IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: **IECEx FMG 23.0003X**

Certificate history:

Status: **Current**

Issue No: 0

Date of Issue: 2023-06-12

Applicant: **Schienle Magnettechnik & Elektronik GmbH**
In Oberwiesen 3
Salem-Neufrach 88682
Germany

Equipment: **EX18 Series Solenoid Valves**

Optional accessory:

Type of Protection: **Flameproof "db", Dust-Protected Enclosure "tb"**

Marking: Ex db I Mb

Ex db IIB+H2 T6…T4 Gb; Ex tb IIIC T85°C…T135°C Db (10W models)
Ex db IIB+H2 T4 Gb; Ex tb IIIC T135°C Db (18W models)

See below for full temperature ratings.

Approved for issue on behalf of the IECEx Certification Body: **J. E. Marquedant**

Position: **VP, Manager - Electrical Systems**

Signature:
(for printed version)

Date:
(for printed version)

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 www.iecex.com or use of this QR Code.

Certificate issued by:

FM Approvals LLC
1151 Boston-Providence Turnpike
Norwood, MA 02062
United States of America

FM Approvals
Member of the FM Global Group

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Manufacturer: **Schienle Magnettechnik & Elektronik GmbH**
In Oberwiesen 3
Salem-Neufrach 88682
Germany

Manufacturing locations: **Schienle Magnettechnik & Elektronik GmbH**
In Oberwiesen 3
Salem-Neufrach 88682
Germany

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 equipment 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 60079-0:2017 Edition:7.0	Explosive atmospheres - Part 0: Equipment - General requirements
IEC 60079-1:2014-06 Edition:7.0	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
IEC 60079-31:2022-01 Edition:3.0	Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure "t"

This Certificate **does not** indicate compliance with 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/FMG/ExTR23.0003/00

Quality Assessment Report:

DE/EPS/QAR19.0010/05

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

General – The EX18 Series Solenoids are electrical devices used for actuating hydraulic valves for use in hazardous locations and explosive atmospheres. The equipment employs a conductive coil that uses electrical energy to hold a metallic shaft open or closed in order to control hydraulic oil and similar fluids. The solenoids are always fixed with means for fastening the solenoids to a valve body.

Construction – The EX18 Series Solenoids consist of machined steel parts threaded and press-fit together in order to form a rectangular flameproof and dust-protected electrical enclosure. The bottom of the enclosure has a cylindrical throughfare for connection to a valve assembly. The solenoid enclosures offer protective bonding provisions both internal and external.

The enclosure includes two metric threaded openings, with one on top and one on the side of the electronics housing. One is to be used as the enclosure cover; the other to be closed using the adapter provided in order to make electrical connections using a M20x1.5 or 1/2 NPT threaded wiring entry.

Ratings – The temperature and electrical ratings of the EX18 Solenoids are given as follows, for a maximum process medium temperature up to +70°C.

Inputs: (12, 24, 48, 110)VDC or (110, 230)VAC & 50/60 Hz; 10W or 18W

Temperature Ratings:

10W models:

T4/T135°C @ -40°C ≤ Tamb ≤ +70°C
T5/T100°C @ -40°C ≤ Tamb ≤ +55°C
T6/T85°C @ -40°C ≤ Tamb ≤ +40°C

18W models:

T4/T135°C @ -40°C ≤ Tamb ≤ +60°C

The certified product associated with this certificate is as follows:

EX18-uuu-w-1-A-zzz-0. Series Solenoids

uuu = Constructive design: 001 (10W) or 002 (18W).

w = Kind of current: A (AC) or D (DC).

zzz = Input voltage (Volts): 012, 024, 048, 110 or 230.

SPECIFIC CONDITIONS OF USE: YES as shown below:

1. The equipment is provided with two metric M36 threaded openings. One opening shall be employed as a cover using the solid blanking plug provided, and the other opening shall be used for electrical connections via the 1/2 NPT or M20 adapter provided.
2. To keep the temperature class, the solenoid may only be operated in combination with a valve block with minimum volume and maximum process medium temperature according to the operating instructions.
3. Flame path repair is not possible. Contact manufacturer.
4. Potential electrostatic charging hazard – clean only with damp cloth. Refer to instructions for additional guidance.