Radar Level Sensor for Water and Waves

WATER LEVEL | COASTAL

General Description

HyQuest Solutions' WLR 8/15/30 is a **highly accurate radar level sensor** that measures the distance from the sensor to the surface. It uses advanced 80 GHz radar technology to provide **accurate and stable measurements**. Using contactless technology for measurement of level of fluids and solids provides many advantages over traditional methods due to **simple installation, low power consumption and minimal to no maintenance**.

The WLR 8/15/30 is the ideal radar sensor for hydrological, oceanographic and other environmental monitoring applications demanding **contactless measurement of water levels or wave sizes**. Low power consumption, multiple supported communication interfaces, and compatibility with HyQuest Solutions' dataloggers allow users to quickly and effortlessly integrate the WLR 8/15/30 into new or existing applications.

WLR is available in 3 models that differ in the detection distance only: 8 m, 15 m or 30 m.

When compared to ultrasonic sensors for level measurement, **radar technology provides advantage in precision**, as the changes in air temperature which affect the quality of ultrasound measurements do not affect radar measurements.

The WLR 8/15/30 can be easily upgraded. For advanced applications, custom designed logic and detection can be programmed for specific measurement tasks and processes.
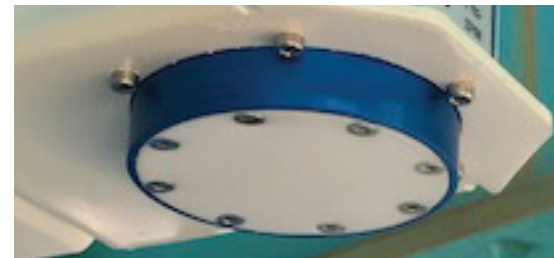
Applications

WLR 8/15/30 can be used for
- Water Level: surface water
- Water Level: open channels
- Tidal Waves: coastal areas, tide influenced river estuaries

Features

- Contactless measurement of distance from the sensor to the surface
- Ultra-precise 80 GHz radar technology
- Highly accurate measurements
- Measurement quality not affected by changes in air temperature or density
- Low power consumption
- Simple installation, easy mounting
- Water-resistant and dust-proof
- Various communication interfaces
- Compatible with HyQuest Solutions' dataloggers (see flip side)

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Technical Specifications

	WLR 8	WLR 15	WLR 30
Detection Distance	8 m	15 m	30 m
Radar Type	W-band 77-81 GHz FMCW radar		
Beam Angle	12° both axes		
Blind Zone	0.2 m		
Resolution	0.5 mm		
Accuracy	+/- 3 mm		
IP Rating	IP68		
Interfaces	■ SDI-12 ■ Analog: 4-20 mA ■ Serial Interface: - 1x serial RS-485 half-duplex, 1x serial RS-232 (two wire interface) - Serial Baud Rate: 1200 bps to 115200 bps - Serial Protocols: Modbus		
Connector	M12 circular 12-pin		
Power Supply	■ Power Input: 9 to 27 VDC ■ Power Consumption: < 2,2 W (typical 1,8 W)		
Temperature Range	Operational temperature: -40 °C to +85 °C (without heating or coolers)		
Enclosure Dimensions	Ø 65 mm x H 55 mm		
Compliance	FCC, CE		

Accessories

iRIS dataloggers and data modems:

- ■ Robust housing
- ■ IP over one or two channels of your choice: 4G with 3G fallback / GPRS, satellite, IoT
- ■ I/O: analog, digital, SDI-12, Modbus
- ■ iLink software
- ■ Telemetry or cloud app

⊘ datasphere

datasphere:
KISTERSdatasphere is a global all-in-one solution for sensor data. The cloud-based solution with easy-to-use viewing, alarming and integration features is the perfect basis for a range of applications - from simple sensor network management to environmental monitoring, infrastructure/asset monitoring, smart cities, internet of things, through to new data-based business models. More information in the web: datasphere.online

Please ask for details.

Reseller

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