EC type examination certificate

No.: EX5 01 11 38033 014

In conformity with appendix III of the Council Directive No. 94/9/EC for apparatus and protective systems designed for use in potentially explosive atmospheres for

Bizerba GmbH & Co. KG

Wilhelm-Kraut-Str. 65

D-72336 Balingen

Product: **battery box**

Model: **BK-Ex**
for power supply to explosion-protected devices

Technical data:
equipment group II, category 2 G / D
Explosion protection type: EEx ed IIC T6
Max. surface temperature 80 °C

Rated electrical data: DC 12 V or DC 24 V
(two lead Gel rechargeable batteries of 12V/10 Ah each)

Discharge current: max. 16A

Protection class: III
Degree of protection: IP 65

Charging of rechargeable batteries only outside hazardous zones as per manual

(Note: the explosion protection type 'd' is related to a certified purchased component)

The above devices meet the applicable requirements of the Council Directive.

This certificate is based on the test specimen submitted for examination and certification and its technical documentation. Detailed test results and the technical documentation are given in the test report.

Test report number: 70017418

This certificate is only relating to the test specimen submitted to TÜV PRODUCT SERVICE for examination. A time limiting is, therefore, irrelevant.

Approved by the certifying body of TÜV PRODUCT SERVICE with the above-mentioned EC type examination certificate number.

Department: STG TECS/pf
Date: 2001/11/19

TÜV PRODUCT SERVICE GMBH is the notified body in conformity with the Council Directive 94/9/EC for apparatus and protective systems designed for use in potentially explosive atmospheres with the reference number 0123. 12/98

Technical report No. 700017418
Revision 0

dated 2001-11-14

Applicant:	Bizerba GmbH & Co. KG Wilhelm-Kraut-Straße 65 72336 Balingen
Place of manufacture:	See applicant
Test specimen:	Battery box Type: **BK-Ex** for voltage supply to Ex-protected devices
Test specification:	The test was based on the following standards: EN 50019 : 2000 EN 50014 : 1999 EN 50281-1-1 : 1998
Purpose of test:	EC type examination to 94/9/EC in conformity with the requirements of: ⟨Ex⟩ II 2 G EEx ed IIC T6 ⟨Ex⟩ II 2 D T 80°C
Test result:	The device submitted meets the requirements of the test specification. The explosion protection type 'd' refers to a certified purchased product.

1 Description of device

1.1 Function

Battery box type **BK-Ex,** for voltage supply to suitable explosion-protected equipment.

1.2 Technical data

Model:	**BK-Ex**
Serial number:	-----
Rated voltage:	DC 12 V or DC 24 V (two lead Gel batteries of 12V / 10Ah each)
Permissible discharge current:	max. 16 A
Protection class:	III
Ambient temperature:	-30°C to + 50°C
Protection type:	IP 65

1.3 Construction

Sealed stainless steel housing with two maintenance-free lead Gel batteries (12V / 10Ah each), shockproof battery installation, unlockable ventilation opening (for charging procedure), electrical connection via built-in flanged socket (CEAG GHG...). The two batteries may be connected in series or parallel depending on the type of rated voltage.

1.4 Safety devices

Shockproof construction, suitable socket (EEX de IIC T6), soldered plug contacts provided on battery, lockable ventilation opening.

2 Test carried out

The test was carried out at Filderstadt, department TECS in accordance with the order dated July 10, 2001.

3 Test documents

3.1 Test documents submitted

/U-1/ Operating conditions (Supplement to system description ST-Ex)
/U-2/ Test proofs of applicant
/U-3/ Test specimen
/U-4/ Layout plans/drawings
/U-5/ Certificate/socket test proof

The documents are deposited at the testing authority for safekeeping.

3.2 Documents drawn up by the test laboratory

/U-6/ Test protocol

4. Tests carried out

4.1 Examination of documents submitted

The documentation has been examined for completeness and the requirements as regards the content.

4.2 The specimen was tested in conformity with the requirements of the aforesaid test bases.

5. Special conditions

The manufacturer's safety instructions are to be observed.

The battery box must only be charged outside hazardous zones in accordance with the manufacturer's instructions. For this purpose, the ventilation opening on the battery box is to be unlocked.

The electrical connection of the devices in zones 1 and 21 must only be set up by means of suitable and approved connectors.

Summary

The device submitted meets the requirements of the protective aims of the following EC directives:

94/9/EC Council Directive 'Apparatus and protective systems designed for use in potentially explosive atmospheres':

 II 2 G EEx ed IIC T6

 II 2 D T 80°C

The tests confirmed that the specimen satisfies the test requirements.

The battery box **BK-Ex** is suitable for use in hazardous areas of **zones 1** and **21** for the power supply to suitable explosion-protected equipment.

The battery box **BK-Ex** meets the requirements of

protection type : **EEx ed IIC T6** (for gas) and

the maximum housing temperature of **T 80°C** (for dust)

(the explosion protection type 'd' is related to the flanged socket supplied by a subcontractor for which an EC type examination certificate is available)

TÜV PRODUCT SERVICE GMBH

Project manager Andreas Pfeil
Electrical, Electronics, Consumer products (MIC)