CERTIFICATE OF CONFORMITY

1. **HAZARDOUS (CLASSIFIED) LOCATION ELECTRICAL EQUIPMENT PER US REQUIREMENTS**
2. **Certificate No:** **FM16US0091X**
3. **Equipment:** **xx EX21 047x yzyz**
   (Type Reference and Name) **Electric Solenoid**
4. **Name of Listing Company:** **Schienle Magnettechnik GmbH**
5. **Address of Listing Company:** **In Oberwiesen 3**
   88682 Salem-Neufrach
   Germany
6. The examination and test results are recorded in confidential report number:

   3055770 dated 24th May 2016
7. FM Approvals LLC, certifies that the equipment described has been found to comply with the following Approval standards and other documents:

   FM Class 3600:2011, FM Class 3615:2006, FM Class 3616:2011, FM Class 3810:2005, ANSI/NEMA 250: 2008 ANSI/IEC 60529:2004
8. If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to specific conditions of use specified in the schedule to this certificate.
9. This certificate relates to the design, examination and testing of the products specified herein. The FM Approvals surveillance audit program has further determined that the manufacturing processes and quality control procedures in place are satisfactory to manufacture the product as examined, tested and Approved.
10. Equipment Ratings:

    Explosionproof for Class I, Division 1, Groups B, C and D, T4; dust-ignitionproof for Class II/III, Division 1, Groups E, F and G, T4, hazardous (classified) locations, indoors and outdoors (Type 4X, IP66) with an ambient temperature rating of -20°C to +60°C.

Certificate issued by:

J. E. Marquedant
Manager, Electrical Systems

24 May 2016
Date

To verify the availability of the Approved product, please refer to www.approvalguide.com

THIS CERTIFICATE MAY ONLY BE REPRODUCED IN ITS ENTIRETY AND WITHOUT CHANGE

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11. The marking of the equipment shall include:

Class I Division 1, Groups B, C, D; T4 Ta = -20°C to +60°C;

Class II/ III, Division 1, Groups E, F, G, T4 Ta = -20°C to +60°C; Type 4X, IP66

12. **Description of Equipment:**

The xx EX21 047x yzyz Solenoids is an electrical device used for actuating hydraulic valves for use in hazardous (classified) locations. The xx EX21 047x yzyz type solenoids have an electrical power consumption of approximately 20 Watts The ambient temperature range of the xx EX21 047x yzyz is from -20°C to +60°C. The solenoid is always fixed with (3) screws for fastening the solenoids to a valve body. The nominal input voltage can be either 12 or 24 Volts DC or 120 Volts AC. The coils consist of a coil body and are wound with copper coated wire with a temperature Class H (200°C) insulation.

The xx EX21 047x yzyz enclosure is comprised of a solenoid housing, a cable housing, The solenoid housing contains the operating coil, the actuating system and the actuating system. The cable housing is fastened to the solenoid housing and contains the terminal blockfor connection of the power wiring and the protection circuit (i.e. 2 voltage suppression diodes for dc voltages or 1 bridge rectifier + 1 voltage diode). The connection housing containts a female ½ inch NPT connection for installation for conduit connection.

The maximum process pressure ratings (as this equipment is always connected to a valve) for the xx EX21 047x yzyz Solenoid is 210 Bar. The maximum process temperature of the hydraulic medium is rated 70°C maximum

Electrical Equipment Hazardous Location Equipment - United States Solenoids Valve

xx EX21 047x yzyz. Solenoid
XP/I/1/BCD/T4 Ta -20°C to +60°C; Type 4X, IP66
DIP/II, III/1/EFG/T4 Ta = -20°C to +60°C
xx = Internal Use: (2 Digit Variable) (Does not affect type of protection)
x = Solenoid Voltage: A (for DC voltage), B (for AC voltage)
y = Standard Version: A
zyz = Voltage: 12Vdc, 24Vdc or 120Vac

13. **Specific Conditions of Use:**

1. To keep the temperature class the explosion-proof solenoid may only be operated in combination with a valve block with minimum volume according to the operating instructions. The maximum medium temperature of 70°C must not be exceeded.
2. A repair is not possible.

14. **Test and Assessment Procedure and Conditions:**

This Certificate has been issued in accordance with FM Approvals US Certification Requirements.

15. **Schedule Drawings**

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A copy of the technical documentation has been kept by FM Approvals.

16. **Certificate History**

Details of the supplements to this certificate are described below:

Date	Description
24th May 2016	Original Issue.

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