



Model Number

VB10-220

Barcode scanner

Features

- Small, compact design
- Large reading angle
- High resolution

Accessories

CBX100

Connector box for barcode scanner

Other suitable accessories can be found at www.pepperl-fuchs.com

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 | 650 nm |
| Beam divergence | < 1.5 mrad |
| Pulse length | 0.56 ms |
| Repetition rate | 100 Hz |
| max. pulse energy | 0.56 μ J |
| Scan rate | 500 s ⁻¹ |
| Reading angle | 52 ° |
| Read distance | 50 ... 220 mm |
| Optical face | frontal |
| Resolution | 0.15 mm (6 mils) |

Indicators/operating means

| | |
|-------------------|---|
| Operating display | LED red: Power on (POWER ON) , LED yellow: external trigger signal applied (EXT. TRIG.) |
| Data flow display | LED green flashing: Data transfer carried out (TX-DATA) |
| Function display | LED red: signals the successful read-in of a barcode (GOOD READ) |

Electrical specifications

| | | |
|-------------------|-------|----------------|
| Operating voltage | U_B | 10 ... 30 V DC |
| Power consumption | P_0 | 2 W |

Interface

| | |
|----------------|---|
| Interface type | serial RS 232 and RS 485 up to 115.2 kbit/s |
|----------------|---|

Input

| | |
|------------|---------------------|
| Input type | External triggering |
|------------|---------------------|

Output

| | |
|-------------------|--|
| Signal output | 2 outputs programmable |
| Switching voltage | max. 50 V DC |
| Switching current | max. 50 mA |
| Voltage drop | U_d 0.3 V at load current \leq 10 mA |

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 |

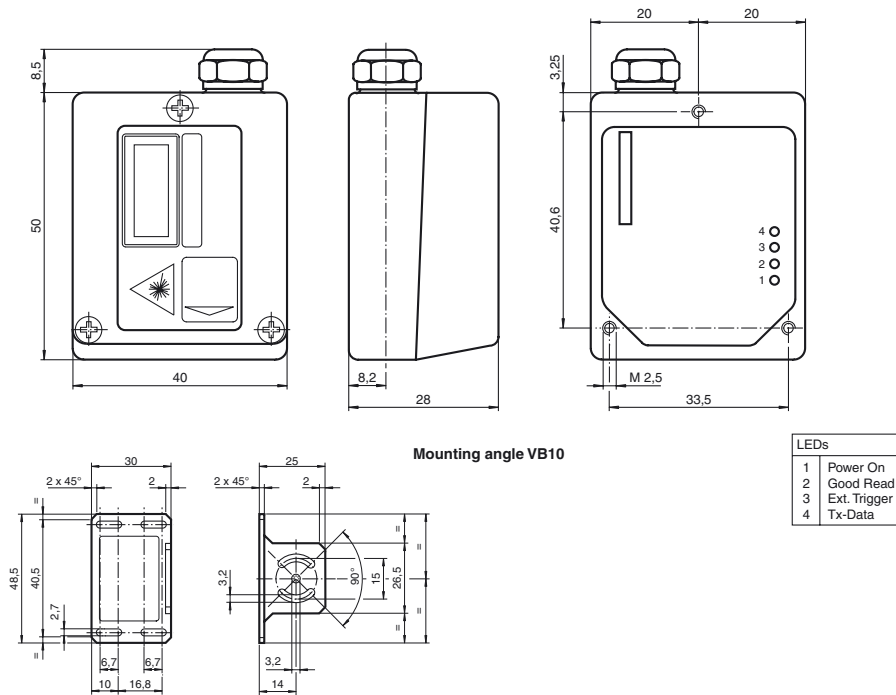
Mechanical specifications

| | |
|-------------------|---------------------|
| Protection degree | IP65 |
| Connection | 25-pin Sub-D socket |
| Material | |
| Housing | Diecast zinc |
| Mass | 150 g |

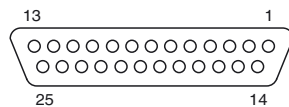
Compliance with standards and directives

| | |
|----------------------|--|
| 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



Electrical connection



25-pin D-sub connector pinout

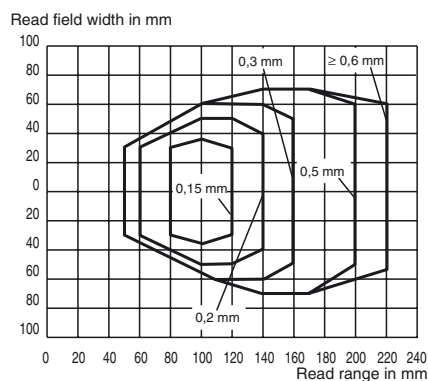
| Pin | Name | Function |
|----------------------------------|------------------|-------------------------------|
| 9, 13 | 10 V ... 30 V DC | Power supply input voltage + |
| 25 | GND | Power supply input voltage - |
| 1* | CHASSIS | Chassis ground |
| 2, 21 | TX232 | TX RS232 aux. Interface |
| 3, 20 | RX232 | RX RS232 aux. Interface |
| 4 | RTX485- | RTX- RS485 main Interface |
| 5 | RTX485+ | RTX+RS485 main Interface |
| 7 | SGND | Signal ground |
| 8 | OUT1+ | Output 1 + |
| 11 | OUT2+ | Output 2 + |
| 19 | Ext. TRIG. - | External trigger - |
| 12, 22 | GND | Input/Output reference (Mass) |
| 18 | IN1- | Input 1 - |
| 6, 10, 14, 15, 16, 17, 23, 24 | NC | Not connected |

* Pin 1 and pin 25 are internally interconnected.

Curves / diagrams

Reading characteristics

VB10-220



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.