IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: **IECEx IBE 15.0017**

Certificate history:
Issue 0 (2015-10-15)

Status: **Current**

Issue No: 1

Date of Issue: 2019-09-27

Applicant: **Sigmann DELTA GmbH**
Hauptstraße 53
74928 Hüffenhardt
Germany

Equipment: **Bluetooth hand scanner and Bluetooth base station type SD160BTex, SD261BTex, SD161BTex and SD261BTex 3rd as well as SD160BTex Basis, SD261BTex Basis, SDx61BTex Basis and SDx61BTexBasis 3rd**

Optional accessory:

Type of Protection: **Intrinsic safety 'i'**

Marking: types SD160BT^{ex}, SD261BT^{ex}, SD161BT^{ex} and SDx61BT^{ex}Basis 3rd:

Ex ib IIB T4 Gb
Ex ib IIIC T135 °C Db

SD261BT^{ex} 3rd:

Ex ib op is IIB T4 Gb
Ex ib op is IIIC T135 °C Db

SD160BT^{ex}Basis, SD261BT^{ex}Basis and SDx61BT^{ex}Basis

Ex ib IIC T4 Gb
Ex ib IIIC T135 °C Db

Approved for issue on behalf of the IECEx Certification Body: **Dipl.-Ing. Alexander Henker**

Position: **Head of Certification Body**

Signature:
(for printed version)

Date:

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting www.iecex.com or use of this QR Code.

Certificate issued by:

IBExU Institut für Sicherheitstechnik GmbH
Certification Body
Fuchsmühlenweg 7
09599 Freiberg
Germany

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Certificate No.: **IECEx IBE 15.0017**

Date of issue: 2019-09-27 Issue No: 1

Manufacturer: **Sigmann DELTA GmbH**
Hauptstraße 53
74928 Hüffenhardt
Germany

Additional manufacturing locations:

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements.This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended

STANDARDS :
The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

IEC 60079-0:2017 Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

IEC 60079-11:2011 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

IEC 60079-28:2015 Explosive atmospheres - Part 28: Protection of equipment and transmission systems using optical radiation
Edition:2

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:
A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Reports:

DE/IBE/ExTR15.0007/00 DE/IBE/ExTR15.0007/01

Quality Assessment Report:

DE/IBE/QAR15.0005/01

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EQUIPMENT:
Equipment and systems covered by this Certificate are as follows:

The Bluetooth hand scanner is used in hazardous areas of zone 1 and 2 or zone 21 and 22 as a hand-held unit. It is used to capture 1D codes (barcodes) and 2D codes (stacked-codes).

The handheld scanner is designed as a battery-powered handheld device and is powered by a lithium-ion rechargeable battery.

The data transfer is carried out via Bluetooth short-range radio to the Bluetooth base charging station standing in the non-hazardous area or to the standing in the hazardous area Bluetooth base station with charging function. Or at a hazardous or non-hazardous areas other stationary receiver with Bluetooth interface (eg. notebook or PC).

The Bluetooth base station can be supplied in a hazardous area with the supply unit SDVM125ex (type SD.211.XXX1.XX) or a power supply unit with identical properties can be used.

The supply unit also assumes the conversion of non - Intrinsically Safe data signals (USB, RS232, RS422) in intrinsically safe data signals.

The rechargeable battery may be charged outside the hazardous area with a separate base charging station and power supply or in hazardous areas with the Bluetooth base station in connection with an intrinsically safe power supply.

Type distinction:

Bluetooth Hand Scanner:
Ex ib IIB T4 Gb, Ex ib IIIC T135 °C Db

SD160BT^{ex} SD.113.XXXX.XX
SD261BT^{ex} SD.116.XXXX.XX
SD161BT^{ex} SD.118.XXXX.XX

Bluetooth Hand Scanner:
Ex ib op is IIB T4 Gb, Ex ib op is IIIC T135 °C Db

SD261BT^{ex} 3rd SD.11B.XXXX.XX

Bluetooth Base Station with charging function:
Ex ib IIC T4 Gb; Ex ib IIIC T135 °C

SD160BT^{ex}Basis SD.114.XXXX.XX
SD261BT^{ex}Basis SD.117.XXXX.XX
SDx61BT^{ex}Basis SD.119.XXXX.XX

Bluetooth Base Station with charging function:
Ex ib IIB T4 Gb; Ex ib IIIC T135°C Db

SDx61BT^{ex}Basis 3rd SD.11C.XXXX.XX

For technical data see Annex

SPECIFIC CONDITIONS OF USE: NO

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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)
The devices comply with the requirements of IEC 60079-0, Ed. 7.

