



THE STRONGEST LINK.

Certificates

IDM160 / IDM260 barcode handheld scanner
IDM16x-BT / IDM261-BT barcode bluetooth scanner

R. STAHL HMI Systems GmbH
Adolf-Grimme-Allee 8
D 50829 Köln

Certificates version: 01.02.00
Issue: 08.01.2020

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1 Preface

 **NOTICE**






This document contains all valid certificates for all types of the IDM-barcode scanner.

All technical details contained in the EC type examination certificate are also part of the associated operating instructions.

All certificates are also available on R. STAHL website and on the CDs / DVDs / USB sticks included in the delivery and a copy can also be ordered from R. STAHL HMI Systems GmbH.

2 ATEX EC type examination certificate

2.1 IDMx60-* / IDM260-A-ex barcode handheld scanner

IBExU Institut für Sicherheitstechnik GmbH An-Institut der TU Bergakademie Freiberg	
<p>[1] EU-TYPE EXAMINATION CERTIFICATE - Translation</p> <p>[2] Equipment or protective systems intended for use in potentially explosive atmospheres, Directive 2014/34/EU</p> <p>[3] EU-type examination certificate number IBExU16ATEX1002 Issue 1</p> <p>[4] Product: Handheld Scanners Type: IDM160-ex-b, IDM160-PDF-ex-b, IDM260-ex, IDM260-A-ex</p> <p>[5] Manufacturer: R. STAHL HMI Systems GmbH</p> <p>[6] Address: Adolf-Grimme-Allee 8 50829 Cologne GERMANY</p> <p>[7] This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.</p> <p>[8] IBExU Institut für Sicherheitstechnik GmbH, notified body number 0637 in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the essential health and safety requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.</p> <p>The examination and test results are recorded in the confidential test report IB-19-3-0189.</p> <p>[9] Compliance with the essential health and safety requirements has been assured by compliance with: EN IEC 60079-0:2018, EN 60079-11:2012 and EN 60079-28:2015 except in respect of those requirements listed at item [18] of the schedule.</p> <p>[10] If the sign "X" is placed after the certificate number, it indicates that the product is subject to the specific conditions of use specified in the schedule to this certificate.</p> <p>[11] This EU-type examination certificate relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.</p> <p>[12] The marking of the product shall include the following:</p> <p>Type IDM160-ex-b, IDM160-PDF-ex-b:</p> <p style="text-align: center;">  II 2G Ex ib IIC T4 Gb  II 2D Ex ib IIIC T135 °C Db -20 °C ≤ T_{amb} ≤ +50 °C </p> <p>Type IDM260-ex:</p> <p style="text-align: center;">  II 2G Ex ib IIB T4 Gb  II 2D Ex ib IIIC T135 °C Db -20 °C ≤ T_{amb} ≤ +50 °C </p>	
<p>FB106100 1</p>	<p>Page 1/4 IBExU16ATEX1002 1</p>

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Type IDM260-A-ex:

⊕ II 2G Ex ib op is IIB T4 Gb
⊕ II 2D Ex ib op is IIIC T135 °C Db
-20 °C ≤ T_{amb} ≤ +50 °C

IBExU Institut für Sicherheitstechnik GmbH
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By order



Dipl.-Ing. [FH] Henker



(notified body number 0637)

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.

Freiberg, 2019-12-06

IBExU Institut für Sicherheitstechnik GmbH
An-Institut der TU Bergakademie Freiberg

[13]

Schedule

[14]

Certificate number IBExU16ATEX1002 | Issue 1

[15] **Description of product**

The handheld Scanners type IDM160-ex-b, IDM160-PDF-ex-b, IDM260-ex und IDM260-A-ex are used as a hand-held unit in hazardous areas of which require equipment for category 2G and 2D. It is used to capture 1D codes (barcodes) and 2D codes (stacked-codes).

The hand scanner consists of a housing made of plastic including window. The housing contains the electronic circuits and the light sources.

The hand scanner is connected by means of supply cable VB-IDMx60-X with an intrinsically safe power supply.

