



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 UL 10.0002X	Issue No: 4	<u>Certificate history:</u> Issue No. 4 (2016-01-19) Issue No. 3 (2014-10-15) Issue No. 2 (2011-12-21) Issue No. 1 (2010-10-27) Issue No. 0 (2010-08-27)
Status:	Current	Page 1 of 4	
Date of Issue:	2016-01-19		
Applicant:	Guardian Electric Manufacturing Company 1425 Lake Avenue Woodstock, IL 60098 United States of America		
Electrical Apparatus: <i>Optional accessory:</i>	Solenoid		
Type of Protection:	Flameproof "d" and Nonsparking "nA"		
Marking:	Model A420-068485-00: Ex d IIC T3 Gb, Ex nA IIC T3 Gc -20°C ≤ Ta ≤ +82°C Model A420-068485-01: Ex d IIB T2 Gb, Ex nA IIC T2 Gc -20°C ≤ Ta ≤ +130°C		

Approved for issue on behalf of the IECEx
Certification Body:

Katy A. Holdredge

Position:

Senior Staff Engineer

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:

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





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Certificate No: IECEx UL 10.0002X Issue No: 4
Date of Issue: 2016-01-19 Page 2 of 4
Manufacturer: **Guardian Electric Manufacturing Company**
1425 Lake Avenue
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 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 Edition:6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-1 : 2007-04 Edition:6	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
IEC 60079-15 : 2010 Edition:4	Explosive atmospheres - Part 15: Equipment protection by type of protection "n"

*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/ExTR10.0002/04](#)

Quality Assessment Report:

[US/UL/QAR10.0005/03](#)



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Certificate No: IECEx UL 10.0002X

Issue No: 4

Date of Issue: 2016-01-19

Page 3 of 4

Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The solenoid Models A420-068485-00 and A420-068485-01 are magnetically operated consisting of a bobbin, core tube, coil, spacer and ring, gasket, plug, plunger extension and enclosure. The enclosure is constructed out of steel, having a rectangular and round end flange welded onto the tube body. The plug is press-fitted into the rectangular end flange and the plunger extension forms a cylindrical joint with the plug. The round end flange forms a flat joint with the cap of the solenoid. Models A420-068485-00 and A420-068485-01 share the same enclosure and differ only in the coil assembly that is installed inside, the rated gas groups for method of protection Ex d and the maximum ambient temperature.

CONDITIONS OF CERTIFICATION: YES as shown below:

Dimensions of the flameproof joints are other than the relevant minimum or maximum specified in Table 1 (for model A420-068485-01) and Table 2 (for model A420-068485-00) of IEC 60079-1, Sixth Edition.

Solenoids are marked with an "X" and Drawings Nos. 104-990291-00, 002-160132-00 and A074-400284-00 detail the dimensions of the flameproof joints.



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Certificate No: IECEx UL 10.0002X

Issue No: 4

Date of Issue: 2016-01-19

Page 4 of 4

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

Issue 1: New drawings for some parts of the solenoid that have been revised for ease of machining only and do not affect the type "d" and "nA" protection.

Issue 2: Ambient temperature range changed from -20°C to +60°C to -20°C to +82°C.

Issue 3: Product was evaluated to assure compliance with the latest versions of IEC 60079-0 and IEC 60079-15.

Issue 4: Additional models and drawings changes.