



**Model number**

**WCS3B-LS310S**

Reading head, SSI interface, binary code

**Features**

- SSI interface
- Non-contact, absolute position encoder
- Automatic detection of dirt accumulation

**Accessories**

**WCS-MP1**

Mounting plate for reading heads WCS2 and WCS3

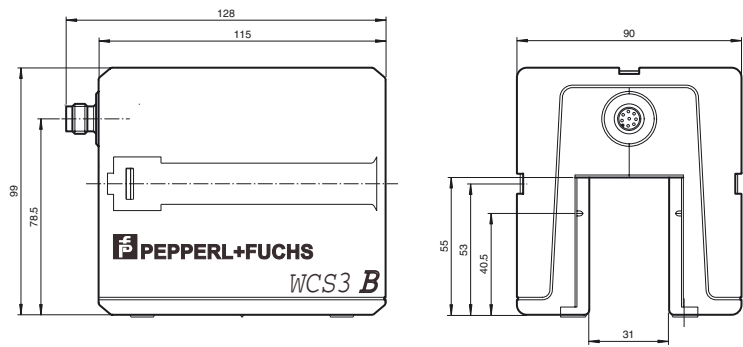
**WCS3B-PL2**

Transparent protective case and seal for WCS3B reader

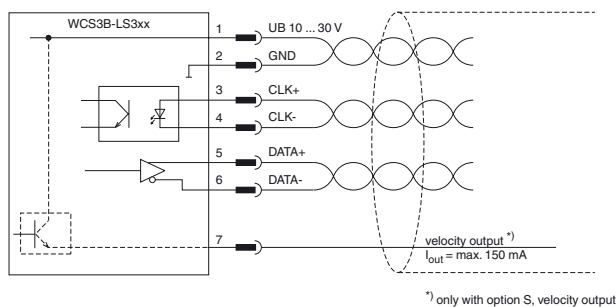
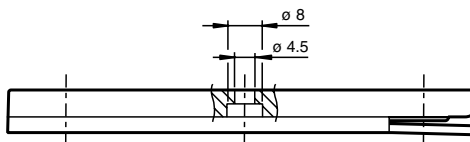
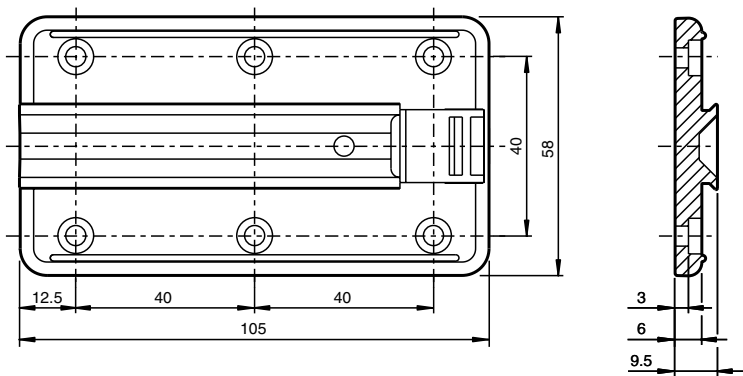
**Note**

with SSI interface

**Dimensions**



**Mounting plate**



**Technical data**

**General specifications**

|                              |   |  |
|------------------------------|---|--|
| Passage speed                | v | ≤ 12.5 m/s   |
| Measuring range              |   | max. 314.5 m   |
| Free tolerances to code rail |   | horizontal: 31 mm ( ± 15.5 mm )<br>vertical: 28 mm ( ± 14 mm ) |
| Resolution                   |   | ± 0.4 mm (1,250 positions/m)                                   |

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|   |                |  |
|---|----------------|--|
| <b>Functional safety related parameters</b> |                |  |
| MTTF <sub>d</sub>                           |                | 170 a  |
| Mission Time (T <sub>M</sub> )              |                | 20 a   |
| Diagnostic Coverage (DC)                    |                | 0 %  |
| <b>Indicators/operating means</b>           |                |  |
| Operation indicator                         |                | LED green: power on  |
| Velocity indicator                          |                | LED yellow<br>off, if speed limit is exceeded  |
| Error indicator                             |                | LED red<br>flashing: read head outside of code rail<br>solid on: internal diagnostic test failed |
| <b>Electrical specifications</b>            |                |  |
| Operating voltage                           | U <sub>B</sub> | 10 ... 30 V DC   |
| Power consumption                           | P <sub>0</sub> | 2 VA   |
| <b>Interface</b>                            |                |  |
| Interface type                              |                | SSI interface  |
| Data output code                            |                | binary code , 25 bit   |
| Clock frequency                             |                | 100 ... 1000 kHz   |
| Pause time                                  | tp             | ≥ 20 μs<br>double request possible, if t <sub>p</sub> ≤ 10 μs                                    |
| <b>Output</b>                               |                |  |
| Output velocity                             |                | switch output , short-circuit protected  |
| Switching voltage                           |                | Operating voltage  |
| <b>Standard conformity</b>                  |                |  |
| Emitted interference                        |                | DIN EN 61000-6-4   |
| Noise immunity                              |                | DIN EN 61000-6-2   |
| Shock resistance                            |                | DIN EN 60068-2-27, half sine 30 g, 18 ms   |
| Vibration resistance                        |                | DIN EN 60068-2-6, sine, 5 g, 10 - 2000 Hz, 10 cycles   |
| <b>Ambient conditions</b>                   |                |  |
| Operating temperature                       |                | 0 ... 60 °C (32 ... 140 °F)  |
| Storage temperature                         |                | -40 ... 85 °C (-40 ... 185 °F)   |
| Relative humidity                           |                | 90 % , noncondensing   |
| <b>Mechanical specifications</b>            |                |  |
| Connection type                             |                | 8-pin, M12 x 1 connector   |
| Degree of protection                        |                | IP54   |
| Material                                    |                |  |
| Housing                                     |                | ABS , PC (Polycarbonate)   |
| Mass  |                | 500 g  |
| <b>General information</b>                  |                |  |
| Ordering information                        |                | Mounting plate included with delivery  |