

[1] **EC-TYPE EXAMINATION CERTIFICATE**

according to Directive 94/9/EC, Annex III

(Translation)



[2] Equipment and Protective Systems intended for use in
Potentially Explosive Atmospheres, **Directive 94/9/EC**

[3] EC-Type Examination Certificate Number: **IBExU13ATEX1084**

[4] Equipment: **Bluetooth hand scanner BCS160^{ex} BT**
Typ 17-21BA-M32S/*****
Bluetooth base station BCS160^{ex} BT
Typ 17-21BB-1707/****

[5] Manufacturer: BARTEC GmbH

[6] Address: Max-Eyth-Str.16
97980 Bad Mergentheim
GERMANY

[7] The design of the equipment mentioned in [4] and any acceptable variations thereto are specified in the schedule to this EC-Type Examination Certificate.

[8] IBExU Institut für Sicherheitstechnik GmbH, NOTIFIED BODY number 0637 in accordance with article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that the equipment mentioned in [4] has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The test results are recorded in the test report IB-13-3-136 of 1 August 2013.

[9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with EN 60079-0:2009 and 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 [17] in the schedule to this EC-Type Examination Certificate.

[11] This EC-Type Examination Certificate relates only to the design and construction of the specified equipment. If applicable, further requirements of this directive apply to the manufacture and supply of this equipment.

[12] The marking of the equipment mentioned in [4] shall include the following:

II 2G Ex ib IIC T4 or II 2G Ex ib IIC T4 Gb
 II 2D Ex ib IIIC T135 °C or II 2D Ex ib IIIC T135 °C Db
-20 °C ≤ Ta ≤ +50 °C

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Authorised for certifications
- Explosion protection -

By order

(Dr. Wagner)



- Seal-
(ID no. 0637)

Freiberg, 1 August 2013

Certificates without signature and seal are not valid.
Certificates may only be duplicated completely and unchanged. In case of dispute, the German text shall prevail.

Schedule

[13]

Schedule

[14]

to the EC-TYPE EXAMINATION CERTIFICATE IBExU13ATEX1084

[15]

Description of the equipment

The Bluetooth hand scanner BCS160^{ex} BT (type 17-21BA-M32S/*****) is an intrinsically safe device. It is used for the acquisition of 1D-/2D-codes in potentially explosive atmospheres of the categories 2D and 2G. It is supplied by an integrated Li-Ions rechargeable battery. The hand scanner consists of a plastic housing with optical window and LED displays. It uses Bluetooth for a wireless data transmission to a receiver outside the hazardous area or to the intrinsically safe Bluetooth base station type 17-21BB-1707/****.

The intrinsically safe Bluetooth base station BCS160^{ex} BT (type 17-21BB-1707/****) contains a data interface and a charger for the Bluetooth hand scanner BCS160^{ex} BT. It is supplied by a certified intrinsically safe current source (e.g. type 17-21BB-170*/**** with data interface).

The rechargeable battery can also be charged outside the Ex area by means of a separate charger (type 03-9849-0064, 03-9849-0063) and power supply unit (type 03-9911-0039).

Technical data

Ambient temperature range: -20 °C up to +50 °C
Light source; visible red light: 630 nm; P_{opt.} < 35 mW

Bluetooth hand scanner BCS160^{ex}BT

Type 17-21BA-M32S/*0000000

Bluetooth V2.1 EDR 2.4 ... 2.4835 GHz (ISM frequency band)
7 dBm (5 mW)

Rechargeable battery type 17-21BE-M040/0000 3.6 V; 2250 mAh

Bluetooth base station BCS160^{ex} BT

Type 17-21BB-1707/**: with connection cable**

Type of the connection cable		03-9828-0044/-0045 03-9828-0046/-0047	17-21BE-M020/0000 17-21BE-M030/0000
max. input voltage	U _i	4.9 V	5.6 V
max. input current	I _i	480 mA	480 mA
max. input power	P _i	1.25 W	1.25 W
max. inner inductance	L _i	negligible	negligible
max. inner capacitance	C _i	109 µF	46 µF

[16]

Test report

The proof of the explosion protection is explained in the Test Report IB-13-3-136.

The test documents are part of the test report and are listed there.

Summary of the test results:

The Bluetooth hand scanner BCS160^{ex} BT with the Bluetooth base station BCS160^{ex} BT fulfils the requirements of the explosion protection for equipment group II and category 2G, explosion group IIC and temperature class T4 or category 2D with a maximum surface temperature of 135 °C.

[17]

Special conditions

none

[18]

Essential Health and Safety Requirements

Confirmed by compliance with standards (see [9]).

By order

Freiberg, 1 August 2013



(Dr. Wagner)