A new type has been added.

Annex:

Annex to Annex_IBE15.0017_01.pdf

IECEx Certificate of Conformity - Annex

Certificate No: IECEx IBE 15.0017X Issue No: 1

Date of Issue: 2019-09-27

Technical data:

Ambient temperature range: -20°C to +50°C

Light Source; Target Laser: visible red light; wave length 630/1310 nm; $P_{opt.}$ < 35mW

Interface: Bluetooth V2.1/4.0 EDR; Bluetooth class 2/1
2.402 – 2.4830 GHz; maximum distance 30 m / 100 m
serial communication RS-232/422 /USB

Current consumption: 330 mA (standby 80/130 mA; peak 500 mA)

Battery type SD.Z10.0017.XX 3.6 V; 1500 mAh
type SD.Z10.0018.XX 3.6 V; 2250 mAh

Electrical data:

	Bluetooth Handscanner SD261BT^{ex} 3rd type SD11B.XXXX.XX	Bluetooth Hand Scanner: SD160BT^{ex} SD113.XXXX.XX	Bluetooth Hand Scanner: SD161BT^{ex} SD118.XXXX.XX	Bluetooth Hand Scanner: SD261BT^{ex} SD116.XXXX.XX
maximum input voltage Ui	4.2 V	4.2 V	4.2 V	4.2 V
maximum input current Ii	1071 mA	1071 mA	1071 mA	1071 mA
maximum input power Pi	4.5 W	4.5 W	4.5 W	4.5 W
maximum internal inductance Li	negligible	negligible	negligible	negligible
maximum internal capacitance Ci	1180 µF	407 µF	401 µF	415 µF

Remark: Input voltage to the handheld scanner is the maximum voltage provided by the rechargeable battery.

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IECEx Certificate of Conformity - Annex

Certificate No: IECEx IBE 15.0017X Issue No: 1

Date of Issue: 2019-09-27

	Bluetooth base station SD160BT^{ex}Basis type SD.114.XXXX.XX Bluetooth base station SD261BT^{ex}Basis type SD.117.XXXX.XX Bluetooth base station SDx61BT^{ex}Basis type SD.119.XXXX.XX	*Bluetooth base station SDx61BT^{ex}Basis 3rd type SD.11C.XXXX.XX*
maximum input voltage Ui	4.9 V	5.5 V
maximum input current Ii	480 mA	480 mA
maximum input power Pi	1.25 W	1.25 W
maximum internal inductance Li	negligible	negligible
maximum internal capacitance Ci	112 µF	190.3 µF
with connecting cable SD.Z10.0007.XX		
maximum input voltage Ui	5.6 V	5.6 V
maximum input current Ii	480 mA	480 mA
maximum input power Pi	1.25 W	1.25 W
maximum internal inductance Li	negligible	negligible
maximum internal capacitance Ci	46 µF	46 µF

Remark: Input voltage to the Bluetooth base station itself is reduced on this type associated connecting cable SD.Z10.0007.XX of 5.6 V to 4.9 V.

Accessories: separate charging box and Base charging station outside the hazardous area with power supply type SD.Z10.0016.XX
Type: SD.Z10.0014.XX, SD.Z10.0015.XX, SD.Z10.0025.XX, SD.Z10.0026.XX
SD.Z10.0027.XX, SD.Z10.0028.XX, SD.Z10.0034.XX, SD.Z10.0035.XX
and base station SDx61BTII^{ex} Basis 3rd with intrinsically safe power supply
Type: SD.127.XXXX.XX
for Bluetooth Scanner:
Type: SD.113.XXXX.XX, SD.116.XXXX.XX, SD.118.XXXX.XX, SD11B.XXXX.XX

$U_{m:}$ 253 V AC Rated voltage: 5 V Rated current: 85 mA

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