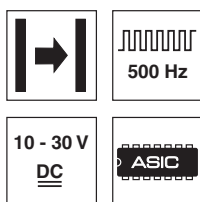


Throughbeam photoelectric sensor



- Throughbeam photoelectric sensor with visible red light
- High performance reserve
- Small and compact construction with robust plastic housing, protection class IP 66/IP 67 for industrial application
- Fast alignment through *brightVision*®
- Push-pull switching outputs
- High switching frequency for detection of fast events
- Warning output for increased availability
- Sensitivity adjustment
- Further options for adapting to the respective application
- Snap-locking connector for time-saving installation



(available separately)

- Mounting systems (BT 25, UMS 25...)
- Cable with M8 or M12 connector (K-D ...)
- Alignment aid (SAT 5)

Technical drawing of the S-1200 sensor, showing front, side, and detail views with dimensions and labels A through G.

Dimensions:

- Top view: 28,8 (total width), 25,6 (main body width), 15,6 (base width), 10,7 (base height), 11,7 (side flange height), 4,5 (bottom flange height), 19,8 (total height).
- Front view: 38,9 (total height), 15 (width), 20,9 (main body height), 51,3 (total height including base).
- Side view: 9 (height to cable entry), 6 (cable entry diameter), 4 (cable diameter).
- Detail views: 6,5 (M8x1 connector height), 1 (M12x1 connector height).

Labels:

- A: Green indicator diode
- B: Yellow indicator diode
- C: Optical axis
- D: Sensitivity adjustment
- E: Connector M8x1
- F: Connector M12x1
- G: Cable

Scale: 1:2

Connector Details:

- M8x1 connector: ...200-S8.1
- M8x1 connector: ...200-S8
- M12x1 connector: ...200-S12

Transmitter:

Receiver:

LSER 25B/4, 200-S8.1 (501 10878)
LSER 25B/4, 200-S12 (501 10923)

10-30V DC + 1 — br/BN
NC 2 —
GND 3 — bl/BU
4 — sw/BK

LSER 25B/66-S8 (501 08485)
LSER 25B/66-S12 (501 08483)
LSER 25B/66.1-S12 (501 08484)

10-30V DC + 1 — br/BN
● ○ ⊕ 2 — ws/WH
GND 3 — bl/BU
○ ● ⊕ 4 — sw/BK

ILSER 25B/4-S12 (501 08487)

10-30V DC +	1	■	br/BN
warn	2	■	ws/WH
GND	3	■	bl/BU
○ ◇	4	■	sw/BK

LSER 25B/66	(501 08486)
10-30V DC +	br/BN
● ○ ⊕	ws/WH
GND	bl/BU
○ ● ⊕	sw/BK

LSSR 25B, 200-S8.1 (501 10872)
 LSSR 25B, 200-S12 (501 10922)
 LSSR 25B-S12 (501 08477)

10-30V DC + 1 — br / BN
 NC 2 —
 GND 3 — bl / BU
 NC 4 —

LSSR 25B.8-S8 (501 08479)
LSSR 25B.8-S12 (501 08478)

10-30V DC + 1 — br/BN
NC 2 —
GND 3 — bl/BU
activ 4 — sw/BK

LSSR 25B.8	(501 08480)
10-30V DC +	br/BN
NC	ws/WH
GND	bl/BU
activ	sw/BK

Connector,
4-pin

Cable,
4-pin

Specifications

Optical data

Typ. operating range limit ¹⁾	24m
Operating range ²⁾	20m
Light source ³⁾	LED (modulated light)
Wavelength	620nm (visible red light, polarised)

Timing

Switching frequency	500Hz
Response time	1ms
Delay before start-up	≤ 300ms

Electrical data

Operating voltage U_B ⁴⁾	10 ... 30VDC (incl. residual ripple)
Residual ripple	≤ 15% of U_B
Open-circuit current	≤ 20mA
Switching output ⁵⁾	LSR .../66 LSR .../66.1 ILSR .../4 ILSR .../4.8 LSR .../4
	2 push-pull switching outputs pin 2: PNP dark switching, NPN light switching pin 4: PNP light switching, NPN dark switching 1 warning output pin 2: PNP pin 4: PNP light-switching pin 4: PNP light switching, pin 2: NC ⁶⁾ light/dark switching $\geq (U_B - 2V) / \leq 2V$ max. 100mA fixed setting, adjustable with potentiometer for ".1 types"
Function characteristics	
Signal voltage high/low	
Output current	
Operating range	

Indicators

Green LED	ready
Yellow LED	light path free
Yellow LED, flashing	light path free, no performance reserve

Mechanical data

Housing	plastic (PC-ABS)
Optics cover	plastic (PMMA)
Weight	with connector: 15g with 2m cable: 55g
Connection type	cable 2m (cross section 4x0.21 mm ²), M8 or M12 connector

