SMART SENSOR **BUSINESS**

Leuze electronic

the sensor people





Part no.: 50133738 PRK3CL1.A3/4-M8.3 Polarized retro-reflective photoelectric sensor









Figure can vary

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- · Dimensioned drawings
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Part no.: 50133738 – PRK3CL1.A3/4-M8.3 – Polarized retro-reflective

Technical data

Basic data 3C Operating principle Reflection principle Special design Autocolimation Operating range Guaranteed operating range Operating range Operating range Operating range Outant design Operating range Outant design Operating range Outant design Operating range init Outant design Deprating range init Outant design Deprating range init Outant design Digit source Laser, Red Laser light wavelength 655 nm Laser logit wavelength 635 nm Laser logit wavelength 700 nm Type of light solution 5.3 µs Light solutis logit sonor islance 1 mm (3.000 nm]	Series			
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Switching principle Light switching Timing Switching frequency 3,000 Hz Response time 0.17 ms				
Timing Switching frequency 3,000 Hz Response time 0.17 ms				
Switching frequency 3,000 Hz Response time 0.17 ms	Switching principle	Light switching		
Switching frequency 3,000 Hz Response time 0.17 ms				
Response time 0.17 ms	-			
Readiness delay 300 ms				
	Response time Readiness delay	300 ms		

Connection

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Part no.: 50133738 – PRK3CL1.A3/4-M8.3 – Polarized retro-reflective

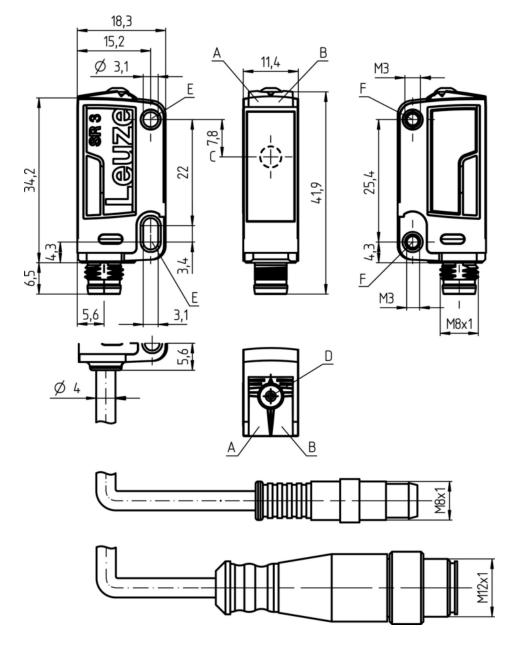
Connection 1			
Function	Signal OUT Voltage supply		
Type of connection	Connector		
Thread size	M8		
Туре	Male		
Material	Metal		
No. of pins	3 -pin		
lechanical data			
imension (W x H x L)	11.4 mm x 34.2 mm x 18.3 mm		
ousing material	Plastic, PC-ABS		
ens cover material	Plastic / PMMA		
et weight	10 g		
ousing color	Red		
ype of fastening	Through-hole mounting Via optional mounting device		
ompatibility of materials	ECOLAB		
peration and display			
ype of display	LED		
perational controls	Teach button		
unction of the operational control	Sensitivity adjustment		
nvironmental data			
mbient temperature, operation	-40 55 °C		
mbient temperature, storage	-40 70 °C		
certifications			
egree of protection	IP 67 IP 69K		
rotection class			
ertifications	c UL US		
tandards applied	IEC 60947-5-2		
lassification			
ustoms tariff number	85365019		
Cl@ss 8.0	27270902		
Cl@ss 9.0	27270902		
TIM 5.0	EC002717		
TIM 6.0	EC002717		

Dimensioned drawings

All dimensions in millimeters

Leuze electronic

Part no.: 50133738 – PRK3CL1.A3/4-M8.3 – Polarized retro-reflective



A Green LED

- B Yellow LED
- C Optical axis
- D Teach button
- E Mounting sleeve (standard)
- F Threaded sleeve (3C.B series)

Electrical connection

Connection 1	
Function	Signal OUT Voltage supply
Type of connection	Connector
Thread size	M8
Туре	Male
Material	Metal
No. of pins	3 -pin

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Part no.: 50133738 – PRK3CL1.A3/4-M8.3 – Polarized retro-reflective

Connection 1	
Encoding	

Pin	Pin assignment
1	V+
3	GND
4	OUT 1

Operation and display

LEDs

LED	Display	Meaning
1	Green, continuous light	Operational readiness
2	Yellow, continuous light	Light path free
	Yellow, flashing	Light path free, no function reserve

Reflectors & reflective tapes

Part no.	Designation	Operating range/ Operating range limit	Description
50040894	MTKS 20x30	0 1.6 m 0 2.2 m	Design: Rectangular Reflective surface: 19 mm x 29 mm Triple reflector size: 1.2 mm Material: Plastic Base material: Plastic Chemical designation of the material: PMMA8N Fastening: Through-hole mounting, Adhesive
50104130	MTKS 20x40.1	0 1 m 0 1.5 m	Design: Rectangular Reflective surface: 17 mm x 38 mm Triple reflector size: 12 mm Material: Plastic Base material: Plastic Chemical designation of the material: PMMA8N Fastening: Through-hole mounting, Adhesive
 50117583	MTKS 50x50.1	0 2 m 0 3 m	Design: Rectangular Reflective surface: 50 mm x 50 mm Triple reflector size: 1.2 mm Material: Plastic Base material: Plastic Chemical designation of the material: PMMA8N Fastening: Through-hole mounting, Adhesive
50110192	REF 6-A-50x50	0 1 m 0 1.4 m	Design: Rectangular Reflective surface: 50 mm x 50 mm Triple reflector size: 0.3 mm Material: Plastic Chemical designation of the material: PMMA Fastening: Self-adhesive



