



Lipremos Sonic PRO GPRS

TECHNICAL SPECIFICATION FOR COMPACT FLOWMETER

Lipremos Sonic PRO GPRS is a device and system for measuring the level of substances in tanks, based on ultrasonic technology, developed for precise measurement of distance and volume of both liquids and bulk materials.

1. High Measurement Accuracy

Class-leading measurement precision: tank measurement up to 12 meters with accuracy up to 2 mm.

2. Advanced Tank Parameter Monitoring

Monitoring of tank fill levels in liters, % capacity, temperature tracking, delivery and withdrawal events, leak and overflow alarms, and much more.

3. Long-Lasting Battery Power

Battery-powered with a long operating life (approximately 2 years depending on the number of daily measurements).

4. Built-in GSM Communication with No Extra Costs

Wireless communication based on GSM cellular networks. The device includes a built-in SIM card covering all EU countries (no additional costs or procedures for the end user).

5. Remote GPS Location Tracking

Remote device localization via a built-in GPS receiver.

6. Tamper and Movement Detection via Built-in Sensors

Built-in motion sensor for detecting tampering or intrusion, and integrated inclinometer.

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7. Remote Configuration and Device Updates

Remote configuration, diagnostics, and firmware updates are supported.

8. Online Data Access and Mobile Application Support

Access to measurement results, tables, graphs, and location maps via the internet from any location using a web browser, as well as through Android and iOS mobile applications.

9. Flexible Integration with Other Wireless Technologies

The device is designed to support easy implementation of various other wireless communication standards such as:

- NB-IoT (network deployment starting in Poland)
- LTE CAT M1 (network deployment starting in Poland)
- LoRa (free public LoRaWAN gateways in major cities)
- ISM 868MHz (short-range, license-free)
- ISM 433MHz (short-range, license-free)
- WiFi (short-range, license-free)
- BLE (short-range, license-free)

And wired interfaces such as:

- RS485
- RS232
- USB
- 24mA current loop
- 0–10V voltage output

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Below are some sample use cases for our device.

Chemical Industry:

In chemical plants, our device can be used to monitor the levels of various chemicals and liquids in tanks, aiding in production control and preventing leaks or failures.

Food Industry: In the food sector, the device can help monitor ingredient levels such as milk, edible oils, or syrups used in food production.

Pharmaceutical Industry: In pharmaceutical manufacturing, maintaining precise levels of chemical substances is crucial. Our device can assist in achieving this.

Water and Wastewater Industry: For monitoring drinking water or wastewater tanks, the device can be used to oversee levels and prevent overflow or system failures.

Petrochemical Industry: In facilities processing raw materials into petrochemical products, the device can monitor chemical levels used in production processes.

Dairy Industry: In dairy production facilities, our device can help control milk levels in vats used for making cheese or yogurt.

Rubber and Tire Industry: In tire and rubber manufacturing, where various components are mixed, the device can aid in monitoring chemical levels.

Bulk Material Measurement in Silos

– Sample Applications:

Food Industry: In processing plants for grains, flour, sugar, coffee, or other bulk products, our device can monitor material levels in silos, aiding in supply and production management.

Construction Industry: Our device can measure sand, gravel, cement, or other materials used in concrete and mortar in the construction sector.

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Chemical Industry: For powdered chemicals or catalysts, the device can help monitor the amount and level of substances in silos.

Pharmaceutical Industry: In the production of powdered medicines, our device can monitor active substance levels in silos.

Plastics Industry: In plants producing plastic granules or powders, the device can assist in tracking material levels.

Ceramics Industry: In the production of ceramics, glazes, or bricks, where various powders and mixtures are used, our device can monitor quantities.

Agricultural Sector: The device can be used for measuring fertilizer, feed, or seed quantities in agricultural silos.

Recycling Industry:

In recycling facilities processing secondary raw materials like plastics or paper, our device can help monitor amounts and levels of these materials.

Measuring the level and quantity of bulk materials has wide application across many industries, and our ultrasonic device provides reliable and accurate measurement.

Given that the device uses ultrasonic distance measurement, it also supports other applications requiring periodic distance monitoring – for example, remote monitoring of river or water reservoir levels.