Environmental data

Ambient temp. (operation/storage) ⁷⁾	-40°C ... +55°C/-40°C ... +60°C
Protective circuit ⁸⁾	2, 3
VDE safety class ⁹⁾	II
Protection class	IP 66, IP 67
Light source	free group (in accordance with EN 62471)
Standards applied	IEC 60947-5-2
Certifications	UL 508, C22.2 No.14-13 ⁴⁾ ⁷⁾ ¹⁰⁾

Options

Warning output autoControl warn	PNP transistor, counting principle
Signal voltage high/low	$\geq (U_B - 2V) / \leq 2V$
Output current	max. 100mA
Activation input active	
Transmitter active/not active	$\geq 8V / \leq 2V$
Activation/disable delay	≤ 1ms
Input resistance	10KΩ ± 10%

- 1) Typ. operating range limit: max. attainable range without performance reserve
- 2) Operating range: recommended range with performance reserve
- 3) Average life expectancy 100,000h at an ambient temperature of 25°C
- 4) For UL applications: for use in class 2 circuits according to NEC only
- 5) The push-pull switching outputs must not be connected in parallel
- 6) Pin 2: unassigned, hence especially suitable for the connection to AS-interface I/O coupling modules
- 7) UL certified in the temperature range -30°C to 60°C
- 8) 2=polarity reversal protection, 3=short-circuit protection for all transistor outputs
- 9) Rating voltage 50V
- 10) 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)

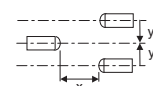
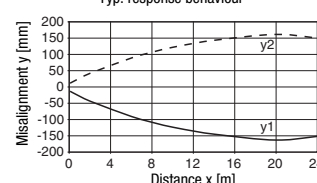
Tables

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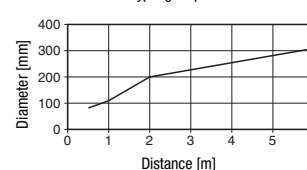
	Operating range [m]
	Typ. operating range limit [m]

Diagrams

Typ. response behaviour



Typ. light spot



Remarks

Operate in accordance with 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 the intended use.

A light axis consists of a transmitter and a receiver with the following designations:

(I)LSR	= complete light axis
LSSR	= transmitter
(I)LSER	= receiver

UL REQUIREMENTS

Enclosure Type Rating: Type 1

For Use in NFPA 79 Applications only.

Adapters providing field wiring means are available from the manufacturer. Refer to manufacturers information.

CAUTION – the use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

ATTENTION ! Si d'autres dispositifs d'alignement que ceux préconisés ici sont utilisés ou s'il est procédé autrement qu'indiqué, cela peut entraîner une exposition à des rayonnements et un danger pour les personnes.

LSR 25B

Throughbeam photoelectric sensor

Order guide

Selection table		Order code →								
Equipment ↓		LSR 25B/66-S12 Part No. 50108477 (Tr) Part No. 50108483 (Re)	LSR 25B/66.8-S12 Part No. 50108478 (Tr) Part No. 50108483 (Re)	ILSR 25B/4-S12 Part No. 50108477 (Tr) Part No. 50108487 (Re)	ILSR 25B/4.8-S12 Part No. 50108478 (Tr) Part No. 50108487 (Re)	LSR 25B/66.1-S12 Part No. 50108477 (Tr) Part No. 50108484 (Re)	LSR 25B/66.8-S8 Part No. 50108479 (Tr) Part No. 50108488 (Re)	LSR 25B/66.8 Part No. 50108480 (Tr) Part No. 50108486 (Re)	LSR 25B/4, 200-S12 Part No. 50110922 (Tr) Part No. 50110923 (Re)	LSR 25B/4, 200-S8.1 Part No. 50110872 (Tr) Part No. 50110873 (Re)
Switching output	2 x Push-pull switching output	●	●			●	●	●		
	1 x PNP output			●	●		●	●	●	●
Switching function	PNP light switching and NPN dark switching output	●	●	●	●	●	●	●		
	PNP dark switching and NPN light switching output	●	●			●	●	●		
	1 x PNP light switching output								●	●
	1 warning output, PNP light switching			●	●					
Connection	M8 connector, 4-pin						●			
	M12 connector, 4-pin	●	●	●	●	●				
	cable 2,000 mm							●		
	cable 200 mm with M12 connector, 4-pin								●	
	cable 200 mm with M8 connector, 4-pin ¹⁾									●
Indicators	green LED: ready	●	●	●	●	●	●	●	●	●
	yellow LED: light path free	●	●	●	●	●	●	●	●	●
Options	sensitivity adjustment via potentiometer					●				
	activation input		●		●		●	●		
	high performance reserve	●	●	●	●	●	●	●	●	●

1) Acc. to IEC 61076-2-101, NM construction with snap locking

