



[1] **EU-TYPE EXAMINATION CERTIFICATE - Translation**

[2] Equipment or protective systems
intended for use in potentially explosive atmospheres, Directive 2014/34/EU

[3] EU-type examination certificate number **IBExU14ATEX1211 X** | Issue 1

[4] Product: **Electrical Holding Magnet**
Type: EM GD 50 Ex mb, EM GD 60 Ex mb and EM GD 70 Ex mb

[5] Manufacturer: WaCo Gerätetechnik GmbH

[6] Address: Am Promigberg 18
01108 Dresden
GERMANY

[7] This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

[8] IBExU Institut für Sicherheitstechnik GmbH, notified body number 0637 in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this 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 to the Directive.

The examination and test results are recorded in the confidential test report IB-19-3-0156.

[9] Compliance with the essential health and safety requirements has been assured by compliance with: EN IEC 60079-0:2018, EN IEC 60079-7:2015/A1:2018, EN 60079-18:2015/AC:2018-09 and EN 60079-31:2014
except in respect of those requirements listed at item [18] of the schedule.

[10] If the sign "X" is placed after the certificate number, it indicates that the product is subject to the specific conditions of use specified in the schedule to this certificate.

[11] 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.

[12] The marking of the product shall include the following:

II 2G Ex mb IIC T6 Gb; II 2D Ex mb IIIC T85 °C Db

with junction box: II 2G Ex mb eb IIC T6 Gb; II 2D Ex mb tb IIIC T85 °C Db

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By order

Dipl.-Ing. Willamowski



Certificates without signature and seal are not valid. Certificates may only be duplicated completely and unchanged. In case of dispute, the German text shall prevail.

Freiberg, 2019-09-10

[13] **Schedule**

[14] **Certificate number IBExU14ATEX1211 X | Issue 1**

[15] **Description of product**

The electrical holding magnets type EM GD 50 Ex mb, GD EM 60 Ex mb and EM GD 70 Ex mb serve as locking devices for fire doors. The electrical connection can be executed depending on the version via a junction box with increased safety, protection by enclosures or by means of fixed cable.

The devices are suitable for the use in hazardous areas which require 2G or 2D equipment.

Technical data:

Ambient temperature: -20 °C up to +40 °C
Degree of protection: IP66

Electrical data:

Nominal voltage:	24 V DC (± 15%)
Rated current:	0.067 A
Power: EM GD 50 Ex	1.6 W
EM GD 60 Ex	1.6 W
EM GD 70 Ex	1.7 W

Variations compared to EC-Type Examination Certificate:

Variation 1

The holding magnets comply with the requirements of current standards.

Variation 2

The type marking has been changed.

Variation 3

The Ex-marking has been changed.

[16] **Test report**

The test results are recorded in the confidential test report IB-19-3-0156 of 2019-09-10.

The test documents are part of the test report and they are listed there.

Summary of the test results

The electrical holding magnets type EM GD 50 Ex mb, GD EM 60 Ex mb and EM GD 70 Ex mb fulfill the requirements of type of protection Encapsulation "mb" and optional in combination with increased safety "eb" or protection by enclosures "tb" on an electrical equipment for the Equipment Group II, Category 2G and 2D and Temperature class T6 and surface temperature of 85 °C respectively.

[17] **Specific conditions of use**

- An external fuse (max. 3 x ib according to IEC 60127) corresponding to the rated current shall be connected in series to each magnet as short circuit protection. Alternatively, a motor protection switch with short circuit- and thermal instantaneous tripping can be connected in series. This shall be adjusted to the respective rated current of the magnet. The rated voltage of the fuse shall be equal to or higher than the specified rated voltage of the magnet. The breaking capacity of the fuse link shall be equal to or higher than the prospective maximum short-circuit current (usually 1500 A). The fuse may be accommodated inside the associated supply unit (24 V DC) or shall be connected in series separately.
- In the cable tail design, the cable must be connected in an enclosure which fulfils the requirements of an approved type of protection according to EN 60079-0, if the connection in hazardous areas is carried out.
- For all magnets a maximum permissible ripple of 20 % applies.

[18] Essential health and safety requirements

In addition to the essential health and safety requirements (EHSRs) covered by the standards listed at item [9], the following are considered relevant to this product, and conformity is demonstrated in the test report:

None

[19] Drawings and Documents

The documents are listed in the test report.

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