

(1) **EG Type-examination certificate**
(Translation)

(2) Appliances and protective systems to be used in areas subject to explosion hazards
-Guideline- 94/9/EG -



(3) EG type-examination certificate number

PTB 02 ATEX 1150

(4) Appliance: Limit switch module Type T V AZ

(5) Manufacturer: Rotech Antriebselemente GmbH

(6) Address: Im Katzentach 16 – 18, 76275 Ettlingen, Germany

(7) The type of this appliance and the various permissible modifications of design have been defined in the appendix to this type-examination certificate and the records referred to therein.

(8) The Physikalisch-Technische Bundesanstalt being the registered office no. 0102 pursuant to article 9 of the guideline of the Council of the European Community of MAR 23 / 1994 (94/9/EG) herewith certifies that the fundamental safety and health requirements for the conception and the construction of appliances and of protective systems for approved use in areas subject to explosion hazards in accordance with the regulations of appendix II to this guideline are being fulfilled.

The results of this examination have been recorded in the confidential test report PTB Ex 02-12331.

(9) The fundamental safety and health requirements are being met by complying with

EN 50014:1997 + A1 + A2 EN 50018:2000 EN 50019:2000

(10) If the certificate number is followed by the symbol "X", attention is drawn to special conditions for the safe use of the appliance as set out in the appendix to this certificate.

(11) This EG type-examination certificate only certifies the concept and the examination of the specified appliance in accordance with the 94/9/EG guideline. Further requirements of this guideline have to be met with respect to the manufacture and the circulation of this appliance. These requirements are not covered by this certificate.

(12) The appliance must be labelled as follows:

 **II 2 G EEx ed IIC T6**

Certification Office for Explosion Protection
p.p. <<signature>>
Dr. U. Klausmeyer (Office stamp)
government director

Brunswick JAN 27 / 2003

(13) **Appendix**

(14) **EG type-examination certificate PTB 02 ATEX 1150**

(15) **Description of appliance**

The limit switch module type TV Az consists of a plastic housing with a lid made of plastic or aluminum. It is of the EP classification "e", High Security. The housing contains a built-in switch of the classification "d", Pressure Resistant Encapsulation. It also contains terminals of the EP classification "e", High Security, and an actuator shaft signalling the position. The unit is hooked up from the outside via EP cable and line ports.

All built-in components have been individually tested and carry an examination certificate.

Technical data

Voltage rating U_e :	up to 250 V
Current rating I_e :	max. 4 A
Cross section rating:	max. 1.5 mm ²
Range of ambient temperature.	-20 ° C to +60 ° C

Other ratings are acceptable according to the relevant regulations if switching operation is not impaired. Such ratings must be specified by the manufacturer conditional on operating mode, type of intended use, etc.

(16) PTB Ex 02-12331 test report

(17) Special conditions: None.

(18) **Fundamental Safety and Health Requirements**

The tests carries out and their positive results show that the limit switch module type TV Az fulfills the requirements of the European Guideline- 94/9/EG and the standards cited on the cover sheet.

Certification Office for Explosion Protection
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Dr. U. Klausmeyer (Office stamp)
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1. SUPPLEMENT

according to Directive 94/9/EC Annex III.6

to EC-TYPE-EXAMINATION CERTIFICATE PTB 02ATEX 1150 (Translation)

Appliance: Limit switch module Type T ... V AZ

Marking:  II 2 G EEx ed IIC T6

Manufacturer: Rotech Antriebselemente GmbH

Address: Im Katzentach 16 – 18
76275 Ettlingen, Germany

Description of supplements and modifications:

The limit switch module Type T ... V AZ is added to the following items:

- (1) The housing is available with two way breathable membran.
- (2) The housing is available with aluminium cover.
- (3) The housing is available with makrolon cover.
- (4) The housing may also be fitted with – separate certified – sensors with the type of explosion protection intrinsically safety “ia/ib”. The labelling is added to:

 II 2 G EEx ed ia/ib IIA, IIB, IIC T6

The composition of the abbreviation of the type of explosion protection is according to the used components.

Technical data

Electrical data for insert switches with type of protection pressure-proof housing “d”:

Voltage rating U_e :	up to 250 V
Current rating I_e :	max. 4 A
Cross section rating:	max. 1,5 mm ²

Electrical data for sensors with the type of explosion protection intrinsically safety “ia/ib”:

Voltage rating U_e :	up to 8 V DC
Current rating measuring plate not detected	≥ 3 mA
Current rating measuring plate detected	≤ 1 mA

1. Supplement to EC-TYPE-EXAMINATION CERTIFICATE PTB 02 ATEX 1150

Range of ambient temperature
with plastic or aluminiumcover: -20 °C to $+60\text{ °C}$
with makrolon cover: -20 °C to $+85\text{ °C}$

Others than the above mentioned rated values are permitted when making and breaking capacity is observed according to the relevant provisions and the definitions of the manufacturer according to operating mode, utilization category etc.

Applied standards:

EN 50014:1997 + A1 + A2 **EN 50018:2000 + A1** **EN 50019:2000**

Test report: PTB Ex 05-15155

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Brunswick OCT 26 / 2005