

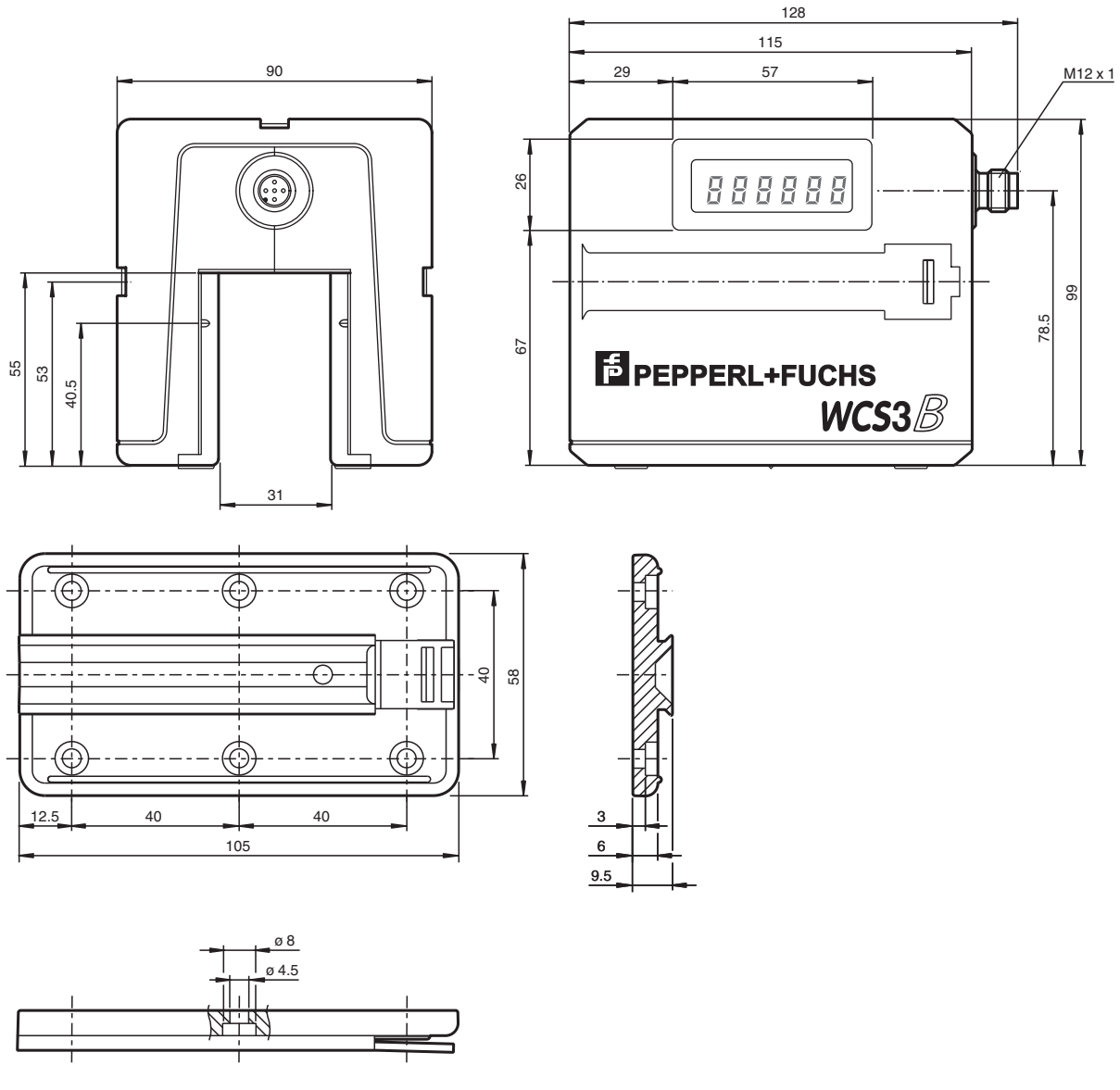
Read head

WCS3B-LS810S

- IO-Link interface for service and process data
- Non-contact, absolute position encoder
- Automatic detection of dirt accumulation
- Output of position and speed
- Acceleration measurement in 3 axis
- Output of the ID number for ID pads

Read head, IO-Link interface

Dimensions



Release date: 2026-09-28 Date of issue: 2026-09-28 Filename: 199290-0059_eng.pdf

Technical Data

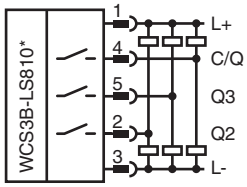
General specifications		
Passage speed	v	≤ 12.5 m/s
Measuring length		max. 314.5 m
Free tolerances to code rail		horizontal: 31 mm (± 15.5 mm) vertical: 28 mm (± 14 mm)
Resolution		± 0.4 mm (1,250 positions/m)
Functional safety related parameters		
$MTTF_d$		154 a
Mission Time (T_M)		10 a
Diagnostic Coverage (DC)		0 %
Indicators/operating means		
Operation indicator		LED green: constantly on - power on flashing - IO-Link mode
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
Display		Display module, 6-digit , adaptable to installation position
Electrical specifications		
Operating voltage	U_B	18 ... 30 V DC
Power consumption	P_0	2.4 VA
Interface		
Interface type		IO-Link
IO-Link revision		1.1
Device profile		Identification and Diagnosis - I&D Firmware update
Process data		Input: 18 Byte - Position value 32 Bit - Velocity value 16 Bit - Acceleration values 3 x 16 Bit - Ident number 16 Bit - Heartbeat 8 Bit - status data 24 Bit output: 1 Byte - control signals 8 Bit
Vendor ID		1 (0x0001)
Device ID		6291713 (0x600101)
Transfer rate		COM3 (230.4 kbits/s)
Min. cycle time		1.5 ms
SIO mode support		no
Compatible master port type		Class A
Conformity		
Photobiological safety		exempt group according to EN 62471:2008
Standard conformity		
Communication interface		IEC 61131-9 / IO-Link V1.1.3
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)
Storage temperature		-40 ... 85 °C (-40 ... 185 °F)
Relative humidity		90 % , non-condensing

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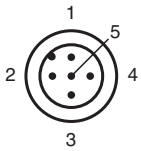
Technical Data

Mechanical specifications		
Connection type		5-pin, M12 x 1 connector
Degree of protection		IP54
Material		
Housing		ABS , PC (Polycarbonate)
Mass		500 g
General information		
Order information		Mounting plate included with delivery

Connection Assignment



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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