



VB14-300

Barcode scanner

# VB14-300



- ◆ Large reading angle
- ◆ Sturdy aluminium housing
- ◆ Protection degree IP65



**General specifications**

|                  |                              |
|------------------|------------------------------|
| Laser class      | 2 -IEC825-1; class II - CDRH |
| Scan rate        | 800 s <sup>-1</sup>          |
| Reading angle    | 60 °                         |
| Reading distance | 50 ... 300 mm                |
| Light type       | semi-conductor laser 655 nm  |
| Optical face     | frontal                      |
| Resolution       | 0.2 mm ( 8 mils )            |

**Indicators/operating means**

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

**Electrical specifications**

|                                  |                |
|----------------------------------|----------------|
| Operating voltage                | 10 ... 30 V DC |
| Power consumption P <sub>0</sub> | max. 4 W       |

**Interface**

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

**Input 1**

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

**Output**

|                             |  |
|-----------------------------|--|
| Signal output               | 2 electronic outputs, NPN programmable |
| Switching voltage           | max. 50 V DC                           |
| Switching current           | max. 50 mA                             |
| Voltage drop U <sub>d</sub> | 0.3 V at load current ≤ 10 mA          |

**Standard conformity**

|           |              |
|-----------|--------------|
| Standards | EN 60947-5-2 |
|-----------|--------------|

**Ambient conditions**

|                      |   |
|----------------------|---|
| Ambient temperature  | 0 ... 45 °C (273 ... 318 K)                                     |
| Storage temperature  | -20 ... 70 °C (253 ... 343 K)                                   |
| Relative humidity    | 90 % , non-condensing   |
| 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**

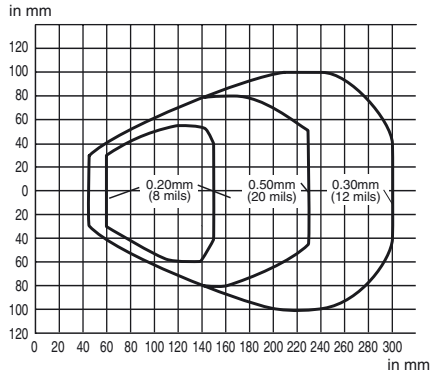
|                   |                             |
|-------------------|-----------------------------|
| Protection degree | IP65 according to DIN 40050 |
| Connection        | 25-pin Sub-D socket         |
| Material          |                             |
| Housing           | aluminium                   |
| Mass              | 330 g                       |



