

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



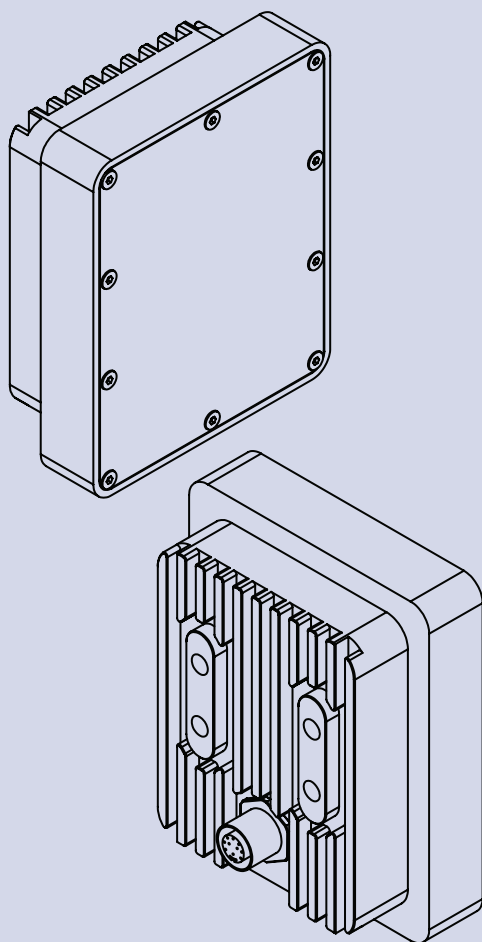
Product Description

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



Radar Type	K-band 24.075 GHz to 24.175 GHz Doppler radar, 20 dBm EIRP
Beam Angle	12° Azimuth, 24° Elevation
Detection Distance	20 m above the water
Speed Range	0.02 m/s to 15 m/s
Resolution	0.001 m/s
Accuracy	1%
Sampling Frequency	10 sps
IP Rating	IP68
Serial Interface	1 x serial RS-485 half-duplex 1 x serial RS-232 (two wire interface)
Serial Baud Rate	9600 bps to 115200 bps
Serial Protocols	GLX-NMEA, Modbus
Analog Output	1 x 4-20 mA
SDI-12 Interface	Available with an optional add-on module
Connector	M12 circular 12-pin
Input Voltage	9 to 27 VDC
Power Consumption	950 mW operational 85 mW standby
Maximal Current	< 250 mA
Temperature Range	-40 °C to +85 °C (without heating or coolers)
Enclosure Dimensions	110 mm x 90 mm x 50 mm

FCC & CE **APPROVED**

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