Part no.: 50133738 – PRK3CL1.A3/4-M8.3 – Polarized retro-reflective

Part number code

Part designation: AAA 3C d EE-f.GG H/i J-K

AAA3C	Operating principle / construction: HT3C: diffuse reflection sensor with background suppression LS3C: throughbeam photoelectric sensor transmitter LE3C: throughbeam photoelectric sensor receiver PRK3C: retro-reflective photoelectric sensor with polarization filter
d	Light type: n/a: red light l: infrared light
EE	Light source: n/a: LED L1: laser class 1 L2: laser class 2
f	Preset range (optional): n/a: operating range acc. to data sheet xxxF: preset range [mm]
GG	Equipment: n/a: standard A: autocollimation principle (single lens) for positioning tasks B: housing model with two M3 threaded sleeves, brass F: permanently set range L: long light spot S: small light spot T: autocollimation principle (single lens) for highly transparent bottles without tracking TT: autocollimation principle (single lens) for highly transparent bottles with tracking V: V-optics XL: extra long light spot XL: extra long light spot XL: extended model
H	Operating range adjustment: n/a with HT: range adjustable via 8-turn potentiometer n/a with retro-reflective photoelectric sensors (PRK): operating range not adjustable 1: 270° potentiometer 3: teach-in via button 6: auto-teach
Î	Switching output/function OUT 1/IN: Pin 4 or black conductor: 2: NPN transistor output, light switching N: NPN transistor output, dark switching 4: PNP transistor output, dark switching 6: push-pull switching output, PNP light switching, NPN dark switching 6: push-pull switching output, PNP light switching, NPN light switching C: push-pull switching output, PNP dark switching, NPN light switching L: IO-Link interface (SIO mode: PNP light switching, NPN dark switching) 8: activation input (activation with high signal) X: pin not used 1: IO-Link / light switching (NPN) / dark switching (PNP)
J	Switching output / function OUT 2/IN: pin 2 or white conductor: 2: NPN transistor output, light switching N: NPN transistor output, dark switching 4: PNP transistor output, light switching P: PNP transistor output, dark switching 6: push-pull switching output, PNP light switching, NPN dark switching G: push-pull switching output, PNP dark switching, NPN light switching W: warning output X: pin not used 8: activation input (activation with high signal) 9: deactivation input (deactivation with high signal) T: teach-in via cable
К	Electrical connection: n/a: cable, standard length 2000 mm, 4-wire 5000: cable, standard length 5000 mm, 4-wire M8: M8 connector, 4-pin (plug) M8.3: M8 connector, 3-pin (plug) 200-M8: cable, length 200 mm with M8 connector, 4-pin, axial (plug) 200-M8.3: cable, length 200 mm with M8 connector, 3-pin, axial (plug) 200-M12: cable, length 200 mm with M12 connector, 4-pin, axial (plug)

Note

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

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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.

For UL applications:

- For UL applications, use is only permitted in Class 2 circuits in accordance with the NEC (National Electric Code).
- These proximity switches shall be used with UL Listed Cable assemblies rated 30V, 0.5A min, in the field installation, or equivalent (categories: CYJV/CYJV7 or PVVA/PVVA7)

WARNING! LASER RADIATION - CLASS 1 LASER PRODUCT

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.

- · 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.
- Light source: Average life expectancy 50,000 h at an ambient temperature of 25 °C
- · Response time: For short decay times, an ohmic load of approx. 5 kOhm is recommended
- Sum of the output currents for both outputs, 50 mA for ambient temperatures > 40 °C

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 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 Connection 2: Open end Shielded: No Cable length: 5,000 mm Sheathing material: PVC

Part no.: 50133738 – PRK3CL1.A3/4-M8.3 – Polarized retro-reflective

Mounting technology - Mounting brackets

	Part no.	Designation	Article	Description
See.	50060511	BT 3	Mounting device	Design of mounting device: Angle, L-shape Fastening, at system: Through-hole mounting Mounting bracket, at device: Screw type Type of mounting device: Rigid Material: Metal

Mounting technology - Rod mounts

	Part no.	Designation	Article	Description
j:	50117255	BTU 200M-D12	Mounting system	Design of mounting device: Mounting system Fastening, at system: For 12 mm rod, Sheet-metal mounting Mounting bracket, at device: Screw type, Suited for M3 screws Type of mounting device: Clampable, Adjustable, Turning, 360° Material: Metal

Micro-triad-type reflectors

Part no.	Designation	Article	Description
50104130	MTKS 20x40.1	Reflector	Design: Rectangular Reflective surface: 17 mm x 38 mm Triple reflector size: 12 mm Material: Plastic Base material: Plastic Chemical designation of the material: PMMA8N Fastening: Through-hole mounting, Adhesive
50117583	MTKS 50x50.1	Reflector	Design: Rectangular Reflective surface: 50 mm x 50 mm Triple reflector size: 1.2 mm Material: Plastic Base material: Plastic Chemical designation of the material: PMMA8N Fastening: Through-hole mounting, Adhesive

Note

A list with all available accessories can be found on the Leuze electronic website in the Download tab of the article detailed page.