Technical Data

- Ambient temperature range: -20 °C to +50 °C
- Light Source; Target laser: visible red light, wave length 630 nm;
P_{opt} < 35 mW or 5 mW/mm²
- Current consumption: ≤ 420 mA (standby 220 mA; scan 420 mA)

Electrical data:

	IDM160-ex-b IDM160-PDF- ex-b	IDM160-ex-b IDM160-PDF- ex-b	IDM160-ex-b IDM160-PDF- ex-b	IDM260-ex	IDM260-ex	IDM260-A-ex	IDM260-A-ex
connecting cable	VB-IDMx60- RS232-SR- X.8m	VB-IDMx60- RS232-X.8m	VB-IDMx60- USB-X.8m	VB-IDMx60- RS232-X.8m	VB-IDMx60- USB-X.8m	VB-IDMx60- RS232-X.8m	VB-IDMx60- USB-X.8m
maximum input voltage U _i	5.6 V	4.9 V	4.9 V	4.9 V	4.9 V	5.6 V	5.6 V
maximum input current I _i	480 mA	480 mA	480 mA	750 mA	780 mA	1140 mA	1180 mA
maximum input power P _i	1.25 W	1.25 W	1.25 W	2 W	2 W	4.5 W	4.5 W
maximum internal inductance L _i	negligible	negligible	negligible	negligible	negligible	negligible	negligible
maximum internal capacitance C _i	46 µF	112.4 µF	112.4 µF	202 µF	202 µF	869 µF	869 µF

Variations compared to EC-Type Examination Certificate:

Variation 1

The devices comply with the requirements of EN IEC 60079-0:2018.

Variation 2

A new type has been added.

[16] **Test report**

The test results are recorded in the confidential test report IB-19-3-0189 of 2019-11-27. The test documents are part of the test report and they are listed there.

Summary of the test results

The handheld Scanners mentioned under [4] further comply with the requirements of explosion protection for electrical equipment of Group II and category 2G and 2D in type of protection intrinsic safety in combination with Protection of equipment and transmission systems using optical radiation.

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An-Institut der TU Bergakademie Freiberg

[17] **Specific conditions of use**
None

[18] **Essential health and safety requirements**
In addition to the essential health and safety requirements (EHSRs) covered by the standards listed at item [9], the following are considered relevant to this product, and conformity is demonstrated in the test report:
None

[19] **Drawings and Documents**
The documents are listed in the test report.

IBExU Institut für Sicherheitstechnik GmbH
Fuchsmühlenweg 7
09599 Freiberg, GERMANY

By order



Dipl.-Ing. [FH] Henker

Freiberg, 2019-12-06

2.2 IDMx6x-BT-* / IDM261-BT-A-ex barcode bluetooth scanner

IBExU Institut für Sicherheitstechnik GmbH
 An-Institut der TU Bergakademie Freiberg

[1] **EU-TYPE EXAMINATION CERTIFICATE - Translation**

[2] Equipment or protective systems intended for use in potentially explosive atmospheres, Directive 2014/34/EU

[3] EU-type examination certificate number **IBExU16ATEX1003** | Issue 1

[4] Product: **Bluetooth Handheld Scanner** Type: IDM160-BT-ex, IDM161-BT-ex
und Bluetooth Base Station Type: IDM261-BT-ex, IDM261-BT-A-ex
 IDM160-BT-Base-Z1
 IDMx61-BT-Base-Z1, IDM261-BT-Base-Z1
 IDMx61-BT-Base-A-Z1

[5] Manufacturer: R. STAHL HMI Systems GmbH

[6] Address: Adolf-Grimme-Allee 8
 50829 Cologne
 GERMANY

[7] This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

[8] IBExU Institut für Sicherheitstechnik GmbH, notified body number 0637 in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the essential health and safety requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential test report IB-19-3-0189/2.



[9] Compliance with the essential health and safety requirements has been assured by compliance with: EN IEC 60079-0:2018, EN 60079-11:2012 and EN 60079-28:2015 except in respect of those requirements listed at item [18] of the schedule.

[10] If the sign "X" is placed after the certificate number, it indicates that the product is subject to the specific conditions of use specified in the schedule to this certificate.



[11] This EU-type examination certificate relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.


