

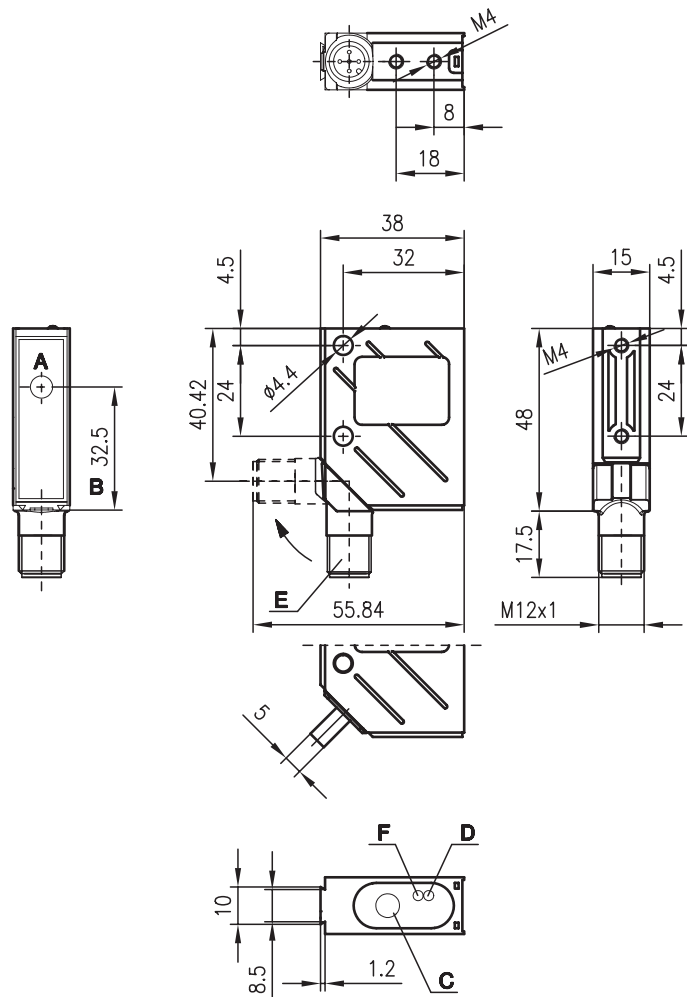


LSU 8

Throughbeam ultrasonic sensor



Dimensioned drawing



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



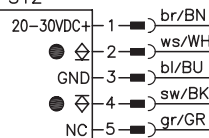
0 ... 800mm



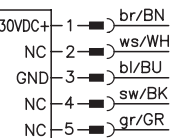
- Colour and transmission independent detection of objects, even in wet and foggy environment
- Detection of narrow gaps
- Detection of fast moving objects
- Switching frequency 250Hz
- M12 turning connector

Electrical connection

LSEU 8/24-S12



LSSU 8-S12



Accessories:

(available separately • see page 74)

- M12 connectors (KD ...)
- Ready-made cables (K-D ...)
- Mounting systems
- Control guard

We reserve the right to make changes*8_e06e.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

LED green	ready
LED yellow	object detected

Mechanical data

Housing	metal
Weight	70g each
Connection type	M 12 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

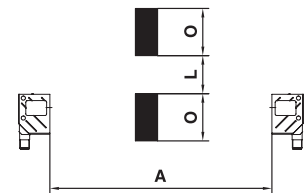
1) For the complete temperature range, measured object ≥ 20x20mm

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

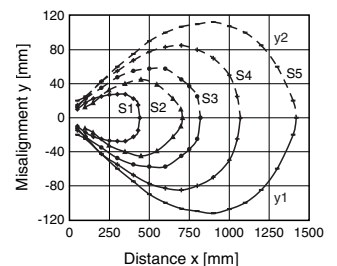
1) Different adjustments may produce better values



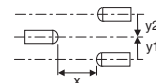
O Object
L Gap
A Distance transmitter/receiver

Diagrams

Typ. response behaviour



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 M 12 connector	LSU 8/24-S12	
Transmitter	LSSU 8-S12	500 38914
Receiver	LSEU 8/24-S12	500 38915

Remarks

- **Temperature drift**
+0.17%/K
for temperature rise
-0.17%/K
for temperature fall