

Technical data sheet

Fork photoelectric sensor

Part no.: 50146197
GSL08B/1.1-80-M8.3



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Technical data

Basic data

Series	08B
Principle of physics	Optical
Application	Detection of small parts

Characteristic parameters

MTTF	548.35 years
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Optical data

Light source	Laser, Red
Wavelength	655 nm
Laser class	1, IEC/EN 60825-1:2007
Transmitted-signal shape	Pulsed

Measurement data

Repeatability	0.01 mm
Minimum object diameter	0.05 mm

Electrical data

Protective circuit	Polarity reversal protection
	Short circuit protected

Performance data

Supply voltage U_B	10 ... 30 V, DC
Residual ripple	0 ... 15 %, From U_B
Open-circuit current	0 ... 30 mA
Switching hysteresis	20 μ m

Outputs

Number of digital switching outputs	1 Piece(s)
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Switching outputs

Type	Digital switching output
Voltage type	DC
Switching current, max.	100 mA
Switching voltage	high: $\geq(U_B-2V)$
	low: $\leq 2 V$

Switching output 1

Switching element	Transistor, Push-pull
Switching principle	IO-Link / light switching (NPN) / dark switching (PNP)

Time behavior

Switching frequency	5,000 Hz
Response time	0.1 ms
Readiness delay	150 ms

Interface

Type	IO-Link
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IO-Link

Function	IO-Link operating modes (Standard, Precision, Power, Speed), see IO-Link interface description
COM mode	COM2
Profile	Smart sensor profile
Min. cycle time	COM2 = 2.3 ms
Frame type	2.2
Specification	V1.1
Device ID	2524 (0x0009DC)
SIO-mode support	Yes

Connection

Number of connections	1 Piece(s)
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Connection 1

Function	Signal OUT
	Voltage supply
Type of connection	Connector
Thread size	M8
Type	Male
Material	Metal
No. of pins	3 -pin

Mechanical data

Design	Fork
Mouth width	80 mm
Mouth depth	55 mm
Dimension (W x H x L)	10 mm x 100 mm x 80 mm
Housing material	Stainless steel
Stainless steel housing	V4A
Lens cover material	Glass
Net weight	140 g
Housing color	Silver
Type of fastening	Through-hole mounting
Compatibility of materials	ECOLAB

Operation and display

Type of display	LED
Number of LEDs	1 Piece(s)
Operational controls	270° potentiometer
Function of the operational control	Light/dark switching
	Sensitivity adjustment

Environmental data

Ambient temperature, operation	-25 ... 60 °C
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Certifications

Degree of protection	IP 67
Protection class	III
Certifications	c UL US
Standards applied	IEC 60947-5-2, DIN EN ISO 1389-1:2016 appendix C,D

Electrical connection

Connection 1

Function	Signal OUT
	Voltage supply
Type of connection	Connector
Thread size	M8
Type	Male
Material	Metal
No. of pins	3 -pin

Pin	Pin assignment
1	V+
3	GND
4	OUT 1



Operation and display

LED	Display	Meaning
1	Yellow, continuous light	Switching output/switching state active

Part number code

Part designation: AAA08B/C.D-EEE-FFF

AAA08B	Operating principle / construction GS08B: Optical fork sensor, LED light source GSL08B: Optical fork sensor, laser light source
C	Switching output / Function P: PNP transistor output, dark switching N: NPN transistor output, dark switching 1: IO-Link / light switching (NPN) / dark switching (PNP)
D	Equipment 1: 270° potentiometer
EEE	Mouth width [mm] Mouth width in millimeters
FFF	Electrical connection M8.3: M8 connector, 3-pin (plug)

Note	
	↪ A list with all available device types can be found on the Leuze website at www.leuze.com .

Notes

⚠ Observe intended use!	
	↪ This product is not a safety sensor and is not intended as personnel protection.
	↪ The product may only be put into operation by competent persons.
	↪ Only use the product in accordance with its intended use.

Notes

ATTENTION! LASER RADIATION – CLASS 1 LASER PRODUCT	
	<p>The device satisfies the requirements of IEC 60825-1:2007 (EN 60825-1:2007) safety regulations for a product of laser class 1 as well as the U.S. 21 CFR 1040.10 regulations with deviations corresponding to Laser Notice No. 50 from June 24, 2007.</p> <ul style="list-style-type: none"> ↳ Observe the applicable statutory and local laser protection regulations. ↳ The device must not be tampered with and must not be changed in any way. There are no user-serviceable parts inside the device. Repairs must only be performed by Leuze electronic GmbH + Co. KG.

Accessories

Connection technology - Connection cables

	Part no.	Designation	Article	Description
	50130832	KD U-M8-3A-V1-050	Connection cable	Connection 1: Connector, M8, Axial, Female, 3 -pin Connector, LED: No Connection 2: Open end Shielded: No Cable length: 5.000 mm Sheathing material: PVC
	50130862	KD U-M8-3W-V1-050	Connection cable	Connection 1: Connector, M8, Angled, Female, 3 -pin Connector, LED: No Connection 2: Open end Shielded: No Cable length: 5.000 mm Sheathing material: PVC

Note	
	<p>↳ A list with all available accessories can be found on the Leuze website in the Download tab of the article detailed page.</p>