



### Model number

#### WCS3B-LS111

Reading head, RS-485 interface,  
without RS-485 termination resistor

### Features

- RS-485 interface
- Non-contact, absolute position encoder
- Automatic detection of dirt accumulation

### Accessories

#### WCS3B-PL2

Transparent protective case and seal for  
WCS3B reader

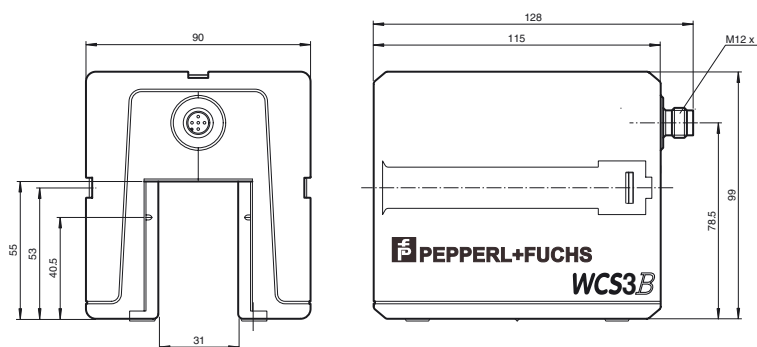
#### WCS-MP1

Mounting plate for reading heads WCS2  
and WCS3

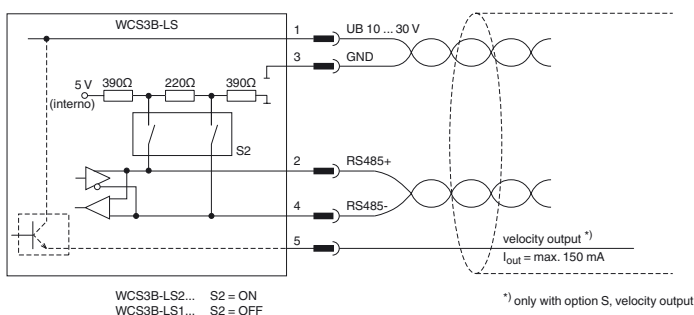
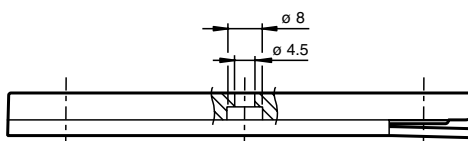
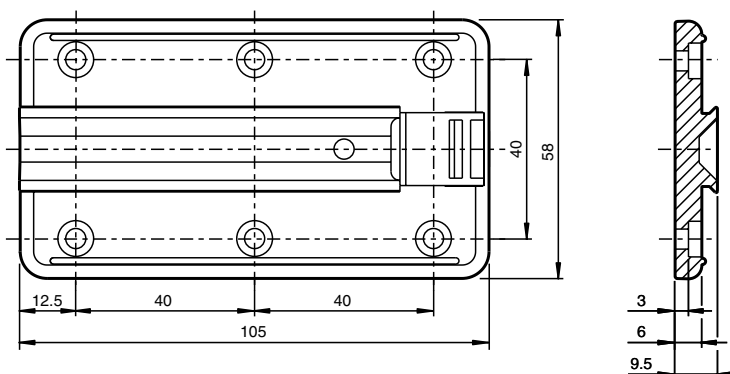
### Note

with RS-485 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)                               |

|                                             |                |                                                                                                  |
|---------------------------------------------|----------------|--------------------------------------------------------------------------------------------------|
| <b>Functional safety related parameters</b> |                |                                                                                                  |
| MTTF <sub>d</sub>                           |                | 198 a                                                                                            |
| Mission Time (T <sub>M</sub> )              |                | 20 a                                                                                             |
| Diagnostic Coverage (DC)                    |                | 0 %                                                                                              |
| <b>Indicators/operating means</b>           |                |                                                                                                  |
| 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 |
| <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                              |                | RS 485 interface                                                                                 |
| Data output code                            |                | binary code                                                                                      |
| Protocol                                    |                | 1 , 2                                                                                            |
| Transfer rate                               |                | 187.5 kBit/s                                                                                     |
| Address                                     |                | 0                                                                                                |
| Termination                                 |                | without RS 485 termination                                                                       |
| <b>Output</b>                               |                |                                                                                                  |
| Output velocity                             |                | no                                                                                               |
| <b>Standard conformity</b>                  |                |                                                                                                  |
| Emitted interference                        |                | DIN EN 61000-6-4 , DIN EN 12015                                                                  |
| Noise immunity                              |                | DIN EN 61000-6-2 , DIN EN 12016                                                                  |
| 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                             |                | 5-pin, M12 x 1 connector                                                                         |
| Degree of protection                        |                | IP54                                                                                             |
| <b>Material</b>                             |                |                                                                                                  |
| Housing                                     |                | ABS , PC (Polycarbonate)                                                                         |
| Mass                                        |                | 500 g                                                                                            |
| <b>General information</b>                  |                |                                                                                                  |
| Ordering information                        |                | Mounting plate included with delivery                                                            |