

# 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 10ATEX0059**

Issue Number: **2**

(4) Equipment: **DIGI PID Sensor Type DS-100, Type DS-101 and Type DS-102**

(5) Manufacturer: **Rae Systems Inc.**

(6) Address: **3775 North First Street, San Jose CA95134, USA**

(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 213064500.

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

**EN 60079-0 : 2006**  
**EN 60079-26 : 2007**

**EN 60079-11 : 2007**  
**EN 50303 : 2000**

(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 T4**  
**I M1 Ex ia I**

This certificate is issued on 19 July 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



(13) **SCHEDULE**

(14) **to EC-Type Examination Certificate : KEMA 10ATEX0059**

Issue No. 2

(15) **Description**

The Photo Ionization Gas Detector DIGI PID sensors types DS-100, DS-101 and DS-102 are used for detection of organic vapours.

The DIGI PID sensor can be connected to a measurement system that requires a PID input. The data will be transferred via a serial digital USART interface or analog voltage.

Ambient temperature range -40 °C to +55 °C.

**Electrical data**

Supply/Output circuit (connector):

in type of protection intrinsic safety Ex ia IIC or Ex ia I, only for connection to a certified intrinsically safe circuit, with the following maximum values (linear characteristic):

$U_i = 6,13 \text{ V}$ ;  $I_i = 1,5 \text{ A}$ ;  $P_i = 1,225 \text{ W}$ ;  $C_i = 20,2 \text{ }\mu\text{F}$ ;  $L_i = 1 \text{ }\mu\text{H}$ .

**Installation instructions**

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

(16) **Test Report**

No. 213064500.

(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. 213064500.