Optical Sensors Sweden AB

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MEASURE WITH CONFIDENCE

Radar
Water Level Sensors

Accurate. Reliable. Built for Extreme Conditions.

Advanced FMCW radar technology for continuous, non-contact water level measurement in rivers, canals, reservoirs, and more.

APPLICATIONS

- Hydrological measurements in rivers, lakes, and reservoirs
- Water level monitoring in river channels, irrigation canals, and flood prevention areas
- Water level monitoring for urban flood control and waterlogging
- Monitoring of rainstorm-induced floods in mountainous areas, etc.

TECHNICAL PARAMETERS

Measurement Range (m)	15 / 40 / 70 / 110
Measurement Accuracy	±3mm, ±0.05%FS
Resolution	1mm
Tilt Sensor Accuracy	±0.1°
Radar Frequency	24GHz / 80GHz
Beam Angle	11° / 8°
Protection Rating	IP68
Operating Temperature	-35°C to 70°C
Operating Voltage	7-32VDC (default) / 5-32VDC (optional)
Communication	Bluetooth, 4G (NB-IoT / LoRa), RS485, Modbus, MQTT, HTTP
Power Consumption	Low power, solar powered
Data Upload	Built-in RTU or optional via 4G/LoRa

HIGHLIGHTS

- Supports remote upgrade and maintenance (built-in RTU).
- Fully waterproof, reverse polarity & lightning protection.
- Compact, lightweight, wind & vibration resistant.
- Monitors stably under high flood flow velocity.
- Low power consumption, solar powered.
- Built-in angle sensor detects installation tilt.
- Digital & analog interfaces for system integration.
- Flat antenna avoids interference from insects, webs and fog.
- Low-power Bluetooth for on-site APP setup.
- Optional LoRa: data transmission up to 3.5 km in open areas.
- Optional RTU uploads data directly; supports MQTT, HTTP.

NON-CONTACT MEASUREMENT
No direct contact with water, reduces maintenance and wear.

HIGH ACCURACY & STABILITY
Advanced FMCW radar ensures precise and reliable data.

SMART CONNECTIVITY
Bluetooth, 4G/LoRa, and multiple protocols for seamless integration.

LOW POWER & SOLAR READY
Designed for remote locations with minimal power consumption.

RUGGED & RELIABLE
Built to perform in harsh environments and extreme weather.

MEASURE WITH CONFIDENCE.

Precision. Performance. Protection.