IDM-Z1-264-M-2D-J1-BT-N-N0
IDM-Z1-164-M-1D-J1-BT-P-N0

Bluetooth handheld scanner for use in explosion-hazardous areas Zone 1/21

Manual

Your automation, our passion.

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With regard to the supply of products, the current issue of the following document is applicable: The General Terms of Delivery for Products and Services of the Electrical Industry, published by the Central Association of the Electrical Industry (Zentralverband Elektrotechnik und Elektroindustrie (ZVEI) e.V.) in its most recent version as well as the supplementary clause: "Expanded reservation of proprietorship"

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1 History of the Manual

Version	Comments
12/2022	First edition for scanner generation x64

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2 Safety

2.1 Introduction

2.1.1 Content of this Document

This document contains information required to use the product in the relevant phases of the product life cycle. This may include information on the following:

- Product identification
- Delivery, transport, and storage
- Mounting and installation
- Commissioning and operation
- Maintenance and repair
- Troubleshooting
- Dismounting
- Disposal

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Note

For full information on the product, refer to the further documentation on the Internet at www.pepperl-fuchs.com.

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Note

For specific device information such as the year of construction, scan the QR code on the device. As an alternative, enter the serial number in the serial number search at www.pepperl-fuchs.com.

The documentation comprises the following parts:

- This document
- Datasheet

In addition, the documentation may comprise the following parts, if applicable:

- EU-type examination certificate
- EU declaration of conformity
- Attestation of conformity
- Certificates
- Control drawings
- Instruction manual
- Functional safety manual
- Other documents

2.1.2 Manufacturer

Pepperl+Fuchs Group Lilienthalstraße 200, 68307 Mannheim, Germany
Internet: www.pepperl-fuchs.com

2.1.3 Target Group, Personnel

Responsibility for planning, assembly, commissioning, operation, maintenance, and dismounting lies with the plant operator.

Only appropriately trained and qualified personnel may carry out mounting, installation, commissioning, operation, maintenance, and dismounting of the product. The personnel must have read and understood the instruction manual and the further documentation.

Prior to using the product make yourself familiar with it. Read the document carefully.

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2.1.4 Symbols Used

This document contains symbols for the identification of warning messages and of informative messages.

Warning Messages

You will find warning messages, whenever dangers may arise from your actions. It is mandatory that you observe these warning messages for your personal safety and in order to avoid property damage.

Depending on the risk level, the warning messages are displayed in descending order as follows:

Danger!

This symbol indicates an imminent danger.

Non-observance will result in personal injury or death.

Warning!

This symbol indicates a possible fault or danger.

Non-observance may cause personal injury or serious property damage.

Caution!

This symbol indicates a possible fault.

Non-observance could interrupt the device and any connected systems and plants, or result in their complete failure.

Informative Symbols

Note

This symbol brings important information to your attention.

Action

1. This symbol indicates a paragraph with instructions. You are prompted to perform an action or a sequence of actions.

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3 Technical Specifications

3.1 Explosion Protection

1D-Models:

⟨Ex⟩ II 2G Ex ib IIB T4 Gb

⟨Ex⟩ II 2D Ex ib IIIC T135°C Db

2D-Models:

⟨Ex⟩ II 2G Ex ib op is IIB T4 Gb

⟨Ex⟩ II 2D Ex ib op is IIIC T135°C Db

Test certificate

IBExU18ATEX1050
IECEx IBE 18.0009

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3.2 Technical Data

	IDM-Z1-164-M-1D-J1-BT-P-N0	IDM-Z1-264-M-2D-J1-BT-N-N0
Description	Linear imager	2-D imager
Barcode	One-dimensional 1-D (Barcode and stacked code incl. PDF417)	One-dimensional 1-D & 2-D (Barcode and stacked code incl. PDF417)
Barcode types	Code 39, Code 39 Trioptic, Code 32, Code 93, Code 11, Codabar, Code 128, GS1-128 / EAN 128, UPC / EAN / JAN (with addition), MSI/Plessey, UK/Plessey, IATA, Interleaved 2 of 5, Standard and Industrial 2 of 5, Matrix 2 of 5, Telepen, GS1 DataBar, Australian Post, China Post, German Post, US Planet, US Postnet, British Post, Intelligent Mail, Japan Post, Korean Post, Dutch KIX Post	
Stacked codes	PDF417, MicroPDF417, Code 49, Code 16K, Composite, Codablock F	
2-D code types	-	Data Matrix, QR code, MicroQR-Code, Aztec, MaxiCode
Light source	LED, visible red light (630 nm)	
Scan frequency	500 Hz	60 Hz
Reading distance	20 mm ... 850 mm	30 mm ... 400 mm
Code resolution	Approx. ≥ 0.076 mm	Approx. ≥ 0.13 mm
Immunity to extraneous light	100,000 lx	
Electrical data		
Current consumption	330 mA (Standby 80/130 mA; Peak 500 mA)	
Battery	Lithium ion battery 3.6 V; 1500 mAh	
Battery power	Up to 60,000 scans at full battery charge	
Feedback		
Visual	2 x LED (operating state/read confirmation)	
Acoustic	Buzzer (can be switched off)	
Ambient conditions		
Shock resistance	50 drop tests on concrete from a height of 2 m	
Operating temperature	-20 °C to +50 °C	
Storage temperature	-30 °C to +70 °C	-40 °C to +70 °C
Relative humidity	95 % non-condensing	
Mechanical data		
Degree of protection	IP65	
Dimensions [W x H x D]	104 mm x 176 mm x 76 mm	
Weight	Approx. 260 g	

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3.3 Use

The handheld scanner is a piece of handheld apparatus.