# VB14-300

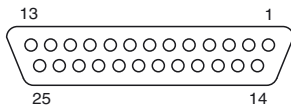
## Diagrams

### Reading characteristics VB14-300



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

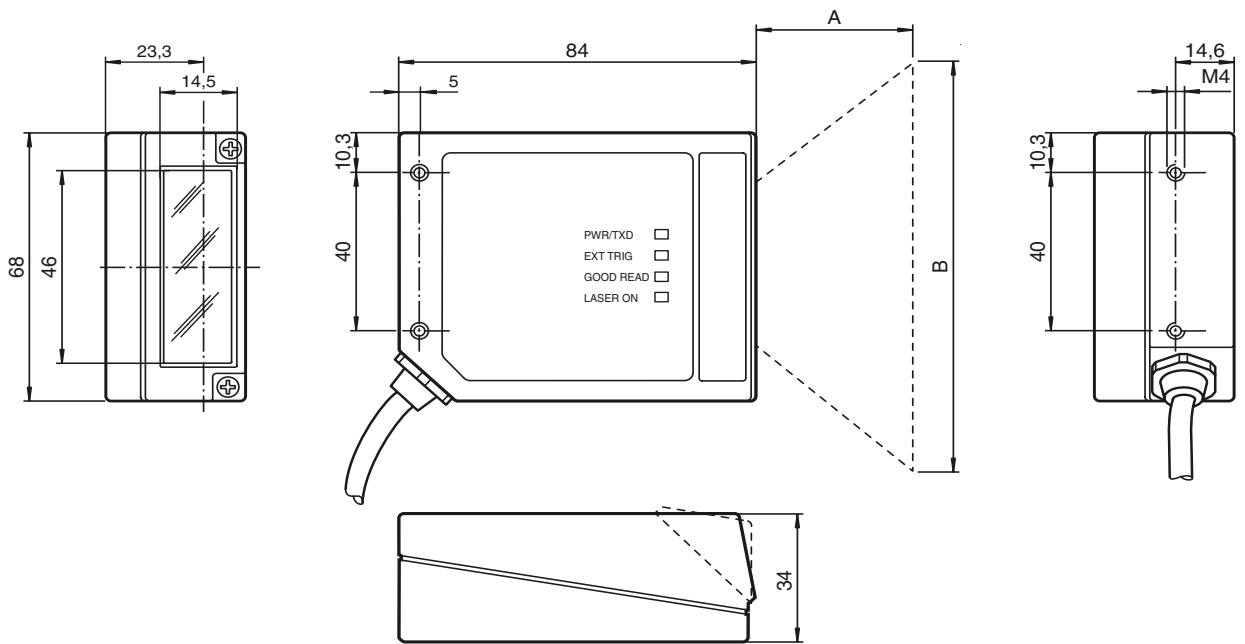
## Electrical connection



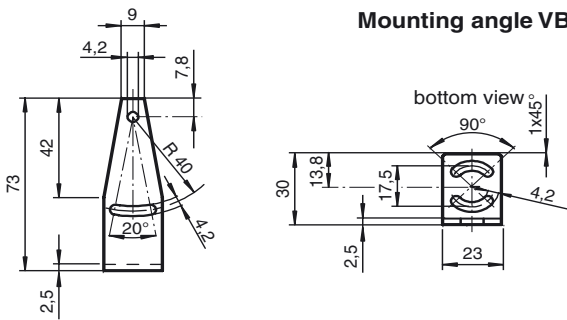
### 25-pin D-sub connector pinout

| Pin                   | Name                   | Function                     | RS232        | RS485 full-duplex        | RS485 half-duplex        |
|-----------------------|------------------------|------------------------------|--------------|--------------------------|--------------------------|
| 13                    | 10 V ... 30 V DC       | Power supply input voltage + |              |                          |                          |
| 25                    | 0 V                    | Power supply input voltage - |              |                          |                          |
| 1                     | CHASSIS                | Chassis Ground               |              |                          |                          |
| 9                     | 10 V ... 30 V DC       | Supply voltage +             |              |                          |                          |
| 18                    | Ext. TRIG. +           | External trigger +           |              |                          |                          |
| 19                    | Ext. TRIG. -           | External trigger -           |              |                          |                          |
| 8                     | OUT1 +                 | Output 1+                    |              |                          |                          |
| 11                    | OUT2 +                 | Output 2+                    |              |                          |                          |
| 12                    | OUT REF.               | Output reference             |              |                          |                          |
| 22                    | OUT REF.               | Output reference             |              |                          |                          |
| 20                    | RX232                  | Aux. RX RS232                |              |                          |                          |
| 21                    | TX232                  | Aux. TX RS232                |              |                          |                          |
| 23                    | CTS232                 | Aux. handshake CTS RS232     |              |                          |                          |
| 24                    | RTS232                 | Aux. handshake RTS RS232     |              |                          |                          |
| 6, 10, 14, 15, 16, 17 | NC                     | Not connected                |              |                          |                          |
| <b>Pin</b>            |                        |                              | <b>RS232</b> | <b>RS485 full-duplex</b> | <b>RS485 half-duplex</b> |
| 2                     | Main interface signals |                              | TX232        | TX485+                   | RTX485+                  |
| 3                     |                        |                              | RX232        | RX485+                   | -                        |
| 4                     |                        |                              | RTS232       | TX485-                   | RTX485-                  |
| 5                     |                        |                              | CTS232       | RX485-                   |                          |
| 7                     |                        |                              | SGND         | SGND                     | SGND                     |

Dimensions



Mounting angle VB14



Notes

