



## Read head

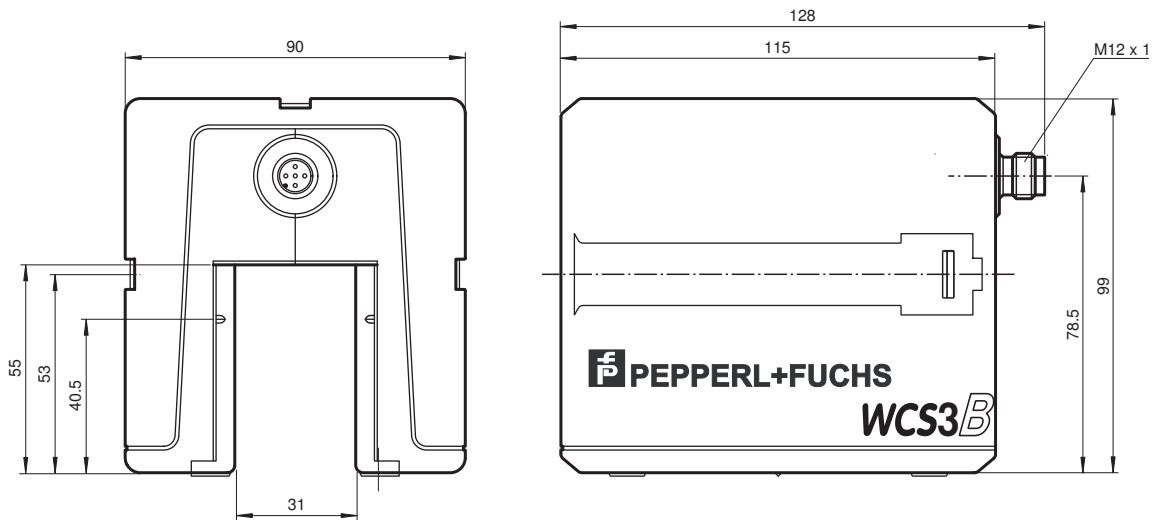
### WCS3B-LS1\*\*

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

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



## Dimensions



Release date: 2022-03-10 Date of issue: 2022-03-10 Filename: t39010\_eng.pdf

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

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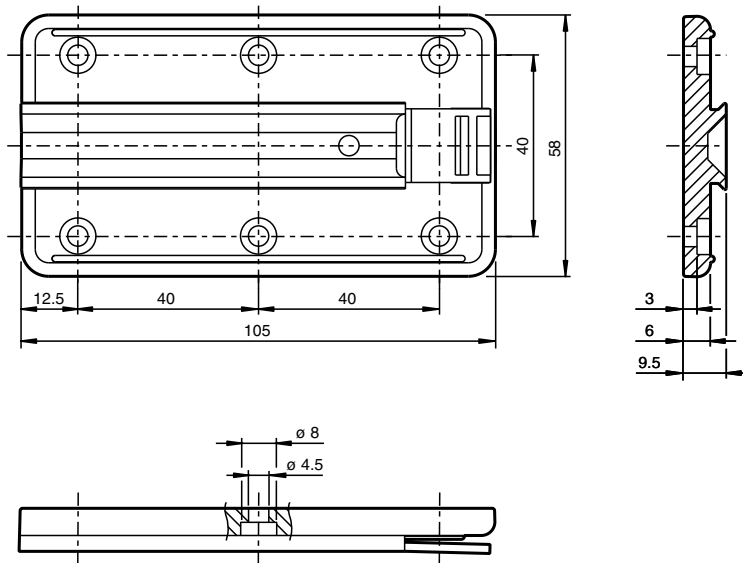
USA: +1 330 486 0001  
fa-info@us.pepperl-fuchs.com

Germany: +49 621 776 1111  
fa-info@de.pepperl-fuchs.com

Singapore: +65 6779 9091  
fa-info@sg.pepperl-fuchs.com

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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) vertical: 28 mm (± 14 mm)
Resolution		± 0.4 mm (1,250 positions/m)

