

LSU 18

Throughbeam ultrasonic sensor

en 05-2011/02 50109154

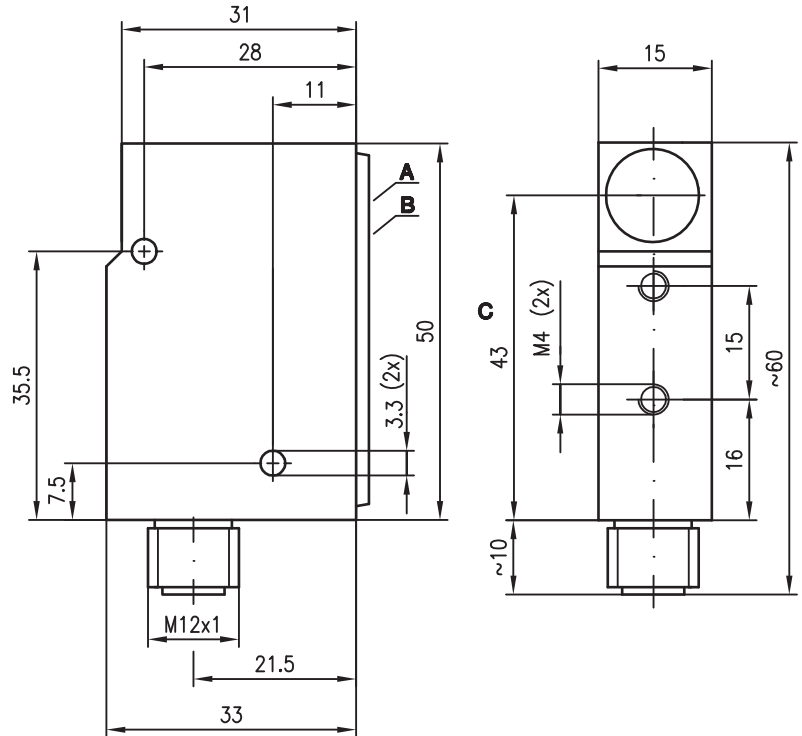


0 ... 650 mm



- 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

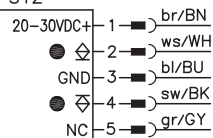
Dimensioned drawing



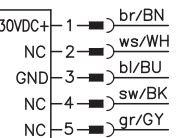
- A** Indicator diodes
- B** Sensitivity adjustment
- C** Centre of ultrasonic transducer

Electrical connection

LSEU 18/24-S12



LSSU 18-S12

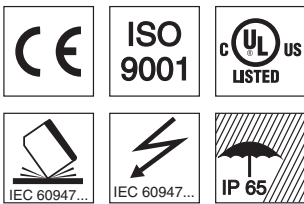


Accessories:

(available separately)

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

We reserve the right to make changes • DS_LSU18_24-S12_en.fm



Specifications

Ultrasonic specifications

Operating range ¹⁾	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 ≤ 15 mA, transmitter ≤ 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	M 12 connector, 5-pin

Environmental data

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

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

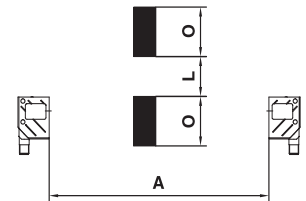
2) 1=short-circuit and overload protection, 2=polarity reversal protection (not for analogue inputs), 3=wire break and inductive protection

Order guide

	Designation	Part No.
With M 12 connector	LSU 18/24-S12	
Transmitter	LSSU 18-S12	501 03365
Receiver	LSEU 18/24-S12	501 03364

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.