



# IECEX Certificate of Conformity

## INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit [www.iecex.com](http://www.iecex.com)

Certificate No.: IECEx IBE 12.0017X Issue No: 0 Certificate history:  
Issue No. 0 (2015-12-07)

Status: **Current** Page 1 of 3

Date of Issue: **2015-12-07**

Applicant: **Hengstler GmbH**  
Uhlandstraße 49  
78554 Aldingen  
Germany

Electrical Apparatus: **Absolute shaft encoder type AX65**  
Optional accessory:

Type of Protection: **Flameproof enclosure "d"; Protection by enclosure "t"**

Marking: **Ex db I  
Ex db IIC T4  
Ex tb IIIC T135 °C  
-40 °C ≤ T<sub>a</sub> ≤ +60 °C**

Approved for issue on behalf of the IECEx  
Certification Body:

Prof. Dr. Tammo Redeker

Position:

Head of Certification Body

Signature:  
(for printed version)

Date:

2015-12-07

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:

**IBExU Institut für Sicherheitstechnik GmbH**  
Certification Body  
Fuchsmühlenweg 7  
09599 Freiberg  
Germany



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Manufacturer: **Hengstler GmbH**  
Uhlandstraße 49  
78554 Aldingen  
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 electrical 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 60079-31 : 2013** Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"  
Edition:2

*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*

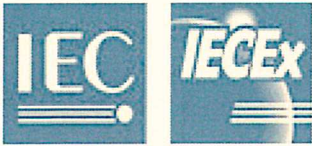
Test Report:

DE/IBE/ExTR11.0017/00

Quality Assessment Report:

DE/PTB/QAR12.0001/01





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## Schedule

### EQUIPMENT:

*Equipment and systems covered by this certificate are as follows:*

The Encoder type AX65 serves to the collecting of rotation by a magnetic sensor system. It consists of a flameproof enclosure made of stainless steel with direct cable entry.

### Technical data

Nominal voltage	10 up to 30 V DC
max. power input	2 W
max. speed	3000 min <sup>-1</sup>
Ambient temperature range	-40 °C up to +60 °C
Yield stress of the locking screws	200 N/mm <sup>2</sup>
Degree of protection according to IEC 60529	IP 66/67

### CONDITIONS OF CERTIFICATION: YES as shown below:

Repairs of the flameproof joints must be made in compliance with the constructive specifications provided by the manufacturer. Repairs must not be made on the basis of values specified in tables 2 and 3 of IEC 60079-1.

The cable entry has to be selected corresponding to the equipment category. At a marking with "X" the special conditions (i. e. use only with additional clamping) have to be noticed.

The max. service temperature for the flameproof cable entry and the connecting cable have to be noticed in accordance with the max. speed and ambient temperature (see operating instruction). At use in the lower temperature range up to -40 °C the cable entry and the connecting cable must be suitable for the appropriate operating temperature.

Unneeded openings for cable entries have to be closed durably with suitable screw plugs, which are confirmed for explosion protection according to IEC 60079-1, 11.9

As fasteners are used screws with a head according to ISO 7379. The fasteners has to be replaced with identical ones.