

**LSU 18**

**Throughbeam ultrasonic sensor**

en 06-2014/05 50109154-01

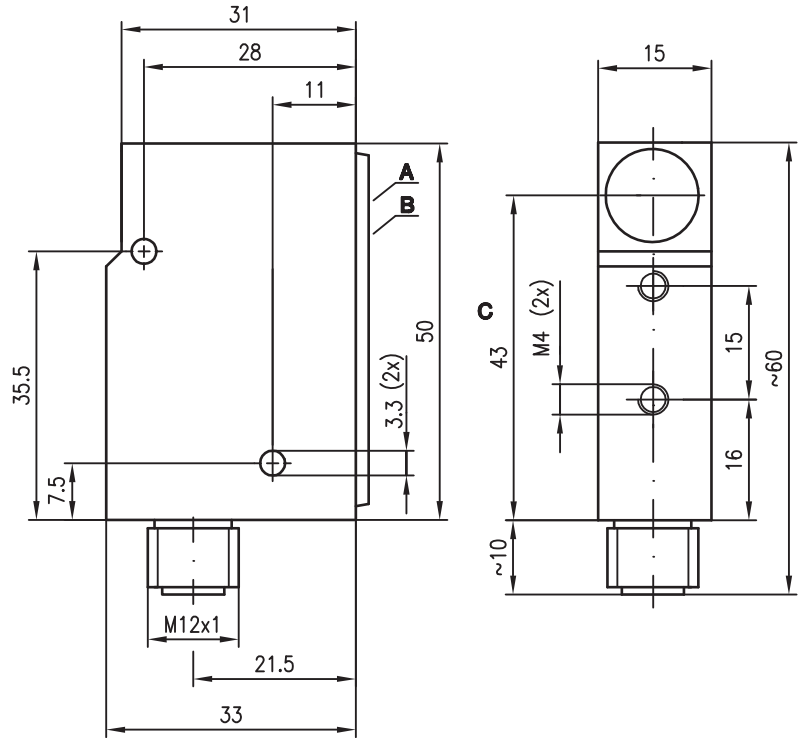


**0 ... 650mm**



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

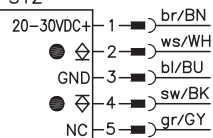
**Dimensioned drawing**



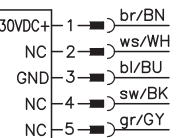
- A** Indicator diodes
- B** Sensitivity adjustment
- C** Centre of ultrasonic transducer

**Electrical connection**

LSEU 18/24-S12



LSSU 18-S12



We reserve the right to make changes • DS\_LSU1824\_en\_50109154\_01.fm



**Accessories:**

(available separately)

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

## Specifications

### Ultrasonic specifications

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

### Timing

Switching frequency	max. 100Hz
Delay before start-up	100ms

### Electrical data

Operating voltage $U_B$	10 ... 30V DC (incl. $\pm 10\%$ residual ripple)
Residual ripple	$\pm 10\%$ of $U_B$
Bias current	receiver $\leq 15$ mA, transmitter $\leq 55$ mA
Switching output	1 PNP and 1 NPN transistor
Function characteristics	object detected
Output current	max. 150mA
Switch positions	positions 1 ... 5, see Tables

### Indicators

Green LED	ready
Yellow LED	object detected

### Mechanical data

Housing	metal
Transducer	see remarks
Weight	70g each
Connection type	M12 connector, 5-pin
Fitting position	any

### Environmental data

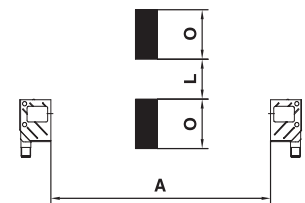
Ambient temp. (operation/storage)	0°C ... +70°C/-40°C ... +85°C
Protective circuit <sup>2)</sup>	1, 2, 3
VDE safety class	III
Protection class	IP 65
Standards applied	IEC 60947-5-2

1) For the complete temperature range, measured object  $\geq 20 \times 20$ mm

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

## 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

## Remarks

- **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 to be used for the protection of persons.
- The response behaviour is dependent on the container shape.
- Not suitable for use in wet environments. Avoid cleaning with cleaning agents.

## Order guide

	Designation	Part No.
<b>With M12 connector</b>	LSU 18/24-S12	
Transmitter	LSSU 18-S12	50103365
Receiver	LSEU 18/24-S12	50103364