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 20 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
- Geolux Hydroview cloud-based software for real-time remote monitoring

Product Description

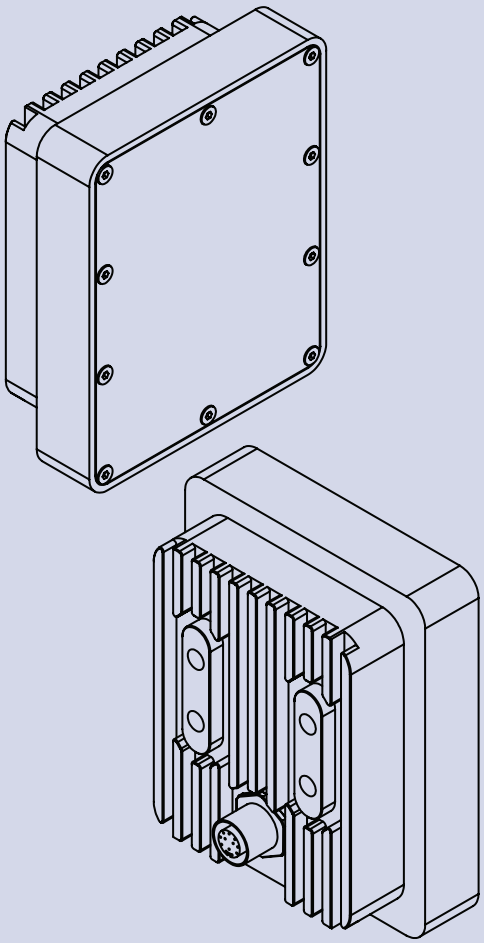
Geolux RSS-2-300 W flow meter uses radar technology to provide precise contactless measurement of surface flow velocity. Contactless radar technology enables quick and simple sensor installation above the water surface, and requires minimum maintenance.

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 deal for measurement of flammable fluids and harsh chemical applications.

The radar operates in K-band (24.075-24.175 GHz), and provides flow speed readings 10 times per second over serial (RS-232, RS-485) and analog 4-20 mA output. Variety of supported communication interfaces and protocols enable easy integration with existing telemetry wquipment 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



Radar Type	K-band 24.075-24.175 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	1 to 10 sps
IP Rating	IP68
Serial Interface	1x serial RS-485 half-duplex 1x serial RS-232 (two wire interface)
Serial Baud Rate	9600 bps to 115200 bps
Serial Protocols	ASCII-S, GLX-NMEA, MODBUS-RTU
Analog Output	1x 4-20 mA
Alarm Output	1 x open collector, max 50V 200mA
Connector	M12 circular 12-pin
Power Input	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***

MADE IN ***EU***

Geolux is a company based in the European Union that specializes in the development and manufacturing of radar - based instruments for hydrological monitoring.

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