

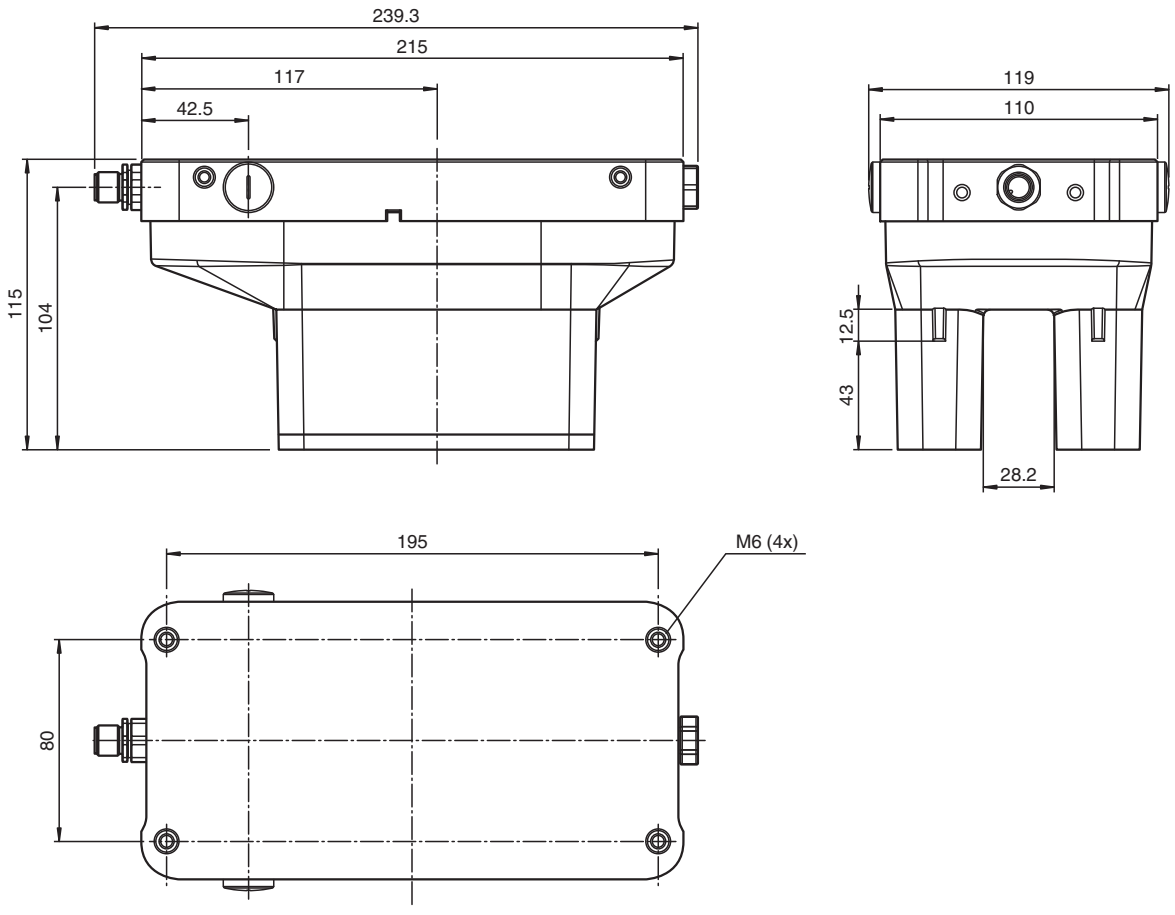
Read head

WCS3B-LS810DHS-OM

- IO-Link interface for service and process data
- Non-contact, absolute position encoder
- Automatic detection of dirt accumulation
- Integrated display module
- Extended temperature range
- For outdoor use
- Output of position and speed
- Acceleration measurement in 3 axis
- Output of the ID number for ID pads

Read head, IO-Link interface

Dimensions



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)

Release date: 2026-07-23 Date of issue: 2026-07-23 Filename: 199290-0062_eng.pdf

Technical Data

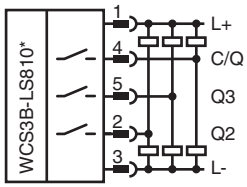
Resolution		± 0.4 mm (1,250 positions/m)
Functional safety related parameters		
$MTTF_d$		40 a
Mission Time (T_M)		10 a
Diagnostic Coverage (DC)		0 %
Indicators/operating means		
Operation indicator		LED green: constantly on - power on flashing - IO-Link mode
Data flow indicator		LED yellow: data communication 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	12 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		-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

Release date: 2026-07-23 Date of issue: 2026-07-23 Filename: 199290-0062_eng.pdf

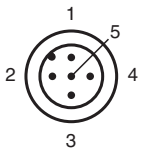
Technical Data

Note		The reader must not be operated without the protective housing!
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)

Release date: 2026-07-23 Date of issue: 2026-07-23 Filename: 199290-0062_eng.pdf