



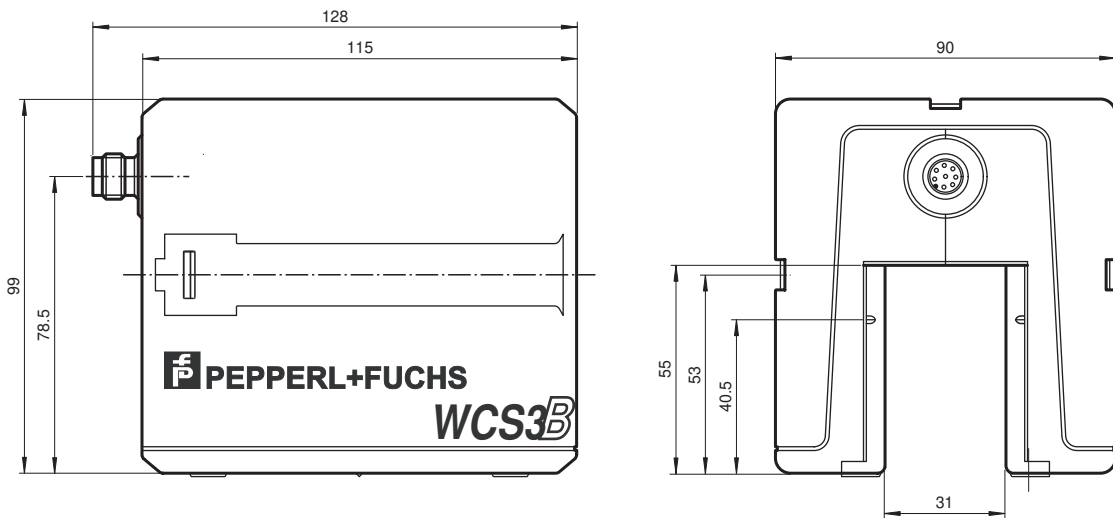
## Read head WCS3B-LS311

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

Reading head, SSI interface, Gray code



### Dimensions



Release date: 2023-01-09 Date of issue: 2023-01-09 Filename: 199290-0026\_eng.pdf

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

Pepperl+Fuchs Group  
www.pepperl-fuchs.com

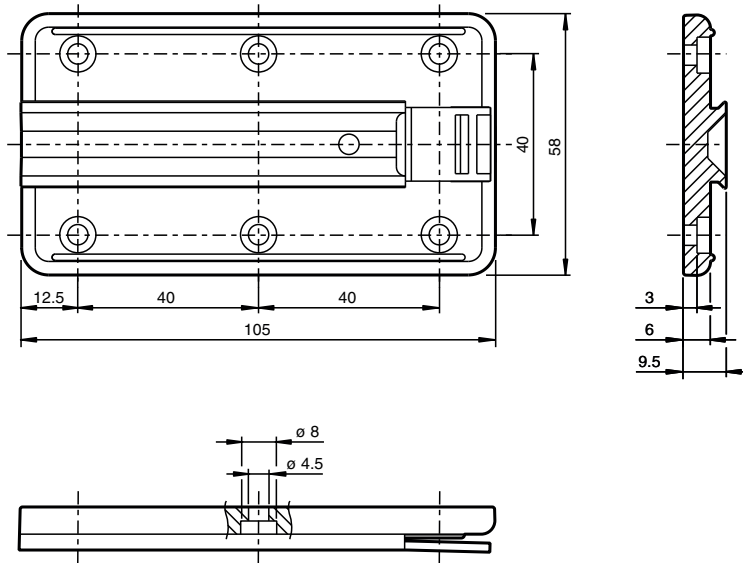
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**pf** PEPPERL+FUCHS

**Dimensions**



**Technical Data**

<b>General specifications</b>		
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)
<b>Functional safety related parameters</b>		
MTTF <sub>d</sub>		206 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 flashing: read head outside of code rail 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		Gray code , 25 bit
Clock frequency		100 ... 1000 kHz
Pause time	t <sub>p</sub>	≥ 20 μs double request possible, if t <sub>p</sub> ≤ 10 μs
<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>Approvals and certificates</b>		

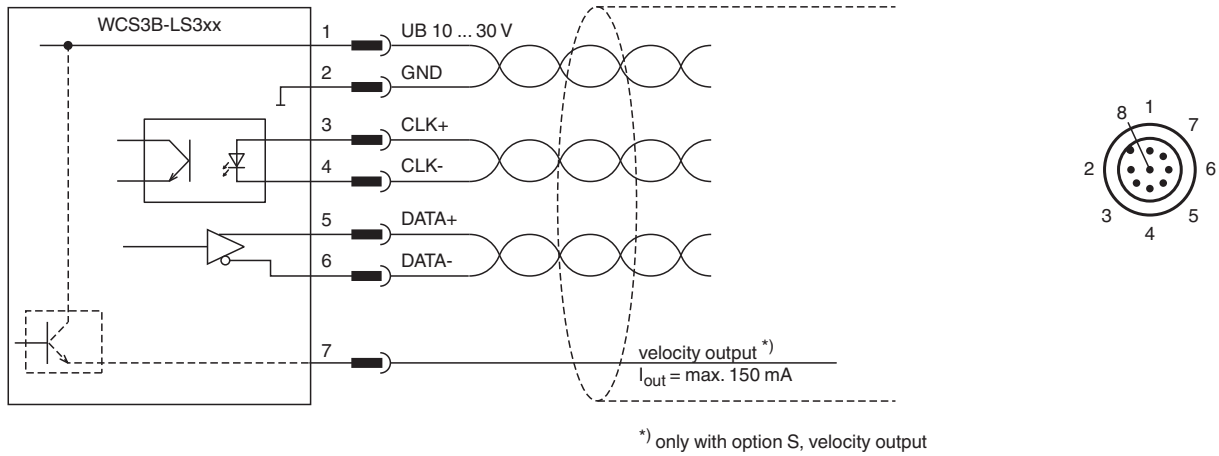
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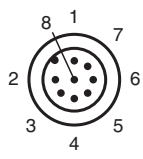
**Technical Data**

CSA approval	cCSAus Certified, General Purpose 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**



**Connection Assignment**





Wire colors

1	WH	(white)
2	BN	(brown)
3	GN	(green)
4	YE	(yellow)
5	GY	(gray)
6	PK	(pink)
7	BU	(blue)
8	RD	(red)

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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