It enables portable recording and direct data transfer of barcodes and 2-D codes in explosion-hazardous areas. The device is specifically modified for use in explosion-hazardous areas of Zone 1 and Zone 21.

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4 System Structure

4.1 Overview

The Bluetooth® handheld scanners and their accessories are presented in the following overview. Charging the handheld scanner batteries can take place within the hazardous area using the Zone 1/21 certified base station and the associated power module. Furthermore, the scanner can be charged in the non-explosion-hazardous area using a base station/charging cradle.

In the following two chapters, the typical usage cases are described in more detail.

4.2 System Structure 1

Charger & Base Station, RS-232 connection to internal VisuNet GXP barrier

Overview of the complete system structure 1: Bluetooth® handheld scanners IDM-Z1-264-M-2D-J1-BT-N-N0, IDM-Z1-164-M-1D-J1-BT-P-N0, and base station connected to intrinsically safe RS-232 Ex i interface VisuNet GXP.

Figure 4.1   System structure 1 - Charger and base station connected to internal GXP "3" Ex i scanner interface

Description:

The Bluetooth® handheld scanner has been designed with a battery for explosion-hazardous areas. For proper operation in explosion-hazardous areas, a IDM-Z1-x64-B-J1-BT-N0 base station, a CBL-IDM-Z1-x61-B-J1* cordset, the DATL-IDM-DB-SXX00-N0 connection cable, and the RS-232 Ex i interface option of the VisuNet GXP are required.

In this setup the data is directly sent via the base station to the GXP intrinsically safe RS-232 Ex i interface. As an alternative, the communication between the Bluetooth® handheld scanner and the GXP can be realized via the built-in Bluetooth® receiver of the VisuNet GXP Display Unit.

The IDM-Z1-x64-B-J1-BT-N0 base station can be used in both cases as a charging cradle to charge the scanner in explosion-hazardous areas.

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4.3 System Structure 2

System / Stand-alone setup

Overview of the complete system structure 2: Bluetooth® handheld scanners IDM-Z1-164-M-1D-J1-BT-P-N0, IDM-Z1-264-M-2D-J1-BT-N-N0, and base station and power module in explosion-hazardous areas.

Figure 4.2   System structure 2 - scanner with base station connected to VisuNet GXP

Description:

The Bluetooth® handheld scanner has been designed with the battery for explosion-hazardous areas. For proper operation in explosion-hazardous areas an IDM-Z1-x64-B-J1-BT-N0 base station, a CBL-IDM-Z1-x61-B-J1* cordset between the base station and the SK-IDM-Z1-160-BD-1D-J1* supply module, and a connection cable to the power supply are required.

Data can be transferred directly using an HMI system with Bluetooth® interface (e.g., VisuNet GXP) (option 1) or using the base station, which can be connected to a host PC via the power supply module and a data line (option 2).

In the case of option 1, the IDM-Z1-x64-B-J1-BT-N0 base station can be used purely as a charging cradle. A data line to a host PC is not needed in this case.

Figure 4.3   System structure 2 – scanner with base station connected to barrier

Note

The Supply module is available for RS-232 and USB, make sure to use the compatible RS-232 or USB cables.

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4.4 System Structure 3

VisuNet GXP Bluetooth® option / Charger in non-explosion-hazardous area

Overview of the complete system structure 3: Bluetooth® handheld scanner and charging cradle in non-explosion-hazardous areas
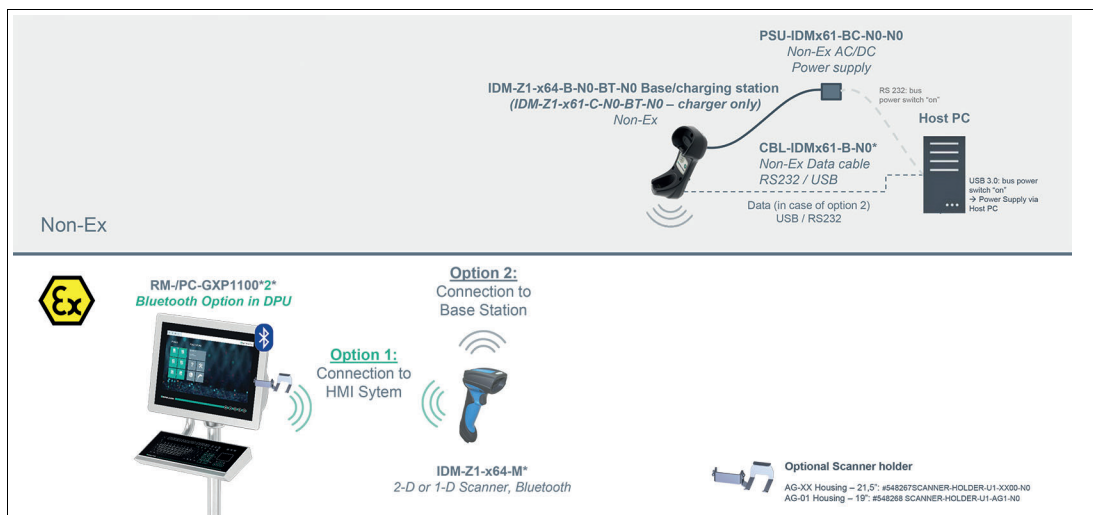

Figure 4.4   System structure 3 - scanner with a base station in safe area/Bluetooth option VisuNet GXP

Description:

The Bluetooth® handheld scanners can be used alone in explosion-hazardous areas; the base station and charging cradle can be installed in the safe area.