[12] The marking of the product shall include the following:

Type IDM160-BT-ex, IDM161-BT-ex, IDM161-BT-PDF-ex, IDM261-BT-ex, IDMx61-BT-Base-A-Z1:

 **II 2G Ex ib IIB T4 Gb**
 **II 2D Ex ib IIIC T135 °C Db**
 -20 °C ≤ T_a ≤ +50 °C

Type IDM261-BT-A-ex:

 **II 2G Ex ib op is IIB T4 Gb**
 **II 2D Ex ib op is IIIC T135 °C Db**
 -20 °C ≤ T_a ≤ +50 °C



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IBExU16ATEX1003 | 1

IBExU Institut für Sicherheitstechnik GmbH
An-Institut der TU Bergakademie Freiberg

Type IDM160-BT-Base-Z1, IDmx61-BT-Base-Z1, IDM261-BT-Base-Z1:

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

IBExU Institut für Sicherheitstechnik GmbH
Fuchsmühlenweg 7
09599 Freiberg, GERMANY

By order

A. Henker
Dipl.-Ing. [FH] Henker



- Seal -
(notified body number 0637)

Tel: + 49 (0) 37 31 / 38 05 0
Fax: + 49 (0) 37 31 / 38 05 10

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.

Freiberg, 2019-12-12

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 An-Institut der TU Bergakademie Freiberg

[13] **Schedule**

[14] **Certificate number IBExU16ATEX1003 | Issue 1**

[15] **Description of product**

The Bluetooth hand scanner is used as a hand-held unit in hazardous areas of which require equipment for category 2G and 2D. It is used to capture 1D codes (barcodes) and 2D codes (stacked-codes). The handheld scanner is supplied by an internal lithium-ion rechargeable battery.

The hand scanner consists of a housing made of plastic including window. The housing contains the electronic circuits and the light sources.

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 Bluetooth base station with charging function, which is located in the hazardous area.

The intrinsically safe Bluetooth base station contains the data interface and a charging circuit for the Bluetooth hand scanner. It can be supplied in a hazardous area with the supply unit VM125-ex-X. By means of the supply unit the non - intrinsically safe data signals (USB, RS232, RS422) are converted 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 Handheld Scanner: Ex ib IIB T4 Gb, Ex ib IIIC T135 °C Db	IDM160-BT-ex, IDM160-BT-PDF-ex IDM161-BT-ex, IDM161-BT-PDF-ex IDM261-BT-ex
Bluetooth Handheld Scanner: Ex ib op is IIB T4 Gb, Ex ib op is IIIC T135 °C Db	IDM261-BT-A-ex
Bluetooth Base station with charging function: Ex ib IIC T4 Gb; Ex ib IIIC T135 °C I	IDM160-BT-Base-Z1 IDMx61-BT-Base-Z1 IDM261-BT-Base-Z1
Bluetooth Base station with charging function: Ex ib IIB T4 Gb; Ex ib IIIC T135°C Db	IDMx61-BT-Base-A-Z1

Technical Data

- Ambient temperature range: -20 °C to +50 °C
- Light Source; Target laser: visible red light; wave length 630 nm; P_{opt.} < 35 mW
- Interface: Bluetooth V2.1/4.0 EDR; Bluetooth class 2/1
2.402 – 2.4830 GHz; max. distance 30 m / 100 m
serial communication RS-232/422 /USB
- Current consumption: 330 mA (standby 80/130 mA; peak 500 mA)
- permitted battery: Type IDMx6x-BT-ex-LionX 3.6 V; 1500 mAh
Type IDMx6x-BT-ex-Lion 3.6 V; 2250 mAh

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Electrical data:

	IDM261-BT-A-ex	IDM160-BT-ex	IDM161-BT-ex IDM161-BT-PDF-ex	IDM261-BT-ex
maximum input voltage U_i	4.2 V	4.2 V	4.2 V	4.2 V
maximum input current I_i	1071 mA	1071 mA	1071 mA	1071 mA
maximum input power P_i	4.5 W	4.5 W	4.5 W	4.5 W
maximum internal inductance L_i	negligible	negligible	negligible	negligible
maximum internal capacitance C_i	1180 μ F	407 μ F	401 μ F	415 μ F

