

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 08.0016

Issue No: 1

Certificate history:

Status:

Current

Issue No. 1 (2018-06-13) Issue No. 0 (2008-10-31)

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Date of Issue:

2018-06-13

Applicant:

Magnetrol International N.V.

Heikensstraat 6 B-9240 Zele Belgium **Belgium**

Equipment:

Digital Level transmitter system type E3 Modulevel

Optional accessory:

Type of Protection:

General requirements, Intrinsically safe

Marking:

Ex ia IIC T4 Ga -40 °C up to +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:

2018-06-12

- 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





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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

Explosive atmospheres - Part 0:Equipment - General requirements

Edition:5

IEC 60079-11: 1999

Electrical apparatus for explosive gas atmospheres - Part 11: Intrinsic safety 'i'

Edition:4

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/ExTR08.0015/00

Quality Assessment Report:

CA/CSA/QAR06.0004/11 NL/DEF

NL/DEK/QAR11.0031/04



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

STANDARDS: IEC 60079-0:2007 Electrical apparatus for explosive atmosphere – Edition: 5 Part 0: General requirementsIEC 60079-11:2006 Electrical apparatus for explosive atmosphere – Edition: 4 Part 11: Intrinsically safe "i"IEC 60079-26:2006 Electrical apparatus for explosive atmosphere – Edition: 2 Part 26: Equipment with equipment protection level (EPL) GaIEC 60079-27:2008 Electrical apparatus for explosive atmosphere – Edition: 2 Part 27: Fieldbus intrinsically safe concept (FISCO)

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 08.0016.pdf

IEC TECEX

ADDENDUM TO IECEX CERTIFICATE OF CONFORMITY

IECEX BKI 08.0016

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1. Description

Digital level transmitter type E3 Modulevel

2. Type assortment

E3 X – X X X X – X X X

Legend of the signs from left to right

1._, 2._ Code for manufacturer
3._ Code mounting and material
4._, 5,_6._, 7_ Type specifications

8._ Output (Hart, Fieldbus, Profibus)
9._ Integral / Remote temperature range
10._ Housing material / approval / cable en

D._ Housing material / approval / cable entry

A = Aluminium, Ex i, ¾"NPT

B = Aluminium, Ex i, M20

C = SST, Ex i, ¾"xNPT

D = SST, Ex i, M20

3. Electrical parameters

3.1 4-20 mA models (HART)

 $U_i = 28.4 \text{ V}$ $I_i = 94 \text{ mA}$ $P_i = 0.67 \text{ W}$ $C_i = 2.2 \text{ nF}$ $L_i = 3\mu\text{H}$

3.1 FISCO models

$$\label{eq:U_i = 17.5 V} \begin{split} U_i &= 17.5 \text{ V} \\ I_i &= 380 \text{ mA} \\ P_i &= 5.32 \text{ W} \\ C_i &= 0.705 \text{ nF} \\ L_i &= 3 \mu \text{H} \end{split}$$

4. Ambient temperature

-40°C up to +70°C

5. Ingress protection

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

Special conditions for safe use:

Materials marked as using in "Zone 0 equipment" shall be installed in such a way that, even in the event of rare incidents, the aluminium enclosure cannot be an ignition source due to impact or friction.

Drawings				
Report No. 0.07127		30 pages		2008.04.29
The installation and o	perating manual E3 Modulevel			
099-7219	Modulevel III	2 pages	rev A	2007.05.14
094-5056	Wiring board	3 pages	rev E	2007.11
030-9151	Safety wiring board	2 pages	rev H	2007.11
009-9346-001		2 pages	rev A	2008.01.29
094-6052	Enhanced 705 Digital Board Schematic	3 pages	rev E	2007.08.20
030-9145	Enhanced 705 Digital Board Assembly	3 pages	rev V	2007.08.17
09-9310-001		6 pages	rev G	2008.04.24
094-6053	Enhanced M16C H1&PA Fieldbus Digital Board	4 pages	rev K	2007.08
030-9150	M16C Fieldbus Digital Board Assembly	3 pages	rev R	2007.08
09-9323-001		6 pages	rev G	2008.04.24
094-6060	Schematic Modulevel III Analog Board	2 pages		2007.12.12
030-2475	Modulevel III Analog P.C. Board Assembly	2 pages	rev R	2008.03.24
09-9339-001			rev D	2008.04.24
009-9327-001		2 pages	rev A	2008.08.08
094-5062	HART Wiring Board	1 page		2008.08.01

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