IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.:	IECEx KEM 06.0019X issue No.:3	Certificate history: Issue No. 3 (2012-3-14) Issue No. 2 (2011-8-5) Issue No. 1 (2011-3-4) Issue No. 0 (2006-7-25)
Status:	**Current**	
Date of Issue:	**2012-03-14**	Page 1 of 5
Applicant:	**Magnetrol International N.V.** Heikensstraat 6 9240 Zele **Belgium**	
Electrical Apparatus:	**Guided Wave Radar Level Transmitter Eclipse Model 705-5...-A.. and Model 705-5…-B.., Model 705-5...-E.. and Model 705-5…-F.. and Probe Eclipse Model 7E.-….-... and Model 7M.-….-...**	
Optional accessory:		
Type of Protection:	**Ex ia; Ex ic [ia]**	
Marking:	Ex ia IIC T4 Ga Ex ic [ia Ga] IIC T4 Gc	
Approved for issue on behalf of the IECEx Certification Body:	C.G. van Es	
Position:	Certification Manager	
Signature: *(for printed version)*		
Date:	2012-03-14	

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the Official IECEx Website.

Certificate issued by:

DEKRA Certification B.V.
Utrechtseweg 310
6812 AR Arnhem
The Netherlands

All testing, inspection, auditing and certification activities of the former KEMA Quality are an integral part of the DEKRA Certification Group.

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Manufacturer: **Magnetrol International Inc.**
5300 Belmont Rd
Downers Grove, IL 60515-4499
United States of America

Manufacturing location(s):

Magnetrol International NV
Heikensstraat 6
9240 Zele
Belgium

Magnetrol International Inc.
5300 Belmont Road
Downers Grove, IL 60515-4499
United States of America

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

STANDARDS:
The electrical apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

IEC 60079-0 : 2007-10 Edition: 5	Explosive atmospheres - Part 0:Equipment - General requirements
IEC 60079-11 : 2006 Edition: 5	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
IEC 60079-26 : 2006 Edition: 2	Explosive atmospheres - Part 26: Equipment with equipment protection level (EPL) Ga
IEC 60079-27 : 2008 Edition: 2.0	Explosive atmospheres - Part 27: Fieldbus intrinsically safe concept (FISCO)

*This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

TEST & ASSESSMENT REPORTS:
A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in

Test Report:
NL/KEM/ExTR06.0017/01 NL/KEM/ExTR06.0017/02 NL/KEM/ExTR06.0017/03

Quality Assessment Report:

CA/CSA/QAR06.0004/07 NL/DEK/QAR11.0031/00

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Schedule

EQUIPMENT:
Equipment and systems covered by this certificate are as follows:

Guided Wave Radar Level Transmitter Eclipse Model 705-5...-A.., Model 705-5...-E.. and Model 705-5...-F.. and Probe Eclipse Model 7..-B…-... are used for level detection. Probe Eclipse Model 7E.-….-... and Model 7M.-….-... are 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 36 m.

The transmitter enclosure provides a degree of protection IP66 as per IEC 60529.

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

CONDITIONS OF CERTIFICATION: YES as shown below:

Because the enclosure of the Guided Wave Radar Level Transmitter Eclipse Model 705-5...-.1. and/or Probe Eclipse Model 7..-….-... is made of aluminium, if it is mounted in an area requiring equipment of EPL Ga, it must be installed such, that, even in the event of rare incidents, ignition sources due to impact and friction sparks are excluded.

For applications in explosive gas atmospheres requiring equipment of EPL Ga, electrostatic charges on the non-metallic parts of the Probe Eclipse Model 7M5-….-..., Model 7M7-….-… and Model 7.F-….-… shall be avoided.

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EQUIPMENT(continued):

Electrical data

For Eclipse Level Transmitter Model 705-50..-... and Model 705-51..-...:

Output/supply circuit (terminals + and -):
in type of protection intrinsic safety Ex ia IIC, only for connection to a certified intrinsically safe circuit,
with the following maximum values:
Ui = 28.4 V; Ii = 120 mA; Pi = 0.84 W; Ci = 2.2 nF; Li = 3 µH

For Eclipse Level Transmitter Model 705-52..-... and Model 705-53..-...:

Output/supply circuit (terminals + and -):
in type of protection intrinsic safety Ex ia IIC, suitable for connection to a FISCO fieldbus system in accordance with IEC 60079-27, with the following maximum values:
U_i = 17.5 V; I_i = 380 mA; P_i = 5.32 W; C_i = 3 nF; L_i = 3 µH
or
in type of protection intrinsic safety Ex ia IIC, only for connection to a certified intrinsically safe circuit,
with the following maximum values:
U_i = 28.4 V; I_i = 120 mA; P_i = 0.84 W; C_i = 3 nF; L_i = 3 µH

For Eclipse Level Transmitter Model 705-5...-E.. and Model 705-5...-F...:

Output/supply circuit (terminals + and -):
in type of protection intrinsic safety Ex ic IIC, suitable for connection to a FISCO fieldbus system in accordance with IEC 60079-27, with the following maximum values:
Ui = 17.5 V; Ii = 380 mA; Pi = 5.32 W; Ci = 3 nF; Li = 3 µH
or
in type of protection intrinsic safety Ex ic IIC, only for connection to a certified intrinsically safe circuit,with the following maximum values:
Ui = 28.4 V; Ii = 120 mA; Pi = 0.84 W; Ci = 3 nF; Li = 3 µH.

The sensor circuit in type of protection intrinsic safety Ex ia IIC is an internal circuit.

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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

Issue 1: Minor changes in electronics and electrical parameters, equipment assessed for newer versions of the standards.
Issue 2: Minor changes in electronics
Issue 3: Addition of the type of protection Ex ic [ia Ga] IIC T4 Gc For Eclipse Level Transmitters Model 705-5...-E.. and Model 705-5...-F..