

### INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

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

Certificate No.:

**IECEx BVS 11.0030X** 

Issue No: 2

Certificate history:

Issue No. 2 (2019-02-27)

Issue No. 1 (2018-01-29)

Status:

Current

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Issue No. 0 (2011-04-14)

Date of Issue:

2019-02-27

Applicant:

Steute Technologies GmbH & Co. KG

Brückenstraße 91 32584 Löhne **Germany** 

Equipment:

Solenoid interlock type Ex STM 295 ...-..

Optional accessory:

Type of Protection:

Equipment protection by flameproof enclosures "d", Equipment protection by encapsulation "m", Equipment dust

ignition protection by enclosure "t", Equipment protection by increased safety "e"

Marking:

Ex db eb mb IIC T4 Gb Ex tb IIIC T100°C Db

Approved for issue on behalf of the IECEx

Certification Body:

Jörg Koch

Position:

Head of Certification Body

Signature:

(for printed version)

Date:

- 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 the Official IECEx Website.

Certificate issued by:

DEKRA Testing and Certification GmbH
Certification Body
Dinnendahlstrasse 9
44809 Bochum
Germany



27.2.19



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Manufacturer: Steute Technologies GmbH & Co. KG

Brückenstraße 91 32584 Löhne **Germany** 

Additional Manufacturing location(s):

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 apparatus 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: 2011 Explosive atmospheres - Part 0: General requirements

Edition:6.0

IEC 60079-1: 2014-06 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"

Edition:7.0

IEC 60079-18: 2014 Explosive atmospheres – Part 18: Equipment protection by encapsulation "m"

Edition:4.0

IEC 60079-31 : 2013 Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"

Edition:2

IEC 60079-7: 2015 Explosive atmospheres – Part 7: Equipment protection by increased safety "e"

Edition:5.0

This Certificate **does not** indicate compliance with electrical 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/BVS/ExTR11.0048/01

Quality Assessment Report:

DE/BVS/QAR06.0023/11



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Schedule

#### **EQUIPMENT:**

Equipment and systems covered by this certificate are as follows:

#### Subject and type

Solenoid interlock type Ex STM 295 ...-..

The dots in the type code will be replaced by letters and numbers which specify the contact variant and the additional functions of the safety guard control further.

#### Description

The Solenoid interlock type Ex STM 295 ...-.. is designed in type of protection Increased Safety "e" and equipped with a switch insert type Ex 95 ... (IECEx BVS 16.0009U) or type ES/EM 04.93 -\*\* / \*\* (IECEx BVS 16.0069U) in type of protection Flameproof Enclosure "d" and a solenoid in type of protection Encapsulation "m". The safety guard control is suitable for use in atmospheres where combustible dusts or gases are present and an ambient temperature -20 °C to +55 °C.

#### SPECIFIC CONDITIONS OF USE: YES as shown below:

If no externally pre-connected fuse is used with a minimum switching capacity of at least 1500 A, the prospective short-circuit current of the power supply is to be limited to the 50 A of the breaking capacity of the internal fuse.



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#### DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

The name of the company was updated and the latest issue of the QAR was inserted. No further changes were made.

#### Annex:

BVS\_11\_0030X\_Steute\_Annex\_Issue2.pdf





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#### **Parameters**

### With switch type Ex 95 ... according to IECEx BVS 16.0009U:

-20 °C to +55 °C Ambient temperature range DC 24 V +- 10 % Rated supply voltage AC 250 V, AC 15 Rated circuit voltage DC 230 V, DC 13

A, AC Permitted switching capacity 0.25 A, DC

> 2.5 VA (continuous operation) Power input

max. 47 VA (for 250 ms)

1.5 mm<sup>2</sup> Rated connection capacity **IP 64** IP degree 10<sup>6</sup> Maximum switch cycle criterion

100% ED, max. 1200 switches/h Switch-on time and max. no. of switches / hour

### With switch type Ex ES/EM 04.93 -\*\*/\*\* according to IECEx BVS 16.0069U:

-20 °C to +55 °C Ambient temperature range DC 24 V +- 10 % Rated supply voltage AC 250 V, AC 15 Rated circuit voltage DC 230 V, DC 13

1.5 A, AC Permitted switching capacity 0.2 A, DC

> 2.5 VA (continuous operation) Power input

max. 47 VA (for 250 ms)

1.5 mm<sup>2</sup> Rated connection capacity **IP 64** IP degree 10<sup>6</sup> Maximum switch cycle criterion

100 % ED, max. 1200 switches/h Switch-on time and max. no. of switches / hour