



# 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 EPS 16.0002X Issue No: 0 Certificate history:  
Status: Current Page 1 of 4 Issue No. 0 (2016-03-10)  
Date of Issue: 2016-03-10  
Applicant: EUROTEC Antriebszubehör GmbH  
Bildstock 37  
88085 Langenargen  
Germany  
Electrical Apparatus: limit switch box type NEK...IA..., NEK...ED... and NEK...K2D...  
Optional accessory:  
Type of Protection: intrinsic safety "i", flameproof enclosures "d", increased safety "e", protection by enclosure "t"  
Marking:  
NEK...ED...  
Ex de IIC T4 - T6 Gb  
Ex t IIIC T80°C - T135°C Db  
NEK...IA...  
Ex ia IIC/IIB T4 - T6 Gb  
Ex ia IIIC T80°C - T135°C Db  
NEK...K2D...  
Ex t IIIC T80°C - T135°C Db

Approved for issue on behalf of the IECEx  
Certification Body:

Dieter Zitzmann

Position:

manager certification

Signature:  
(for printed version)

Date:

2016-03-10



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](http://www.iecex.com).

Certificate issued by:



# IECEX Certificate of Conformity

Certificate No: IECEx EPS 16.0002X

Issue No: 0

Date of Issue: 2016-03-10

Page 2 of 4

Bureau Veritas Consumer Products Services Germany GmbH  
Businesspark A96  
86842 Türkheim  
Germany







# IECEx Certificate of Conformity

Certificate No: IECEx EPS 16.0002X

Issue No: 0

Date of Issue: 2016-03-10

Page 3 of 4

Manufacturer: EUROTEC Antriebszubehör GmbH  
Bildstock 37  
88085 Langenargen  
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 Edition:6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-1 : 2007-04 Edition:6	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
IEC 60079-11 : 2011 Edition:6.0	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
IEC 60079-31 : 2013 Edition:2	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
IEC 60079-7 : 2006-07 Edition:4	Explosive atmospheres - Part 7: Equipment protection by increased safety "e"

*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/EPS/ExTR16.0002/00

### Quality Assessment Report:

DE/EPS/QAR13.0003/02



# IECEX Certificate of Conformity

Certificate No: IECEx EPS 16.0002X

Issue No: 0

Date of Issue: 2016-03-10

Page 4 of 4

Schedule

## EQUIPMENT:

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

The limit switch boxes are used for feedback and control of the position of valves, which are actuated by pneumatic actuators. The shaft of the limit switch is positively connected to the shaft of the rotary actuator and is rotated in the rotational movement of the rotary actuator. The fixed to the shaft switching cams actuate thereby the built-in sensors, which are used for electronic signal transduction.

Further information and electrical data: see attachment.

CONDITIONS OF CERTIFICATION: YES as shown below:

See attachment.

Annex:

[Euro\\_16TH0033\\_IECEX EPS 16.0002X\\_Attachment.pdf](#)



Attachment to Certificate  
IECEx EPS 16.0002X Issue 0



Applicant: EUROTEC Antriebszubehör GmbH  
Bildstock 37  
88085 Langenargen  
Germany

Electrical Apparatus: limit switch box type NEK...IA..., NEK...ED... and NEK...K2D...

#### Description of equipment

The neptun Ex de / t limit switch boxes type NEK...ED... are, depending on the model, equipped with 1 to 3 mechanical Ex-d switches. Additionally the device serves as a connection box for electrical connections according to kind of protection increased safety. Up to two electrical circuits can be fed through this connection box.

The neptun Ex ia limit switch boxes type NEK...IA... are, depending on the model, equipped with 1 to 4 mechanical micro switches or separately certified intrinsically safe inductive sensors. These include 1 to 4 inductive V3-sensors, 1 to 3 proximity switches, 1 to 2 cylindrical sensors or 1 double sensor. Additionally the device serves as a connection box for up to two intrinsic safe circuits which can be fed through.

The neptun Ex t limit switch boxes type NEK...K2D... are only intended for dust hazardous areas and can be equipped with different switch combinations. As for the type NEK...ED..., electrical signals can be fed through the box type NEK...K2D... which thus serves as a connection box. The maximum allowed internally dissipated power, see section (17), shall never be exceeded.





Attachment to Certificate  
IECEx EPS 16.0002X Issue 0



#### Electrical Data

NEK...ED...	<p>The electrical data depends on the according switch types and can be taken from the according datasheet or the user manual.</p> <p>Electrical fed through circuits: minimum cross section size 0,5 mm<sup>2</sup>, maximum current 6 A</p>
NEK...IA...	<p>The electrical data depends on the according switch types and can be taken from the according datasheet or the user manual.</p> <p>For mechanical gold contact switches (simple apparatus) the following values shall never be exceeded:</p> <p>Ui = 11 V ; li = 15 mA ; Pi = 35 mW</p> <p>The following values for the electrical fed through circuits shall never be exceeded:</p> <p>IIC: Ui = 28 V, li = 200 mA IIB: Ui = 32 V, li = 450 mA</p>
NEK...K2D...	<p>Maximum allowed internally dissipated power: 1 W</p>



Attachment to Certificate  
IECEx EPS 16.0002X Issue 0



Special conditions for safe use / conditions of certification:

Maximum ambient temperature range:

NEK...ED...

T6/T80°C: -55°C/-25°C to +40°C  
T5/T95°C: -55°C/-25°C to +60°C  
T4/T135°C: -55°C/-25°C to +75°C

NEK...IA...

Mechanical gold contact switches:

T6/T80°C: -55°C/-25°C to +70°C  
T5/T95°C: -55°C/-25°C to +80°C  
T4/T135°C: -55°C/-25°C to +100°C

Certified switches:

Depends on the according switch type. See user manual and type plate.

NEK...K2D...

T80°C: -55°C/-25°C to +40°C  
T95°C: -55°C/-25°C to +60°C  
T135°C: -55°C/-25°C to +75°C

For the limit switch box type NEK...IA...alternative to the cable glands other, accordingly suited connectors for example M12-connector or plug connectors may be attached. These fasteners shall comply with the separation distances according to Table 5 of EN 60079-11. Unused connectors shall be covered with a dustproof cap.