



# 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 UL 12.0001X

Issue No: 1

Certificate history:

[Issue No. 1 \(2018-07-30\)](#)

[Issue No. 0 \(2012-10-26\)](#)

Status: **Current**

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Date of Issue: **2018-07-30**

Applicant: **Migatron Corporation**  
935 Dieckman Street  
Woodstock, IL 60098  
**United States of America**

Equipment: **Intrinsically Safe Ultrasonic Sensor**

*Optional accessory:*

Type of Protection: **Intrinsic Safety "ia"**

Marking:

Ex ia I/IIC T4

Ex ia III C T101°C

-40°C ≤ Ta ≤ +60°C

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

David Lloyd

*Position:*

Engineering Leader

*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:

**UL LLC**  
333 Pfingsten Road  
Northbrook IL 60062-2096  
United States of America





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Manufacturer: **Migatron Corporation**  
935 Dieckman Street  
Woodstock, IL 60098  
**United States of America**

Additional Manufacturing location(s):

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 : 2011** Explosive atmospheres - Part 0: General requirements  
Edition:6.0

**IEC 60079-11 : 2011** Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"  
Edition:6.0

*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/UL/ExTR12.0001/01](#)

Quality Assessment Report:

[US/UL/QAR11.0011/04](#)



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## Schedule

### EQUIPMENT:

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

Model RPS-409A-abc-IS2-defg is an intrinsically safe, barrier-powered analog ultrasonic sensor, which can be used for distance measurement and/or object detection.

Please see Annex for additional information.

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

- To maintain the IP67 rating of the sensor, the cable assembly used to connect to the sensor must have an IP rating of IP67 or greater.
- WARNING: Dielectric Strength of enclosure is not sufficient to insulate the RPS-409A-abc-IS2-defg from other equipment. The RPS-409A-abc-IS2-defg may be mounted onto a metal part if the metal part is earth grounded in accordance with local codes, as applicable, or it may be mounted on an insulated part. In either case, the enclosure must be segregated or insulated from live parts.



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

Issue 1: Revised drawings and removal of IEC 60079-26.

**Annex:**

[Annex to IECEx UL 12.0001X Issue 1.pdf](#)



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## TYPE DESIGNATION

Nomenclature for intrinsically safe probe:

RPS-409A - abc - IS2 - defg

I II I III

I – Basic Model

II – Operational Range: The maximum range of the sensor in inches is designated by abc and can be any number from 1 to 999.

III – Additional Feature Suffixes: Can be any combination of alphanumeric characters (or blanks) that do not relate to the safety of the product (for marketing purposes only).

## PARAMETERS RELATING TO THE SAFETY

Intrinsically safe specifications:

RPS-409A-abc-IS2-defg Entity Parameters					
Terminal Nos.	V <sub>max</sub> or U <sub>i</sub>	I <sub>max</sub> or I <sub>i</sub>	P <sub>max</sub> or P <sub>i</sub>	C <sub>i</sub>	L <sub>i</sub>
1,3 (Power)	30 V	100 mA	0.750 W	negligible	negligible
2,3 (Analog Output)	16 V	16 mA	0.064 W	negligible	negligible
4,3 (Sync/Tx)	16 V	16 mA	0.064 W	negligible	negligible

## MARKING

Marking has to be readable and indelible; it has to include the following indications:

Ex ia I/IIC T4 Warning: See User Manual **Migatron Corp.**  
Ex ia IIIC T101°C IP67  
IECEx UL 12.0001X -40°C ≤ Ta ≤ +60°C **RPS-409A-abc-IS2-defg**  
DEMKO 12 ATEX 1103028X  
CE 0539 Ex I M1 [ Note 1 ] c UL TCode T4  
II 1 GD [ Note 2 ] **US LISTED**  
Exia 4LA1  
Proc. Cont. Eq. for use in CL I, GPS A,B,C,D; CL II, GPS E,F,G; CL III hazardous  
locations. Intrinsically Safe when installed per Control Dwg. No. Ex05021114