



Bluetooth® 1-D and 2-D Handheld Reader for Zone 1/21

IDM-Z1-x61-M-*

- Approved for Zone 1 and 21 (ATEX and IECEx)
- All 1-D standard barcode families supported
- 2-D model supports Data Matrix, QR, and other two-dimensional codes
- Fall tested from 2 m to ensure reliability

Bluetooth® 1-D and 2-D Handheld Reader for Zone 1/21



Function

IDM-Z1-x61-M-* Bluetooth® handheld readers scan 1-D and 2-D codes in Zone 1/21 hazardous locations. They are optimized for use with Pepperl+Fuchs VisuNet HMI components.
 1-D models read all common one-dimensional barcode types, with an option available to read stacked codes.
 The 2-D model reads one-dimensional barcodes and stacked codes, as well as two-dimensional codes such as Data Matrix and QR codes.
 The readers are charged in IDM-Z1-x61-* charger/base stations and can handle up to 60 000 scans with a fully charged battery.

Technical Data

General specifications	
Radio distance (in open air)	max. 100 m
Type	scan frequency: 500 Hz (1-D models), 60 Hz (2-D model)
Light type	LED, visible red light (630 / 1310 nm) ambient light immunity 100 000 lx
Readable codes	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 code types (depending on model selected): PDF417, MicroPDF417, Code 49, Code 16K, Composite, Codablock F 2-D code types (depending on model selected): Data Matrix, QR, MicroQR, Aztec, Maxicode
Read distance	20 ... 850 mm (1-D model) 30 ... 400 mm (2-D model)
Resolution	ca. ≥ 0.76 mm (1-D models) ca. ≥ 0.13 mm (2-D model)
Operating duration	up to 60 000 scans with fully charged battery
Indicators/operating means	
Indicators	2 x LED (operating state) beeper/buzzer (can be switched off)
Electrical specifications	
Battery type	lithium ion 3.6 V, 1500 mAh
Current consumption	330 mA standby: 80 ... 130 mA peak: 500 mA
Interface	
Interface type	Bluetooth v4.0 EDR , Class 1
Transmitter frequency	2.4 ... 2.4835 GHz (ISM band)
Directive conformity	
Electromagnetic compatibility	

Release date: 2022-01-20 Date of issue: 2022-01-20 Filename: t193104_eng.pdf

Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

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Technical Data

Directive 2014/30/EU	EN 61000-6-2:2005 + AC:2005 , EN 61000-6-4:2007 + A1:2011
Low voltage	EN 60950-1:2006+A1:2010+A2:2013+A11:2009+A12:2011
Radio and telecommunication terminal equipment	
Directive 2014/53/EU	EN 300328 V2.1.1:2016 , EN 301489-1 V2.2.0:2017 , EN 301489-17 V3.2.0:2017
RoHS	
Directive 2011/65/EU (RoHS)	EN 50581:2012
Ambient conditions	
Operating temperature	-20 ... 50 °C (-4 ... 122 °F)
Storage temperature	-30 ... 70 °C (-22 ... 158 °F) (1-D model) -40 ... 70 °C (-40 ... 158 °F) (2-D model)
Relative humidity	95 % non-condensing
Impact resistance	50 fall tests from 2 m height onto concrete
Mechanical specifications	
Degree of protection	IP65
Mass	approx. 260 g
Dimensions	104 mm x 176 mm x 76 mm
Data for application in connection with hazardous areas	
EU-type examination certificate	IBExU18ATEX1050 IECEX IBE 18.0009
Marking	1-D model: Ⓢ II 2G Ex ib IIB T4 Gb Ⓢ II 2D Ex ib IIIC T135°C Db 2-D model: Ⓢ II 2G Ex ib op is IIB T4 Gb Ⓢ II 2D Ex ib op is IIIC T135°C Db
Directive conformity	
Directive 2014/34/EU	EN 60079-0:2018 EN 60079-11:2012 EN 60079-28:2015
General information	
Supplementary information	Observe the certificates, declarations of conformity, instruction manuals, and manuals where applicable. For information see www.pepperl-fuchs.com .

Accessories

	SCANNER-HOLDER-U1-XX00-N0	Stainless steel holder for for IDM-Z1- handheld readers, compatible with AG-XX00 housing
	CBL-IDMx6x-DB-J1-S-S30-N0	Serial extension cable for IDM-Zx-* handheld barcode readers
	CBL-IDMx6x-DB-J1-S-S60-N0	Serial extension cable for IDM-Zx-* handheld barcode readers
	CBL-IDMx6x-DB-J1-S-C60-N0	Serial extension cable for IDM-Zx-* handheld barcode readers
	SCANNER-HOLDER-U1-AG1-N0	Stainless steel holder for for IDM-Z1- handheld readers, compatible with AG1 housing
	CBL-IDMx6x-DB-J1-S-C30-N0	Serial extension cable for IDM-Zx-* handheld barcode readers

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Ordering information

Model number	Description
IDM-Z1-161-M-1D-J1-BT-N-N0	Radio hand-held scanner for hazardous areas Version: Wireless, Bluetooth Reading unit: 1-D codes Ex approval: ATEX & IECEx Zone 1/21
IDM-Z1-161-M-1D-J1-BT-P-N0	Radio hand-held scanner for hazardous areas Version: Wireless, Bluetooth Reading unit: 1-D codes, incl. PDF417 barcodes Ex approval: ATEX & IECEx Zone 1/21
IDM-Z1-261-M-2D-J1-BT-N-N0	Radio hand-held scanner for hazardous areas Version: Wireless, Bluetooth Reading unit: 2-D codes Ex approval: ATEX & IECEx Zone 1/21