

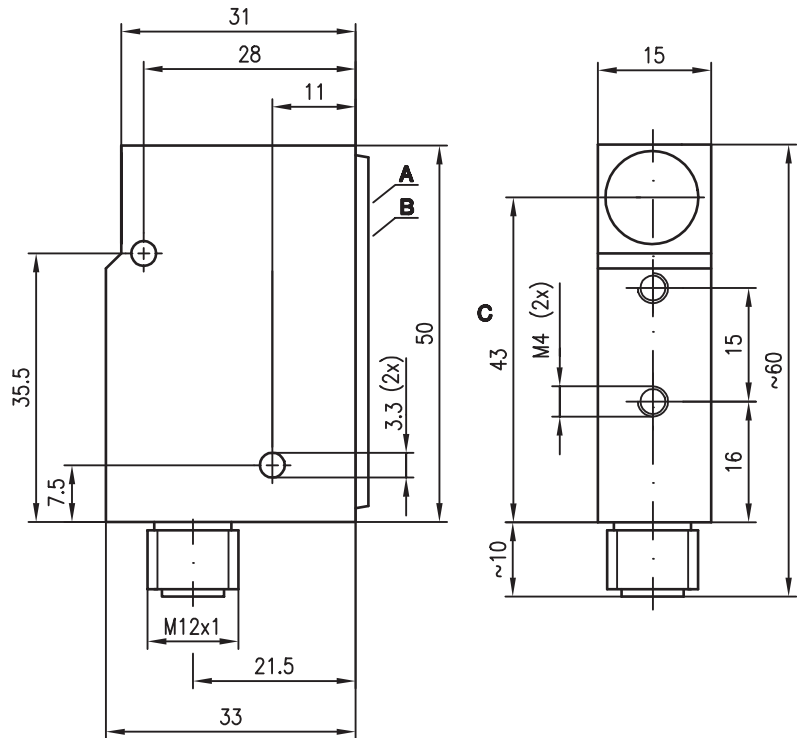


LSU 18

Throughbeam ultrasonic sensor



Dimensioned drawing



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



0 ... 500mm



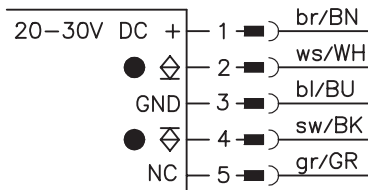
10 - 30 V

DC

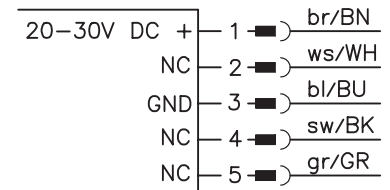
- Colour and transmission independent detection of objects, even in extremely wet environments
- Optimized for container entry
- Stainless steel housing
- Teflon coated
- Insensitive to chemical cleaning agents
- Detection of narrow gaps
- Detection of fast moving objects

Electrical connection

LSEU 18/24.01-S12
LSEU 18/24.51-S12



LSSU 18.01-S12
LSSU 18.51-S12

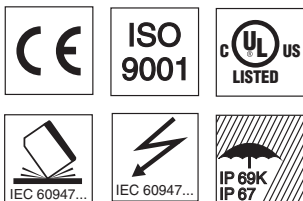


Accessories:

(available separately)

- M12 connectors (KD ...)
- Cables (K-D ...)
- Mounting systems

We reserve the right to make changes • 18_e02e.fm



Specifications

Ultrasonic specifications

Operating range	0 ... 500mm
Adjustment range	0 ... 500mm in steps
Ultrasonic frequency	300kHz
Typ. opening angle	12°

Timing

Switching frequency	200Hz
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 ≤ 35 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

LED green	ready
LED yellow	object detected

Mechanical data

Housing	metal coated or stainless steel
Transducer	Teflon coated
Weight	70g each
Connection type	M12 connector, stainless steel, 5-pin with gold-plated contacts

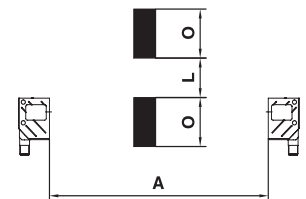
Environmental data

Ambient temp. (operation/storage)	0°C ... +70°C/-40°C ... +85°C
Protective circuit ¹⁾	1, 2, 3
VDE safety class	III
Protection class	IP 67, IP 69K ²⁾
Standards applied	IEC 60947-5-2
Fitting position	any

- 1) 1=short-circuit and overload protection, 2=polarity reversal protection (not for analogue inputs), 3=wire break and inductive protection
 2) IP 69K test acc. to DIN 40050 part 9 simulated, high pressure cleaning conditions without the use of additives, acids and bases are not part of the test

Tables

Switch position	Switching frequency [Hz]	Typical values		
		A_{max} [mm]	O_{min} [mm]	L_{min} [mm]
1	200	200	10	2
2	200	250	10	2
3	200	300	10	2
4	200	400	10	3
5	200	500	10	5



- O Object
 L Gap
 A Distance transmitter/receiver

Diagrams

Order guide

	Designation	Part No.
Coated metal housing with M12 connector	LSU 18/24.01-S12	
	Transmitter	501 04206
	Receiver	501 04207
Stainless steel housing with M12 connector	LSU 18/24.51-S12	
	Transmitter	501 05024
	Receiver	501 05023

Remarks

- The response behaviour is dependent on the container shape.
- Direct spraying results in switching errors.