



### Model Number

**VB24-1000**

Barcode scanner

### Features

- Line scanner
- Simple operation via function keys: test mode, code teaching and code optimization
- Code reconstructor
- Connect up to 32 scanners to a network with ID-Net™
- Two-digit LC display
- Mechanical focus adjustment
- Two serial interfaces RS 232 / RS 485

### Function

The barcode scanner is a line scanner for 1D barcodes. Thanks to its high-performance optics and integrated code reconstruction technology, the scanner offers a high level of reliability in reading difficult-to-detect 1D barcodes.

The barcode scanner also features a mechanical focus adjustment function, which allows for a large reading distance range.

A function key and several LEDs on the barcode scanner provide support when parameterizing, teaching in barcodes and testing. In live operation, the LEDs provide information about the relevant reading status. The integrated display provides the user with a whole host of information, including the reading results.

Simple parameterization can be performed via the PC software.

### Accessories

#### CBX100

Connector box for barcode scanner

Other suitable accessories can be found at

## Technical Data

### General specifications

Light source	laser diode
Light type	modulated visible red light
Laser nominal ratings	
Note	LASER LIGHT , DO NOT STARE INTO BEAM
Laser class	2
Wave length	630 nm ... 680 nm
Pulse length	5 ms
Scan rate	up to 900 s <sup>-1</sup>
Read distance	200 ... 1000 mm
Depth of focus	up to 600 mm
Angle of divergence	50 °
Optical face	frontal
Ambient light limit	30000 Lux
Resolution	0.2 mm

### Indicators/operating means

Operating display	LED blue: Power on, LED green: Ready to read (READY), LED green: Read successfully (GOOD), LED yellow: External trigger signal pending (TRIGGER), LED yellow: Communication active (COM), LED red: "no read" (STATUS)
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### Electrical specifications

Operating voltage	U <sub>B</sub>	10 ... 30 V DC
Power consumption	P <sub>0</sub>	max. 6 W

### Interface

Interface type	serial , RS 232 and RS 485 up to 115.2 kBit/s ID-NET™ up to 1 Mbit/s
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### Input

Input type	External triggering , optocoupled
Input voltage	max. 10 ... 30 V DC
Input current	max. 12 mA

### Input 1

Input type	IN2 optocoupled
Input voltage	max. 10 ... 30 V DC
Input current	max. 12 mA

### Output

Signal output	2, programmable, optocoupled
Switching voltage	max. 30 V DC
Switching current	max. 40 mA

### Ambient conditions

Ambient temperature	0 ... 50 °C (32 ... 122 °F)
Storage temperature	-20 ... 70 °C (-4 ... 158 °F)
Relative humidity	90 % , noncondensing
Shock resistance	IEC 68-2-27 Test EA 30G; 11 ms; 3 impacts on each axis
Vibration resistance	IEC 68-2-6 Test FC 1.5 mm ; 13 ... 55 Hz ; 2 hours on each axis

### Mechanical specifications

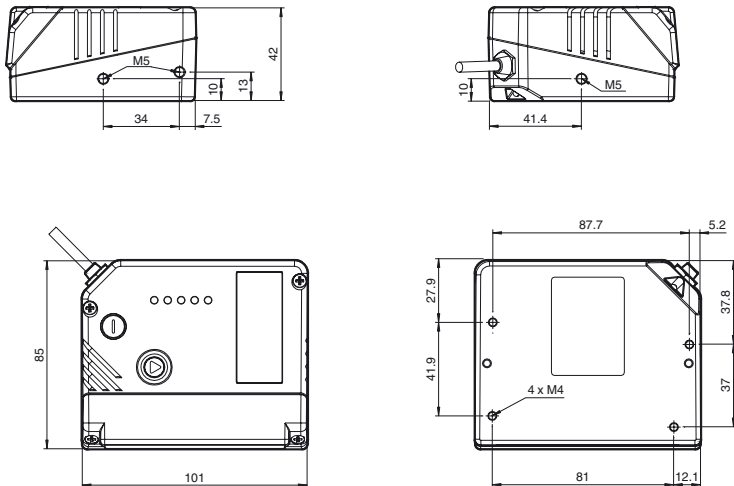
Protection degree	IP65
Connection	2 m cable with 25-pin Sub-D connector
Material	
Housing	aluminum
Mass	570 g

