

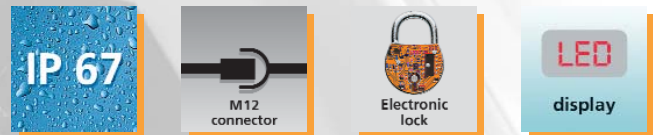


The microwave sensor – it is all about the echo!



Innovative measuring principle also for compact tanks.

- 2 or 4 programmable switching outputs with hysteresis and window function.
- Easy operation via the user menu.
- Direct indication of the current level on the LED display.
- If necessary, the sensor rod can be cut to length by the user.
- Excellent price / performance ratio.



Application

Type LR level sensors operate on the basis of guided wave radar and are suited to continuous level monitoring in water-based media such as coolants and cleaning liquids.

Mounting

The sensor is directly mounted in the tank using a process connection or flange plate. If necessary, the sensor rod can be easily shortened and adapted to the tank by the user.

Setting

Settings of all parameters as well as programming of the switch points and indication of the current level are carried out via a 4-digit alphanumeric display.







fluid sensors and diagnostic systems

position sensors and object recognition

bus, identification and control systems

Probe length up to 700 mm

Applications:
aqueous media, coolants, cleaning agents, water

Process connection	Switch point accuracy [cm]	Repeatability [cm]	Maximum vessel pressure [bar]	Protection	Order no.
M12 connector · output function 2 x  /  programmable · 4-wire DC PNP					
G 3/4	± 1.5	± 0.5	-1...4	IP 67, III	LR7000
NPT 3/4"	± 1.5	± 0.5	-1...4	IP 67, III	LR7300
M12 connector · output function 4 x  /  programmable · 8-wire DC PNP					
G 3/4	± 1.5	± 0.5	-1...4	IP 67, III	LR8000
NPT 3/4"	± 1.5	± 0.5	-1...4	IP 67, III	LR8300




Innovative measuring principle – guided wave radar – for level monitoring in compact tanks.

efector gwr operates to the principle of guided wave radar and measures the level using electromagnetic pulses in the nanosecond range. The pulses are transmitted by the sensor head and guided along the sensor rod. When the microwave pulse hits the medium to be detected it is reflected and guided back to the sensor, where it is evaluated.




The time between transmitting and receiving the pulse is a direct measure for the covered distance and therefore the current filling level.

Further technical data		
Operating voltage	[V]	18...30 DC
Current rating	[mA]	200
Current consumption	[mA]	< 80
Power-on delay time	[s]	3
Dielectric constant medium		> 20
Operating temperature	[°C]	0...60
Medium temperature	[°C]	0...80
Materials in contact with the medium		stainless steel (303S22), PTFE, NBR
Housing materials		FKM, NBR, PBT, PC, TPE-V, stainless steel (304S15), PTFE, PEI

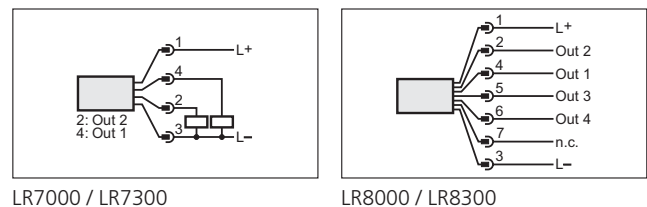
Probes (to be ordered separately)

Type	Description	Order no.
	Probe, 240 mm, stainless steel (303S22)	E43203
	Probe, 450 mm, stainless steel (303S22)	E43204
	Probe, 700 mm, stainless steel (303S22)	E43205


Accessories

Type	Description	Order no.
	Flange plate, LR 73-90	E43201
	Flange plate, LR 73-90, NPT	E43206
	Flange plate, LR 65-80	E43202

Wiring diagram



Connectors and splitter boxes

Type	Description	Order no.
	Socket, M12, 4-pole 2 m black, PUR cable	EVC004
	Socket, M12, 4-pole 5 m black, PUR cable	EVC005
	Socket, M12, 4-pole 2 m black, PUR cable, LED	EVC007
	Socket, M12, 4-pole 5 m black, PUR cable, LED	EVC008
	Socket, M12, 8-pole 2 m black, PUR cable	E11231
	Socket, M12, 8-pole 5 m black, PUR cable	E11232

ifm article no. 7511246 · Printed in Germany on non-chlorine paper. · We reserve the right to make technical alterations without prior notice. · 11.2007

Fluid sensors and diagnostic systems