

CERTIFICATE - TYPE EXAMINATION

Equipment and protective systems intended for use in potentially explosive atmospheres
Directive 2014/34/EU

Type Examination Certificate Number **PR 17ATEX0101 X**

Issue number: 1

Equipment: **2-wire HART temperature transmitter, Type 5437A....**

Manufacturer: PR electronics A/S, Lerbakken 10, DK-8410 Rønne

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

PR electronics 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 no. **5437ExT01**.

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

EN 60079-0 : 2012 + A11 : 2013, EN 60079-11 : 2012

EN 60079-7 : 2015, EN 60079-15 : 2015

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.

This Type Examination Certificate relates only to the design, examination and tests of the specified equipment and not to the manufacturing process and supply of this equipment.

The marking of the equipment shall include the following:



II 3 G Ex nA IIC T6..T4 Gc
II 3 G Ex ec IIC T6..T4 Gc
II 3 G Ex ic IIC T6..T4 Gc
II 3 D Ex ic IIIC Dc

This certificate is issued on October 30 2017 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.

PR electronics A/S


Stig Lindemann
Chief Technical Officer

SCHEDULE

to Type Examination Certificate PR 17ATEX0101 X

Issue No. 1

Description

2-wire HART temperature transmitter, Type 5437..., is 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.

Electrical data

The electrical data of the supply shall be taken from the type of protection as seen below.

Installation instructions

The manual provided with the equipment shall be followed in detail to assure proper and safe operation.

Special conditions for safe use

- In type of protection non sparking, Ex nA or Ex ec, the transmitter shall be installed in an enclosure providing a degree of protection of at least IP54 in accordance with IEC 60529, which is suitable for the application and correctly installed, e.g. in an enclosure that is in type of protection Ex n or Ex e.
- Additionally, the area inside the enclosure shall be pollution degree 2 or better, as defined in IEC 60664-1.

Essential Health and Safety Requirements

Covered by the standards mentioned above if installed according to installation drawing 5437QA01

Test documentation

As listed in Test Report No. 5437ExT01

For type of protection Ex nA or Ex ec or Ex ic:

Rated ambient temperature range (°C): -50°C to + 85 °C

Supply / output circuit (terminals 1 and 2):

The relation between type of protection, temperature class and ambient temperature range is listed in the table below:

Ex ec or Ex nA	Ex ic	Maximum ambient temperature
V _{max} .= 37 VDC	U _i = 37 V; C _i = 1.0 nF; L _i = 0 μH, or U _i = 48 V; P _i = 851 mW; C _i = 1.0 nF; L _i = 0 μH	T4: 85°C T5: 70°C T6: 55°C
V _{max} .= 30 VDC	U _i = 30 V; C _i = 1.0 nF; L _i = 0 μH	T4: 85°C T5: 75°C T6: 60°C

Nomenclature

For the head mounted transmitters, type 5437A.

5437abcd - 2-wire HART 7 temperature transmitter

a: A = Zone 2 approved

b: 1 = single input (4-wire); 2 = dual input (7-wire)

c: S = SIL approval; "-" = No SIL approval

d: M = Marine approval; "-" = No marine approval

Type	Ex approvals	Input	SIL approval	Marine approval
5437	A: Zone 2	1: single input (4W) 2: dual input (7W)	S: SIL -: No SIL	M: Marine -: None