



Barcode scanner

VB14N-300-R-6102



- Grid scanner
- Simple operation via function keys: test mode, code teaching and code optimization
- Code reconstructor
- Connect up to 32 scanners
- Sturdy aluminum housing
- Two serial interfaces RS 232 / RS 485
- Engine control (On/Off) possible
- Degree of protection IP65

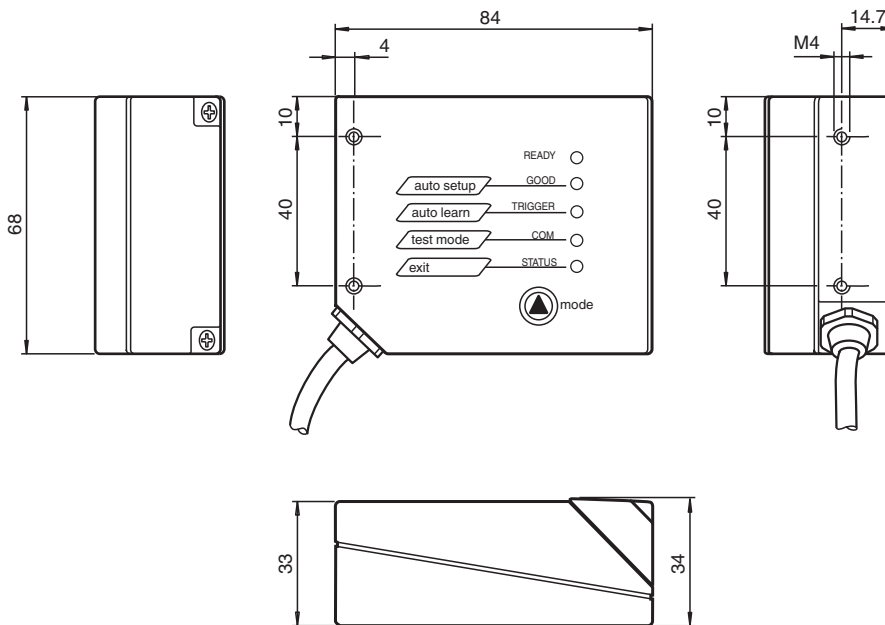
Barcode scanner



Function

The barcode scanner is a line scanner for 1D barcodes. With its high-performance optics and code reconstruction, the scanner offers a high level of reliability in reading difficult-to-detect 1D barcodes. 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 read status. The corresponding PC software makes parameterization simple.

Dimensions



Technical Data

General specifications

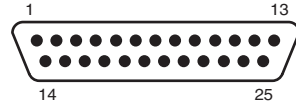
Light source	laser diode
Light type	modulated visible red light
Lasers nominal ratings	

Release date: 2023-09-05 Date of issue: 2023-09-05 Filename: 261434_eng.pdf

Technical Data

Note	LASER LIGHT , DO NOT STARE INTO BEAM	
Laser class	2	
Wave length	650 nm	
Beam divergence	< 1.5 mrad	
Pulse length	1.3 ms	
Repetition rate	200 Hz	
max. pulse energy	1.19 μ J	
Scan rate	500 ... 800 s ⁻¹	
Read distance	40 ... 300 mm	
Grid	18 mm at 300 mm	
Opening angle	50 °	
Optical face	lateral (angle 102°)	
Resolution	0.2 mm (8 mils)	
Indicators/operating means		
Operation indicator	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)	
Electrical specifications		
Operating voltage	U _B	10 ... 30 V DC
Power consumption	P ₀	max. 3 W
Interface		
Interface type	serial , RS-232 and RS-485 up to 115.2 kBit/s ID-NET™ up to 1 Mbit/s	
Input 1		
Input type	External triggering	
Output		
Signal output	2, programmable, optocoupled	
Switching voltage	max. 40 V DC	
Switching current	max. 40 mA	
Voltage drop	U _d	1 V at load current \leq 10 mA
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	
Degree of protection	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	
Ambient conditions		
Ambient temperature	0 ... 45 °C (32 ... 113 °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 ; 10 ... 55 Hz ; 2 hours on each axis	
Mechanical specifications		
Degree of protection	IP65	
Connection	2 m cable with 25-pin Sub-D connector	
Material		
Housing	Aluminum	
Mass	330 g	

Connection

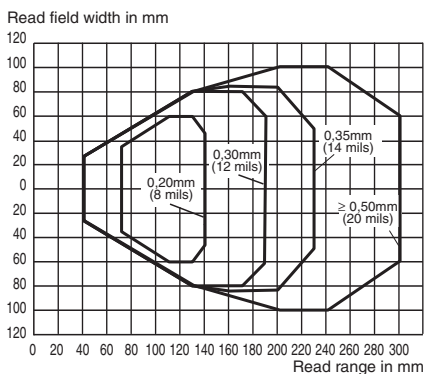


25-pin D-sub connector pinout

Pin	Name	Function		
9, 13	+UB	Power supply input voltage +		
25	GND	Power supply input voltage -		
1	GND Chassis	Cable shield connected to chassis		
18	IN TRG + (A)	External Trigger A +		
19	IN TRG - (B)	External Trigger B -		
6	IN 2 + (A)	Input 2 A +		
10	IN 2 - (B)	Input 2 B -		
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 -	
7		SGND	SGND	SGND

Characteristic Curve

Reading characteristics VB14N-300



Safety Information



LASERLICHT
LASER LIGHT
LUMIÈRE LASER

NICHT IN DEN STRAHL BLICKEN
DO NOT STARE INTO BEAM
NE PAS REGARDER LE FAISCEAU

LASER KLASSE 2
CLASS 2 LASER PRODUCT
PRODUIT LASER CLASSE 2

Safety Information

Laser Class 2 Information

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.

Accessories

	CBX100	Connector box for barcode scanner
	OM-VB14N	oscillating mirror for the VB14N barcode scanner series
	DM-VB14N-90	Deviation mirror for barcode scanner series VB14
	DM-VB14N-102	Deviation mirror for barcode scanner series VB14
	CBX500-KIT-B6	PROFIBUS Connector box for barcode scanner
	CBX500-KIT-B17	PROFINET Connector box for barcode scanner
	CBX500-KIT-B19-IP54	EtherNet/IP Connector box for barcode scanner
	CBX500-KIT-B19-IP65	EtherNet/IP Connector box for barcode scanner