



Barcode scanner

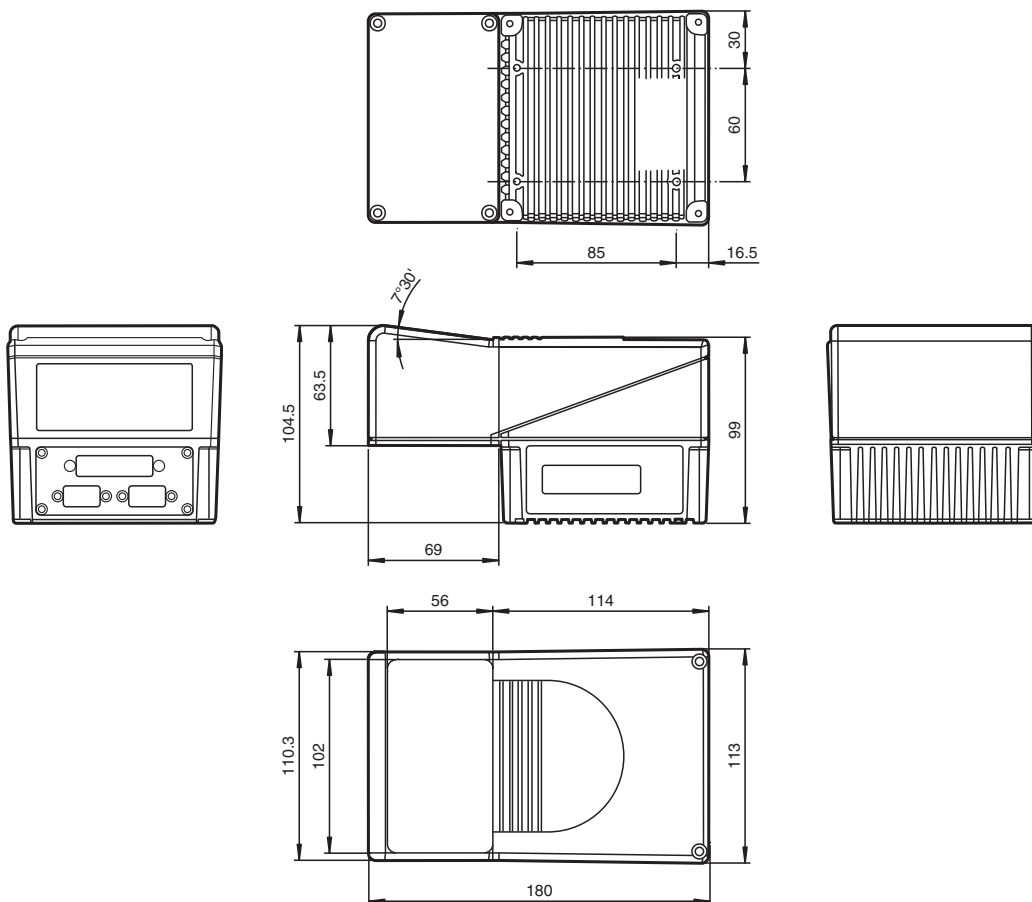
VB34-2500-OM

- Version with integrated oscillating mirror
- 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

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

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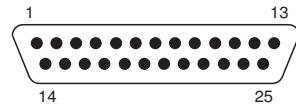
PF PEPPERL+FUCHS

Technical Data

Laser class	2	
Wave length	650 nm	
Beam divergence	< 1.5 mrad	
Pulse length	0.097 ms	
Repetition rate	500 Hz	
max. pulse energy	0.39 μ J	
Scan rate	600 ... 1200 s ⁻¹ , programmable	
Read distance	450 ... 2000 mm	
Oscillating mirror	Deflection: -2.5° ... 37.5°, parameterizable Oscillation frequency: 0 ... 19 Hz, programmable	
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 \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	
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	2000 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)

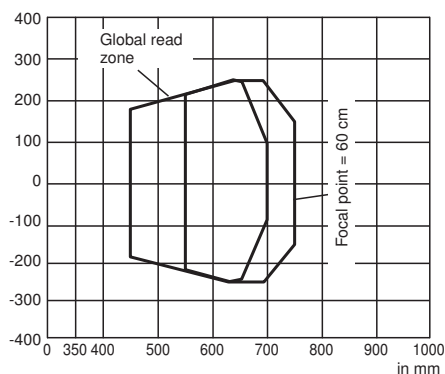
Electrical connections of the connector for primary interface

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*OM*

read characteristics at resolution: 0.20 mm (8 mils)
in mm

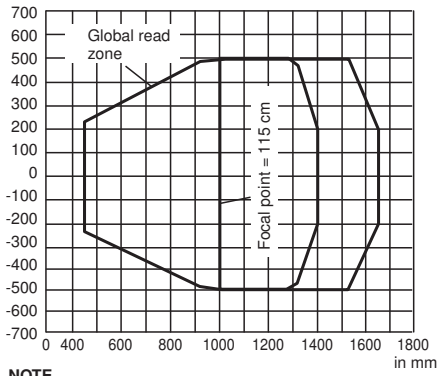


NOTE

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

Reading characteristics VB34*OM*

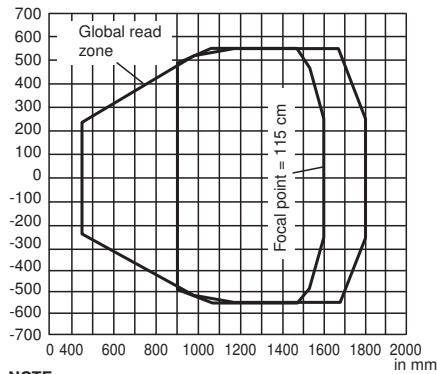
read characteristics at resolution: 0.375 mm (15 mils)
in mm



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

Reading characteristics VB34*OM*

read characteristics at resolution: 0.5 mm (20 mils)
in mm



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

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Safety Information



LASERLICHT
LASER LIGHT
NICHT IN DEN STRAHL BLICKEN
DO NOT STARE INTO BEAM
LASER KLASSE 2
CLASS 2 LASER PRODUCT

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.