(1) # EU - Type Examination Certificate

(2) Equipment and protective systems intended for use in potentially explosive atmospheres – **Directive 2014/34/EU**

(3) EU - Type Examination Certificate Number

EPS 16 ATEX 1 007 X **Revision 1**

(4) Equipment: Limit switch box neptun Type: NEK...ED...; NEK...IA... and NEK...K2D...

(5) Manufacturer: EUROTEC Antriebszubehör GmbH

(6) Address: Bildstock 37
88085 Langenargen
Germany

(7) This equipment and any acceptable variation thereto are specified in the annex to this certificate and the documentation therein referred to.

(8) Bureau Veritas Consumer Products Services Germany GmbH, notified body No. 2004 in accordance with Article 21 given in the Directive 2014/34/EU of the European Parliament and of the Council of 26 February 2014, certifies that this equipment has been found to comply with the essential health and safety requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres, given in Annex II of the Directive. The examination and test results are recorded in the confidential documentation under the reference number 16TH0033.

(9) Compliance with the essential health and safety requirements has been assured by compliance with:

EN IEC 60079-0:2018 **EN 60079-1:2014** **EN IEC 60079-7:2015/A1:2018**

EN 60079-11:2012 **EN 60079-31:2014**

(10) If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the annex to this certificate.

(11) This EU - Type Examination Certificate relates only to the design and construction of the specified equipment in accordance with Directive 2014/34/EU. Further requirements of this Directive apply to the manufacture of this equipment and its placing on the market. Those requirements are not covered by this certificate.

(12) The marking of the equipment shall include the following:

NEK...ED...	II 2G Ex db eb IIC T4 - T6 Gb II 2D Ex tb IIIC T80°C - T135°C Db
NEK...IA...	II 2G Ex ia IIC/IIB T4 - T6 Gb II 2D Ex ia IIIC T80°C - T135°C Db
NEK...K2D...	II 2D Ex tb IIIC T80°C - T135°C Db

Certification department of explosion protection

Tuerkheim, 2022-10-10

Ulrich Feike

(13) # Annex

(14) **EU - Type Examination Certificate EPS 16 ATEX 1 007 X** **Revision 1**

(15) Description of equipment:

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.

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 electrical data, shall never be exceeded

Electrical data:

NEK...ED...	The electrical data depends on the according switch types and can be taken from the according datasheet or the user manual. Electrical fed through circuits: minimum cross section size 0.5 mm², maximum current 6 A
NEK...IA...	The electrical data depends on the according switch types and can be taken from the according datasheet or the user manual. For mechanical gold contact switches (simple apparatus) the following values shall never be exceeded: Ui = 11 V; Ii = 15 mA; Pi = 35 mW The following values for the electrical fed through circuits shall never be exceeded: IIC: Ui = 28 V, Ii = 200 mA IIB: Ui = 32 V, Ii = 450 mA
NEK...K2D...	Maximum allowed internally dissipated power: 1 W

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(17) Reference number: 16TH0033

(18) Special conditions for safe use:

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.

(19) Essential health and safety requirements:

Met by compliance with standards.

ZERTIFIZIERUNGSSTELLE BUREAU VERITAS 1828 Bureau Veritas CPS Germany GmbH

Certification department of explosion protection Tuerkheim, 2022-10-10

Ulrich Feike