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 PTB 04.0017X**

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Certificate history:
Issue 2 (2023-11-16)
Issue 1 (2008-05-21)
Issue 0 (2004-11-17)

Status: **Current**

Issue No: 3

Date of Issue: 2026-02-09

Applicant: **UNI-Geraete E. Mangelmann Elektrotechnische Fabrik GmbH**
Holtumsweg 13
47652 Weeze
Germany

Equipment: **Solenoid actuator type MG…x, and MG…-A…x.**

Optional accessory:

Type of Protection: **Flameproof Enclosure "db", Increased safety "eb", Protection by Enclosures "tb"**

Marking: Ex db eb IIC T5 Gb
Ex tb IIIC T 95 °C Db

Approved for issue on behalf of the IECEx Certification Body: **Dr.-Ing. Stefan Essmann**

Position: **Head of Department "Explosion Protection in Energy Technology"**

Signature:
(for printed version)

Date:
(for printed version)

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2. This certificate is not transferable and remains the property of the issuing body.
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Certificate issued by:

Physikalisch-Technische Bundesanstalt (PTB)
Bundesallee 100
38116 Braunschweig
Germany

Physikalisch-Technische Bundesanstalt
Braunschweig und Berlin

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Manufacturer: **UNI-Geraete E. Mangelmann Elektrotechnische Fabrik GmbH**
Holtumsweg 13
47652 Weeze
Germany

Manufacturing locations: **UNI-Geraete E. Mangelmann**
Elektrotechnische Fabrik GmbH
Holtumsweg 13
47652 Weeze
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 Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

IEC 60079-1:2014 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition:7.0

IEC 60079-31:2022 Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure "t"
Edition:3.0

IEC 60079-7:2017 Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
Edition:5.1

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:

DE/PTB/ExTR08.0021/01

Quality Assessment Report:

HR/FIDI/QAR25.0004/00

IECEx ATR: **File reference:**

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

Description of equipment

The electromagnetic drive, type MG…x and MG…-A…x, consists of a coil unit of Flameproof Enclosure "d" type of protection and a terminal compartment of Increased Safety "e" type of protection. The electromagnetic drive comes in a number of power stages for valve control, optionally with pickup and holding winding.

A - separately certified - cable entry fitting will be used for connection.

Technical data

Rated voltage	max. 420 V
Ambient temperature	-20 °C up to +60 °C
Protection against contact, foreign bodies and water	IP65 according to EN 60529

SPECIFIC CONDITIONS OF USE: YES as shown below:
Repairs on flameproof joints may only be performed in accordance with the manufacturer's design specifications. Repair on the basis of the values in table 3 of IEC 60079-1 is not permitted.

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Equipment (continued):

Key of type designation

MG	0..	x	-…
1	2	3	4

1: Abbreviation: Magnetgehäuse (Enclosure of the magnet)
2: Dimension of the magnet or the solenoid
3: Explosionprotected type
4: Solenoid with pickup- and holding winding

Possible types

MG 008x				
MG 010x	MG 010x-A5			
MG 012x	MG 012x-A5			
MG 014x	MG 014x-A5			
MG 016x	MG 016x-A	MG 016x-A5		
MG 018x	MG 018x-A1	MG 018x-A2	MG 018x-A5	
MG 019x	MG 019x-A1	MG 019x-A2	MG 019x-A3	MG 019x-A5

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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)
Change of the QAR, No technical changes, No new ExTR has been issued .

The type designations on the first page have been formally aligned to fit the table in the "Equipment" section, with no technical changes.

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Additional information:
Additional notes for safe operation

Components attached or installed (e.g. terminal compartments, bushings, cable glands, connectors) shall be of a technical standard that complies with the specifications on the cover sheet. They shall be suited for the operating conditions and have a separate examination certificate. The special conditions specified for the components shall be complied with, and the components shall be included into the type test, if necessary. This equally applies to the components mentioned in the technical description.

The connecting lead must be selected with a view to the maximum temperature under rated operating conditions (including max. admissible ambient temperature, max. current load and, if applicable, thermal conduction).

The formation of potentially explosive atmospheres must be prevented in the magnet core and guide tube region.

Regarding the paint film, it must be ensured that the total thickness of the coating does not exceed the limit value of 0.2 mm from EN IEC 60079-0 Table 9.

During operation, the electromagnetic drive, type MG…x and MG…-A…x, must not be exposed to any strong charge-generating processes (presence of rapidly moving particles on the surface, e.g. electrons from high-voltage electrodes, flowing powder particles or liquids). A reference to this must be included in the operating, maintenance, and installation instructions.

Depending on the power losses of the components installed inside the housing, the manufacturer decides whether electrical-thermal performance rating tests are necessary and, if necessary, carries out these tests on his own responsibility.

These notes shall be added to each apparatus in a suitable form.