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

	Bluetooth base station type <i>IDM160-BT-Base-Z1</i> <i>IDMx61-BT-Base-Z1</i> <i>IDM261-BT-Base-Z1</i>	Bluetooth base station <i>IDMx61-BT-Base-A-Z1</i>
maximum input voltage U_i	4.9 V	5.5 V
maximum input current I_i	480 mA	480 mA
maximum input power P_i	1.25 W	1.25 W
maximum internal inductance L_i	negligible	negligible
maximum internal capacitance C_i	112 μ F	190.3 μ F
<u>with connecting cable VB-IDMx6x-Base-RS232-SR-X.8m-Z1</u>		
maximum input voltage U_i	5.6 V	5.6 V
maximum input current I_i	480 mA	480 mA
maximum input power P_i	1.25 W	1.25 W
maximum internal inductance L_i	negligible	negligible
maximum internal capacitance C_i	46 μ F	46 μ F

Remark: Input voltage to the Bluetooth base station itself is reduced on this type associated connecting cable VB-IDMx6x-Base-RS232-SR-X.8m-Z1 of 5.6 V to 4.9 V.

Accessories: Separate charging box and Base charging station outside the hazardous area with power supply type DSP.IDMx6x-DC5V
 Type: IDM160-BT-Base, IDM261-BT-Base-Z1, IDMx61-BT-Base-Z1, IDMx61-BT-Base-A-Z1, IDMx61-Base, IDMx61-BT-Base, IDMx61-Base-A, IDMx61-BT-Base-A, IDM261-BT-Base, IDM261-Base
 and base station with intrinsically safe power supply for Bluetooth Scanner:
 Type: IDM160-BT-ex, IDM261-BT-ex, IDM161-BT-ex, IDM161-BT-A-ex
 U_m : 253 V AC Rated voltage: 5 V Rated current: 85 mA

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Variations compared to EC-Type Examination Certificate:

Variation 1

The devices comply with the requirements of EN IEC 60079-0:2018.

Variation 2

A new type has been added.

[16] **Test report**

The test results are recorded in the confidential test report IB-19-3-0189/2 of 2019-12-06.
The test documents are part of the test report and they are listed there.

Summary of the test results

The Bluetooth Handheld Scanner and Bluetooth base station mentioned under [4] further comply with the requirements of explosion protection for electrical equipment of Group II and category 2G and 2D in type of protection intrinsic safety in combination with Protection of equipment and transmission systems using optical radiation.

[17] **Specific conditions of use**

None

[18] **Essential health and safety requirements**

In addition to the essential health and safety requirements (EHSRs) covered by the standards listed at item [9], the following are considered relevant to this product, and conformity is demonstrated in the test report:

None

[19] **Drawings and Documents**

The documents are listed in the test report.

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By order







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Freiberg, 2019-12-12


3 IECEX certificate

3.1 IDMX60-* / IDM260-A-ex barcode handheld scanner

		<h2 style="margin: 0;">IECEX Certificate of Conformity</h2>	
<p>INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres <small>for rules and details of the IECEX Scheme visit www.iecex.com</small></p>			
Certificate No.:	IECEX IBE 16.0002	Page 1 of 4	<u>Certificate history:</u> Issue 0 (2016-02-29)
Status:	Current	Issue No: 1	
Date of Issue:	2019-12-06		
Applicant:	R. STAHL HMI Systems GmbH Adolf-Grimme-Allee 8 Cologne 50829 Germany		
Equipment:	Handheld scanner type IDM160-ex-b, IDM160-PDF-ex-b, IDM260-ex and IDM260-A-ex		
Optional accessory:			
Type of Protection:	Intrinsic safety "ib"		
Marking:	Type IDM160-ex-b, IDM160-PDF-ex-b Ex ib IIC T4 Gb Ex ib IIIC T135°C Db -20 °C ≤ T _{amb} ≤ +50 °C Type IDM260-ex Ex ib IIB T4 Gb Ex ib IIIC T135°C Db -20 °C ≤ T _{amb} ≤ +50 °C Type IDM260-A-ex Ex ib op is IIB T4 Gb Ex ib op is IIIC T135°C Db -20 °C ≤ T _{amb} ≤ +50 °C		
Approved for issue on behalf of the IECEX Certification Body:	Alexander Henker		
Position:	Deputy Head of department Certification Body		
Signature: (for printed version)			
Date:	<u>2019-12-06</u>		
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 Fuchsmühlenweg 7 09599 Freiberg Germany			

