

## LSU 18

## Throughbeam ultrasonic sensor

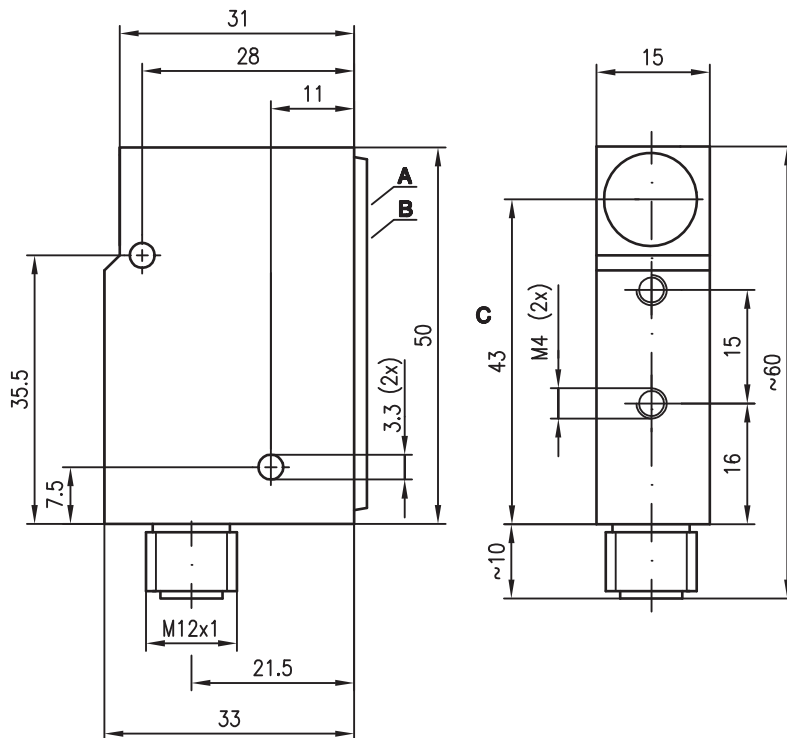
en 2021/10/14 50109154-02



0 ... 650mm

- Color and transmission independent detection of objects even in humid and foggy environment
- Optimized for air transport systems
- Metal housing
- Insensitive to dust
- Detection of narrow gaps

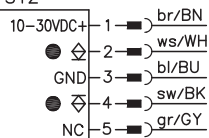
### Dimensioned drawing



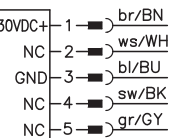
- A** Indicator diodes
- B** Sensitivity adjustment
- C** Center of ultrasonic transducer

### Electrical connection

LSEU 18/24-S12



LSSU 18-S12



We reserve the right to make changes • PAL\_LSU1824\_en\_50109154-02.fm

### Accessories:

(available separately)

- Mounting systems
- Cable with M12 connector (K-D ...)

### Technical data

#### Ultrasonic specifications

Operating range <sup>1)</sup>	0 ... 650mm
Adjustment range	0 ... 650mm in increments
Ultrasonic frequency	300kHz
Typ. opening angle	12°

#### Time behavior

Switching frequency	Max. 100Hz
Readiness delay	100ms

#### Electrical data

Operating voltage $U_B$	10 ... 30V DC (incl. $\pm 10\%$ residual ripple)
Residual ripple	$\pm 10\%$ of $U_B$
Open-circuit current	Receiver $\leq 15$ mA, transmitter $\leq 55$ mA
Switching output	1 PNP and 1 NPN transistor
Function	Object detected
Output current	Max. 150mA
Switch positions	Position 1 ... 5, see tables

#### Indicators

Green LED	Ready
Yellow LED	Object detected

#### Mechanical data

Housing	Metal
Transducer	see Remarks
Weight	70g each
Connection type	M 12 connector, 5-pin
Installation position	Any

#### Environmental data

Ambient temp. (operation/storage)	0°C ... +70°C/-40°C ... +85°C
Protective circuit <sup>2)</sup>	1, 2, 3
VDE protection class	III
Degree of protection	IP 65
Standards applied	IEC 60947-5-2

1) Throughout the entire temperature range, measurement object  $\geq 20 \times 20$ mm

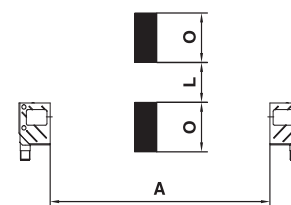
2) 1=short-circuit and overload protection, 2=polarity reversal protection (not analog), 3=wire break and inductive protection

### Order guide

	Designation	Part no.
Transmitter	LSSU 18-S12	50103365
Receiver	LSEU 18/24-S12	50103364

### Tables

Switch position	Switching frequency [Hz]	Typical values		
		$A_{max}$ [mm]	$O_{min}$ [mm]	$L_{min}$ [mm]
1	100	250	20	1
2	100	350	30	1
3	50	450	40	1
4	50	550	50	1
5	50	650	50	2



O Object  
L Gap  
A Distance transmitter/receiver

### Diagrams

### Notes

- **Approved purpose:**  
This product may only be used by qualified personnel and must only be used for the approved purpose. This sensor is not a safety sensor and is not intended as personnel protection.
- The response behavior depends on the container shape.
- Not suitable for use in humid environments. Avoid cleaning with cleaning agents.