

Radar Level Sensor for Water and Waves

Water Level | Coastal

General Description

KISTERS' 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 KISTERS' dataloggers allow users to quickly and effortlessly integrate the WLR 8/15/30 into new or existing applications.

WLR is available with 1 Hz or 10 Hz measurement sample rate in 3 models that differ in the detection distance 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.

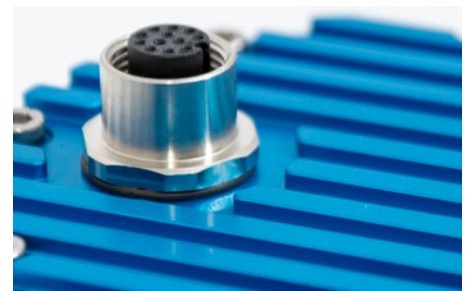
Applications

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 KISTERS' dataloggers (see flip side)



Technical Specifications

	WLR 8 (1 Hz / 10 Hz)	WLR 15 (1 Hz / 10 Hz)	WLR 30 (1 Hz / 10 Hz)
Detection Distance	8 m (26 ft)	15 m (49 ft)	30 m (98 ft)
Radar Type	W-band 77-81 GHz FMCW radar		
Beam Angle	5° both axes		
Blind Zone	0.2 m (7.87 in)		
Resolution	0.5 mm (0.02 in)		
Accuracy	+/- 2 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: Typical: 12 VDC 50 mA (~0,6 W), Peak: 12 VDC <470 mA		
Temperature Range	Operational temperature: -40 °C to +85 °C (-40 °F to +185 °F) (without heating or coolers)		
Enclosure Dimensions	Ø 65 mm x H 78 mm (Ø 2.56 in x H 3.07 in)		
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:

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

KISTERS Australia | sales@kisters.com.au | kisters.com.au
KISTERS Europe | hydromet.sales@kisters.eu | kisters.eu
KISTERS New Zealand | sales@kisters.co.nz | kisters.co.nz
KISTERS North America | kna@kisters.net | kisters.net