Depending on the application, communication with a Bluetooth-enabled operator workstation (e.g., VisuNet GXP) can be realized (option 1). In this case, it is possible to use the IDMx61-C-N0-BT-N0 charging cradle in the safe area to charge the scanner.

Instead of just the charging cradle, the non-explosion-hazardous area base station IDM-Z1-x64-B-N0-BT-N0 can be used (option 2).

In this scenario a Host PC needs to be connected to the Non-Ex Base Station or Charger to realize the data transfer. RS-232 and USB cables are available in different lengths. The SUB-D9 connector of the RS-232 needs additionally to be connected to the PSU-IDMx61-BC-N0-N0 Non-Ex AC/DC Power Supply.

If USB 3.0 is available in your host device, both battery charging and regular operation can be supported by the USB Bus Power without using external power supply. If you want to use this feature, set the USB bus power switch to "ON". Then connect the cradle and host device via a USB cable.

If only USB 2.0 is available in your host device the external power supply is necessary as a power source, because the power supplied from USB 2.0 is not enough to support both battery charging and regular operation simultaneously.

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Figure 4.5   PSU-IDMx61-BC-N0-N0 Non-Ex Power Supply needs to be connected to the SUB-D9 connector
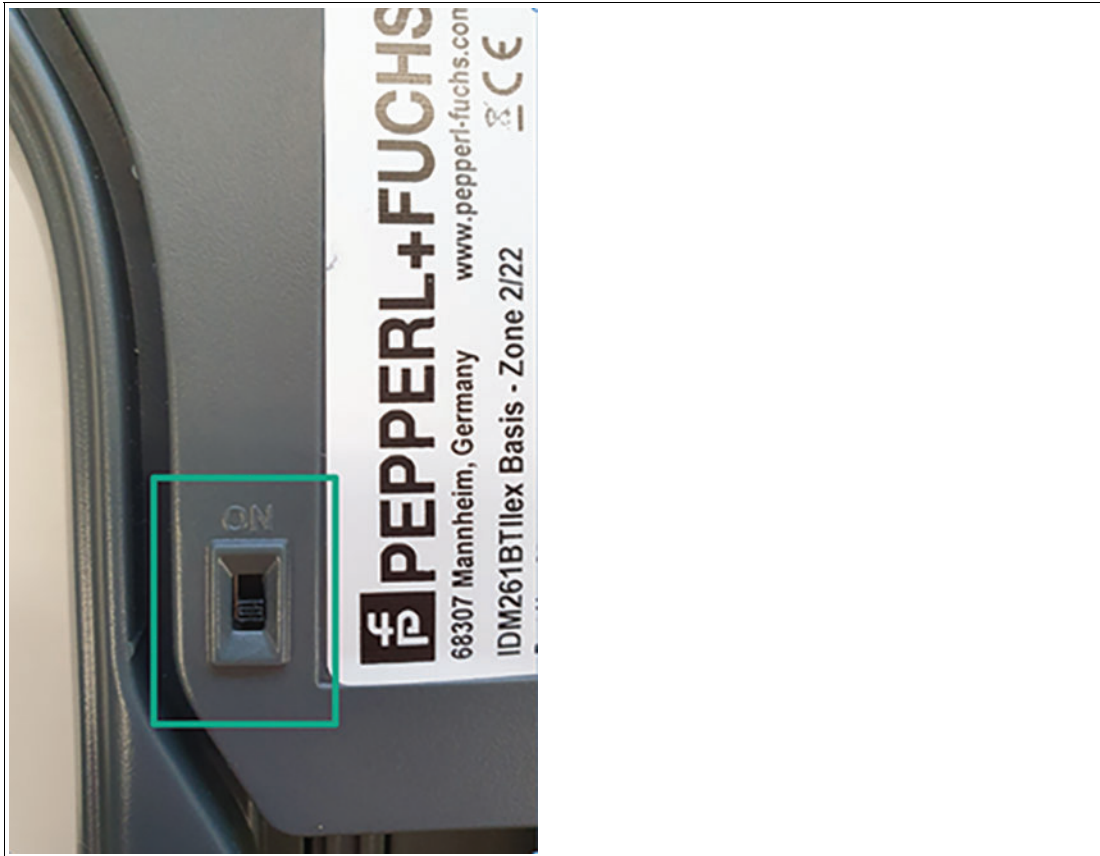

Figure 4.6   When USB 3.0 is available set the USB bus power switch to "ON". Then connect the cradle and host device via a USB cable.

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5 Commissioning

5.1 Preparing Bluetooth® Handheld Scanners

Note

Charge the new battery pack for 8 hours prior to the first use.

Warning!

Self discharge of the batteries

When the batteries are inserted in the barcode reader, they tend to discharge more quickly. This effect can also occur when the barcode reader is not in use and is in stand-by mode. If the batteries are not inserted in the device, they discharge more slowly. If the batteries are inserted in the scanner, i.e. in stand-by mode, it is recommended to charge them regularly.

