



Read head

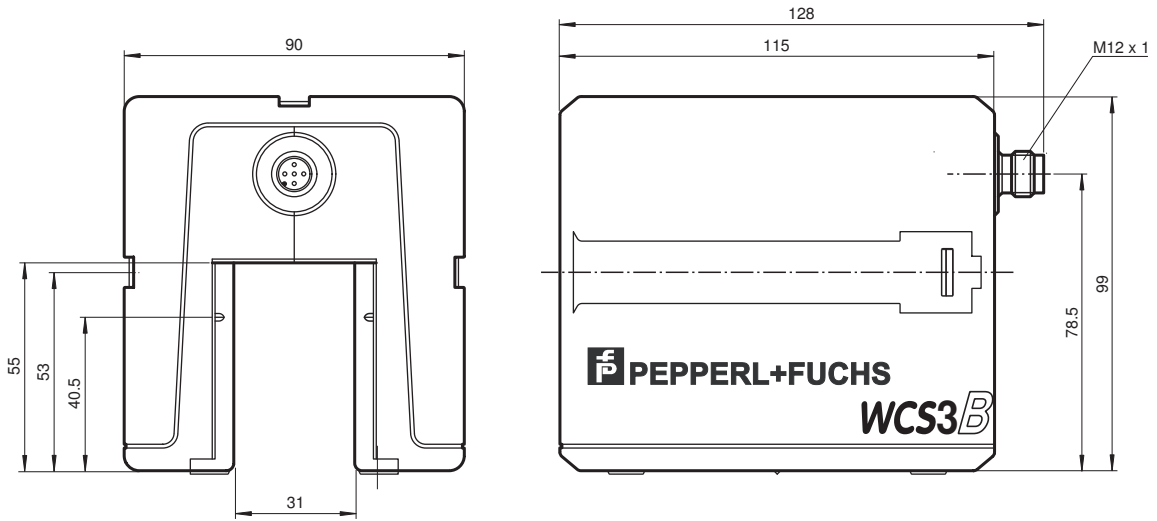
WCS3B-LS2**

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

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

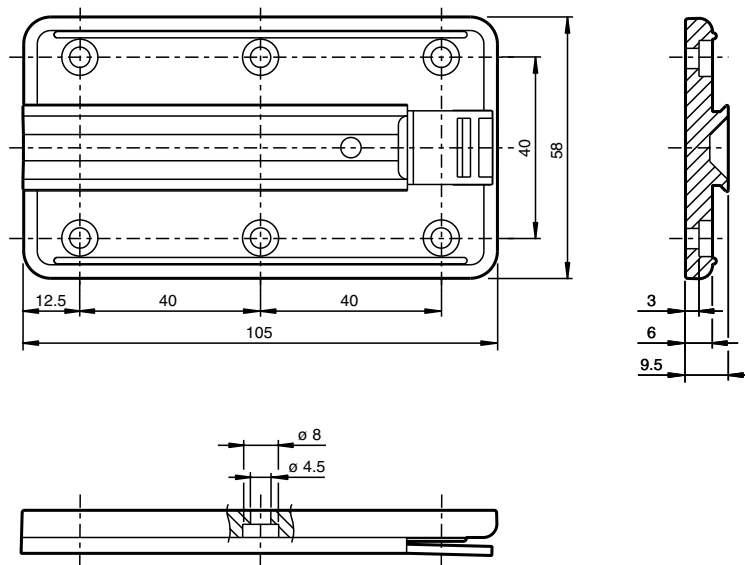


Dimensions



Release date: 2022-03-10 Date of issue: 2022-03-10 Filename: t37932_eng.pdf

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)

Functional safety related parameters

MTTF _d		198 a
Mission Time (T _M)		20 a
Diagnostic Coverage (DC)		0 %

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 _B	10 ... 30 V DC
Power consumption	P ₀	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		with RS 485 termination

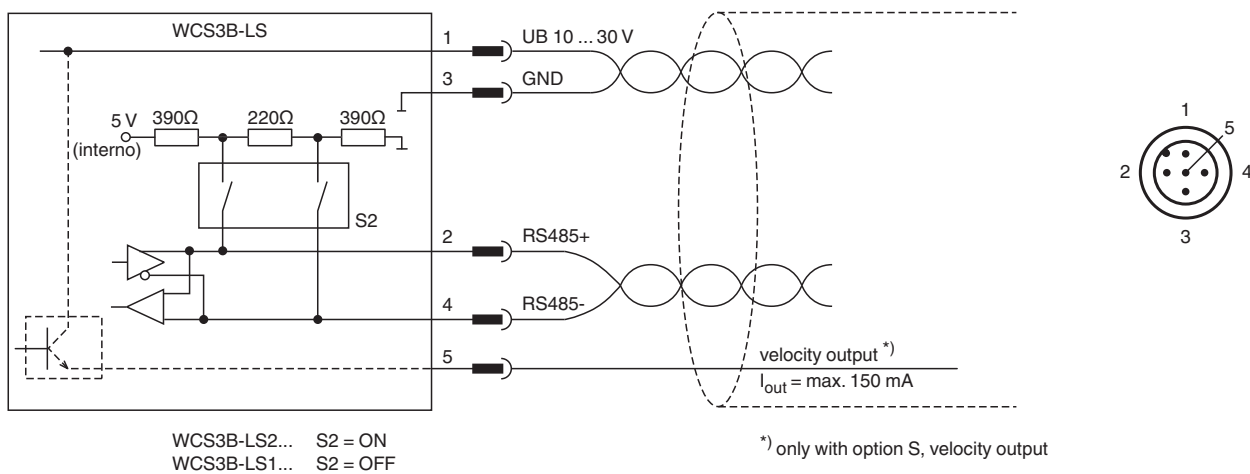
Output

Output velocity		switching output , short-circuit protected (only with Option S, speed output)
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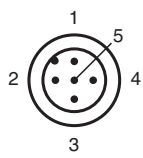
Technical Data

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
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
Approvals and certificates	
CSA approval	cCSAus Certified, General Purpose Class 2 power source
CCC approval	CCC approval / marking not required for products rated ≤36 V
Ambient conditions	
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
Mechanical specifications	
Connection type	5-pin, M12 x 1 connector
Degree of protection	IP54
Material	
Housing	ABS , PC (Polycarbonate)
Mass	500 g
General information	
Ordering information	Mounting plate included with delivery

Connection



Connection Assignment





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Wire colors in accordance with EN 60947-5-2

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

Accessories

	WCS3B-PL2	Transparent protective case and seal for WCS3B reader
	WCS-MP1	Mounting plate for reading heads WCS2 and WCS3