

# RSS-2-300 W Surface Velocity Radar

HIGH-PRECISION NON-CONTACT OPEN CHANNEL SURFACE VELOCITY METER

## Highlights

- Contactless, above the water, flow measurement
- Built on robust radar technology
- Wide measurement range from 0,02 m/s to 15 m/s
- Long range operation up to 50 m
- Compact, low-power design
- Wide input voltage range, suitable for solar applications
- Supports variety of communication interfaces
- IP68-rated enclosure (for outdoor applications and harsh environments)
- Automatic mounting angle compensation (cosine correction)
- Configurable direction of the flow measurement
- PC application for radar setup and live flow monitoring
- Simple integration with existing SCADA or telemetry systems
- Easy pole, wall or enclosure mounting
- GeoluxHydroview cloud-based software for real-time remote monitoring



## Product Description

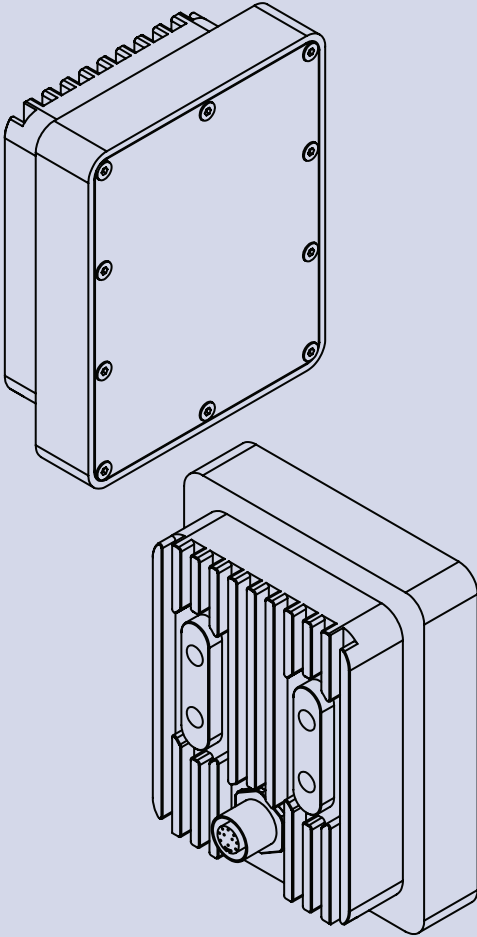
Geolux RSS-2-300 W flow meter uses radar technology to provide precise contactless measurement of surface flow velocity. Contactless radar technology enables quick and simple sensor installation above the water surface, and requires minimum maintenance.

RSS-2-300 W flow meter is used to monitor flow velocity of open channels such as rivers, irrigation channels or sewer systems, and for monitoring and control of hydropower plants and wastewater treatment plants. The flow meter is also suitable for various mass flow metering applications in mining processing plants, industrial installations, and, due to operation without moving parts and robust mechanical design, is ideal for measurement of flammable fluids and harsh chemical applications.

The radar operates in K-band (at 24.125 or 24.200 GHz), and provides flow speed readings 20 times per second over serial (RS-232, RS-485) and CAN interfaces. Variety of supported communication interfaces and protocols enable easy integration with existing telemetry equipment and SCADA systems. Integrated tilt sensor measures inclination angle of the sensor and the flow velocity measurement is automatically cosine-corrected according to the measured mounting tilt angle.

Geolux RSS-2-300 W radar sensor is certified according to both European and American standards, and is being used worldwide.

## Detailed Specifications



<b>Radar Type</b>	K-band 24.125 GHz Doppler radar, 21 dBm EIRP
<b>Beam Angle</b>	12° Azimuth, 24° Elevation
<b>Detection Distance</b>	50 m
<b>Speed Range</b>	0,02 m/s to 15 m/s
<b>Resolution</b>	0,001 m/s
<b>Accuracy</b>	1%
<b>Sampling Frequency</b>	1 sps / 10 sps optional
<b>IP Rating</b>	IP68
<b>Serial Interface</b>	1x serial RS-485 half-duplex 1x serial RS-232 (two wire interface)
<b>Serial Baud Rate</b>	1200 bps to 115200 bps
<b>Serial Protocols</b>	ASCII-S, GLX-NMEA
<b>CAN Interface</b>	Up to 1Mbps CAN2.0
<b>Alarm Outputs</b>	2 x open collector, max 50V 200mA
<b>Connector</b>	M12 circular 12-pin
<b>Power Input</b>	9 to 27 VDC
<b>Power Consumption</b>	< 1,35 W (typical 1,0 W)
<b>Maximal Current</b>	< 250 mA
<b>Temperature Range</b>	-40°C to +85°C (without heating or coolers)
<b>Enclosure Dimensions</b>	110 mm x 90 mm x 50 mm

FCC & CE **APPROVED**

MADE IN **EU**

Geolux is a company based in the European Union that develops and manufactures radar sensors for use in traffic, security and hydrology applications.

### For more information, contact us:

Phone: +385 1 6701 241  
E-mail: [geolux@geolux.hr](mailto:geolux@geolux.hr)



[www.geolux-radars.com](http://www.geolux-radars.com)