		<h2>IECEX Certificate of Conformity</h2>
Certificate No.:	IECEX IBE 16.0002	Page 2 of 4
Date of issue:	2019-12-06	Issue No: 1
Manufacturer:	R. STAHL HMI Systems GmbH Adolf-Grimme-Allee 8 Cologne 50829 Germany	
Additional manufacturing locations:		
<p>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</p>		
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 Edition:7.0	Explosive atmospheres - Part 0: Equipment - General requirements	
IEC 60079-11:2011 Edition:6.0	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"	
IEC 60079-28:2015 Edition:2	Explosive atmospheres - Part 28: Protection of equipment and transmission systems using optical radiation	
<p style="text-align: center;">This Certificate does not indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.</p>		
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/ExTR16.0003/00		DE/IBE/ExTR16.0003/01
Quality Assessment Report:		
DE/BVS/QAR06.0007/10		

	<h2>IECEX Certificate of Conformity</h2>
Certificate No.: IECEX IBE 16.0002	Page 3 of 4
Date of issue: 2019-12-06	Issue No: 1
EQUIPMENT: Equipment and systems covered by this Certificate are as follows:	
<p>The wired hand held scanners type IDM160-ex-b, IDM160-PDF-ex-b, IDM260-ex and IDM260-A-ex are used as a hand-held unit in hazardous areas of which require equipment for EPL Gb and Db. They are used to capture 1D codes (barcodes) and 2D codes (stacked-codes).</p> <p>The hand scanners consist of a housing made of plastic including window. The housing contains the electronic circuits and the light sources.</p> <p>The hand scanners are connected by means of supply cable VB-IDMx60-X with an intrinsically safe power supply.</p> <p>The technical data are mentioned in the Annex to this certificate.</p>	
SPECIFIC CONDITIONS OF USE: NO	

	<h2>IECEX Certificate of Conformity</h2>
Certificate No.: IECEX IBE 16.0002	Page 4 of 4
Date of issue: 2019-12-06	Issue No: 1
DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)	
<ul style="list-style-type: none">• The devices comply with the requirements of IEC 60079-0, Ed. 7.• A new type has been added.	
Annex:	
Annex_IBE16.0002_01.pdf	



IECEX Certificate of Conformity - Annex



Certificate No: IECEX IBE 16.0002

Issue No: 1

Date of Issue: 2019-12-06

Page 1 of 1

Technical Data






- Ambient temperature range: -20 °C to +50 °C
- Light Source; Target laser: visible red light, $P_{opt} < 35 \text{ mW}$ or 5 mW/mm^2 ; wave length 630 nm;
- Current consumption: $\leq 420 \text{ mA}$ (standby 220 mA; scan 420 mA)


Electrical data:



	IDM160-ex-b IDM160-PDF- ex-b	IDM160-ex-b IDM160-PDF- ex-b	IDM160-ex-b IDM160-PDF- ex-b	IDM260-ex	IDM260-ex	IDM260-A-ex	IDM260-A-ex
connecting cable	VB-IDMx60- RS232-SR- X.8m	VB-IDMx60- RS232-X.8m	VB-IDMx60- USB-X.8m	VB-IDMx60- RS232-X.8m	VB-IDMx60- USB-X.8m	VB-IDMx60- RS232-X.8m	VB-IDMx60- USB-X.8m
maximum input voltage U_i	5.6 V	4.9 V	4.9 V	4.9 V	4.9 V	5.6 V	5.6 V
maximum input current I_i	480 mA	480 mA	480 mA	750 mA	780 mA	1140 mA	1180 mA
maximum input power P_i	1.25 W	1.25 W	1.25 W	2 W	2 W	4.5 W	4.5 W
maximum internal inductance L_i	negligible	negligible	negligible	negligible	negligible	negligible	negligible
maximum internal capacitance C_i	46 μF	112.4 μF	112.4 μF	202 μF	202 μF	869 μF	869 μF