### Compliance with standards and directives

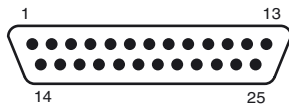
Directive conformity	EMC Directive 2004/108/EC
Standard conformity	
Noise immunity	EN 61000-6-2:2005
Emitted interference	EN 55022
Protection degree	EN 60529
Laser class	IEC 60825-1:2007 Complies with 21 CFR 1040.10 and 1040.11 except for deviations pursuant to Laser Notice No. 50, dated June 24, 2007

## Dimensions

www.pepperl-fuchs.com



## Electrical connection



25-pin D-sub connector pinout

Pin	Name	Function	RS232	RS485 full-duplex	RS485 half-duplex
9, 13	+UB	Power supply input voltage +			
7, 25	GND	Power supply input voltage -			
1	GND Chassis	Cable shield connected to chassis			
18	IN TRG (A)	External Trigger A (polarity insensitive)			
19	IN TRG (B)	External Trigger B (polarity insensitive)			
6	IN 2 (A)	Input 2 A (polarity insensitive)			
10	IN 2 (B)	Input 2 B (polarity insensitive)			
8	OUT 1 +	Output 1 +			
22	OUT 1 -	Output 1 -			
11	OUT 2 +	Output 2 +			
12	OUT 2 -	Output 2 -			
20	RX RS232	Auxiliary RS232			
21	TX RS232	Auxiliary RS232			
23	ID +	High speed internal network ID-NET +			
24	ID -	High speed internal network ID-NET -			
14, 15, 16, 17	NC	Not connected			
Pin			RS232	RS485 full-duplex	RS485 half-duplex
2	Main interface signals		TX	TX +	RTX +
3			RX	RX +	
4			RTS	TX -	RTX -
5			CTS	RX -	

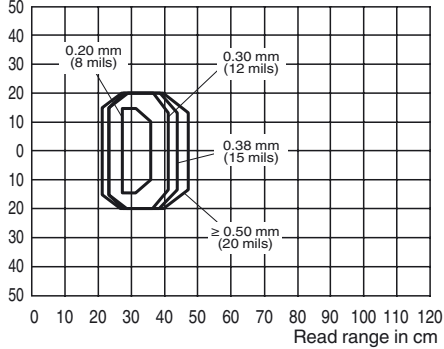
## Curves / diagrams

## Reading characteristics

VB24

Focus distance 30 cm

Read field width in cm

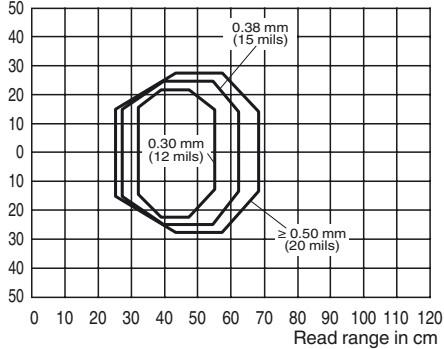


## Reading characteristics

VB24

Focus distance 40 cm

Read field width in cm

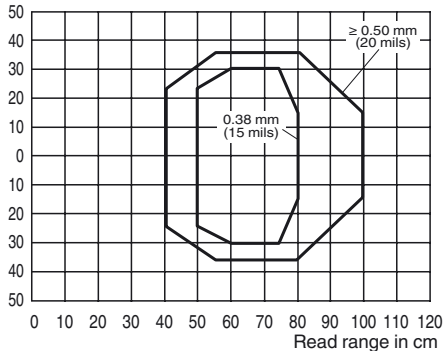


## Reading characteristics

VB24

Focus distance 60 cm

Read field width in cm



## Laser notice laser class 2

- The irradiation can lead to irritation especially in a dark environment. Do not point at people!
- Caution: Do not look into the beam!
- Maintenance and repairs should only be carried out by authorized service personnel!
- Attach the device so that the warning is clearly visible and readable.
- Caution – Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.