

# EU-TYPE EXAMINATION CERTIFICATE

## Equipment or Protective System Intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

- EU-Type Examination Certificate Number:** ITS15ATEX18300X      **Issue 01**
- Product:** Electric Solenoid Coil
- Manufacturer:** Magnet-Schultz of America Inc.
- Address:** 401 Plaza Drive, Westmont, IL 60559, USA
- This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- Intertek Testing and Certification Limited, Notified Body number 0359 in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council dated 26 February 2014, certifies that the product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II of the Directive.
- Compliance with the Essential Health and Safety Requirements has been assured by compliance with EN 60079-0:2012+A11:2013, EN 60079-1:2014, and EN 60079-31:2014 except in respect of those requirements referred to within item 14 of the Schedule.
- If the sign "X" is placed after the certificate number, it indicates that the product is subject to the special conditions of use specified in the Schedule to this certificate.
- This EU-Type Examination Certificate relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.
- The marking of the product shall include the following:



II 2 G Ex db IIC T4..T6 Gb

II 2 D Ex tb IIIC T135C Db

-40°C ≤ Ta ≤ 40..90°C

\* Refer to Product Description below for additional details.

**Certification Officer:** \_\_\_\_\_

*Kevin J. Wolf*

Kevin J. Wolf

**Date:** \_\_\_\_\_

01-March-2019

## SCHEDULE:

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### 11. Description of Equipment or Protective System

The HAZ-LOC@ coils are electrical equipment with coil wound around the tube. Assembly is present inside soft steel enclosure coated with zinc-nickel based layer. The equipment is type of electromagnet designed to generate a controlled magnetic field for switching/actuating purposes. The solenoid is designed to be used with Hydraulic Actuators.

The electrical unit is evaluated as explosion proof with two threaded entries for wiretap and conductors. The Enclosure is divided into two sections by potting to create no free volume around the coil. Range of Models present based on the different input voltages, tubus (actuator) size and the power rating. (Refer Annex for more information).

| Solenoid Valve Coils |                             |                                      |                |                  |
|----------------------|-----------------------------|--------------------------------------|----------------|------------------|
| Tube Size            | Maximum Ambient Temperature | Rated Wattage (Rated Voltage @ 20°C) | Gas/Dust Group | Temperature Code |
| 13 mm                | 40°C                        | 22                                   | G              | T4               |
|                      | 80°C                        | 9                                    | G              | T4               |
|                      | 40°C                        | 19                                   | D              | T135°C           |
|                      | 80°C                        | 7                                    | D              | T135°C           |
| 16 mm                | 40°C                        | 23                                   | G              | T4               |
|                      | 80°C                        | 10                                   | G              | T4               |
|                      | 40°C                        | 21                                   | D              | T135°C           |
|                      | 80°C                        | 7                                    | D              | T135°C           |

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| Solenoid Valve Coils |                             |                                      |                |                  |
|----------------------|-----------------------------|--------------------------------------|----------------|------------------|
| Tube Size            | Maximum Ambient Temperature | Rated Wattage (Rated Voltage @ 20°C) | Gas/Dust Group | Temperature Code |
| 18mm                 | 40                          | 21                                   | D              | T135°C           |
|                      | 50                          | 17                                   | D              | T135°C           |
|                      | 60                          | 21                                   | G              | T4               |
|                      | 60                          | 12                                   | D              | T135°C           |
|                      | 70                          | 17                                   | G              | T4               |
|                      | 70                          | 10                                   | D              | T135°C           |
|                      | 80                          | 12                                   | G              | T4               |
|                      | 90                          | 10                                   | G              | T4               |
| 19 mm                | 40°C                        | 28                                   | G              | T4               |
|                      | 80°C                        | 13                                   | G              | T4               |
|                      | 40°C                        | 19                                   | D              | T135°C           |
|                      | 80°C                        | 7                                    | D              | T135°C           |
| 22 mm                | 40°C                        | 27                                   | G              | T4               |
|                      | 80°C                        | 13                                   | G              | T4               |
|                      | 40°C                        | 22                                   | D              | T135°C           |
|                      | 80°C                        | 8                                    | D              | T135°C           |

### 12. Report Number

Intertek Report: 103414861DAL-001 Issue: 0 Dated: 29 Nov. 2018.

### 13. Special Conditions of Certification

#### (a). Special Conditions of Use

- Conduit runs must have a sealing fitting connected within 18 inches of this coil.

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Registered No 3272281 Registered Office: Academy Place, 1-9 Brook Street, Brentwood, Essex, CM14 5NQ.

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- Side-by-side mounting (stack assembly) of coils requires a minimum of 10 mm spacing, side-to-side, for proper heat exchange.
- Do not expose the internal components (Please refer to the instruction manual for mentioned materials), to mediums (chemicals, gases, vapors, etc.) to which they are not compliant.
- Minimum Thread Engagement for the M20 threaded cable entry for electrical connections should be "9 Threads".
- Protection shall be made during installation to protect equipment from transient voltage spikes

(b). Conditions of Manufacture - Routine Tests

- None

### 14. Essential Health and Safety Requirements (EHSRs)

The relevant Essential Health and Safety Requirements (EHSRs) have been identified and assessed in Intertek Report: 103414861DAL-001 Issue: 0 Dated: 29 Nov. 2018.

