



Translation

(1) **EC-TYPE EXAMINATION CERTIFICATE**

(2) Equipment or protective system intended for use in potentially explosive atmospheres - **Directive 94/9/EC**



(3) EC-Type Examination Certificate Number

**TÜV 02 ATEX 1911**

(4) Equipment: Switch Amplifier type 17-584D-\*\*0D/\*\*\*\*

(5) Manufacturer: Bartec GmbH

(6) Address: Max-Eyth-Straße 16  
D-97980 Bad Mergentheim

(7) This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

(8) The TÜV NORD CERT GmbH & Co. KG, TÜV CERT-Certification Body, notified body number N° 0032 in accordance with Article 9 of the Council Directive of the EC of March 23, 1994 (94/9/EC), certifies that this equipment or protective system 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 to the Directive.

The examination and test results are recorded in the confidential report N° 02 YEX 550151.

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

**EN 50 014: 1997**

**EN 50 020: 1994**

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

(11) This EC-type examination certificate relates only to the design, examination and tests of the specified equipment in accordance to the Directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment. These are not covered by this certificate.

(12) The marking of the equipment or protective system must include the following:

II (1) G D [EEEx ia] IIC

TÜV NORD CERT GmbH & Co. KG  
TÜV CERT-Certification Body  
Am TÜV 1  
D-30519 Hannover  
Tel.: 0511 986-1470  
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Hanover, 2002-12-17



**TÜV NORD CERT**

Head of the  
Certification Body

(13)

## SCHEDULE

(14) **EC-TYPE EXAMINATION CERTIFICATE N° TÜV 02 ATEX 1911**

(15) Description of equipment

The switch amplifier type 17-584D-\*\*0D/\*\*\*\* is used for the transmission of binary signals from the explosion hazardous area into the non explosion hazardous area and for the safe galvanic separation between the non intrinsically safe and the intrinsically safe circuits as well. The device is realised with two channels.

The intrinsic safe circuits may also be fed into areas with dust explosion hazard, which require devices of category 1 or 2, if the connected device meets the requirements of category 1D or 2D and it has to be certified accordingly.

The maximum permissible ambient temperature is 60°C.

### Electrical data

Supply circuit

(terminals 13 [L resp. +]  
and 15 [N resp. -])

**type 17-584D-\*\*0D/\*\*\*\***

24 V a.c.... 220/230V a.c.  $\pm$  10%, 50 Hz, about 1 VA

**resp. type 17-584D-\*00D/\*\*\*\***

18 ... 35 V d.c. (max. 35 V d.c.), about 0,7 W

$U_m = 253$  V

Input circuits

(input 1: terminals 5, 6, and 7  
input 2: terminals 1, 2 and 3)

in type of protection "intrinsic safety"

resp.

EEx ia IIC/IIB

EEx ib IIC/IIB

maximum values (sum values):

$U_0 = 10.5$  V

$I_0 = 26$  mA

$P_0 = 67$  mW

Characteristic line: linear

The effective internal inductance and capacitance are negligibly small.

Sum values for both input circuits

	EEx ia/ ib	IIC	IIB
max. permissible outer inductance		45 mH	160 mH
max. permissible outer capacitance		2.41 $\mu$ F	16.8 $\mu$ F

Relay contact circuits

(chanal 1: terminals 9, 10, 14;  
chanal 2: terminals 11, 12, 16)

maximum values per circuit for:

a.c.:

250 V, 5 A, 100 VA

d.c.:

24 V, 8 A, 50 W

The input circuits are safe galvanically separated from the non intrinsic safe circuits up to a peak crest value of the voltage of 375V.



(16) Test documents are listed in the test report No.: 02 YEX 550151.

(17) Special conditions for safe use

none

(18) Essential Health and Safety Requirements

no additional ones