

## (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 03ATEX1447 X**
- (4) Equipment or protective system: **Radar Level Transmitter Model Pulsar R05 and Model Pulsar R95**
- (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. 2036656.

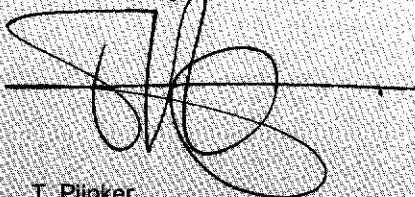
- (9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

**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**

Arnhem, 28 October 2003  
KEMA Quality B.V.



T. Pijker  
Certification Manager

\* This Certificate may only be reproduced in its entirety and without any change

(13)

**SCHEDULE**

(14)

**to EC-Type Examination Certificate KEMA 03ATEX1447 X****(15) Description**

Radar Level Transmitter Model Pulsar R05 and Model Pulsar R95 measures the level of the fluid using a microwave beam. The output signal is a 4 - 20 mA current signal with digital communication (HART).

The antenna is a horn or a dielectric rod type.

Optionally the transmitter is provided with a display for local read-out and configuration.

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

**Electrical data**

Supply and output circuit .... in type of explosion protection intrinsic safety EEx ia IIC,  
(terminals + and -) only for connection to a certified intrinsically safe circuit,  
with the following maximum values:

$$\begin{aligned}U_i &= 28,4 \text{ V} \\I_i &= 94 \text{ mA} \\P_i &= 0,67 \text{ W} \\C_i &= 2,2 \text{ nF} \\L_i &= 430 \text{ }\mu\text{H}\end{aligned}$$

**(16) Report**

KEMA No. 2036656.

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

1. When the Transmitter enclosure that is made of aluminium alloy is installed in a potentially explosive atmosphere, requiring the use of apparatus of equipment category 1 G, it shall be installed so, that even in the event of rare incidents, an ignition source due to impact or friction between the enclosure and iron/steel is excluded.
2. The transmitter's antenna shall be installed so, that electrostatic discharges are prevented.

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

Covered by the standards listed at (9).

(13)

**SCHEDULE**

(14)

**to EC-Type Examination Certificate KEMA 03ATEX1447 X**(19) **Test documentation**

	<u>dated</u>
Drawing No. 099-7211, rev. A (2 sheets)	03.02.2003
031-2827, rev. D	05.06.2003
09-5735, rev. A	03.02.2003
094-6047, rev. A	05.06.2003
030-9143, rev. A	05.06.2003
009-9301-001, rev. B (4 sheets)	05.06.2003
94-6028-001, rev. N	05.09.2003
030-9123, rev. N	05.06.2003
09-9097-001, rev. N (3 sheets)	05.09.2003
94-6027-001, rev. F (2 sheets)	05.09.2003
030-9122, rev. H	09.09.2003
09-9077-001, rev. F (4 sheets)	05.09.2003
030-9141, rev. A	05.09.2003
94-6045-001, rev. N	05.09.2003

**AMENDMENT 1****to EC-Type Examination Certificate KEMA 03ATEX1447 X**Manufacturer: **Magnetrol International N.V.**Address: **Heikensstraat 6, 9240 Zele, Belgium****Description**

In future the Radar Level Transmitter Model Pulsar R05 and Model Pulsar R95 may also be constructed in accordance with the documentation listed below.

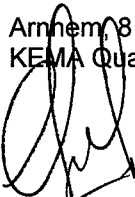
The modifications concern the electronics.

All other data remain unchanged.

**Test documentation**

	<u>signed</u>
Drawing No. 099-7211, rev. B (2 sheets)	27.01.2005
031-2827, rev. F	27.01.2005
094-6045, rev. D	09.06.2005
030-9141, rev. G (2 sheets)	09.06.2005
094-6028, rev. L	27.01.2005
030-9123, rev. S	27.01.2005
09-9078-001, rev. K (3 sheets)	27.01.2005
094-6027, rev. H (2 sheets)	27.01.2005
030-9122, rev. N	27.01.2005

Arnhem 8 February 2006  
KEMA Quality B.V.



C.G. van Es  
Certification Manager