### 15. Drawings and Documents

| Title:                          | Drawing No.: | Rev. Level: | Date:         |
|---------------------------------|--------------|-------------|---------------|
| Potting                         | 960-0000-002 | D           | 02/04/2016    |
| Drive Stud (Spiral)             | 960-0000-004 | B           | 03/07/2016    |
| Bobbin                          | 960-0007-000 | 2           | 06/26/2014    |
| *Housing                        | 960-0008-X0X | C           | FEB. 23, 2018 |
| Brass Tube                      | 960-0010-XXX | 2           | 04/02/2014    |
| Front Washer                    | 960-0011-000 | 4           | 12/09/2014    |
| Screw                           | 960-0012-000 | 2           | 07/09/2014    |
| Wire Tap Cover                  | 960-0013-000 | 5           | 12/09/2014    |
| Printed Circuit Board Assembly. | 960-0015-XXX | 2           | 07/11/2014    |
| O-ring                          | 960-0016-XXX | 3           | 11/06/2015    |
| Set Screw                       | 960-0017-XXX | 2           | 05/14/2014    |
| Insulated Lead Wire             | 960-0018-XXX | 1           | 01/29/2014    |
| Bobbin                          | 960-0020-000 | 2           | 12/09/2014    |
| *Housing                        | 960-0021-X0X | C           | FEB. 23, 2018 |
| Front Washer                    | 960-0022-000 | 3           | 12/09/2014    |
| Bobbin                          | 960-0023-000 | 2           | 12/9/2014     |

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| Title:                                       | Drawing No.: | Rev. Level: | Date:         |
|--|--------------|-------------|---------------|
| *Housing                                     | 960-0024-X0X | C           | FEB. 23, 2018 |
| Bobbin                                       | 960-0025-000 | 2           | 12/09/2014    |
| *Housing                                     | 960-0026-X0X | C           | FEB. 23, 2018 |
| Front Washer                                 | 960-0027-000 | 2           | 12/09/2014    |
| Polyimide Disc                               | 960-0028-000 | 1           | 01/29/2014    |
| Bobbin                                       | 960-0029-000 | 2           | 12/09/2014    |
| *Housing                                     | 960-0030-X0X | C           | FEB. 23, 2018 |
| Front Washer                                 | 960-0031-000 | 2           | 12/09/2014    |
| Coil Windings and power ratings              | 960-0032-000 | 3           | 02/05/2015    |
| HAZARDOUS LOCATION COIL GENERAL CONSTRUCTION | 960-0034-000 | 2           | 12/12/2014    |
| Safety Label                                 | 960-0035-000 | 1           | 02/06/2014    |
| Front Washer                                 | 960-0036-000 | 2           | 12/09/2014    |
| Hex Washer Head Slotted Machine Screw        | 960-0037-000 | 1           | 04/11/2014    |
| Bracket, Ground                              | 960-0038-000 | 2           | 07/09/2014    |
| *Name Plate (Label)                          | 960-0039-000 | C           | FEB. 23, 2018 |
| Lead Wire Spacer                             | 960-0040-000 | 1           | 05/14/2014    |
| Silicone Lubricant                           | 960-0041-000 | 1           | 06/09/2014    |
| Lead Wire Routing in Haz-Loc Coils           | 960-0042-000 | 1           | 06/23/2014    |
| Plating Specification                        | 960-0043-000 | 2           | 12/12/2014    |
| *Name Plate (Label)                          | 960-0044-000 | C           | 10/4/2018     |
| *Haz-Loc Part Number Example                 | 960-0045-000 | C           | FEB. 22, 2018 |
| *NAME PLATE (LABEL) GAS ONLY                 | 960-0046-000 | C           | FEB. 23, 2018 |
| *Name Plate (Label)                          | 960-0047-000 | A           | 10/4/2018     |
| *Operating Manual                            | 972-0003-000 | A           | 10/23/2018    |
| *Operating Manual                            | 972-0003-100 | C           | Oct. 25, 2018 |

## 16. Details of Certificate changes Issue 1

Certificate has been converted from EC to EU Type. In accordance with Article 41 of Directive 2014/34/EU, EC-Type Examination Certificate referring to 94/9/EC that were in existence prior to the date of application of 2014/34/EU (20 April 2016) may be referenced as if they were issued in accordance with Directive 2014/34/EU. Supplementary Certificates to such EC-Type Examination Certificates, and new issues of such certificates, may continue to bear the original certificate number issued prior to 20 April 2016.

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- Amendments to marking labels to address revised coding requirements
- Standard EN 60079-1: 2007 updated to EN 60079-1: 2014
- Marking updated to include proper reference to T135C instead of T4 on all labels.
- Wandfluh marking labels updated to include dust ratings.

The product's design has not been updated, and there are no other technical changes.