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3.2 IDMx6x-BT-* / IDM261-BT-A-ex barcode bluetooth scanner

		<h2 style="margin: 0;">IECEX Certificate of Conformity</h2>	
<p>INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres <small>for rules and details of the IECEX Scheme visit www.iecex.com</small></p>			
Certificate No.:	IECEX IBE 16.0003	Page 1 of 4	Certificate history: Issue 0 (2016-02-29)
Status:	Current	Issue No: 1	
Date of Issue:	2019-12-12		
Applicant:	R. STAHL HMI Systems GmbH Adolf-Grimme-Allee 8 Cologne 50829 Germany		
Equipment:	Bluetooth Handheld Scanner type IDM160-BT-ex, IDM161-BT-ex, IDM261-BT-ex, IDM261-BT-A-ex and Bluetooth Base station type IDM160-BT-Base-Z1, IDMx61-BT-Base-Z1, IDM261-BT-Base-Z1, IDMx61-BT-Base-A-Z1		
Optional accessory:			
Type of Protection:	Intrinsic safety "ib"		
*Marking:	Type IDM160-BT-ex, IDM161-BT-ex, IDM161-BT-PDF-ex, IDM261-BT-ex, IDMx61-BT-Base-A-Z1: Ex ib IIB T4 Gb Ex ib IIIC T135 °C Db Type IDM261-BT-A-ex: Ex ib op is IIB T4 Gb Ex ib op is IIIC T135 °C Db Type IDM160-BT-Base-Z1, IDMx61-BT-Base-Z1, IDM261-BT-Base-Z1 : Ex ib IIC T4 Gb Ex ib IIIC T135 °C Db		
Approved for issue on behalf of the IECEX Certification Body:	Alexander Henker		
Position:	Deputy Head of department 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 Fuchsmühlenweg 7 09599 Freiberg Germany			


		<h2 style="margin: 0;">IECEX Certificate of Conformity</h2>
Certificate No.:	IECEX IBE 16.0003	Page 2 of 4
Date of issue:	2019-12-12	Issue No: 1
Manufacturer:	R. STAHL HMI Systems GmbH Adolf-Grimme-Allee 8 Cologne 50829 Germany	
Additional manufacturing locations:		
<p>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</p>		
<p>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</p>		
IEC 60079-0:2017 Edition:7.0	Explosive atmospheres - Part 0: Equipment - General requirements	
IEC 60079-11:2011 Edition:6.0	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"	
IEC 60079-28:2015 Edition:2	Explosive atmospheres - Part 28: Protection of equipment and transmission systems using optical radiation	
<p>This Certificate does not indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.</p>		
<p>TEST & ASSESSMENT REPORTS: A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:</p>		
<p>Test Reports:</p>		
DE/IBE/ExTR16.0004/00	DE/IBE/ExTR16.0004/01	
<p>Quality Assessment Report:</p>		
DE/BVS/QAR06.0007/10		

		IECEX Certificate of Conformity
Certificate No.:	IECEX IBE 16.0003	Page 3 of 4
Date of issue:	2019-12-12	Issue No: 1
EQUIPMENT: Equipment and systems covered by this Certificate are as follows:		
<p>The Bluetooth hand scanner is used as a hand-held unit in hazardous areas requiring equipment for EPL Gb and Db. It is used to capture 1D codes (barcodes) and 2D codes (stacked-codes). The handheld scanner is supplied by an internal lithium-ion rechargeable battery.</p> <p>The hand scanner consists of a housing made of plastic including window. The housing contains the electronic circuits and the light sources.</p> <p>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 Bluetooth base station with charging function, which is located in the hazardous area.</p> <p>The intrinsically safe Bluetooth base station contains the data interface and a charging circuit for the Bluetooth hand scanner. It can be supplied in a hazardous area with the supply unit VM125-ex-X</p> <p>By means of the supply unit the non - intrinsically safe data signals (USB, RS232, RS422) are converted in intrinsically safe data signals.</p> <p>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.</p>		
SPECIFIC CONDITIONS OF USE: NO		

