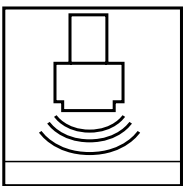


Ultrasonic Level Sensor LUC



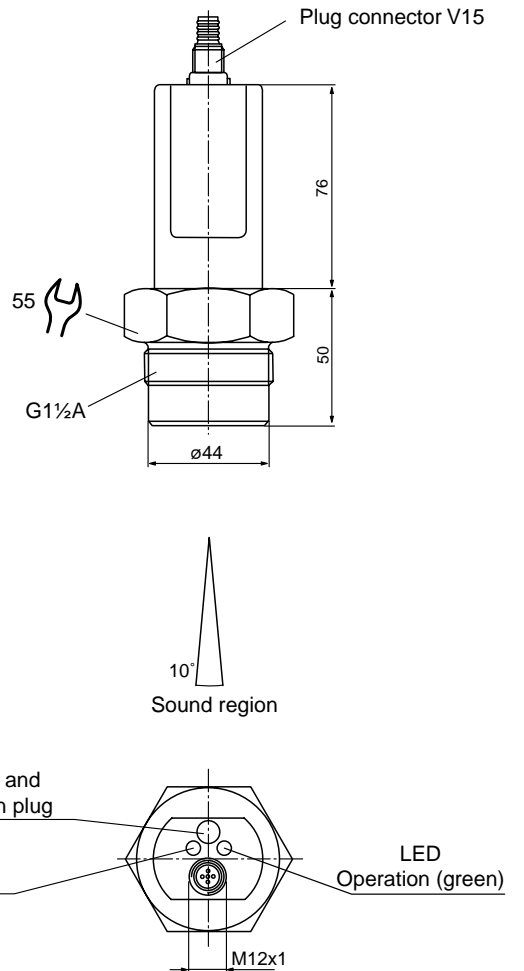
LUC4



Features

- Active moving-target indication
- Temperature compensation
- 12 bit d-a converter
- Compact design
- Connector
- Simple calibration
- Function monitoring
- Fail-safe behaviour for missing echo
- Output signal
4 mA ... 20 mA/0 V ... 10V

Dimensions



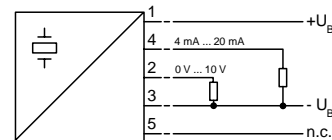
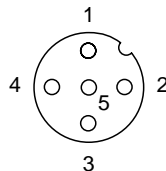
Function principle

The ultrasonic sensor transmits an ultrasonic pulse which is reflected at the medium's surface.

After the pulse returns to the sensor, the level is calculated by a microprocessor. Sources of interference like weld seams, fixed targets, etc. are reliably suppressed. Changes of the ultrasonic speed caused by changing temperatures are compensated.

Electrical connection

Plug connection V15 or V1



Technical data

Measurement range	0.3 m ... 4 m, for liquids
Accuracy	0.5 % of the measuring area terminal value
Resolution	2 mm
Supply	
Operating voltage	DC 10 V ... 30 V (3-wire)
Ripple	± 10 % ss, $\hat{U}_s=33$ V
Power consumption PL	≤ 1200 mW
Output	
Current	4 mA ... 20 mA, $R_L \leq 500 \Omega$
Voltage	0 V ... 10 V, $R_L \geq 1 k\Omega$
Displays	
Operation	LED, green
Fault	LED, red, 2 Hz flashing
Current output	≥ 21 mA
Voltage output	≥ 10.5 V
Ambient conditions	
Temperature	-25 °C ... +70 °C
Storage	-40 °C ... +85 °C
Process conditions	
Temperature	-25 °C ... +70 °C
Pressure	atmospheric
Electrical connection	V15 unit connector (M12x1)
Process connection	
LUC□□-G5S	Screwed connection G1½A, stainless steel 1.4571
LUC□□-G5P	Screwed connection G1½A, polypropylene
LUC□□-N5S	Screwed connection 1½" NPT, stainless steel 1.4571
LUC□□-N5P	Screwed connection 1½" NPT, polypropylene
Membrane surface	
LUC4T	PTFE
Calibration and configuration connector position	
A1	Empty equalisation
E2/E3	Teach in/moving-target indication
A2	Full equalisation
T	Operation
Housing material	PTB
Protection class in accordance with IEC 60529	IP65
Installation	Choose the installation direction in such a way that the sound direction is normal to the liquid surface.

Key to model numbers/ordering code

Ultrasonic Level Sensor LUC4

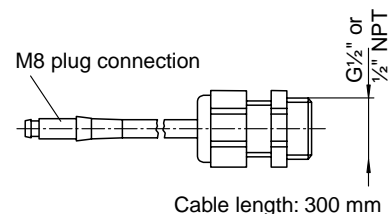
Level	Ultrasonic
	Continuous
	Measuring range
	4 0.3 m ... 4 m
	Material surface of diaphragm
	T PTFE
	Process connection
	G 5 G1 1/2A
	N 5 1 1/2"NPT
	Material connection
	S Stainless steel 1.4571
	P PP
	Electrical output
	I U 4 mA ... 20 mA and 0 V ... 10 V
	Specialities
	V 15 Plug connector V15

L	U	C	4	T	-	-	-	I	U	-	V	15
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Ultrasonic Level Sensor LUC4

Accessories

- LUC4-Z30-G2V, external temperature probe, G½A
- LUC4-Z30-N2V, external temperature probe, ½" NPT
- V1-G-2M-PVC, cable sockets, straight, 2 m cable, PVC
- V1-W-2M-PVC, cable sockets, 90° bent, 2 m cable, PVC
- external temperature probe



External temperature probe LUC4-Z30-□2V

A measuring system consists of:

- an Ultrasonic Level Sensor LUC4T-□5□-IU-V15 and a display unit DA5 or a power supply unit, but can also be connected directly to a PLC.