



**Model number**

**WCS3B-LS221H-OL**

Read head, RS-485 interface, with RS-485 termination resistor

**Features**

- For outdoor use
- Non-contact, absolute position encoder
- Extended temperature range
- Automatic detection of dirt accumulation
- RS 485 interface
- Freely selectable cable outlet due to rotating insert

**Accessories**

**WCS3B-OBP**

Stopping plugs For WCS32B-OP\* housing

**WCS3B-OPC**

Outdoor protective cover for WCS3B reader

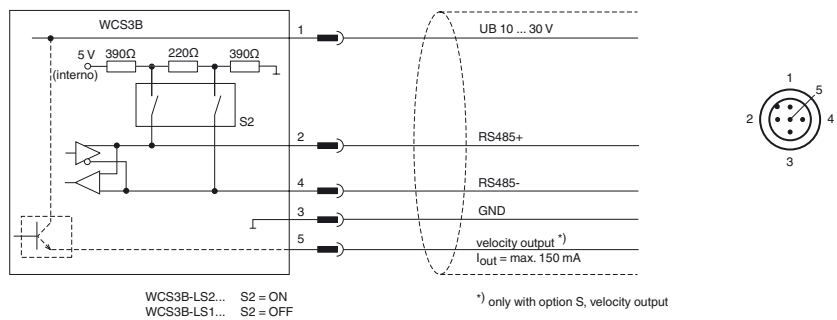
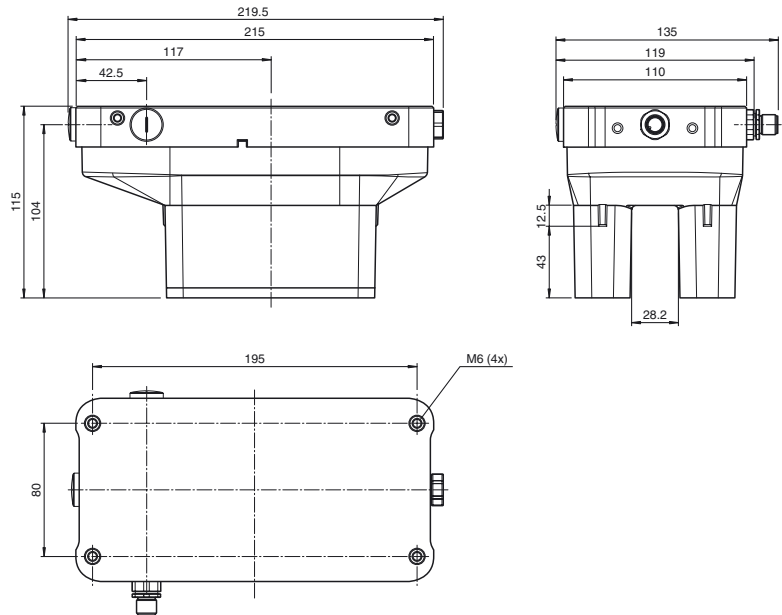
**WCS3B-OPH**

Outdoor protective housing for reader WCS3B

**Note**

with RS-485 interface

**Dimensions**



**Technical data**

**General specifications**

|                              |   |  |
|------------------------------|---|--|
| Passage speed                | v | ≤ 12.5 m/s   |
| Measuring range              |   | max. 314.5 m   |
| Free tolerances to code rail |   | horizontal: 28 mm ( ± 14 mm )<br>vertical: 25.5 mm ( +11.5 mm/-14 mm ) |
| Resolution                   |   | ± 0.4 mm (1,250 positions/m)   |

**Functional safety related parameters**

|                                |      |
|--------------------------------|------|
| MTTF <sub>d</sub>              | 50 a |
| Mission Time (T <sub>M</sub> ) | 10 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 flashing: read head outside of code rail<br>solid on: internal diagnostic test failed |

**Electrical specifications**

|                   |                |                  |
|-------------------|----------------|------------------|
| Operating voltage | U <sub>B</sub> | 10 ... 30 V DC   |
| Power consumption | P <sub>0</sub> | 11 VA at 24 V DC |

**Interface**

|                  |                         |
|------------------|-------------------------|
| Interface type   | RS 485 interface        |
| Data output code | binary code             |
| Protocol         | 1, 2                    |
| Transfer rate    | 62.5 kBit/s             |
| Address          | 0                       |
| Termination      | with RS 485 termination |

**Standard conformity**

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

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**Ambient conditions**

|                       |                                |
|-----------------------|--------------------------------|
| Operating temperature | -40 ... 60 °C (-40 ... 140 °F) |
| Storage temperature   | -40 ... 85 °C (-40 ... 185 °F) |

**Mechanical specifications**

|                      |   |
|----------------------|---|
| Connection type      | 5-pin, M12 x 1 connector  |
| Degree of protection | IP67 / IP69   |
| Material             |   |
| Housing              | PET , PC (Polycarbonate)  |
| Mass                 | 1000 g  |
| Note                 | The reader must not be operated without the protective housing! |