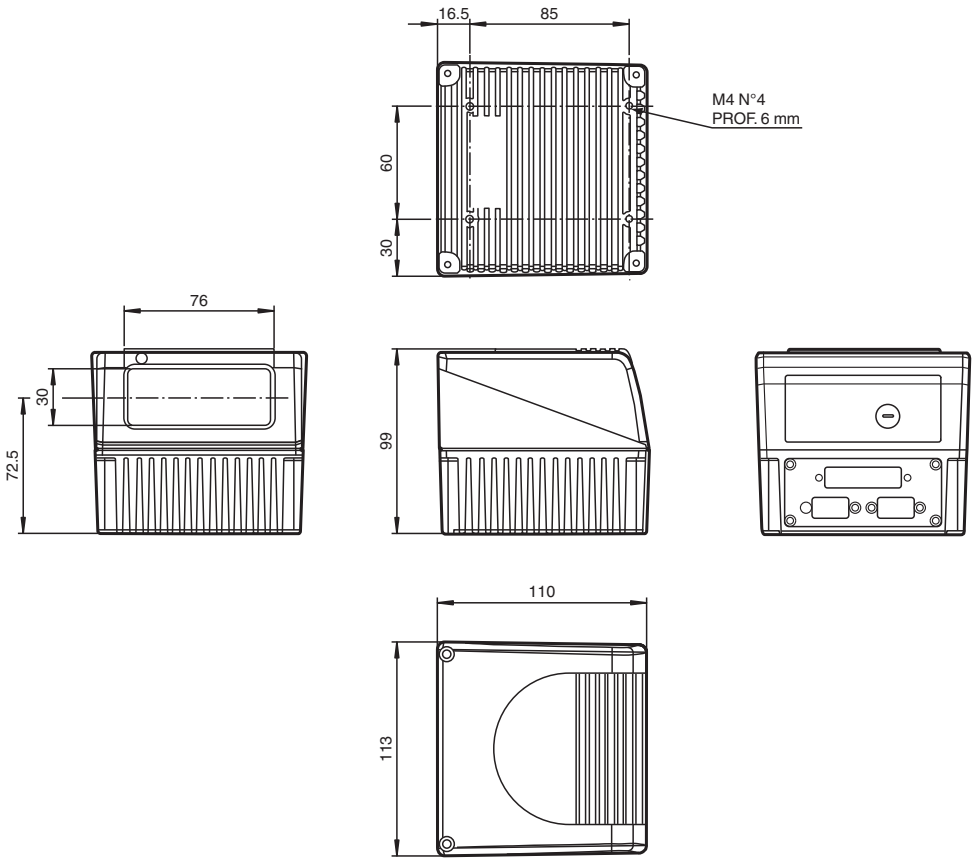
Barcode scanner

VB34-2500

- Optimized for the requirements of the automobile industry
- Dynamic focusing system
- Fast Lonworks interface for master/slave configurations
- Display and keypad for parameter settings

Barcode scanner

Dimensions



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

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Technical Data

Wave length		650 nm
Beam divergence		< 1.5 mrad
Pulse length		0.097 ms
Repetition rate		500 Hz
max. pulse energy		0.39 µJ
Scan rate		600 ... 1200 s^{-1} , programmable
Read distance		500 ... 2500 mm
Resolution		max: 0.2 mm (8 mils)
Indicators/operating means		
Operation indicator		LED green: Power on , LED yellow: Trigger phase active (PHASE ON)
Data flow indicator		LED green flashing: Data transfer carried out (TX-DATA)
Control elements		Keypad (3 membrane keys) for parameter settings on the LCD display
Parameterization indicator		LC display
Electrical specifications		
Operating voltage	U_B	15 ... 30 V DC
Power consumption	P_0	max. 20 W
Interface		
Interface type		serial , RS-232 and RS-485 up to 115.2 kBit/s
Input 1		
Input type		3 digital inputs and external trigger
Output		
Switching voltage		max. 30 V DC
Switching current		max. 50 mA
Voltage drop	U_d	0.3 V at load current ≤ 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
Electrical safety		EN 60950-1:2006
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 ... 40 °C (32 ... 104 °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		IP64
Connection		Interface (primary, secondary) : 25-pin Sub-D connector , Lonworks: : 9-pin Sub-D socket , 9-pin Sub-D connector
Material		
Housing		Aluminum
Mass		1500 g

