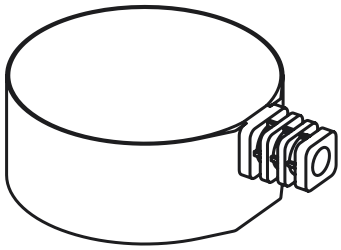
DATASHEET

RS-60

Radar tank level sensor

The RS-60 measures the level in plastic tanks without contact, from above and through the tank wall. Stick it on, wire it up and set it up in the LiLink app: no drilling, nothing in the liquid. One sensor for every tank height up to 300 cm and for water, waste water, diesel and petrol.



Features

Non-contact
Measures through the tank wall. No corrosion, no moving parts, nothing in the liquid.

Stick on, no drilling
Mounted on top of the tank with strong double-sided tape.

Any tank shape
Rectangle, cylinder, V-shape, keel, custom drawing or up to 32 calibration points.

Set up with the app
Configure tank shape, dimensions and outputs with the LiLink app.

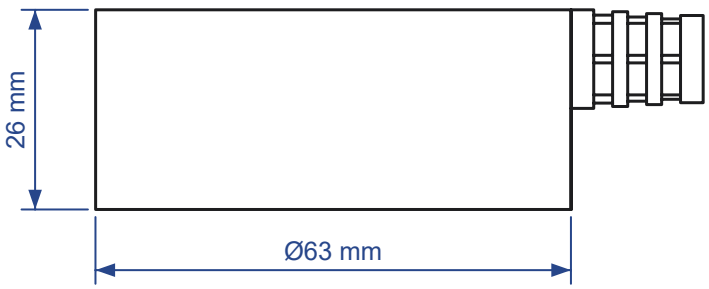
Four versions
Analogue (resistance and voltage), NMEA 2000, Modbus RTU or LIN bus (campers and vehicles).

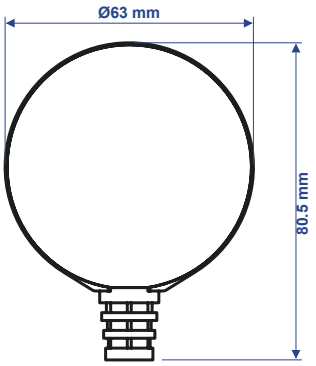
8–32 V DC
Suitable for 12 V and 24 V systems.

Versions

Version	Output	Connection	Part number
RS-60 Analog	10–180 Ω (EU) or 240–33 Ω (US) and 0–5 V or 0–10 V, simultaneously	Cable with 5 bare wires	RS60-A
RS-60 NMEA 2000	NMEA 2000, PGN 127505 Fluid Level	Cable with M12 connector	RS60-N
RS-60 Modbus	RS-485, Modbus RTU	Cable with 4 bare wires	RS60-M
RS-60 LIN	LIN bus, for campers and vehicles; frame content on request	Cable with 3 bare wires	RS60-L

Dimensions





Technical specifications

Measurement

Measuring principle	Radar (FMCW, 60 GHz), contactless
Tank height	up to 300 cm
Accuracy	± 2 %
Dead zone	≈ 0 mm
Measuring rate	1 Hz
Tank shapes	Rectangle, upright and horizontal cylinder, V-shape, triangle, trapezoid, sloped side, stepped, keel, custom drawing, manual calibration (up to 32 points)

Tanks and liquids

Liquids	Fresh water, grey water, black water, diesel, petrol (gasoline)
Tank material	Plastic and fibreglass (GRP). Metal via the SAE5 flange adapter.
Wall thickness	up to 10 mm supported (thicker walls may work, not tested)

Outputs

	RS-60 Analog	RS-60 NMEA 2000	RS-60 Modbus	RS-60 LIN
Resistance	10–180 Ω (EU) or 240–33 Ω (US)	–	–	–
Voltage	0–5 V or 0–10 V	–	–	–
Digital	–	NMEA 2000, PGN 127505	RS-485, Modbus RTU	LIN 2.2A (ISO 17987), slave; 9600, 10417 or 19200 bit/s
Set-up via	LiLink app	LiLink app	LiLink app	LiLink app (bit rate and frame ID)

Electrical

	RS-60 Analog	RS-60 NMEA 2000	RS-60 Modbus	RS-60 LIN
Supply voltage	8–32 V DC; 12–32 V when using the 0–10 V output	8–32 V DC, via the NMEA 2000 network	8–32 V DC	8–32 V DC; same battery and ground as the LIN master; no sleep mode
Current consumption	≈ 20 mA @ 12 V	≈ 20 mA @ 12 V	≈ 20 mA @ 12 V	≈ 20 mA @ 12 V
Protection	Internal fuse	Internal fuse	Internal fuse	Internal fuse
Connection	Cable with 5 bare wires (V+, GND, COM, V OUT, R OUT)	Cable with M12 connector, 5-pin (Micro-C)	Cable with 4 bare wires (V+, GND, A, B)	Cable with 3 bare wires (V+, GND, LIN)
Cable length	90 cm	1 m	90 cm	90 cm

Mechanical and environmental

Dimensions	Ø 63 × 26 mm
Mounting	Double-sided adhesive tape, on top of the tank
Housing	Fully potted, with vent (PTFE membrane)
Operating temperature	−20 … +70 °C
Status LED	1 × green

Certification and warranty

CE	Manufacturer's declaration (EU declaration of conformity)
Warranty	3 years
Manufacturer	LieMo Electronics, Groningen (NL)

Accessories: SAE5 flange adapter for metal tanks (sold separately)

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Subject to change. The latest manual, quick start guide and datasheet are available at www.liemo.nl/downloads.