



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 99 ATEX 1426

(4) Equipment or Protective System: bus interface 8 analogues out type 17-8583-6..1....

(5) Manufacturer: BARTEC Componenten und Systeme GmbH

(6) Address: Max-Eyth-Straße 18
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 Hannover/Sachsen-Anhalt e.V., TÜV Certification Body N° 0032 in accordance with Article 9 of the Council Directive 94/9/EC of March 23, 1994, 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 confidential report N° 99/PX10290.

(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 certification 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 and construction of the specified equipment or protective system according to Directive 94/9/EC. Further requirements of this Directive apply to the manufacture and placing on the market of this equipment or protective system.

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

II (1) G [EEx Ia] IIC

TÜV Hannover/Sachsen-Anhalt e.V.
TÜV CERT-Zertifizierungsstelle
Am TÜV 1
D-30819 Hannover

Hannover, 1999-08-07



Head of the
Certification Body

(13)

SCHEDULE

(14) **EC-TYPE EXAMINATION CERTIFICATE N° TÜV 99 ATEX 1426**

(15) **Description of equipment or protective system**

The bus interface 8 analogues out type 17-8583-6../... is used for the safely galvanically separation of intrinsically safe signal circuits and non intrinsically safe supply and interface circuits. Moreover the bus interfaces enables the connection to bus systems by means of a printed circuit board.

The permissible range of the ambient temperature is: - 25°C to + 85°C.

Electrical data

Supply circuit 1 $U = 24 \text{ V d.c. (max 30 V d.c.)}$, about 1,8 W
(connection X4.23, X4.24 and X4.22 (EP)) $U_m = 253 \text{ V}$

Supply circuit 2 $U = 24 \text{ V d.c. (max 30 V d.c.)}$, about 5,7 W
(connection X4.19, X4.20) $U_m = 253 \text{ V}$

Signal circuits in type of protection "Intrinsic Safety" EEx ia IIC/IIB
(connection X1.1 to X1.16) resp. EEx ib IIC/IIB

Maximum values per circuit:

$$U_o = 21,4 \text{ V}$$

$$I_o = 93,9 \text{ mA}$$

$$P_o = 503 \text{ mW}$$

Characteristic line: linear

The effective internal inductance and capacitance are negligibly small.

EEx ia resp. EEx ib	IIC	IIB
max. permissible outer inductance	3,4 mH	13,9 mH
max. permissible outer capacitance	178 nF	1,2 μF

Interface circuits $U \leq 30 \text{ V d.c.}$
(connection X4.1 to X4.14, X9.1 to X9.11, X9.16 to X9.20, X3.1 to X3.7 and X4.16 and X4.17 (bridged or not occupied)) $U_m = 253 \text{ V}$

The intrinsically safe circuits are safely separated from all other circuits up to a peak crest value of the rated voltage of 375 V.

- (16) Test documents consisting of the description (19 sheets), operating instructions (3 sheets) and drawings (33 sheets) are listed in the test report.
- (17) Special condition for safe use
none
- (18) Essential Health and Safety Requirements
no additional ones

Translation

1. SUPPLEMENT
to
EC-Type-Examination Certificate No. TÜV 99 ATEX 1426

Testobject: **Bus Interface 8 Analog out type 17-6583-.6../....**
Customer: **BARTEC GmbH**
formerly
BARTEC Componenten und Systeme GmbH
Address: **Max-Eyth-Straße 16**
D-97980 Bad Mergentheim

Changes:

The Bus Interface 8 analog out type 17-6583-.6../.... can also be manufactured according to the test documents listed in the test report. The amendments concern the internal design of the device.

In the future the marking of the Bus Interface 8 analog out type 17-6583-.6../.... is:
II (1) G D [EEx ia] IIC bzw. II (1) G D [EEx ia] IIB

The electrical and other data apply unchanged for this Supplement.

The testobject inclusive this Supplement is in accordance with the following standards:

EN 50 014:1997+A1+A2 EN 50 020:2002

(16) All documents are listed in the test report No . 05 YEX 551987-2

(17) Special conditions for safe use

none

(18) Essential Health and Safety Requirements

no additional ones

TÜV NORD CERT GmbH & Co. KG
Am TÜV 1
D-30519 Hannover
Tel.: 0511 986-1470
Fax: 0511 986-2555

Hannover, 2005-04-19



Head of the
Certification body

Translation

2. SUPPLEMENT

to Certificate No. TÜV 99 ATEX 1426

Equipment: Bus interface 8 analogues out type 17-6583-.6**/****

Manufacturer: BARTEC GmbH

Address: Max-Eyth-Str. 16
97980 Bad Mergentheim
Germany

Order number: 8000556267

Date of issue: 2011-10-19

Amendments:

In the future the devices may also be manufactured and operated according to the test documents listed in the test report. The changes concern components and the standards used for assessment.

The electrical data and all other data apply unchanged for this supplement.


The equipment incl. of this supplement meets the requirements of these standards:

EN 60079-0:2009

EN 60079-11:2007

EN 61241-11:2006

In the future the marking must include the following:

 **II (1) G [Ex ia Ga] IIC** **resp.** **II (1) G [Ex ia Ga] IIB** **and**
II (1) D [Ex ia Da] IIIC **resp.** **II (1) D [Ex ia Da] IIIB**

(16) The test documents are listed in the test report No. 11 203 556267.

(17) Special conditions for safe use

No additional ones

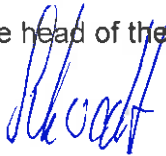
2. Supplement to Certificate No. TÜV 99 ATEX 1426

(18) Essential Health and Safety Requirements

No additional ones

TÜV NORD CERT GmbH, Langemarckstraße 20, 45141 Essen, accredited by the central office of the countries for safety engineering (ZLS), Ident. Nr. 0044, legal successor of the TÜV NORD CERT GmbH & Co. KG Ident. Nr. 0032

The head of the certification body

A handwritten signature in blue ink, appearing to read "Schwedt".

Schwedt

Hanover office, Am TÜV 1, 30519 Hanover, Tel.: +49 (0) 511 986-1455, Fax: +49 (0) 511 986-1590