Danger!

The battery must not be changed or inserted in explosion-hazardous areas. Improper handling can void the type approval.

Preparation of Bluetooth® handheld scanners

1. The battery compartment is located on the underside of the Bluetooth® handheld scanner. Loosen the screw with a suitable tool to remove the cover. After loosening the screw, some force is required to remove the cover.

Figure 5.1   Removing the battery compartment lid

2. The battery is required to commission the Bluetooth® handheld scanner. The protective cap must be removed before inserting the battery into the handheld scanner.

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Figure 5.2   Removing the protective battery cap

⚠️ **Danger!**

The designated battery must only be used!

3. The battery is inserted into the compartment on the handheld scanner. The end of the pull tab must be seen protruding out of the opening of the handheld scanner. If the battery is inserted correctly and connected to the contacts, there is an audible and visual signal. The opening must be completely sealed again. Before commissioning, check whether the screw cap has been properly sealed.

Figure 5.3   Inserting the battery and closing the protective cap

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> **Using the base station in explosion-hazardous areas - system structure 1**

1. Use the connection cable CBL-IDMx* to connect the base station to the supply module SK-IDM-Z1*. First, install the RJ50 male connector of the connection cable into the RJ50 port of the base station. The port is located on the bottom side of the base station. The connection cable is properly installed when you can hear an acoustical click. Ensure that the connection cable is firmly connected. Then proceed and connect the M12 connector of the connection cable with the female M12 connector of the supply module base connection cable. This cable is pre-installed and shipped with the supply module.
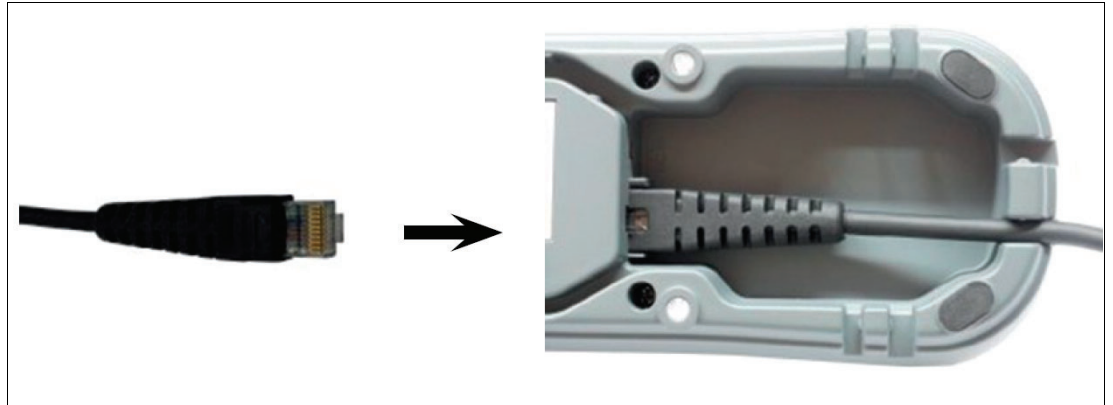

Figure 5.4   Connecting RJ50 connector of connection cable CBL-IDM* to base station

Figure 5.5   Male M12 connector of connection cable CBL-IDM*

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Figure 5.6   Female M12 connector of pre-installed base connection cable of the supply module SK-IDM-Z1*

Figure 5.7   Connecting the plug coupling to the supply module basic connection line

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2. The handheld scanner is placed in the charger. The underside of the handle is used first to ensure that the charging contacts are properly connected. The LED light on the scanner head indicates successful charging.

Figure 5.8   Inserting the scanner into the base station

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Using the base station in non-explosion-hazardous areas - system structure 2

1. With a non-explosion-protected base station, charging in non-explosion-hazardous areas can be performed using the PSU-IDMx61-BC-N0-N0 power supply. The cable is plugged into the opening for this at the bottom of the base station. For a base station for explosion-hazardous areas, this connection is sealed at the factory.

Figure 5.9   Connecting the power supply for the non-explosion-hazardous base station

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2. To connect in the non-explosion-protected area, the cable to connect to the power supply and to the PC is inserted into the opening for this at the bottom of the base station. An audible click can be heard when the cable is fully inserted. It must be verified that the cable is firmly anchored.

Figure 5.10   Connecting the RJ50 cable to the base station

3. The handheld scanner is placed in the charger. The underside of the handle is used first to ensure that the charging contacts are properly connected. The LED light on the scanner head indicates successful charging.

Figure 5.11   Inserting the scanner into the base station

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5.2 Pinout of Supply Module with RS-232 or USB

Supplying the base station according to system structure 2 via connector - plug/coupling.

The terminal assignment is located under the unscrewable opening on the front of the supply module.

Danger!

Do not open the housing in the explosion-hazardous area

Before the device is put into operation in explosion-hazardous areas, it must be ensured that the housing is completely closed again and screwed on properly.

Changes to the pinout may only be carried out by trained and qualified personnel.

Connection of the base station to the supply module RS-232 or USB via connector - plug/coupling

The terminal assignment is located under the unscrewable opening on the front of the supply module.

