(1) # TYPE EXAMINATION CERTIFICATE

(2) **Equipment and protective systems intended for use in potentially explosive atmospheres - Directive 94/9/EC**

(3) Type Examination Certificate Number: **KEMA 05ATEX1183 X** Issue Number: **2**

(4) Equipment: **Process Refractometer Series PR-23**

(5) Manufacturer: **K-PATENTS OY**

(6) Address: **Elannontie 5, 01510 Vantaa, Finland**

(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. 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 report no. 213254200.

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

EN 60079-0 : 2006 **EN 60079-15 : 2005**

(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 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.

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

II 3 G Ex nA II T4

This certificate is issued on March 26, 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

PRODUCTS RvA C 001

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(13) **SCHEDULE**

(14) **to Type Examination Certificate KEMA 05ATEX1183 X** Issue No. 2

(15) **Description**

The Process Refractometer Series PR-23 is used for inline measuring of a liquid concentration. The measurement is based on the refraction of light in the process medium.

The enclosure provides a degree of protection of at least IP54 according to EN 60529.

Ambient temperature range: -20 °C ... +45 °C
Maximum process temperature: 150 °C

Electrical data

Supply: 24 Vdc, max 60 mA

Installation instructions

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

(16) **Test Report**

KEMA No. 213254200.

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

Provisions shall be made to prevent the rated voltage from being exceeded by transient disturbances of more than 40%.

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

Covered by the standards listed at (9).

(19) **Test documentation**

As listed in Test Report No. 213254200.