

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

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

Certificate No.:

IECEx DEK 11.0099X

Issue No: 1

Certificate history:

Status

Current

Page 1 of 4

Issue No. 1 (2014-07-25) Issue No. 0 (2013-04-17)

Date of Issue:

2014-07-25

Applicant:

Magnetrol International N.V.

Heikensstraat 6 9240 Zele **Belgium**

Electrical Apparatus:

Guided Wave Radar Level Transmitter Eclipse, Model 706-5...-...

Optional accessory:

Type of Protection:

Ex d or Ex tb + Ex ia

Marking

Ex d [ia] IIC T6...T1 Ga/Gb or

Ex tb [ia] IIIC T85 °C...T450 °C Da/Db

Ambient temperature range -40 °C to +70 °C for type of protection Ex d, Ambient temperature range -15 °C to +70 °C for type of protection Ex tb.

Approved for issue on behalf of the IECEx

Certification Body:

R. Schuller

Certification Manager

Position:

Signature:

(for printed version)

Date:

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. Meander 1051, 6825 MJ Amhem

The Netherlands





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IECEx DEK 11.0099X

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Page 2 of 4

Manufacturer:

Magnetrol International N.V.

Heikensstraat 6 9240 Zele **Belgium**

Additional Manufacturing location(s):

Magnetrol International Inc. 705 Enterprise Street Aurora IL 60504 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 : 2011

Explosive atmospheres - Part 0: General requirements

Edition:6.0

IEC 60079-1: 2007-04

Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"

Edition:6

IEC 60079-11: 2011

Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"

Edition:6.0

IEC 60079-26: 2006

Explosive atmospheres - Part 26: Equipment with equipment protection level (EPL) Ga

Edition:2

IEC 60079-31: 2008

Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure 't'

Edition:1

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/DEK/ExTR11.0116/00

NL/DEK/ExTR12.0063/00

Quality Assessment Report:

CA/CSA/QAR06.0004/08

NL/DEK/QAR11.0031/02



Certificate No:

IECEx DEK 11.0099X

Issue No: 1

Date of Issue:

2014-07-25

Page 3 of 4

Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

Guided Wave Radar Level Transmitter Eclipse Model 706-5...-..., connected to intrinsically safe Probe Eclipse Model 7..-..., is used for level detection.

Using the Domain Reflectometry and Micro Power Impulse Radar Technology, a fluid level is converted into a 4 - 20 mA current with Hart or fieldbus signal.

The maximum probe length is 30 m.

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

Ambient temperature range -40 °C to +70 °C for type of protection Ex d; Ambient temperature range -15 °C to +70 °C for type of protection Ex tb.

Process temperature range -196 °C to +450 °C

The relation between the process temperature, the temperature class and the maximum surface temperature is laid down in the following table:

Process temperature [°C]

<450 <300 <200 <135 <100 <85

Temperature class, group II

T1 T2 T3 T4 T5 T6

Max. surface temp. group III [°C] 450 300 200 135 100 85

Electrical signal:

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

Supply/output circuit with Fieldbus:...... 9 - 32 Vac, 17 mA

CONDITIONS OF CERTIFICATION: YES as shown below:

- The risk of electrostatic discharge shall be minimized at installation, following the directions given in the instructions.
- Contact the original manufacturer for information on the dimensions of the flameproof joints.



Certificate No:

IECEx DEK 11,0099X

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Date of Issue:

2014-07-25

Page 4 of 4

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Additional Manufacturing location and link to associated QAR added.