

(1) EC-TYPE EXAMINATION CERTIFICATE

(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: **2**

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

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

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

(7) This equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

(8) KEMA Quality 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 213583500/3.

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

EN 60079-0 : 2006

EN 60079-11 : 2007

EN 60079-26 : 2007

(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

This certificate is issued on July 2, 2010 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.

KEMA Quality B.V.

C.G van Es
Certification Manager

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(13) **SCHEDULE**

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

Issue No. 2

(15) **Description**

The 2-Wire Transmitters Type 6335D with HART 5 protocol and Type 6336D with HART 6 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 633*D2B has two independent channels.

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

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

Electrical data

Supply and output circuits (terminals 11 ... 14, respectively 21 ... 24):

in type of protection intrinsic safety Ex ia IIC, only for connection to a certified intrinsically safe circuit, 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, 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 in order to assure safe operation.

(16) **Test Report**

KEMA No. 213583500/3.

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

None.

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

Covered by the standards listed at (9).

(19) **Test documentation**

As listed in Test Report No. 213583500/3.