

[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: **IBExU13ATEX1083**

[4] Equipment: **Hand scanner BCS160^{ex}**
Type 17-21BA-M31S/*****

[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-13-3-123 of 30 July 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)



Freiberg, 30 July 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 IBExU13ATEX1083**

[15] **Description of the equipment**

The Hand scanner BCS160^{ex} is a hand-held, intrinsically safe device. It is used for the acquisition of bar codes in potentially explosive atmospheres of the categories 2D and 2G. It consists of a plastic housing with optical window and LED indications. The scanner is connected to an appropriate intrinsically safe supply system by means of a special connection cable.

Technical data

Ambient temperature range:	-20 °C up to +50 °C
Light source; visible red light:	630 nm; P _{opt.} < 35 mW
Interface:	RS-232 TTL/ USB

Type 17-21BA-M31S/*0000000 – RS232 5.6V

with appropriate connection cable 17-21BE-M0*0/0000

max. input voltage U _i	5.6 V
max. input current I _i	480 mA
max. input power P _i	1.25 W
max. inner inductance L _i	negligible
max. inner capacitance C _i	46 µF

Type 17-21BA-M31S/*0000000 – RS232 4.9V

with appropriate connection cable 03-9828-0034 und 03-9828-0035

max. input voltage U _i	4.9 V
max. input current I _i	480 mA
max. input power P _i	1.25 W
max. inner inductance L _i	negligible
max. inner capacitance C _i	102 µF

Type 17-21BA-M31S/*0000000 – USB

with appropriate connection cable 03-9828-0036 und 03-9828-0037

max. input voltage U _i	4,9 V
max. input current I _i	480 mA
max. input power P _i	1.25 W
max. inner inductance L _i	negligible
max. inner capacitance C _i	102 µF

[16] **Test report**

The proof of the explosion protection is explained in the Test Report IB-13-3-123.
The test documents are part of the test report and are listed there.

Summary of the test results:

The Hand scanner BCS160^{ex} fulfils the requirements of the explosion protection for equipment group II and category 2G for explosive gas atmospheres T4 as well as category 2D for explosive dust atmospheres.

[17] **Special conditions**

none

[18] **Essential Health and Safety Requirements**

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

By order

Freiberg, 30 July 2013



(Dr. Wagner)