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 BKI 11.0002 Issue No: 1

Certificate history:
Issue No. 1 (2018-06-13)
Issue No. 0 (2011-04-13)

Status: **Current**

Date of Issue: **2018-06-13**

Applicant: **Magnetrol International N.V.**
Heikensstraat 6
B-9240 Zele
Belgium
Belgium

Equipment: **Guided wave radar level transmitter type Ecipse Model 705-5...-.... and Probe Eclipse Model 7..-....-...**

Optional accessory:

Type of Protection: **General requirements, Flameproof enclosures, Intrinsic safety, Protection by enclosure "t"**

Marking:

Transmitter resp. Transmitter with integral probe:
Ex d [ia Ga] IIC T6 Gb
Ex t [ia Da] III C T85 °C Db IP 66
Remote probe:
Ex ia IIC T6
Ex ia III C T85 °C
-40 °C ≤ Tamb ≤ +70 °C

Approved for issue on behalf of the IECEx Certification Body: Edit Molnár

Position: Head of the Certification Body

Signature:
(for printed version)

Date: 2018-06-13

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:

Testing Station for Explosion Proof Equipment
H 1037 BUDAPEST
MIKOVINY S.u. 2-4
Hungary

Robbanásbiztos Berendezések BKI Vizsgáló Állomása Ex

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Manufacturer:

Magnetrol International Inc.
705 Enterprise Street,
Aurora,
IL60504
United States of America

Additional Manufacturing location(s):

Magnetrol International N.V.
Heikensstraat 6,
B-9240,
Zele
Belgium

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 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 60079-1 : 2007-04 Edition:6	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
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 60079-31 : 2008 Edition:1	Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure 't'

*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:

HU/BKI/ExTR11.0002/00

Quality Assessment Report:

CA/CSA/QAR06.0004/11 NL/DEK/QAR11.0031/04

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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…-… only for connection to intrinsically safe Probe Eclipse Model 7..-….-… is used for level detection.

Using the Time Domain Reflectometry 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.

See details in Addendum to IECEx BKI11.0002.

SPECIFIC CONDITIONS OF USE: NO

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

Issue 1

Change the address of the manufacturer, Magnetrol International Inc.

The new address: 705 Enterprise Street, Aurora, IL60504, United States of America

The IECEx QAR of the manufacturer: CA/CSA/QAR06.0004/11

+

Additional manufacturing location is added:

Magnetrol International N.V.

The address of the additional manufacturing location: Heikensstraat 6, B-9240 Zele, Belgium

The IECEx QAR of the additional manufacturing location: NL/DEK/QAR11.0031/04

Annex:

Addendum to IECEx BKI 11.0002.pdf

ADDENDUM TO IECEx CERTIFICATE OF CONFORMITY

IECEx BKI 11.0002

1. 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 Reflectometry 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 model consists of two Ex d housing compartments with an Ex ia probe signal.
The probe is only a metal bar so there are no electronic components in the intrinsically safe circuitry.
The Ex ia protection of the probe is isolation from the other non-intrinsically safe circuits by three capacitors in series. This way all direct-current energy is blocked and the low voltage probe signal is intrinsically safe. This isolating unit is in the Ex d enclosure.
The equipment has identical electronics as the intrinsically safe model-version which certified by IECEx KEM06.0019X and its Amendment No. 1.

2. Type assortment

7 0 5 - 5 X X X - X X X

Technology
7 = GWR

Transmitter / Switch
0 = Transmitter

Model / Type
5 = Digital Transmitter two wire

Power
5 = 24 VDC two wire

Digital output
0 = None
1 = HART
2 = FIELDBUS
3 = PROFIBUS

Options

Accessories
0 = None
A = Digital display / Keypad

Mounting / Classification
C = Integral IECEx Ex d [ia Ga] IIC T6 Gb
D = Remote IECEx Ex ia IIC T6
G = Integral IECEx Ex t [ia Da] IIIC T85°C Db IP 66
H = Remote IECEx Ex ia IIIC T85°C

Housing / Mounting
1 = Aluminium
2 = SST
4 or 7 = Aluminium extended remote
5 or 8 = SST extended remote

Conduit
0 = 3/4 NPT
1 = M20x1,5

3 Electrical data

4-20 mA current with HART signal:
Supply/output circuit : 9 ... 36 V DC , 4-20 mA

Digital Fieldbus signal :
Supply/output circuit : 9 ... 36 V DC , 15 mA

4 Ambient temperature range

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

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

5 Ingress protection

The transmitter enclosure provides a degree of protection IP 66 as per IEC 60529.

Special conditions for safe use

-

Drawings

Title:	Drawing No.:	Rev. Level:	Date:
Technical description	099-7157 annex 1		04.03.2011
Schematic analog board	094-6051 sheet 2/3	N	04.08.2010
Model 70X 2 wire transmitter	99-7157 sheets 1/9 ... 9/9	K	04.08.2010
Manufacturer's Declaration of conformity	57-610.0		08.04.2011
Test Report	FM 3033387		22.03.2010