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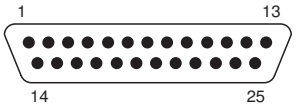
Connection



Pin	Name	Function
1	Schirm	The shield is interfaced with chassis ground via a capacitor internally.
20	RXAUX	Receive data of RS232 interface (earth-related)
21	TXAUX	Transmission data of RS232 interface (earth-related)
8	Out1+	Plus lead of digital output 1
22	Out1-	Minus lead of digital output 1
11	Out2+	Plus lead of digital output 2
12	Out2-	Minus lead of digital output 2
16	Out3A	Digital output 3 - polarity commutable
17	Out3B	Digital output 3 - polarity commutable
18	Ext_TRIG. A	External trigger (polarity commutable)
19	Ext_TRIG. B	External trigger (polarity commutable)
6	IN 2A	Input signal 2 (polarity commutable)
10	IN 2B	Input signal 2 (polarity commutable)
14	IN 3A	Input signal 3 (polarity commutable)
15	IN 4A	Input signal 4 (polarity commutable)
24	IN_REF	Common earth reference for IN3 and IN4 (polarity commutable)
9, 13	VS	Supply voltage - plus
23, 25	GND	Supply voltage - minus (earth)

Electrical connections of the connector for primary interface

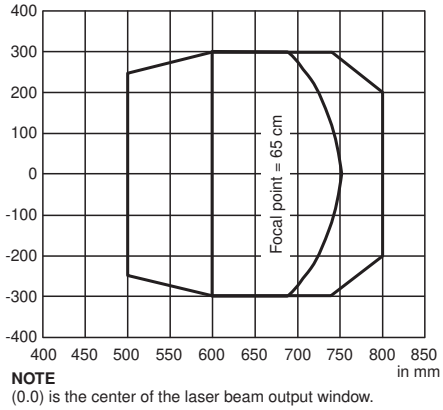
Pin	RS232	RS485 full-duplex	RS485 half-duplex
2	TX	TX485 +	RTX485 +
3	RX	RX485 +	
4	RTS	TX485 -	RTX485 -
5	CTS	RX485 -	
7	GND_ISO	GND_ISO	GND_ISO

Characteristic Curve

Reading characteristics

VB34

read characteristics at resolution: 0.20 mm (8 mils)



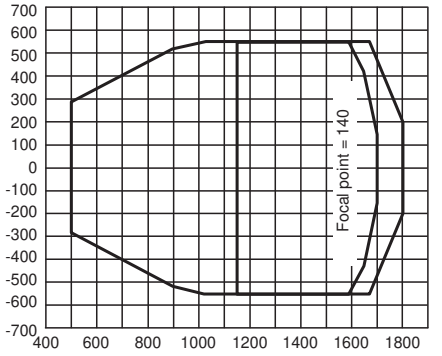
NOTE
(0.0) is the center of the laser beam output window.

Characteristic Curve

Reading characteristics

VB34

read characteristics at resolution: 0.375 mm (15 mils)
in mm

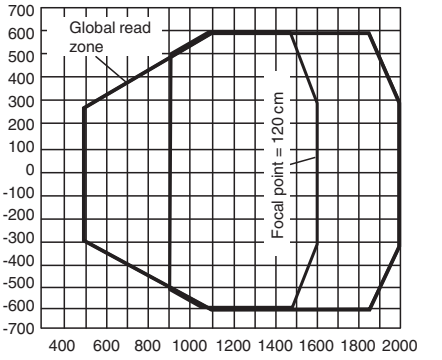


NOTE
(0.0) is the center of the laser beam output window.

Reading characteristics

VB34

read characteristics at resolution: 0.50 mm (20 mils)
in mm



NOTE
(0.0) is the center of the laser beam output window.

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.

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