Technical data sheet
Single beam safety device receiver
Part no.: 50121915
SLE46C-70.K2/4P-M12

Figure can vary

Contents

Technical data

Basic data

Series	46C

Functions

Functions	Alignment indicator
	Diagnostic output

Characteristic parameters

Type	2, IEC/EN 61496, in combination with a suitable test monitoring unit, e.g. MSI-TR1B
SIL	1, IEC 61508, in combination with a suitable test monitoring unit, e.g. MSI-TR1B
SILCL	1, IEC/EN 62061, in combination with a suitable test monitoring unit, e.g. MSI-TR1B
Performance Level (PL)	c, EN ISO 13849-1:2008, In combination with MSI-TRMB safety relay
$MTTF_d$	400 years, EN ISO 13849-1
Mission time T_M	20 years, EN ISO 13849-1
Category	2, EN ISO 13849:2008, In combination with a suitable test monitoring unit, e.g. MSI-TR1B

Electrical data

Protective circuit	Polarity reversal protection
	Short circuit protected

Performance data

Supply voltage U_B	24 V, DC, -20 ... 20 %, Incl. residual ripple
Residual ripple	10 %, From U_B
Open-circuit current	0 ... 15 mA

Outputs

Number of digital switching outputs	2 Piece(s)

Switching outputs

Switching voltage high, min.	22 V
Switching voltage low, max.	2 V
Switching voltage, typ.	23 V
Voltage type	DC
Switching current, max.	100 mA
Switching voltage	high: ≥(U_B-2V)
	Low: ≤2V

Switching output 1

Assignment	Connection 1, pin 2
Switching element	Transistor, PNP
Switching principle	Dark switching
Function	Diagnostic output

Switching output 2

Assignment	Connection 1, pin 4
Switching element	Transistor, PNP
Switching principle	Light switching
Function	Switching output

Timing

Switching frequency	250 Hz
Response time	2.5 ms
Readiness delay	300 ms

Connection

Number of connections	1 Piece(s)

Connection 1

Function	Signal OUT
	Voltage supply
Type of connection	Connector
Thread size	M12
Material	Plastic
No. of pins	4 -pin

Mechanical data

Design	Cubic
Dimension (W x H x L)	20.5 mm x 76.3 mm x 44 mm
Housing material	Plastic, PC-PBT
Lens cover material	Plastic / PMMA
Net weight	50 g
Housing color	Red
Type of fastening	Through-hole mounting
Compatibility of materials	ECOLAB

Operation and display

Type of display	LED
Number of LEDs	2 Piece(s)

Environmental data

Ambient temperature, operation	-30 ... 60 °C
Ambient temperature, storage	-30 ... 70 °C

