

(1) **EC-TYPE EXAMINATION CERTIFICATE**

(2) Equipment or protective system intended for use in potentially explosive atmospheres - Directive 94/9/EC

(3) EC-Type Examination Certificate Number: **KEMA 03ATEX1418 X**

(4) Equipment or protective system: **Temperature Transmitter Models R82000, T82000, R82000 HF and T82000 HF**

(5) Manufacturer: **S-Products b.v.**

(6) Address: **Nijverheidscentrum 26, 2761 JP Zevenhuizen, The Netherlands**

(7) This equipment or protective system 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 or protective system 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 report no. 2036222.

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

EN 50014 : 1997

EN 50020 : 2002

EN 50284 : 1999

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

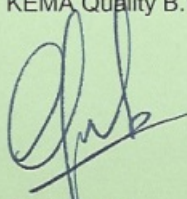
(11) This EC-Type Examination Certificate relates only to the design, examination and tests of the specified equipment or protective system according to the Directive 94/9/EC. Further requirements of the directive apply to the manufacturing process and supply of this equipment or protective system. These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

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



II 1 G EEx ia IIC T4...T6

Arnhem, 10 November 2003
KEMA Quality B.V.



C.G. van Es
Certification Manager

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SCHEDULE

(13)

(14)

to EC-Type Examination Certificate KEMA 03ATEX1418 X

(15) **Description**

The temperature transmitters Model R82000, T82000, R82000 HF and T82000 HF convert the measurement signal from a thermocouple or a Pt100 element into a 4 - 20 mA current signal.

Ambient temperature range -20 °C...+80 °C.

The relation between the ambient temperature and the temperature class is as follows:

Maximum Ambient Temperature	Temperature Class
+50°C	T6
+80°C	T5
+80°C	T4

Electrical data

R82000 and T82000:

Supply circuit.....
(terminals KL1 and KL2)

in type of explosion protection intrinsic safety EEx ia IIC, only for connection to a certified intrinsically safe circuit, with the following maximum values:

$$\begin{aligned}
 U_i &= 30 \text{ V} \\
 I_i &= 100 \text{ mA} \\
 P_i &= 750 \text{ mW} \\
 L_i &= 22 \text{ } \mu\text{H} \\
 C_i &= 15 \text{ nF}
 \end{aligned}$$

Input circuit.....
(terminals KL3, KL4 and KL5)

in type of explosion protection intrinsic safety EEx ia IIC, with following maximum values:

$$\begin{aligned}
 U_o &= 30 \text{ V} \\
 I_o &= 100 \text{ mA} \\
 P_o &= 750 \text{ mW} \\
 L_o &= 3,4 \text{ mH} \\
 C_o &= 40 \text{ nF}
 \end{aligned}$$

R82000 HF and T82000 HF:

Supply circuit.....
(terminals KL1 and KL2)

in type of explosion protection intrinsic safety EEx ia IIC, only for connection to a certified intrinsically safe circuit, with the following maximum values:

$$\begin{aligned}
 U_i &= 30 \text{ V} \\
 I_i &= 100 \text{ mA} \\
 P_i &= 750 \text{ mW} \\
 L_i &= 55 \text{ } \mu\text{H} \\
 C_i &= 58 \text{ nF}
 \end{aligned}$$

Input circuit.....
(terminals KL3, KL4 and KL5)

in type of explosion protection intrinsic safety EEx ia IIC, with following maximum values:

$$\begin{aligned}
 U_o &= 30 \text{ V} \\
 I_o &= 100 \text{ mA} \\
 P_o &= 750 \text{ mW} \\
 L_o &= 3,4 \text{ mH} \\
 C_o &= 8 \text{ nF}
 \end{aligned}$$

SCHEDULE

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Installation instructions

The Temperature Transmitter shall be mounted in an enclosure providing a degree of ingress protection of at least IP20 per EN 60529.

This enclosure shall be in conformance with Clauses 4.3 and 4.4 of EN 50284, when the Temperature Transmitter is mounted in an area where the use of category 1 G apparatus is required.

This enclosure shall be in conformance with Clauses 7.3 and 8.1 of EN 50014, when the Temperature Transmitter is mounted in an area where the use of category 2 G apparatus is required.

(16) **Report**

KEMA No. 2036222.

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

For electrical data and temperature data see (15).

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

Covered by the standards listed at (9).

(19) **Test documentation**

	<u>dated</u>
1. Description (7 pages)	11.11.2003
2. Drawing No. 47704C.DDF (6 sheets)	20.08.2003
82onderprintSCB.cdr	20.08.2003
AE10	09.02.1990
EX_labelRT82.cdr	19.08.2003
RT82_TOP_C, rev. C	13.08.2003
RT82_ZonderWaarden, rev. A	21.01.1993
XT82B.CDR	22.07.1993