

# RSS-2-300W Surface Velocity Radar

HIGH-PRECISION NON-CONTACT OPEN CHANNEL SURFACE VELOCITY METER

## Highlights

- Contactless surface velocity measurement
- Accuracy tested at Swiss Federal Institute of Metrology METAS and Brodarski Institut Labs
- RS-232, RS-485 Modbus, analog 4-20 mA interfaces in all models
- Remote configuration of all instrument parameters through any digital communication interface
- Robust small size IP68 aluminum or stainless steel enclosure



## Applications

- Early flood warning
- Monitoring of flow and irrigation channels
- Accurate discharge monitoring in rivers
- Flow tracking in salt and copper mine channels
- Sewage and waste water discharge measurement

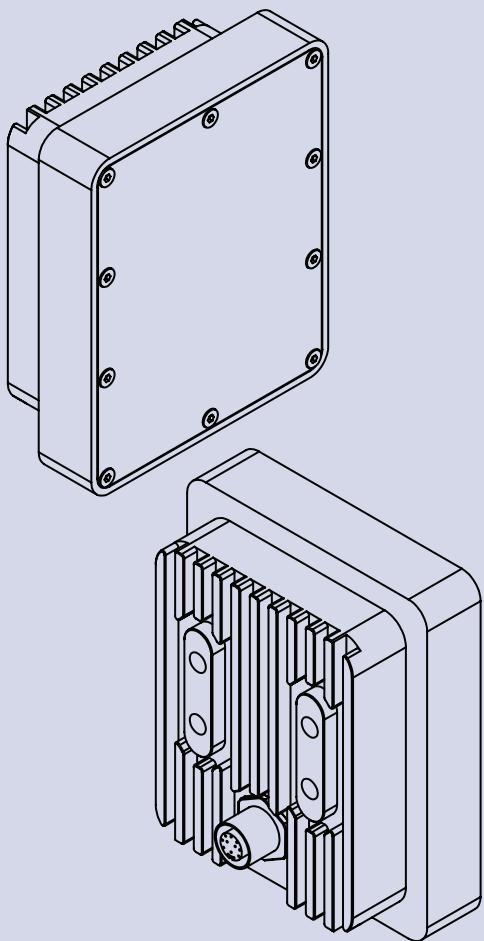
## Product Description

The Geolux RSS-2-300W radar sensor uses radar technology for providing contactless measurement of surface flow velocity. Contactless radar technology enables quick and simple sensor installation above the water surface with minimum maintenance.

The radar operates in K-band (24.075 GHz to 24.175 GHz) and provides flow speed readings 10 times per second over serial RS-232, RS-485 Modbus, and analog 4-20 mA output.

The instrument is easily integrated with Geolux or third-party dataloggers and all of the settings can be remotely configured. An integrated MEMS sensor is used for automatic angle compensation. Internal vibration monitoring and SNR calculation can be used for measurement quality assessment.

## Detailed Specifications



<b>Radar Type</b>	K-band 24.075 GHz to 24.175 GHz Doppler radar, 20 dBm EIRP
<b>Beam Angle</b>	12° Azimuth, 24° Elevation
<b>Detection Distance</b>	20 m above the water
<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>	10 sps
<b>IP Rating</b>	IP68
<b>Serial Interface</b>	1 x serial RS-485 half-duplex 1 x serial RS-232 (two wire interface)
<b>Serial Baud Rate</b>	9600 bps to 115200 bps
<b>Serial Protocols</b>	GLX-NMEA, Modbus
<b>Analog Output</b>	1 x 4-20 mA
<b>SDI-12 Interface</b>	Available with an optional add-on module
<b>Connector</b>	M12 circular 12-pin
<b>Input Voltage</b>	9 to 27 VDC
<b>Power Consumption</b>	950 mW operational 85 mW standby
<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

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