

Geolux RSS-2-300 WL Flow Meter

HIGH-PRECISION NON-CONTACT OPEN CHANNEL FLOW VELOCITY & LEVEL METER



HIGHLIGHTS

- Contactless, above the water, flow measurement
- Surface flow velocity measured with radar sensor
- Water level measured with ultrasonic sensor
- Wide velocity measurement range from 0,02m/s to 15m/s
- Distance measurement range from 0,5, to 10m
- Long range operation up to 10m above water level
- Compact, low-power design
- Wide input voltage range, suitable for solar applications
- Supports variety of communication interfaces (RS-232, RS-485, CAN, Alarm open-drain outputs)
- Optional SDI-12 support
- IP68-rated enclosure (for outdoor applications and harsh environments)
- K-band 24.125 GHz or 24.200 GHz radar option
- 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

PRODUCT DESCRIPTION

Geolux RSS-2-300 WL flow velocity and level meter uses radar technology to provide precise contactless measurement of surface flow velocity, and ultrasonic robust sensor for measuring the distance from the sensor to the water level. Contactless radar & ultrasonic technology enables quick and simple sensor installation above the water surface, and requires minimum maintenance.

RSS-2-300 WL flow meter is used to monitor flow velocity and level 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. Ultrasonic level sensor operates in frequency range between 20 kHz and 350 kHz.

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 WL radar sensor is certified according to both European and American standards, and is being used worldwide.



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



DETAILED SPECIFICATIONS

GENERAL

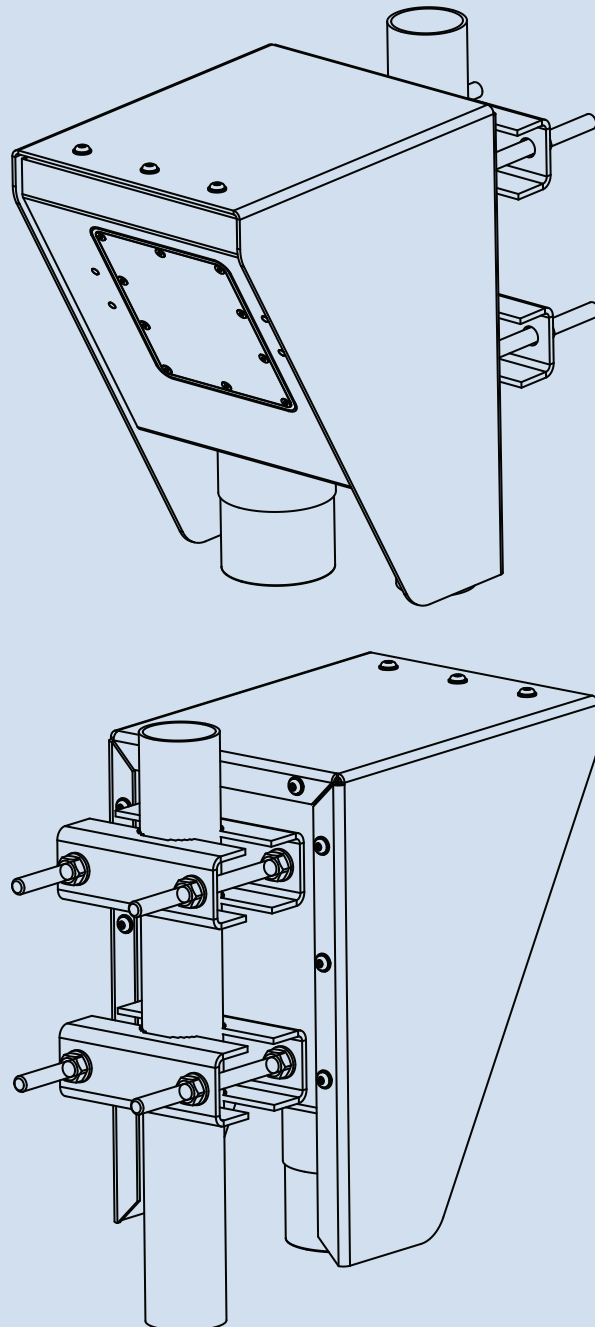
Radar Type	K-band 24.125GHz/24.200GHz Doppler radar, 27 dBm EIRP
Beam Angle	12° Azimuth, 24° Elevation
Detection Distance	50 m
Speed Range	0,02 m/s to 15 m/s
Speed Resolution	0,01 mm/s
Ultrasonic Frequency	20 kHz to 350 kHz
Distance Range	0,5 m to 10 m
Distance Resolution	1 mm
IP Rating	IP68

INTERFACE

Serial Interface	1 x serial RS-485 half-duplex 1 x serial RS-232 (two wire interface)
Serial Baud Rate	1200 bps to 115200 bps
Serial Protocols	ASCII-S, GLX-NMEA
CAN Interface	Up to 1Mbps CAN2.0
Alarm Outputs	2 x open collector, max 50V 200mA
Connector	M12 circular 12-pin

ELECTRICAL & MECHANICAL

Power Input	9 to 27 VDC
Power Consumption	< 1,35W (typical 1,0W)
Maximal Current	< 250 mA
Temperature Range	-40°C to +85°C (without heating or coolers)
Enclosure Dimensions	150 mm x 200 mm x 250 mm



FCC & CE APPROVED

EN 50293:2000
EN 61000-6-2, EN 61000-6-4:2007
EN 61000-3-2:2006+A1:2009+A2:2009
EN 61000-3-3:2008
EN 300 440-1, EN 300 440-2



For more information, please visit our web page:
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