



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 ITA 10.0006X Issue No: 1 Certificate history:
Status: **Current** Page 1 of 4 [Issue No. 1 \(2015-02-16\)](#)
Date of Issue: **2015-02-16** [Issue No. 0 \(2010-09-14\)](#)
Applicant: **Excell Manufacturing Solutions, LLC**
9286 Merchantile Drive,
Mentor
Ohio, 44060
United States of America
Electrical Apparatus: **Solenoid Type 12310GEX**
Optional accessory:
Type of Protection: **Encapsulation**
Marking: Ex mb I Mb
Ex mb IIC T3/T4 Gb
IECEX ITA 10.0006X

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

James Birch

Position:

Certification Authority

Signature:
(for printed version)

Date:

2015-02-16

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:

TUV Rheinland Australia Pty. Ltd
1/30 Kennington Drive
Tomago NSW 2322
Australia





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Manufacturer: **Excell Manufacturing Solutions, LLC**
9286 Merchantile Drive,
Mentor
Ohio, 44060
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 : 2007-10 Explosive atmospheres - Part 0: Equipment - General requirements
Edition:5

IEC 60079-18 : 2009 Explosive atmospheres Part 18: Equipment protection by encapsulation "m"
Edition:3

*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:

[GB/SIR/ExTR10.0067/00](#)
[GB/SIR/ExTR15.0040/00](#)

[GB/SIR/ExTR11.0115/00](#)

[GB/SIR/ExTR12.0223/00](#)

Quality Assessment Report:

[GB/SIR/QAR09.0020/05](#)



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The Type 12310 Solenoid assemblies comprise a steel cylindrical housing with two 'press fit' end caps containing an encapsulated coil rated at a nominal voltage of 24 V d.c. A central actuator shaft passes through the housing and coil. The coil is constructed from enamelled copper wire wound onto a plastic bobbin. A permanently connected power cable enters through the housing and external connections to the encapsulated coil are made via this integral cable. A thermal switch and overcurrent fuse are fitted within the compound such that the limiting surface temperature of 150°C cannot be exceeded.

Types covered are

Type 12310GEX

Serial # _____-G (oil and gas)

Serial # _____-M (mining)

CONDITIONS OF CERTIFICATION: YES as shown below:

Please refer to attached annexe.



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

Please refer to attached annexe.

Annex:

[IECEX ITA 10 0006X-1 \(Certificate Annex\).pdf](#)

IECEX Certificate of Conformity		 TÜVRheinland® Precisely Right.	
	Annexe		
Annexe for Certificate No.:	IECEX ITA 10.0006X	Issue No.:	1

Equipment description pertaining to Issue 0 of this certificate:

As provided in the Equipment section of the Certificate.

Conditions of Manufacture pertaining to Issue 0 of this certificate:



1. The encapsulated parts of the apparatus shall be subjected to a visual inspection. No visible damage of the compound shall be evident, such as cracks, exposure of the encapsulated parts, flaking, impermissible shrinkage, discoloration, swelling decomposition or softening, as required by IEC 60079-18 Clause 9.1.
2. An electric strength test of 500 Vrms, shall be applied between circuit and casing for at least 1second as required by IEC 60079-18 Clause 9.2. Alternatively 1.2 times this test voltage maybe applied for at least 100 mS. No breakdown shall occur.

Conditions of certification pertaining to Issue 0 of this certificate:

1. The permanently connected power cable shall be terminated with an electrical connector that is suitable for the application and covered by a valid Certificate acceptable to the local authorities.

Drawings pertaining to Issue 0 of this certificate:

Manufacturer's Documents			
Title:	Drawing No.:	Rev. Level:	Date:
Solenoids for Sun Hyd. Cartridges	12310GEX	4	2010-05-03

IECEX Certificate of Conformity		 TÜVRheinland [®] Precisely Right.	
		Annexe	
Annexe for Certificate No.:	IECEX ITA 10.0006X	Issue No.:	1

Equipment description pertaining to Issue 1 of this certificate:

There are no changes to the equipment description for this issue.

Changes pertaining to Issue 1 of this certificate:

ExTR Report	Changes
GB/SIR/ExTR11.0115/00	1. Added a second 24VDC Coil (Type 2) 2. Removed 12VDC coil. Only 24VDC Coil Options. 3. Added optional valve and nut assembly to the product.
GB/SIR/ExTR12.0223/00	1. Minor changes to manufacturing materials.
GB/SIR/ExTR15.0040/00	1. Added third coil (Type 3), 12 Watt option that is rated T4 for Group IIC. 2. Minor changes to manufacturing material. 3. Change of Manufacturers Name and address. 4. Added label details for two new coils.

Conditions of Manufacture pertaining to Issue 1 of this certificate:

There are no changes to the conditions of manufacture for this issue.

Conditions of certification pertaining to Issue 1 of this certificate:

There are no changes to the conditions of certification for this issue.

Drawings pertaining to Issue 1 of this certificate:

Manufacturer's Documents			
Title:	Drawing No.:	Rev. Level:	Date:
Solenoids Assemblies	12310GEX Rev 16 Page 1 of 3	16	2014-11-11
Solenoids Assemblies	12310GEX Rev 16 Page 2 of 3	16	2014-11-11
Solenoids Assemblies	12310GEX Rev 16 Page 3 of 3	16	2014-11-11