LSU 18 — Throughbeam ultrasonic sensor

en 06-2014/05 50109154-01



0 … 650 mm

10 - 30 V DC

- 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

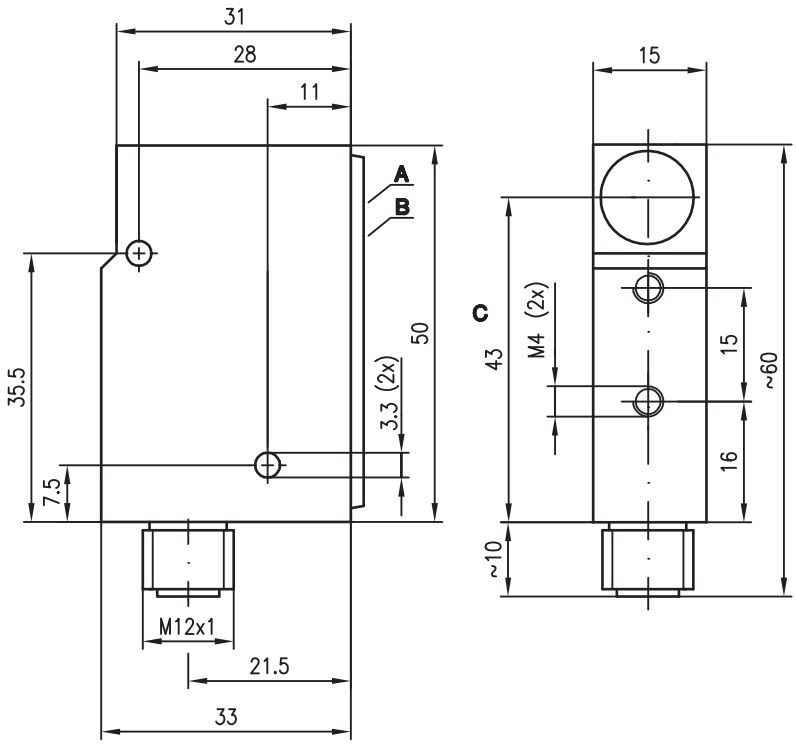
IEC 60947... IEC 60947... IP 65

Accessories:

(available separately)

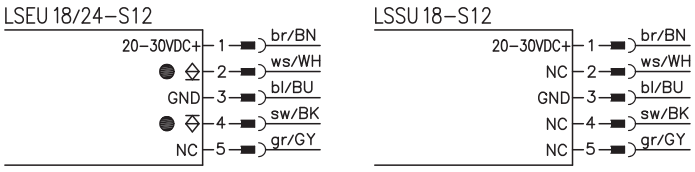
- Mounting systems
- Cable with M12 connector (K-D …)

Dimensioned drawing



A Indicator diodes
B Sensitivity adjustment
C Centre of ultrasonic transducer

Electrical connection



We reserve the right to make changes • DS_LSU1824_en_50109154_01.fm

Specifications

Ultrasonic specifications

Operating range [1]	0 … 650 mm
Adjustment range	0 … 650 mm in steps
Ultrasonic frequency	300 kHz
Typ. opening angle	12°

Timing

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

Electrical data

Operating voltage U_B	10 … 30 V DC (incl. ± 10 % residual ripple)
Residual ripple	± 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. 150 mA
Switch positions	positions 1 … 5, see Tables

Indicators

Green LED	ready
Yellow LED	object detected

Mechanical data

Housing	metal
Transducer	see remarks
Weight	70 g 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 [2]	1, 2, 3
VDE safety class	III
Protection class	IP 65
Standards applied	IEC 60947-5-2

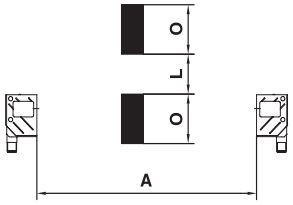
1) For the complete temperature range, measured object ≥ 20 x 20 mm
2) 1=short-circuit and overload protection, 2=polarity reversal protection (not for analogue inputs), 3=wire break and inductive protection

Order guide

	Designation	Part No.
With M12 connector	LSU 18/24-S12	
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

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.