(1) Ex e terminal compartment to connect the power supply and the data line

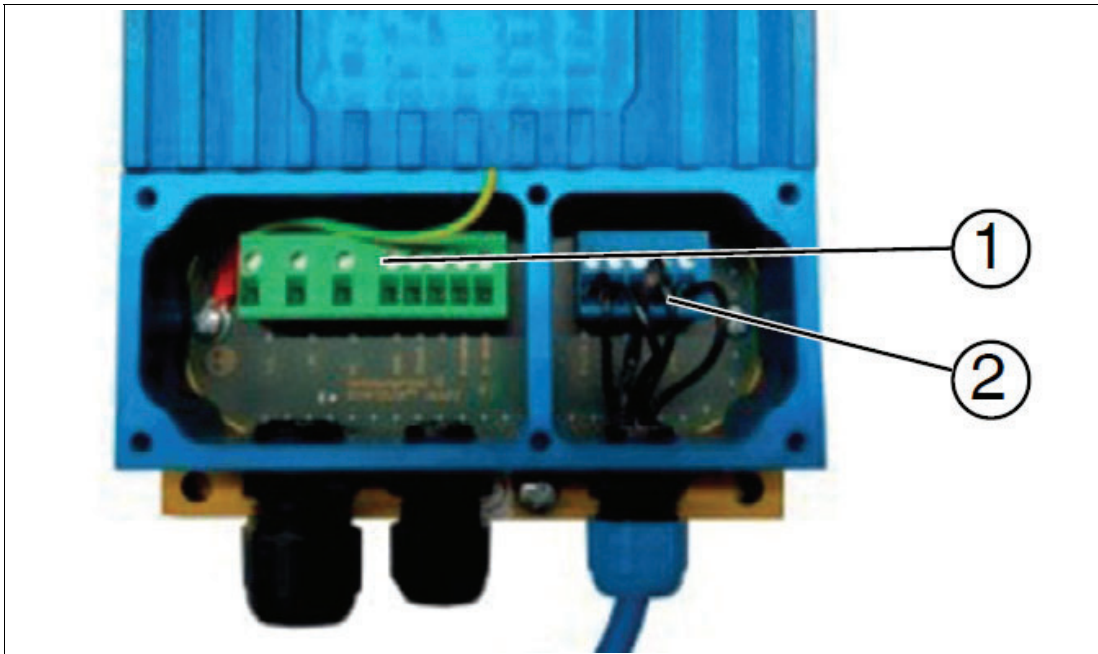(2) Ex i terminal compartment to connect the consumers (base station/scanner)

Figure 5.12   Supply module terminal compartment

External connection lines:

Data lines	USB: $0.2 – 2.5 \text{ mm}^2$, 4-core or RS-232: $0.2 – 2.5 \text{ mm}^2$ 3-core
Supply line	$0.2 – 2.5 \text{ mm}^2$ 3-wire
(see accessories in the appendix)	

The Bluetooth® handheld scanner, the base station, and the supply module may be connected and used in explosion-hazardous areas. The current rating of the connection line must be observed.

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The blue base connection cable is delivered pre-assembled with the supply module SK-IDM-Z1-*. The cable consists of a M12 connector plug and a 3-core cable. The individual cores are numbered (printed on the core insulation) and must be connected as follows (4.2 RS-232 interface and 4.3 USB interface) to the intrinsically safe terminals of the supply module.
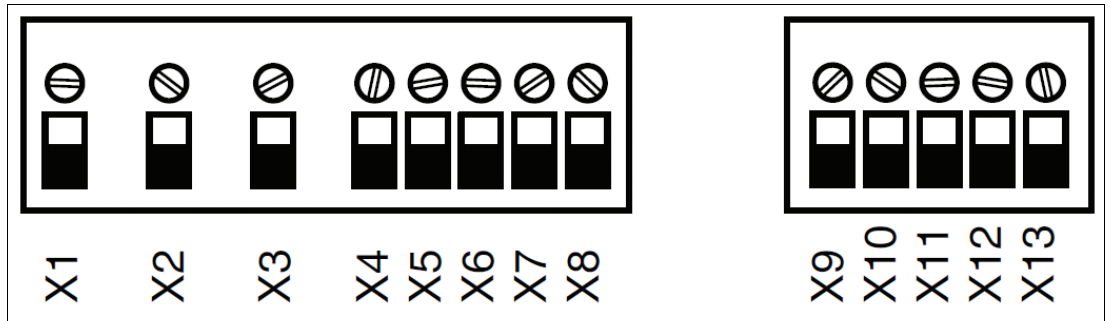

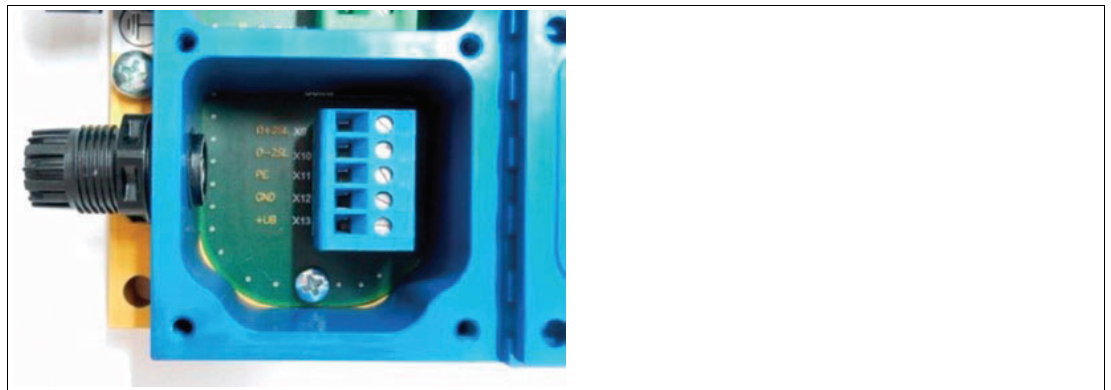Figure 5.13   Terminal blocks in the terminal compartment

