

SINGLE LIGHT BEAM SAFETY DEVICES

SLSR 46B



Guarding at a wood processing machine with an SLSR 46B Single Light Beam Safety Device

Many industrial applications require the use of safety sensors with high functional and performance reserves, to remain flexible with system-related conversions, for example. The SLS 46B Single Light Beam Safety Device offers sufficient functional reserves for numerous application variations, and with the particularly strong red light payload signal it can enable ranges of up to 40 m. The visible red light makes aligning so much easier. The SAT-5 alignment aid also provides an innovative alignment tool, especially for big ranges. The SAT-5 uses the sensor beam for aligning. With the solid plastic housing with IP 67 protection rating, it is highly recommended for a wide range of industrial applications as a flexible and economical solution. Together with a Test Monitoring Unit such as TNT 35 or a configurable MSI Safety Relay, the SLSR 46B forms a type 2 active opto-electronic protective device.

Typical areas of application

- Point of operation guarding on palletizer systems, wood processing and packaging machinery

Important technical data, overview

Type in accordance with IEC/EN 61496	Type 2 in combination with a Safety Interface or a Test Monitoring Unit
Category in accordance with EN ISO 13849	2
Operating range	0.5...40 m
Operating voltage, U _B	10... 30 V DC (incl. residual ripple)
Dimensions (WxHxD)	18.5 mm x 77 mm x 43 mm
Housing	Plastic
Switching output	2 push-pull switching outputs Pin 2: pnp dark-on, npn light-on Pin 4: pnp light-on, npn dark-on
Connection system	Cable, 2 m M12 round pin plug

Functions

LED display

Activation input for test and series connection

Active ambient light suppression (A²LS)

Function extension

With Safety Interface	Relay output	RES	EDM	Muting	Further details
TNT 35	●	●	●		p. 478
MSI-s	●	●	●		p. 450
MSI-sx	●	●	●		p. 450
MSI-m	●	●	●	●	p. 464

Special features

- **Single Light Beam Safety Devices with visible red light and high functional reserve**
- **Solid plastic housing with IP 67 protection rating for industrial use**
- **Wide voltage range from 10 to 30 V with pnp transistor output for PLC applications**
- **Clearly visible alignment display on the front screen**



Features



Further information	Page
● Ordering information	298
● Electrical connection, see LS763 connection example	281
● Technical data	298
● Dimensional drawings	300
● Accessories ordering information	301

SINGLE LIGHT BEAM SAFETY DEVICES

Ordering information

SLSR 46B, consisting of transmitter and receiver

Functions: Activation input for test and series connection

Art. no.	Article	Description	Connection system
50108538	SLSSR 46B.8-S12	Transmitter with activation input	M12 round pin plug, 4-pin
50108540	SLSER 46B/66-S12	Receiver	M12 round pin plug, 4-pin
50108539	SLSSR 46B.8	Transmitter	Cable, 2 m
50108541	SLSER 46B/66	Receiver	Cable, 2 m

You will find further information and ordering info in the Leuze electronic Opto-Electronic Sensors Catalog

Electrical connection

See LS 763 connection example, page 281.

Technical data

General system data

Type in accordance with IEC/EN 61496	Type 2 in combination with a configurable MSI Safety Relay or a Test Monitoring Unit
Service life (T_M) in accordance with EN ISO 13849-1	20 years
Category in accordance with EN ISO 13849	2
Mean time to dangerous failure ($MTTF_d$) in accordance with EN ISO 13849-1	407.2 years
Operating range	0.5...40 m
Response time	2.5 ms
Operating voltage, U_B	10... 30 V DC (incl. residual ripple)
Safety class	II
Protection rating	IP 67, IP 69K
Ambient temperature, operation	-30...+55 °C
Ambient temperature, storage	-30... +60 °C
Dimensions (WxHxD)	18.5 mm x 77 mm x 43 mm
Housing	Plastic
Weight (transmitter with receiver)	100 g (plug variant), 260 g (cable variant)

Technical data

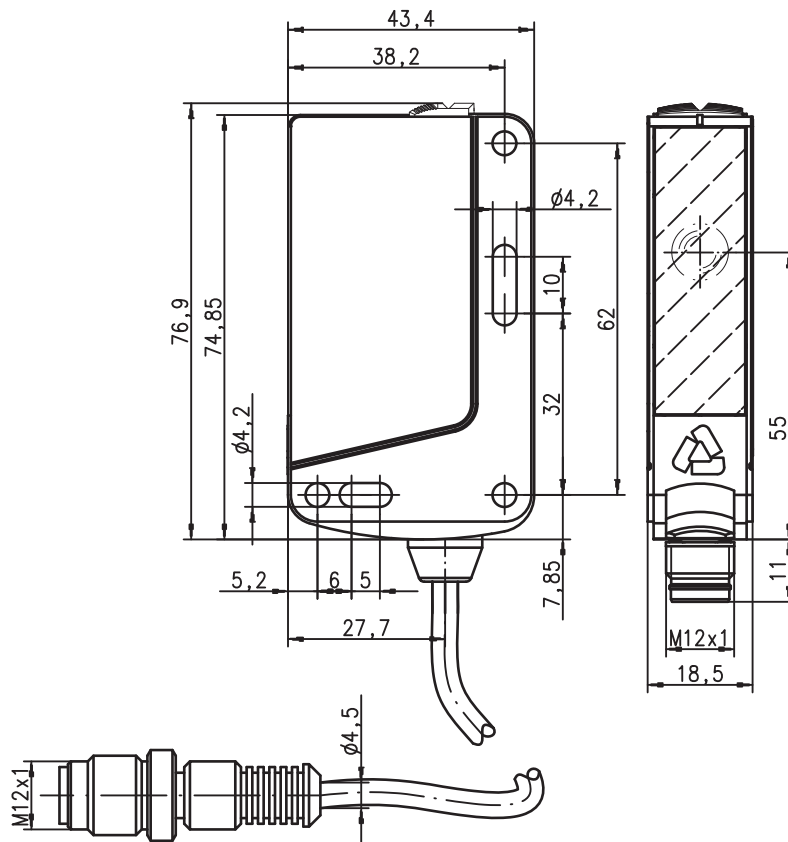
Transmitter	
Current consumption	30 mA
Transmitter diodes, class in accordance with EN 60825	1
Light source	Red light
Wavelength	624 nm
Activation input for test and series connection	Active $\geq 8\text{ V}$ Inactive $\leq 2\text{ V}$
Connection system	Cable, 2 m M12 round pin plug
Receiver	
Current consumption	30 mA without external load
Switching output	2 push-pull switching outputs Pin 2: pnp dark-on, npn light-on Pin 4: pnp light-on, npn dark-on
Switching voltage high active	Min. $U_v - 2\text{ V}$
Switching voltage low	Max. 2 V
Output current	Max. 100 mA
Connection system	Cable, 2 m M12 round pin plug, 4-pin

Please note the additional information at www.leuze.com/sls.

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Dimensional drawings

SLSR 46B Single Light Beam Safety Device



Dimensions in mm

Accessories ordering information

Art. no.	Article	Description	Length, design
Connection cables			
50104545	K-D M12W-4P-5m-PVC	Connecting cable, 5 m, M12, 4-pin	Angled, PVC
50104544	K-D M12A-4P-5m-PVC	Connecting cable, 5 m, M12, 4-pin	Axial, PVC
Alignment aid			
50040739	ARH 46	Alignment aid for SLSR 46B series sensors	
50109545	SAT-5	Spot Alignment Tool (alignment aid when using the transmitter beam for the SLSR 46B and SLSR 25B series)	
Deflecting Mirror, see page 492			