EC Type Examination Certificate (1)



- (2)Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres - Directive 94/9/EC
- (3)EC Type Examination Certificate Number:

TPS 15 ATEX 51277 007



(4)Equipment: Limit switch box Typ. ET

(5)Manufacturer: Rotech Antriebselemente GmbH

(6)Address: Im Katzentach 16-18

76275 Ettlingen

- (7)This equipment and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.
- TÜV SÜD Product Service GmbH, notified body No. 0123 in accordance with Article 9 of the Council Directive 94/9/EC of March 23rd 1994, certifies that this equipment has been (8)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 report 713073813.

(9)Compliance with the Essential Health and Safety Requirements has been assured by

compliance with:

EN 60079-0:2012 + A11:2013

EN 60079-11:2012

- (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 schedule to this certificate.
- This EC Type Examination Certificate relates only to the design and the construction of (11)the specified equipment in accordance with Directive 94/9/EC. Further requirements of this Directive apply to the manufacture and supply of this equipment.
- (12)The marking of the equipment shall include the following:



II 2 G Ex ia IIC T6 Gb



II 2 D Ex ia IIIC T80°C Db

TÜV SÜD Product Service GmbH

Michael Reuschel. Center of Excellence

Machinery and Industrial Products



Stuttgart, 10.12.2015

EC Type Examination Certificate without signature and official stamp shall not be valid. The certificates may be circulated only without alteration. Extracts or alterations are subject to approval by TÜV SÜD Product Service GmbH. In case of dispute, the German text shall prevail.

(Document no.: TPS 15 ATEX 51277 007)

The document is internally administrated under the following number: EX5 15 12 51277 007



Schedule (13)

(14)EC Type Examination Certificate TPS 15 ATEX 51277 007

(15)Description of equipment:

Limit switch modules for the intended use of position feedback from rotary actuators.

(16)Test report: 713073813

(17)Technical Data:

Group:

11

Category:

2G und 2D

Gas group:

IIA, IIB, IIC

Dust group:

IIIC

Ignition protection type:

Intrinsic safety "ia"

Protection class:

Rating of housing according EN 60529: IP67

Ambient temperature:

When using mechanical switches following shall be applied:

Minimal ambient temperature: -25°C

Temperature class T6: maximum ambient temperature: +60°C Temperature class T5: maximum ambient temperature: +75°C Temperature class T4: maximum ambient temperature: +85°C

When using separately certified intrinsic safe sensors following shall be applied:

Minimal ambient temperature:

-25°C

Maximum ambient temperature:

+85°C

Electrical data for mechanical switches:

Rated cross-section:

max. 4 mm²

Voltage:

max. 28 V

Current:

max. 45 mA

Electrical power:

max. 315 mW

Page 2/3

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The effective inner values of the switches are:

Ci: 1 nF Li: 1 µF

For intrinsically sensors:

(Typical values)

Nominal voltage:

8 V DC

Measuring slab recorded:

≥ 3 mA

Measuring slab not recorded:

≤1 mA

An intrinsic safe barrier shall be used according to specifications of the sensor manufacturer

(17) Special conditions for safe use:

Only separately certified sensors of the protection class intrinsic safety with appropriate ambient temperature could be used as intrinsically installation elements.

The marking of intrinsically safe circuits according to EN 60079-14, 12.2.2.6 must be made through the use of blue clamps or blue marking on the clamps and blue cable glands.

An intrinsic safe barrier shall to be used according to specifications of the sensor manufacturer

(18) Essential health and safety requirements:

Met by standards

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Page 3/3

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