Figure 5.14   Intrinsically safe terminal compartment of the supply module after removing the connector connection cores

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5.3 Base connection line RS-232

Assignment of pre-installed base connection cable to supply module (RS-232)

Assignment of pre-assembled connection coupling		Supply module terminal compartment	
Pin	Core designation	Designation	Number
3	3	RxD	X9
		GND	X10
		PE	X11
2	2	GND	X12
1	1	+UB	X13

Direct connection of the base station without a plug/coupling to the supply module with RS-232 interface

The base station can be connected directly to the supply module without using the blue base connection cable.

The assignment of the serial base station cable CBL-IDM-x61* is outlined in the following table.
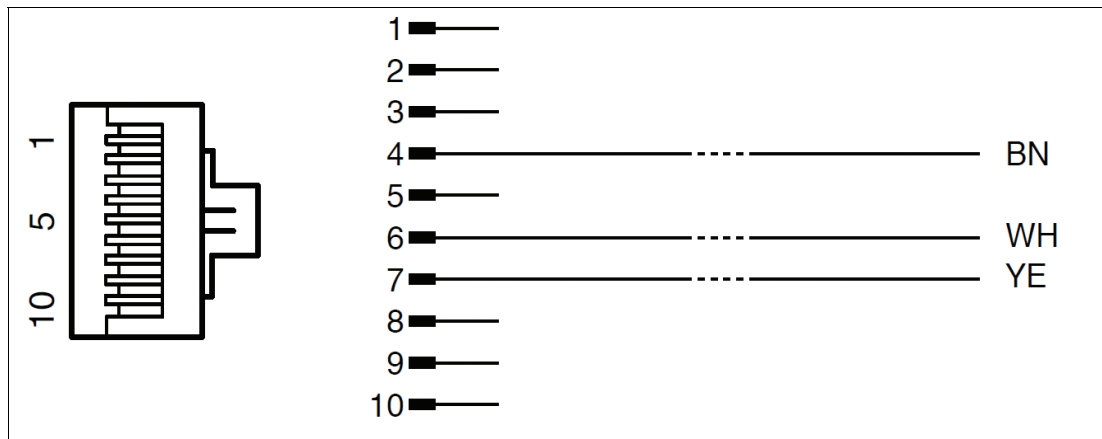

Figure 5.15   Connection layout

Assignment of connection cable CBL-IDM-x61* to supply module (RS-232)

Cordset assignment		Supply module terminal compartment	
RJ50 pinout	Strand color	Designation	Assignment
6	White	TxD	X9
			X10
			X11
4	Brown	GND	X12
7	Yellow	+UB	X13

Note

Information relating to programming from the SICK AG manual (www.SICK.com) is required for the complete commissioning of the handheld scanner.

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5.4 Base connection line USB

Base connection cable USB

Pinout of connector plug	
Pin	Designation
3	D+
2	D-
4	GND
1	+UB

Connection of USB connection cable to supply module

Pre-assembled connection coupling		Terminal compartment	
Pin	Core	Designation	Number
3	3	D+	X9
2	4	D-	X10
		PE	X11
4	2	GND	X12
1	1	+UB	X13

Direct connection of the base station without plug/coupling to the supply module with USB interface
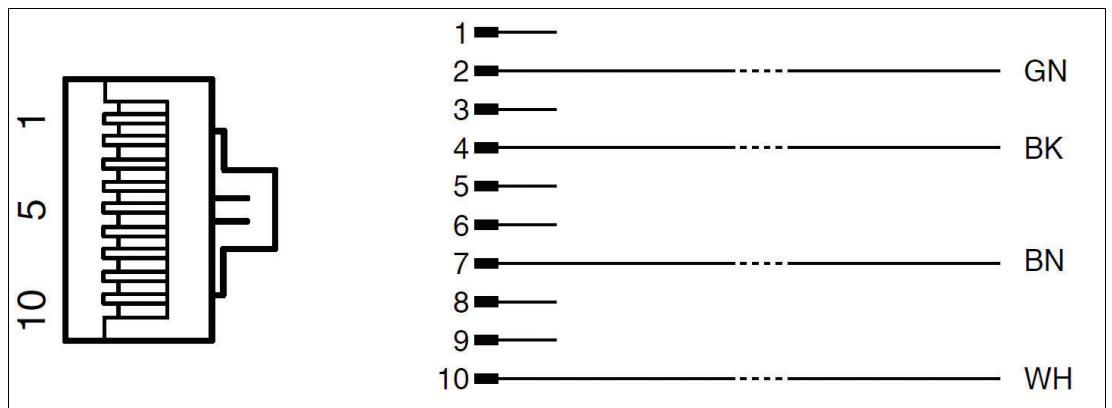
Figure 5.16   RJ50 plug - connection layout

Base station cordset

Cordset assignment		Supply module terminal compartment	
RJ45 pinout	Strand color	Designation	Assignment
2	Green	D+2SL	X9
10	White	D-2SL	X10
			X11
4	Black	GND	X12
7	Brown	+UB	X13

Note

Information relating to programming from the SICK AG manual (www.SICK.com) is required for the complete commissioning of the handheld scanner.

