosure is made of aluminum, it must be installed such, that even in the event of rare incidents, ignition sources due to impact and friction, sparks are excluded.

If the enclosure is made of non-metallic materials, or of painted metal, electrostatic charging shall be avoided.

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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

- upgrade to the latest standards;
- minor constructional changes;
- removal of type 5336A and type 5336D.

Annex:

Attachment to IECEx KEM 10.0083 X issue 3.pdf

Attachment to IECEx KEM 10.0083, Issue 03

General product information:

The 2-Wire Transmitter Type 5335A and Type 5335D with HART 5 protocol, Type 5337A and Type 5337D with HART 7 protocol, are used to convert temperature measurement signals from 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.

Type of protection Ex ia IIC Ga and Ex ic IIC Gc
The transmitter shall be mounted in an 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.
Ambient temperature range: -40 °C to +45 °C for temperature class T6
-40 °C to +85 °C for temperature class T4

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 IEC 60529, that is suitable for the application and is correctly installed.
Ambient temperature range: -40 °C to +85 °C

Type of protection Ex nA
The Transmitter shall be mounted in an 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.
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 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 IEC 60529 eg. a form B enclosure according to DIN 43729, 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

Electrical data

Type of protection Ex ia:
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 V; I_i = 120 mA; P_i = 0.84 W; C_i = 1 nF; L_i = 10 µH.

Sensor circuit (terminals 3 ... 6):
in type of protection intrinsic safety Ex ia IIC, Ex ia IIIC or Ex ia I Ma, with following maximum values:
U_o = 9.6 V; I_o = 28 mA; P_o = 67 mW; C_o = 3.5 µF; L_o = 35 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.

Types of protection Ex ic and Ex nA
Supply and output circuit, 4 ... 20 mA (terminals 1 and 2), in type of protection non sparking Ex nA, with
U ≤ 35 Vdc; or
in type of protection intrinsic safety Ex ic IIC or Ex ic IIIC, only for connection to a certified intrinsically safe circuit, with the following maximum values:U_i = 35 V; C_i = 1 nF; L_i = 10 µH.

Sensor circuit (terminals 3, 4, 5 and 6) intended for connection to a thermocouple, RTD, resistance or mV-source, in type of protection intrinsic safety Ex ic IIC or Ex ic IIIC, with the following maximum values:
U_o = 9,6 V; I_o = 28 mA; P_o = 67 mW; C_o = 28 µF; L_o = 45 mH.

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