



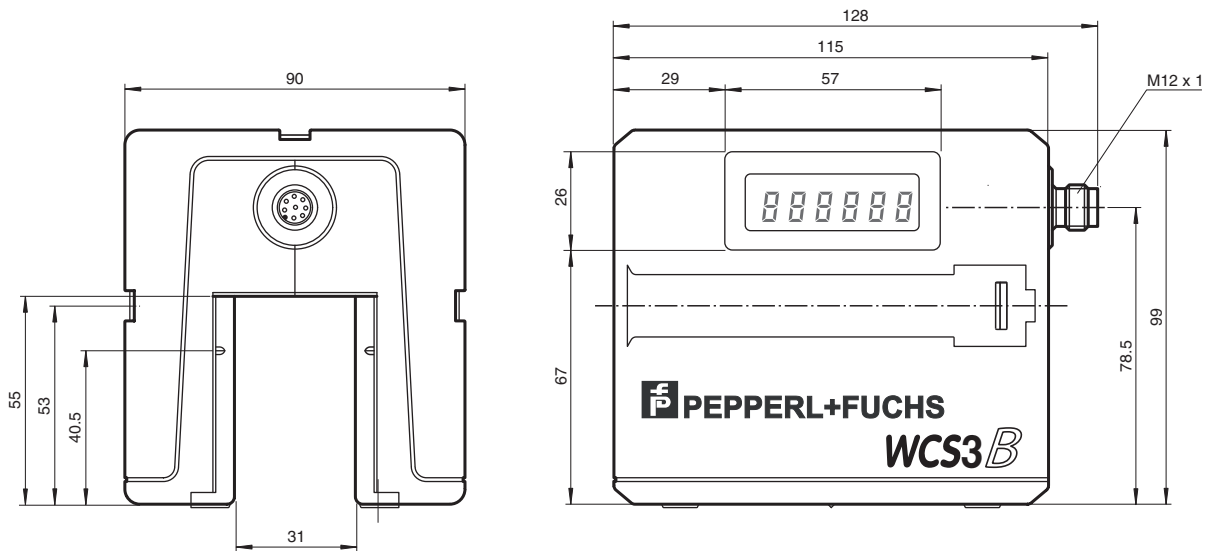
## Read head WCS3B-LS310D

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

Reading head, SSI interface, binary code



### Dimensions



Release date: 2023-01-09 Date of issue: 2023-01-09 Filename: 199290-0030\_eng.pdf

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

Pepperl+Fuchs Group  
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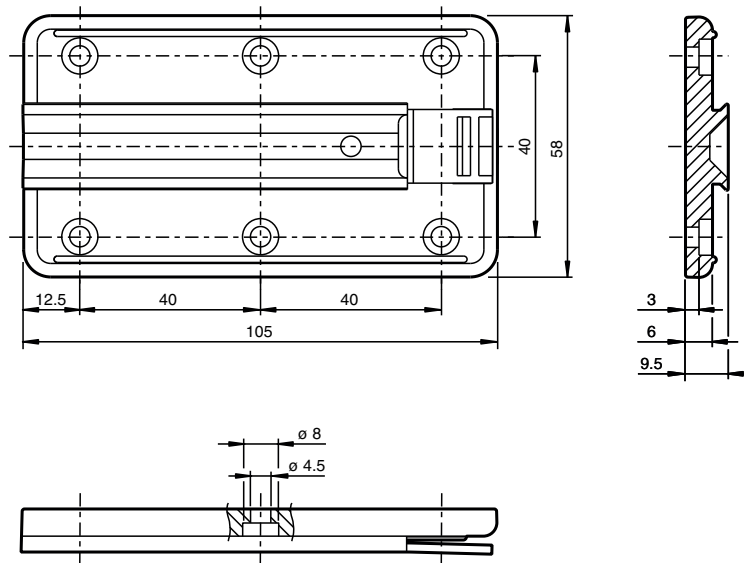
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## Dimensions



## 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)                                   |

### Functional safety related parameters

|                                |  |       |
|--------------------------------|--|-------|
| MTTF <sub>d</sub>              |  | 182 a |
| Mission Time (T <sub>M</sub> ) |  | 20 a  |
| Diagnostic Coverage (DC)       |  | 0 %   |

### Indicators/operating means

|                     |  |  |
|---------------------|--|--|
| Operation indicator |  | LED green: power on  |
| Data flow indicator |  | LED yellow: data communication active  |
| Error indicator     |  | LED red<br>flashing: read head outside of code rail<br>solid on: internal diagnostic test failed |
| Display             |  | Display module, 6-digit adaptable to installation position                                       |

### Electrical specifications

|                   |                |                |
|-------------------|----------------|----------------|
| Operating voltage | U <sub>B</sub> | 10 ... 30 V DC |
| Power consumption | P <sub>0</sub> | 2 VA           |

### Interface

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

### Standard conformity

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

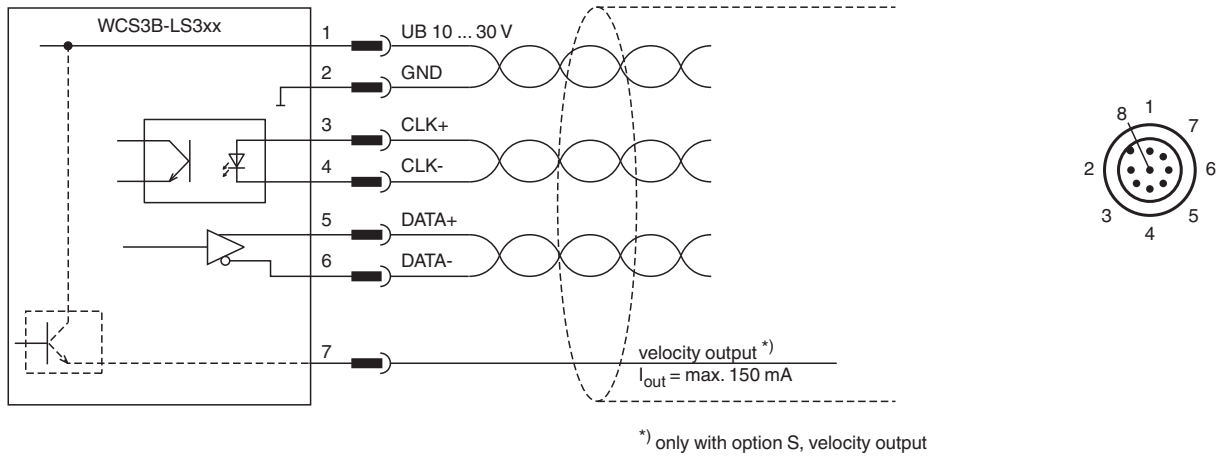
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**Technical Data**

|                                   |  |
|-----------------------------------|--|
| <b>Approvals and certificates</b> |  |
| CSA approval                      | cCSAus Certified, General Purpose<br>Class 2 power source    |
| CCC approval                      | CCC approval / marking not required for products rated ≤36 V |
| <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                        |

**Connection**



**Accessories**

|  |                  |   |
|--|------------------|---|
|  | <b>WCS3B-PL2</b> | Transparent protective case and seal for WCS3B reader |
|  | <b>WCS-MP1</b>   | Mounting plate for reading heads WCS2 and WCS3        |

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