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6 Accessories

Corded Handheld Reader Mounting Accessories

Item number	Product name	Description	Photo
#548267	SCANNER-HOLDER-U1-XX00-N0	Scanner holder compatible with Housing AG-XX00 Material: Stainless steel AISI 316L (1.4404) Compatible with IDMx6x, ecom Ident-Ex® 01 and PSCAN Prepared for mounting to right side of housing	
#548268	SCANNER-HOLDER-U1-AG1-N0	Scanner holder compatible with Housing AG1 Material: Stainless steel AISI 316L (1.4404) Compatible with IDMx6x, ecom IdentEx01 and PSCAN Prepared for mounting to right side of housing	
#548353	SCANNER-HOLDER-IDMx6x-TRIPOD	Tripod Scanner holder Compatible to IDMx6x code scanner	
#548354	SCANNER-HOLDER-IDMx6x-DESKTOP	Desktop Scanner holder Compatible to IDMx6x code scanner	

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Bluetooth® Handheld Reader Accessories for VisuNet HMI Applications

Item Number	Product Name	Description	Photo
#70158516	IDM-Z1-x64-B-J1-BT-N0	Bluetooth® reader base station & charger Ex-protection: ATEX & IECEx Zone 1/21 Radio Interface: Bluetooth® Protocol: USB/Serial (depends on connection cable) Compatible with IDM-Z1-x64-M-* Bluetooth® code readers NOTE: Connection cable not included. Please order separately!	
#70158517	IDM-Z1-x64-B-N0-BT-N0	Bluetooth® reader base station & charger Ex-protection: non-Ex, for use in non-explosion-hazardous area only! Radio Interface: Bluetooth® Protocol: USB/Serial (depends on connection cable) Compatible with IDM-Z1-x64-M-* Bluetooth® code readers NOTE: Connection cable not included. Please order separately!	
#70115392	IDM-Z1-x61-C-N0-BT-N0	Charger cradle for 1D & 2D Bluetooth® reader Ex-protection: non-Ex, for use in safe area only! Compatible with IDM-Z1-x64-M-* Bluetooth® code readers NOTE: Please order connection cable separately!	
#548396	HOLDER-BRACKET-XX00-IDMx61-B-N	Bracket to mount IDM-Z1-x64-B-J1-BT-N0 Base station to AG-XX00 housing. - Material: Stainless steel AISI 304 (1.4301) - Assembly: Right side of AG-XX00 housing - Includes bracket and installation materials - Note: Base station and cables not included!	
#548395	HOLDER-BRACKET-AG1-IDMx61-B-N0	Bracket to mount IDM-Z1-x64-B-J1-BT-N0 Base station to AG1 housing - Material: Stainless steel AISI 304 (1.4301) - Assembly: Right side of AG1 housing - Includes bracket and installation materials - Note: Base station and cables not included!	

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Bluetooth® Handheld Reader Accessories for VisuNet HMI Applications

Item Number	Product Name	Description	Cable	Photo
#548345	CBL-IDMx61-B-N0-S-S18-N0	Serial connection cable for base station Ex-protection: non-Ex, for use in safe area only! Interface: RJ50 (cradle) to SUB-D9 connector Protocol: serial Compatible withIDM-Zx-x64-B-N0-*	Straight 1.8-m length	
#548346	CBL-IDMx61-B-N0-S-C38-N0	Serial connection cable for base station Ex-protection: non-Ex, for use in safe area only! Interface: RJ50 (cradle) to SUB-D9 connector Protocol: serial Compatible with IDM-Zx-x64-B-N0-*	Coiled 3.8-m length	
#548343	PSU-IDMx61-BC-N0-N0	AC/DC Power supply for Base station & charger Input: 230 V AC Ex-protection: non-Ex, for use in safe area only! Compatible with non-Ex base station & charger IDM-Zx-x64-B-N0-BT-N0 and IDM-Zx-x61-C-N0-BT-N0	Only required in combination with Serial connection cable for base station (SUB-D9 connector)	
#548347	CBL-IDMx61-B-N0-U-S18-N0	USB connection cable for base station Ex-protection: non-Ex, for use in safe area only! Interface: RJ50 (cradle) to USB Type A connector Protocol: USB Compatible with IDM-Zx-x64-B-N0-*	Straight 1.8-m length	
#548348	CBL-IDMx61-B-N0-U-C38-N0	USB connection cable for base station Ex-protection: non-Ex, for use in safe area only! Interface: RJ50 (cradle) to USB Type A connector Protocol: USB Compatible with IDM-Zx-x64-B-N0-*	Coiled 3.8-m length	