Certifications

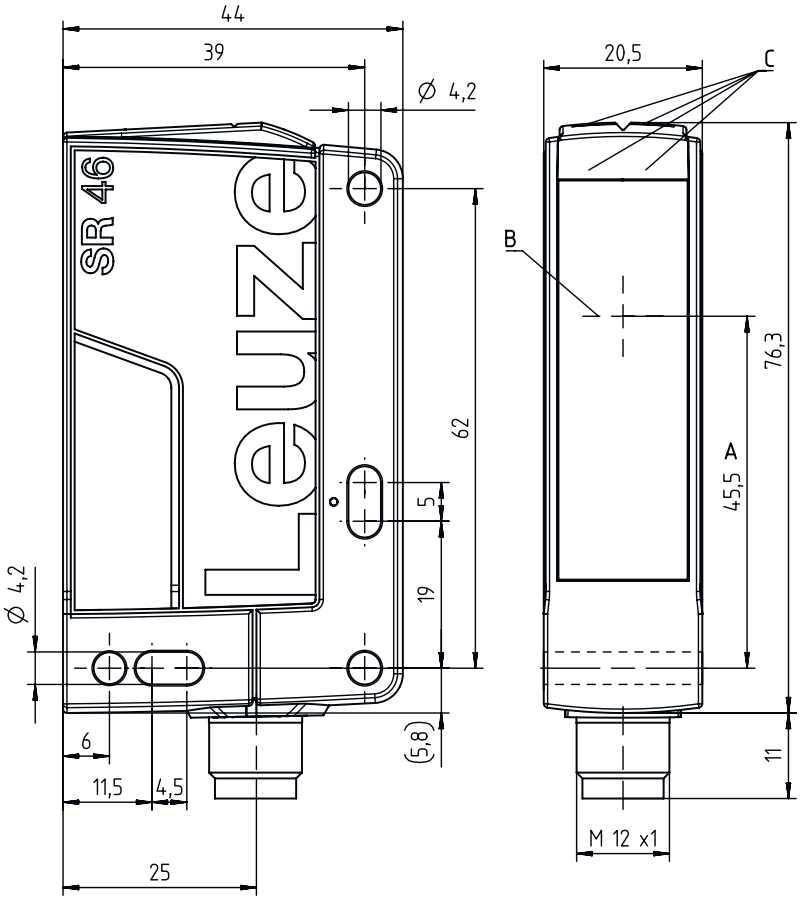
Degree of protection	IP 67
	IP 69K
Protection class	III
Certifications	c TÜV NRTL US
	c UL US
	TÜV Süd
Standards applied	IEC 60947-5-2, IEC/EN 61496

Classification

Customs tariff number	85365019
eCl@ss 8.0	27272701
eCl@ss 9.0	27272701
ETIM 5.0	EC001831
ETIM 6.0	EC001831

Dimensioned drawings

All dimensions in millimeters



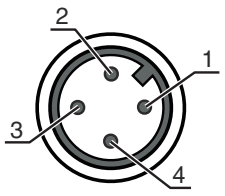
A Optical axis
B Transmitter and receiver
C Green/yellow indicator diodes

Electrical connection

Connection 1

Function	Signal OUT
	Voltage supply
Type of connection	Connector
Thread size	M12
Type	Male
Material	Plastic
No. of pins	4 -pin
Encoding	A-coded

Pin	Pin assignment
1	+24V
2	Diagnosis
3	GND
4	OUT



Operation and display

LED	Display	Meaning
1	Green, continuous light	Ready
2	Yellow, continuous light	Light path free

Suitable transmitters

	Part no.	Designation	Article	Description
	50121907	SLS46C-70.K28-M12	Single beam safety device transmitter	Operating range: 5 ... 70 m Operating range limit: 5 ... 80 m Light source: LED, Red Response time: 2.5 ms Connection: Connector, M12, Plastic, 4 -pin

Notes

Observe intended use!

- The product may only be put into operation by competent persons.
- Only use the product in accordance with its intended use.

For UL applications:

- Certification: UL 508, C22.2 No.14-13
- Only for use in "class 2" circuits
- 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)

Further information

- Light source: Average life expectancy 100,000 h at an ambient temperature of 25 °C

Accessories

Connection technology - Connection unit

	Part no.	Designation	Article	Description
	547958	MSI-TR1B-01	Safety relay	

Accessories

	Part no.	Designation	Article	Description
	547959	MSI-TR1B-02	Safety relay	

Connection technology - Connection cables

	Part no.	Designation	Article	Description
	50130690	KD U-M12-4W-V1-050	Connection cable	Connection 1: Connector, M12, Angled, Female, A-coded, 4 -pin Connection 2: Open end Shielded: No Cable length: 5,000 mm Sheathing material: PVC

Mounting technology - Mounting brackets

	Part no.	Designation	Article	Description
	50105315	BT 46	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
	50122797	BTU 346M-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 Type of mounting device: Turning, 360°, Adjustable, Clampable Material: Metal

Muting - Mounting systems

	Part no.	Designation	Article	Description
	50117252	BTU 300M-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 M4 screws Type of mounting device: Clampable, Adjustable, Turning, 360° Material: Metal

Accessories

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