KEMA

(1) EC-TYPE EXAMINATION CERTIFICATE

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

(3) EC-Type Examination Certificate Number: **KEMA 99ATEX5311**

(4) Equipment or protective system: **Guided Wave Radar Level Transmitter Eclipse Model 705-5...-C.., Model 705-5...-D.., Model 705-5...-G.. and Model 705-5...-H.. and Probe Eclipse Model 7..-....-...**

(5) Manufacturer: **Magnetrol International N.V.**

(6) Address: **Heikensstraat 6, 9240 Zele, Belgium**

(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. 2082704.

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

EN 50014 : 1997 + A1, A2 **EN 50018 : 2000 + A1** **EN 50020 : 2002**
EN 500281-1-1 : 1998 + A1 **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 2 (1) GD or **II 1/2 GD**	**EEx d [ia] IIC T6 T 85°C IP 66** or
II 2 (1) D or **II 1/2 D**	**[EEx ia] IIC T 85°C IP 66** or
II 1 GD	**EEx ia IIC T6 T 85°C IP 66**

Arnhem, 3 February 2006
KEMA Quality B.V.

C.G van Es
Certification Manager

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ACCREDITED BY THE DUTCH COUNCIL FOR ACCREDITATION

PRODUCTS RvA C 001

(13) # SCHEDULE

(14) **to EC-Type Examination Certificate KEMA 99ATEX5311**

(15) **Description**

Guided Wave Radar Level Transmitter Eclipse Model 705-5...-... only for connection to intrinsically safe Probe Eclipse Model 7..-....-... is used for level detection.
Using the Time Domain Reflectrometry and Micro Power Impulse Radar Technology, a fluid level is converted into a 4 - 20 mA current with Hart signal or a digital fieldbus signal.
The maximum probe length is 25 m.
The transmitter enclosure provides a degree of protection IP 66 as per EN 60529.

Ambient temperature range -40 °C ... +70 °C.

The maximum surface temperature of the enlosure, T 85 °C is referred to a maximum ambient temperature of 70 °C.

Marking

Depending on the version, Guided Wave Radar Level Transmitter Eclipse shall include the codes as listed below:

Remote Transmitter:
II 2 (1) GD EEx d [ia] IIC T6 T 85°C IP 66 or
II 2 (1) D [EEx ia] IIC T 85°C IP 66

Transmitter with integral Probe:
II 1/2 GD EEx d [ia] IIC T6 T 85°C IP 66 or
II 1/2 D [EEx ia] IIC T 85°C IP 66

Remote Probe:
II 1 GD EEx ia IIC T6 T 85°C IP 66

Electrical data

4-20 mA current with Hart signal:
Supply/output circuit ..... 9 - 36 Vdc, 4 - 20 mA

Digital Fieldbus signal:
Supply/output circuit ..... 9 - 36 Vdc, 14 mA

Installation instructions

For remote Transmitter and Transmitter with integral Probe:
For apparatus of equipment category 1/2 G or 2 G in type of protection flameproof enclosures “d”, the cable entry devices and closing devices shall be certified in type of protection flameproof enclosure "d", suitable for the conditions of use and correctly installed.

For apparatus of equipment category 1/2 D or 2 D, the cable entry devices shall be certified in type of protection increased safety "e" or flameproof enclosure "d" and shall have a degree of protection of at least IP 6X in accordance with EN 60529.

For remote Probe:
For apparatus of equipment category 1/2 D or 2 D, the cable entry devices shall have a degree of protection of at least IP 6X in accordance with EN 60529.

(13) # SCHEDULE

(14) **to EC-Type Examination Certificate KEMA 99ATEX5311**

Routine tests

Routine tests according to Clause 16 of EN 50018 are not required since the type test has been made at a static pressure of four times the reference pressure.

(16) **Report**

KEMA No. 2082704.

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

None.

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

Covered by the standards listed at (9).

For the assessment of circuits which may extend into hazardous areas in which category 1 D equipment is required, EN 61241-0 : 2005 and IEC 61241-11 : 2005 has been used as a guide.

(19) **Test documentation**

As listed in Test Report No. 2082704.