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
UNIT VERIFICATION

Certificate No.: IECEx CSA 16.0013X issue No.:0

Certificate history:

Status: **Current**

Date of Issue: **2016-03-03** Page 1 of 3

Applicant:

G. W. Lisk, Co.
2 South St., Clifton Springs NY 14432
United States of America

Electrical Apparatus: **Solenoid Coil**
Optional accessory:

Type of Protection: **Ex db and Ex tb**

Marking: Ex db IIC T6/T4/T3 Gb

Ex tb IIIC T85°C/T135°C/T200°C Db

Ambient temperature range: -40^{0}C to 100^{0}C

Approved for issue on behalf of the IECEx Certification Body: Dorin Stochitoiu

Position: Technical Advisor

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.

IECEx Certificate
of Conformity

Certificate No.: IECEx CSA 16.0013X

Date of Issue: **2016-03-03** Issue No.: **0**

Manufacturer:

G. W. Lisk, Co.
2 South St., Clifton Springs NY 14432

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 : 2014-06 Edition: 7.0	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
IEC 60079-31 : 2013 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:
CA/CSA/ExTR16.0010/00

Quality Assessment Report:
GB/SIR/QAR11.0007/01

Certificate No.: IECEx CSA 16.0013X

Date of Issue: **2016-03-03** Issue No.: **0**

Schedule

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

General: The F4 series coils are manufactured as per drawing H31556 and incorporate models with an **F4ab** coil nomenclature and F4-**cd** cover nomenclature where:

a = D or K (input power type: dc constant voltage or ac constant voltage)

b = 08 or 10 (bore size range 08 = .50 inch 12.8 mm, 10 = .62 inch 16 mm

c = H or V (conduit Orientation: H =Horizontal, axis of entry in parallel plane of coil axis plane

V = Vertical, axis of entry in perpendicular plane of coil axis plane)

d = M or T (entry thread: M = M20x1.5, T = ½ NPT) Enclosure rating of IP6X is without the use of o-ring seal. The X value is determined by Lisk testing. The electrical and temperature ratings are detailed in page 1 of the drawings H31556. The electrical and temperature ratings of the product are based on specific application for a given ambient temperature and temperature code. The equipment is assessed to the intended for use in Group II locations where the source of hazard is Group IIC gas and relying on having explosionproof enclosure, Ex d, or Group IIIC dust and relying on having enclosure protection Ex tb.

CONDITIONS OF CERTIFICATION: YES as shown below:

1. Temperature of the fluid flowing through the valve and the solenoid must not exceed the ambient temperature specified on the nameplate.
2. Entry temperature may be as high as 163°C, the cable gland, or conduit sealing device, shall be suitable for temperatures up to 163°C.
3. Do not open terminal box cover while solenoid is energized.
4. When solenoid is mounted, it shall support only itself and not any other equipment.
5. Internal electrical connections must be factory installed.
6. The Special fastener type M4x0.7 used during testing has an yield stress of the 700 MPa.
7. The solenoid must be used either with appropriate certified cable glands that are suitable for the application for which the solenoid is intended or must be used with a metal conduit system, which is provided with a suitable certified sealing device at the point where the conduit system connects to the solenoid.
8. The user shall ensure that an appropriate low resistance path to earth is provided when interfacing to a metal conduit system.
9. The flying leads shall be terminated in a non-hazardous area or a suitably certified enclosure.
10. Drawing H31556, sheet 5 indicates flamepaths #2 and #3. The gap for both of these joints is 0.076mm which is less than the maximum 0.1mm gap allowed by IEC 60079-1, Table 2.

- PAGE BREAK -

IECEx Certificate
of Conformity

Certificate No.: IECEx CSA 16.0013X

Date of Issue: **2016-03-03** Issue No.: **0**

Page 3 of 3

EQUIPMENT(continued):

Date of Issue: **2016-03-03** Issue No.: **0**

Page 3 of 3

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