

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: **DEKRA 11ATEX0198 X** Issue Number: **1**

(4) Equipment: **The Temperature Sensors, Types S18-TCCB, S18-TCRB, S18-TCTP, TCRA-TCWD, D19-TCRA, D18-TCLI, D18-TCZA, D28-TCLI, D38-TCLI and RTD Types S18-PT100CB, S18-PT100RB, S18-PT100TP, PRA-PT100WD, D19-PRA, D18-PT100LI, D18-PT100ZA, D28-PT100LI and D38-PT100LI**

(5) Manufacturer: **Rodax N.V.**

(6) Address: **Santvoortbeeklaan 33, B-2100 Antwerpen, Belgium**

(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 NL/DEK/ExTR11.0027/xx.

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

EN 60079-0 : 2009

EN 60079-1 : 2007

EN 60079-31 : 2009

(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 2 G Ex d IIC T6 ... T1 Gb

II 2 D Ex tb IIIC T85 °C ... T450 °C Db IP6X

This certificate is issued on 7 November 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.

R. Schuller
Certification Manager

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(13) **SCHEDULE**

(14) **to EC-Type Examination Certificate DEKRA 11ATEX0198 X**

Issue No. 1

(15) **Description**

The Temperature Sensors, Types S18-TCCB, S18-TCRB, S18-TCTP, TCRA-TCWD, D19-TCRA, D18-TCLI, D18-TCZA, D28-TCLI, D38-TCLI and RTD Types S18-PT100CB, S18-PT100RB, S18-PT100TP, PRA-PT100WD, D19-PRA, D18-PT100LI, D18-PT100ZA, D28-PT100LI and D38-PT100LI OLI for temperature measurement, in different versions, consists of one or more inserts, a connection head with a simple geometry and a max free volume of 200cc, with or without transmitter, provided with terminals and optionally extension parts.

All transmitters can be used with these temperature elements. However, for the installation, maintenance and correct use of the transmitter always use the operating and instruction manual of the manufacturer.

Electrical data

Max. supply voltage: 50 Vdc.

Thermal data

Ambient temperature range: -20 °C to +60 °C.

The maximum surface temperature due to process conditions (T_p) is the maximum surface temperature of any part of the assembly in contact with the explosive atmosphere.

The temperature class and the maximum surface temperature of the assembly depend on T_p as listed in the table below

T_p [°C]	Temperature class of the assembly	Max. surface temperature of the assembly [°C]
80	T6	85
95	T5	100
130	T4	135
195	T3	200
295	T2	300
445	T1	450
> 445	-	$T_p + 5$

If the sensor assembly is influenced by the temperature of the process medium, it shall be verified that the surface temperature of the connection head and the connection box does not exceed the specified maximum ambient temperature.

Installation instructions

The instructions provided with the equipment shall be followed in detail to assure safe operation.

(13) **SCHEDULE**

(14) **to EC-Type Examination Certificate DEKRA 11ATEX0198 X**

Issue No. 1

(16) **Test Report**

No. NL/DEK/ExTR11.0027/xx.

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

For information about the dimensions of the flameproof joints, contact the manufacturer.
Ambient temperature range: See 15.

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

Covered by the standards listed at (9).

(19) **Test documentation**

As listed in Test Report No. NL/DEK/ExTR11.0027/xx.