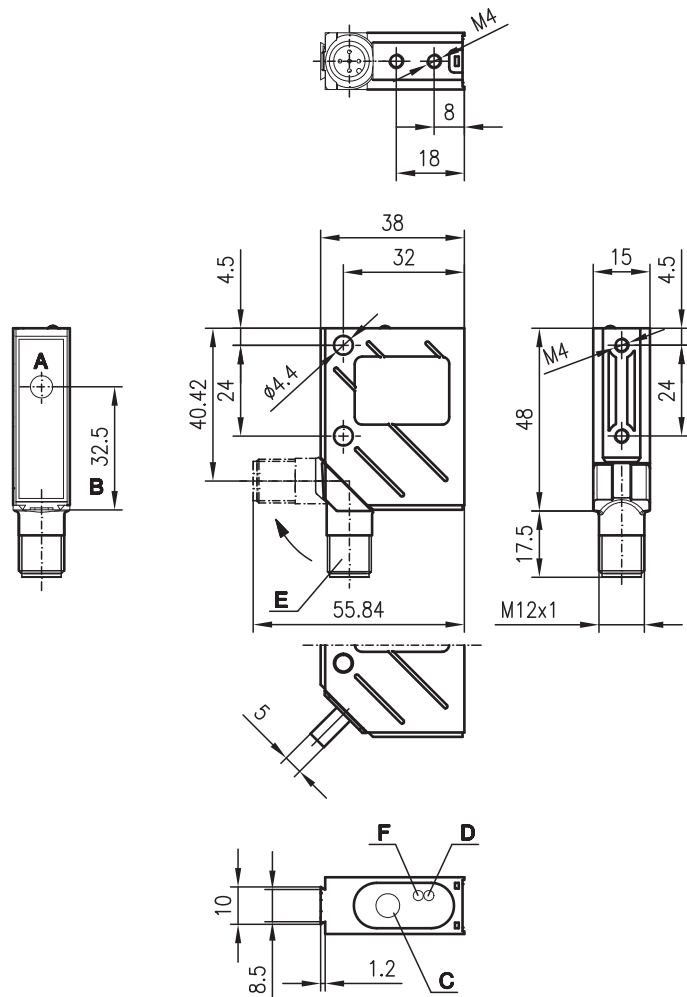


LSU 8

Throughbeam ultrasonic sensor



Dimensioned drawing



0 ... 800mm



- Colour and transmission independent detection of objects, even in wet and foggy environment
- Detection of narrow gaps
- Detection of fast moving objects
- Switching frequency 250Hz
- M12 turning connector

- A** Converter
- B** Ultrasonic axis
- C** Step switch (receiver)
- D** Green LED
- E** 90° turning connector
- F** Yellow LED

Electrical connection



Accessories:

(available separately)

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

LSEU 8/24-S12

20-30VDC+	1	br/BN
●	2	ws/WH
GND	3	bl/BU
●	4	sw/BK
NC	5	gr/GY

LSSU 8-S12

20-30VDC+	1	br/BN
NC	2	ws/WH
GND	3	bl/BU
NC	4	sw/BK
NC	5	gr/GY

We reserve the right to make changes • 8_e06gb_fm

Specifications

Ultrasonic specifications

Operating range ¹⁾	0 ... 800mm
Adjustment range	0 ... 800mm in steps
Ultrasonic frequency	300kHz
Typ. opening angle	see diagrams
Temperature drift	± 0.17%/K, see remarks

Timing

Switching frequency	max. 250Hz
Delay before start-up	2ms

Electrical data

Operating voltage U_B	20 ... 30V DC (incl. ± 10% residual ripple)
Residual ripple	± 10% of U_B
Bias current	receiver ≤ 25mA, transmitter ≤ 35mA
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
Weight	70g each
Connection type	M12 connector, 5-pin (turning)

Environmental data

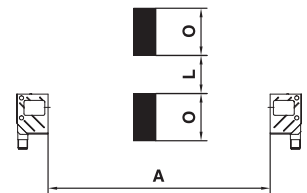
Ambient temp. (operation/storage)	0°C ... +70°C/-40°C ... +85°C
Protective circuit ²⁾	1, 2, 3
VDE safety class	III
Protection class	IP 67
Standards applied	IEC 60947-5-2
Fitting position	any

- 1) For the complete temperature range, measured object ≥ 20x20mm
 2) 1=short-circuit and overload protection, 2=polarity reversal protection (not for analogue inputs), 3=wire break and inductive protection

Tables

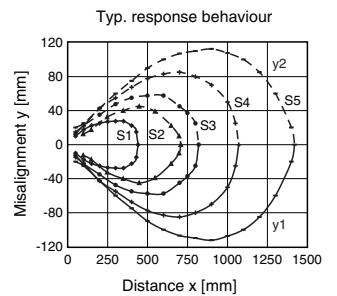
Switch position ¹⁾	Switching frequency [Hz]	Typical values ¹⁾		
		A_{max} [mm]	O_{min} [mm]	L_{min} [mm]
1	250	200	10	2.5
2	200	350	15	3.0
3	150	500	25	5.0
4	100	650	30	5.0
5	50	800	60	3.5

1) Different adjustments may produce better values

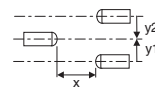


- O Object
 L Gap
 A Distance transmitter/receiver

Diagrams



- S1 Switch position 1
 S2 Switch position 2
 S3 Switch position 3
 S4 Switch position 4
 S5 Switch position 5



Order guide

	Designation	Part No.
With M12 connector	LSU 8/24-S12	
Transmitter	LSSU 8-S12	500 38914
Receiver	LSEU 8/24-S12	500 38915

Remarks

- **Approved purpose:**
The throughbeam ultrasonic sensors are ultrasonic sensors for acoustic, contactless detection of objects.
- **Temperature drift**
± 0.17%/K