



# 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](http://www.iecex.com)

Certificate No.: IECEx FMG 15.0034X

Issue No: 1

Certificate history:

Status: **Current**

Issue No. 1 (2016-12-05)

Issue No. 0 (2016-01-22)

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Date of Issue: **2016-12-05**

Applicant: **Magnetrol International Inc.**  
705 Enterprise Street  
Aurora, IL 60504  
**United States of America**

Equipment: **Pulsar R96 Radar Level Transmitter / Level Probe**

*Optional accessory:*

Type of Protection: **Type "I", Type "n", Type "d" and Type "t"**

Marking:

Ex db ia IIB+H2 T4...T1 Ga/Gb Ta=-40°C to 70°C

Ex ia IIC T4...T1 Ga Ta=-40°C to 70°C

Ex ic IIC T4...T1 Gc Ta=-15 °C to 70°C

Ex nA IIC T4...T1 Gc Ta=-15°C to 70°C

Ex ia tb III C T100°C Db Ta=-15°C to 70°C

*Approved for issue on behalf of the IECEx  
Certification Body:*

J. E Marquedant

*Position:*

Manager, Electrical Systems

*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](http://www.iecex.com).

Certificate issued by:

**FM Approvals LLC**  
1151 Boston-Providence Turnpike  
Norwood, MA 02062  
United States of America



Member of the FM Global Group



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Manufacturer: **Magnetrol International Inc.**  
705 Enterprise Street  
Aurora, IL 60504  
**United States of America**

Additional Manufacturing location(s):

**Orion Instruments**  
2105 Oak Villa Boulevard  
Baton Rouge, LA 70815  
United States of America

**Magnetrol International NV-Protection types Ex i, Ex db, Ex tb only**  
Heikensstraat 6  
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:

<b>IEC 60079-0 : 2011</b> Edition:6.0	Explosive atmospheres - Part 0: General requirements
<b>IEC 60079-1 : 2014-06</b> Edition:7.0	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
<b>IEC 60079-11 : 2011</b> Edition:6.0	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
<b>IEC 60079-15 : 2010</b> Edition:4	Explosive atmospheres - Part 15: Equipment protection by type of protection "n"
<b>IEC 60079-26 : 2014-10</b> Edition:3.0	Explosive atmospheres – Part 26: Equipment with Equipment Protection Level (EPL) Ga
<b>IEC 60079-31 : 2013</b> Edition:2	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:

[US/FMG/ExTR15.0039/00](#)      [US/FMG/ExTR15.0039/01](#)

Quality Assessment Report:

[NL/DEK/QAR11.0031/03](#)      [CA/CSA/QAR06.0004/09](#)



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## Schedule

### EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

**R96-5abc-def-RAg-hij-k00. Pulsar R96 Radar Level Transmitter.**

a = Signal Out: 1 or 2.

b = Options: 0 or 1.

c = Accessories: 0 or A.

d = Classification: 1, 3 ( when a = 1 or 2), 0, A, B or C.

e = Housing/Conduit Connection: 1 or 2.

f = Options: 0, 2 or 3.

g = Configuration Style: A, B, C, 3, 4, or 6.

h = Material of Construction. Antenna/ Mounting Nut: A, B, C, G, L or K.

i = Process Connection Size Type: 31, 32, 43, 44, 45, 53, 54, 55, 63, 64, 65, 73, 74, 75, 83, 84, 85, DA, DB, DD, EA, EB, ED, FA, FB, FD, GA, GB, GD, HA, HB, HD, 3P, 4P, 5P, 6P or 7P.

j = O rings: 0, 1, 2 or 8.

k = Maximum Nozzle Length: 0, 1, 2 or 3.

### SPECIFIC CONDITIONS OF USE: YES as shown below:

1. The enclosure contains aluminum and is considered to present a potential risk of ignition by impact or friction. Care must be taken during installation and use to prevent impact or friction.
2. To maintain the T4 ...T1 temperature code care shall be taken to ensure the enclosure temperature does not exceed 70°C.
3. The risk of electrostatic discharge shall be minimized at installation, following the direction given in the instruction.
4. Contact the original manufacturer for information in the dimensions of flameproof joints.
5. For Installation with ambient temperature of 70°C, refer to the manufacturer's instructions for guidance on proper selection of conductors.
6. Provisions shall be made to provide transient overvoltage protection to a level not to exceed 119Vdc.
7. The sensor probes are rated with an Equipment Protection Level of Ga and Da.
8. Temperature codes for the ratings Ex db ia IIB+H<sub>2</sub>, Ex ia IIC, Ex nA IIC and Ex ic IIC are defined by the following table:

Process temperature(PT)	Temperature Code-TCG (GAS)
From 0°C to 110°C	T4
From 110°C to 175°C	T3



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From 175°C to 275°C	T2
From 275°C to 425°C	T1



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

Added NV manufacturing location, Updates to Analog, Hart Digital, Display Fieldbus digital, wiring PC Boards. Update of cure time on epoxy spec sheet