### Indicators/operating means

Operation indicator		LED green: power on
Data flow indicator		LED yellow: data communication active
Velocity indicator		LED yellow (only with Option S, speed output) off, if speed limit is exceeded (instead of data flow display)
Error indicator		LED red flashing: read head outside of code rail solid on: internal diagnostic test failed
Display		Display module, 6-digit (only with option D, display) adaptable to installation position

### Electrical specifications

Operating voltage	U <sub>B</sub>	10 ... 30 V DC
Power consumption	P <sub>0</sub>	2 VA with Option H, heating: 11 VA at 24 V DC

### Interface

Interface type		RS 485 interface
Data output code		binary code
Transfer rate		Baud rate 19.2 kBit/s ... 187.5 kBit/s (to be specified with order)
Termination		without RS 485 termination

### Output

Output velocity		switching output , short-circuit protected (only with Option S, speed output)
Switching voltage		Operating voltage

### Standard conformity

Emitted interference		DIN EN 61000-6-4 , DIN EN 12015
Noise immunity		DIN EN 61000-6-2 , DIN EN 12016

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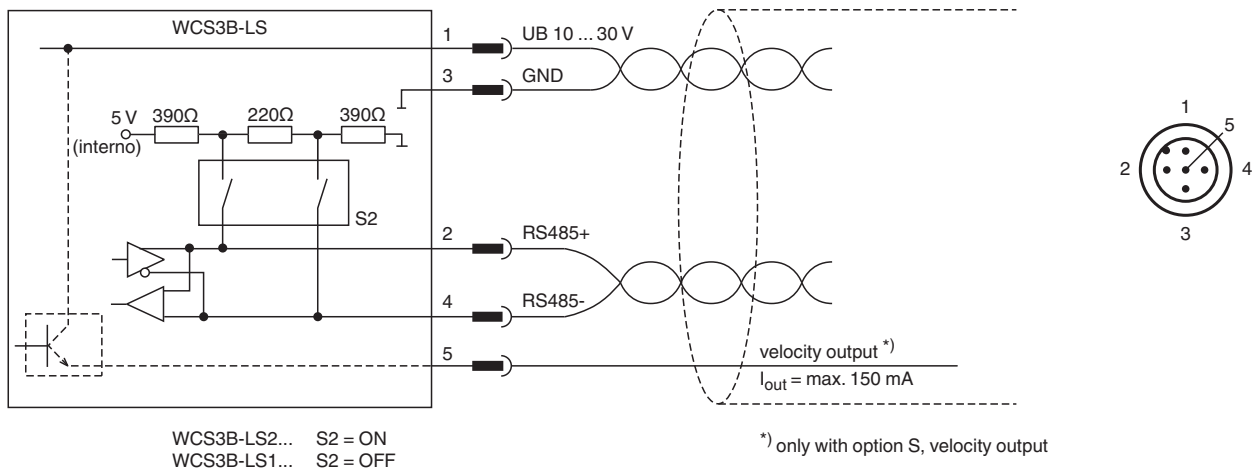
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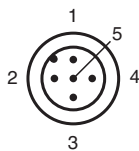
**Technical Data**

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>Approvals and certificates</b>	
CSA approval	cCSAus Certified, General Purpose Class 2 power source
<b>Ambient conditions</b>	
Operating temperature	0 ... 60 °C (32 ... 140 °F) with Option H, heating: -40 ... 60 °C (-40 ... 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
Material	
Housing	ABS , PC (Polycarbonate)
Mass	500 g
<b>General information</b>	
Ordering information	Mounting plate included with delivery

**Connection**



**Connection Assignment**





Wire colors in accordance with EN 60947-5-2

- 1 | BN (brown)
- 2 | WH (white)
- 3 | BU (blue)
- 4 | BK (black)
- 5 | GY (gray)

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**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