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Item Number	Product Name	Description	Cable	Photo
#548349	CBL-IDMx61-B-J1-S-S18-N0	Serial connection cable for base station Ex-protection: suitable for Zone 1/21 & Zone 2/22 Interface: RJ50 (cradle) to M12 male connector Cable: straight; 1.8-m length Protocol: serial Compatible with IDM-Zx-x64-B-J1-* base station	Straight 1,8-m length	
#548350	CBL-IDMx61-B-J1-S-C38-N0	Serial connection cable for base station Ex-protection: suitable for Zone 1/21 & Zone 2/22 Interface: RJ50 (cradle) to M12 male connector Cable: coiled; 3.8-m length Protocol: serial Compatible with IDM-Zx-x64-B-J1-* base station	Coiled 3,8-m length	
#548351	CBL-IDMx61-B-J1-U-S18-N0	USB connection cable for base station Ex-protection: suitable for Zone 1/21 & Zone 2/22 Interface: RJ50 (cradle) to M12 male connector Cable: straight; 1.8-m length Protocol: USB Compatible withIDM-Zx-x64-B-J1-* base station	Straight 1,8-m length	
#548352	CBL-IDMx61-B-J1-U-C38-N0	USB connection cable for base station Ex-protection: suitable for Zone 1/21 & Zone 2/22 Interface: RJ50 (cradle) to M12 male connector Cable: coiled; 3.8-m length Protocol: USB Compatible with IDM-Zx-x64-B-J1-* base station	Coiled 3,8-m length	
#548376	DATL-IDM-DB-S-XX00-N0	Connector cable for wired 1D Scanner IDM-Z1-164-D-1D-J1-SU-P-N0 (S3-Interface required) and 2D Scanner IDM-Z1-264-D-2D-J1-S1-N-N0 (S4-interface required) compatible with Housing AG-XX00-* and AG1 - 4-wire with ferrules - IDM Scanner connection via M12-connector - Note: Supports only RS-232 Scanner/Basestation	1,0-m length	

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Serial extension cables

Item Number	Product Name	Description	Cable	Photo
#548356	CBL-IDMx6x-DB-J1-S-C30-N0	Serial extension cable Ex-protection: suitable for Zone 1/21 & Zone 2/22 Interface: M12 female socket to M12 male connector Protocol: serial	Coiled 3-m length	
#548357	CBL-IDMx6x-DB-J1-S-C60-N0	Serial extension cable Ex-protection: suitable for Zone 1/21 & Zone 2/22 Interface: M12 female socket to M12 male connector Protocol: serial	Coiled 6-m length	
#548365	CBL-IDMx6x-DB-J1-S-S30-N0	Serial extension cable Ex-protection: suitable for Zone 1/21 & Zone 2/22 Interface: M12 female socket to M12 male connector Protocol: serial	Straight 3-m length	
#548355	CBL-IDMx6x-DB-J1-S-S60-N0	Serial extension cable Ex-protection: suitable for Zone 1/21 & Zone 2/22 Interface: M12 female socket to M12 male connector Protocol: serial	Straight 6-m length	

Cable accessories

Item Number	Product Name	Description	Cable
#548379	S-RN2/DB9-5-N0	RS-232 cable with SUB-D9 plug (female) and open cable ends with wire end ferrules	5-m length
#548380	S-RN2/DB9-20-N0	RS-232 cable with SUB-D9 plug (female) and open cable ends with wire end ferrules	20-m length
#193077	DATL-A3-1.5-1	Supply line for 90 – 240-VAC supply 3 x 1.5 mm², diameter 8.1 mm Assembly 6 x 1.5-mm² wire end ferrules	

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Corded Handheld Reader Accessories for VisuNet HMI Applications

Ex-protection: ATEX&IECEx Zone 1/21			
Item number	**Product name**	**Description**	**Photo**
#70115393	SK-IDM-Z1-160-BD-1D-J1-DC-S-N	Barrier for corded 1D reader & base station Input: 24 V DC Protocol: RS-232/422/485 Ex e (to host device) Compatible with IDM-Z1-164-D-1D-J1-SU-P-N0 and IDM-Z1-x64-B-J1-BT-N0 with serial connection cables incl. short setup cable with M12 female socket	
#70115394	SK-IDM-Z1-160-BD-1D-J1-DC-U-N	Barrier for corded 1D reader & base station Input: 24 V DC Protocol: USB Ex e (to host device) Compatible with IDM-Z1-164-D-1D-J1-SU-P-N0 and IDM-Z1-x64-B-J1-BT-N0 with USB connection cables incl. short setup cable with M12 female socket	
#70115395	SK-IDM-Z1-160-BD-1D-J1-AC-S-N	Barrier for corded 1D reader & base station Input: 24 V DC Protocol: RS-232/422/485 Ex e (to host device) Compatible with IDM-Z1-164-D-1D-J1-SU-P-N0 and IDM-Z1-x64-B-J1-BT-N0 with serial connection cables incl. short setup cable with M12 female socket	
#70115396	SK-IDM-Z1-160-BD-1D-J1-AC-U-N	Barrier for corded 1D reader & base station Input: 230 V AC Protocol: USB Ex e (to host device) Compatible with IDM-Z1-164-D-1D-J1-SU-P-N0 and IDM-Z1-x64-B-J1-BT-N0 with USB connection cables incl. short setup cable with M12 female socket	

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- HART Interface Solutions
- Surge Protection
- Wireless Solutions
- Level Measurement

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- Photoelectric Sensors
- Industrial Vision
- Ultrasonic Sensors
- Rotary Encoders
- Positioning Systems
- Inclination and Acceleration Sensors
- Fieldbus Modules
- AS-Interface
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