



# CERTIFICATE

## (1) EC-Type Examination

(2) **Equipment and protective systems intended for use in potentially explosive atmospheres - Directive 94/9/EC**

(3) EC-Type Examination Certificate Number: **KEMA 09ATEX0148** Issue Number: **3**

(4) Equipment: **2-Wire Transmitter with HART Protocol Type 6335D, Type 6336D and Type 6337D**

(5) Manufacturer: **PR electronics A/S**

(6) Address: **Lerbakken 10, 8410 Rønede, Denmark**

(7) This equipment 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 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems 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 214349600/3.

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

**EN 60079-0 : 2009**  
**EN 60079-11 : 2007**

**EN 60079-26 : 2007**  
**EN 61241-11 : 2006**

(10) If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.

(11) This EC-Type Examination Certificate relates only to the design, examination and tests of the specified equipment according to the Directive 94/9/EC. Further requirements of the directive apply to the manufacturing process and supply of this equipment. These are not covered by this certificate.

(12) The marking of the equipment shall include the following:



**II 1 G Ex ia IIC T6 ... T5 Ga**  
**II 1 D Ex ia IIIC Da**

This certificate is issued on 20 December 2011 and, as far as applicable, shall be revised before the date of cessation of presumption of conformity of (one of) the standards mentioned above as communicated in the Official Journal of the European Union.

DEKRA Certification B.V.

C. G. van Es  
Certification Manager

° Integral publication of this certificate and adjoining reports is allowed. This Certificate may only be reproduced in its entirety and without any change.



All testing, inspection, auditing and certification activities of the former KEMA Quality are an integral part of the DEKRA Certification Group

(13) **SCHEDULE**

(14) **to EC-Type Examination Certificate KEMA 09ATEX0148**

Issue No. 3

(15) **Description**

The 2-Wire Transmitters Type 6335D with HART 5 protocol, Type 6336D with HART 6 protocol and 6337D 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).

Type 633\*D2A is a one channel version and Type 633\*D2B has two independent channels.

Ambient temperature range for T6: -40 °C to +40 °C.

Ambient temperature range for T5: -40 °C to +60 °C.

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

Type of protection Ex ia IIC

The transmitter shall be mounted in an enclosure that provides a degree of protection of at least IP20 according to EN 60529.

Type of protection Ex ia IIIC

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

**Electrical data**

Supply and output circuits (terminals 11 ... 14, respectively 21 ... 24):  
in type of protection intrinsic safety Ex ia IIC or Ex ia IIIC, only for connection to a certified intrinsically safe fieldbus, with following maximum values (per circuit):  
 $U_i = 30 \text{ V}$ ;  $I_i = 120 \text{ mA}$ ;  $P_i = 0,84 \text{ W}$ ;  $C_i = 2 \text{ nF}$ ;  $L_i = 10 \text{ }\mu\text{H}$

Sensor circuits, thermocouple, RTD, resistance or mV (terminals 41 ... 44, respectively 51 ... 54):  
in type of protection intrinsic safety Ex ia IIC or Ex ia IIIC, with following maximum values (per circuit):  
 $U_o = 9,6 \text{ V}$ ;  $I_o = 28 \text{ mA}$ ;  $P_o = 67 \text{ mW}$ ;  $C_o = 3,5 \text{ }\mu\text{F}$ ;  $L_o = 35 \text{ mH}$ .

The sensor circuit is not infallibly galvanically isolated from the supply/output 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 equipment shall be followed in detail to assure safe operation.

(16) **Test Report**

No. 214349600/3.

(17) **Special conditions for safe use**

None.

(13) **SCHEDULE**

(14) **to EC-Type Examination Certificate KEMA 09ATEX0148**

Issue No. 3

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

Covered by the standards listed at (9).

(19) **Test documentation**

As listed in Test Report No. 214349600/3.