		<h2>IECEX Certificate of Conformity</h2>
Certificate No.:	IECEX IBE 16.0003	Page 4 of 4
Date of issue:	2019-12-12	Issue No: 1
DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)		
<ul style="list-style-type: none">• The devices comply with the requirements of IEC 60079-0, Ed. 7.• A new type has been added.		
Annex:		
Annex_IBE16.0003_01_1.pdf		



IECEX Certificate of Conformity - Annex



Certificate No:	IECEX IBE 16.0003	Issue No: 1
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Technical Data

<ul style="list-style-type: none"> Ambient temperature range Light Source; Target laser: Current consumption: 	<p>-20 °C to +50 °C visible red light, $P_{opt} < 35 \text{ mW}$ or 5 mW/mm^2; wave length 630 nm; $\leq 420 \text{ mA}$ (standby 220 mA; scan 420 mA)</p>
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Electrical data:

<ul style="list-style-type: none"> Ambient temperature range Light Source; Target laser: Interface: Current consumption: permitted battery: 	<p>-20 °C to +50 °C visible red light, $P_{opt} < 35 \text{ mW}$; wave length 630 nm; Bluetooth V2.1/4.0 EDR; Bluetooth class 2/1 2.402 – 2.4830 GHz; max. distance 30 m / 100 m serial communication RS-232/422 /USB 330 mA (standby 80/130 mA; peak 500 mA) Type IDMX6x-BT-ex-LionX 3.6 V; 1500 mAh Type IDMX6x-BT-ex-Lion 3.6 V; 2250 mAh</p>
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Electrical data:

	IDM261-BT-A-ex	IDM160-BT-ex	IDM161-BT-ex IDM161-BT-PDF- ex	IDM261-BT-ex
maximum input voltage U_i	4.2 V	4.2 V	4.2 V	4.2 V
maximum input current I_i	1071 mA	1071 mA	1071 mA	1071 mA
maximum input power P_i	4.5 W	4.5 W	4.5 W	4.5 W
maximum internal inductance L_i	negligible	negligible	negligible	negligible
maximum internal capacitance C_i	1180 μ F	407 μ F	401 μ F	415 μ F



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

	Bluetooth base station type <i>IDM160-BT-Base-Z1</i> <i>IDMx61-BT-Base-Z1</i> <i>IDM261-BT-Base-Z1</i>	Bluetooth base station <i>IDMx61-BT-Base-A-Z1</i>
maximum input voltage U_i	4.9 V	5.5 V
maximum input current I_i	480 mA	480 mA
maximum input power P_i	1.25 W	1.25 W
maximum internal inductance L_i	negligible	negligible
maximum internal capacitance C_i	112 μ F	190.3 μ F
<u>with connecting cable VB-IDMx6x-Base-RS232-SR-X.8m-Z1</u>		
maximum input voltage U_i	5.6 V	5.6 V
maximum input current I_i	480 mA	480 mA
maximum input power P_i	1.25 W	1.25 W
maximum internal inductance L_i	negligible	negligible
maximum internal capacitance C_i	46 μ F	46 μ F


Remark: Input voltage to the Bluetooth base station itself is reduced on this type associated connecting cable VB-IDMx6x-Base-RS232-SR-X.8m-Z1 of 5.6 V to 4.9 V.

Accessories: Separate charging box and Base charging station outside the hazardous area with power supply type DSP.IDMx6x-DC5V

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Type: IDM160-BT-Base, IDM261-BT-Base-Z1, IDMx61-BT-Base-Z1,
 IDMx61-BT-Base-A- Z1,
 IDMx61-Base, IDMx61-BT-Base, IDMx61-Base-A, IDMx61-BT-Base-A,
 IDM261-BT- Base, IDM261-Base
 and base station with intrinsically safe power supply for Bluetooth Scanner:
 Type: IDM160-BT-ex, IDM261-BT-ex, IDM161-BT-ex, IDM161-BT-A-ex
 U_m: 253 V AC Rated voltage: 5 V Rated current: 85 mA

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4 Release Notes

The chapter entitled "Release Notes" contains all the changes made in every version of the certificates.

Version 01.01.00

- First edition of release 01.01

Version 01.01.01

- Correction titels BT scanner

Version 01.02.00

- Renew of ATEX and IECEx certificates
- Adaption address field verso
- Formal changes

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