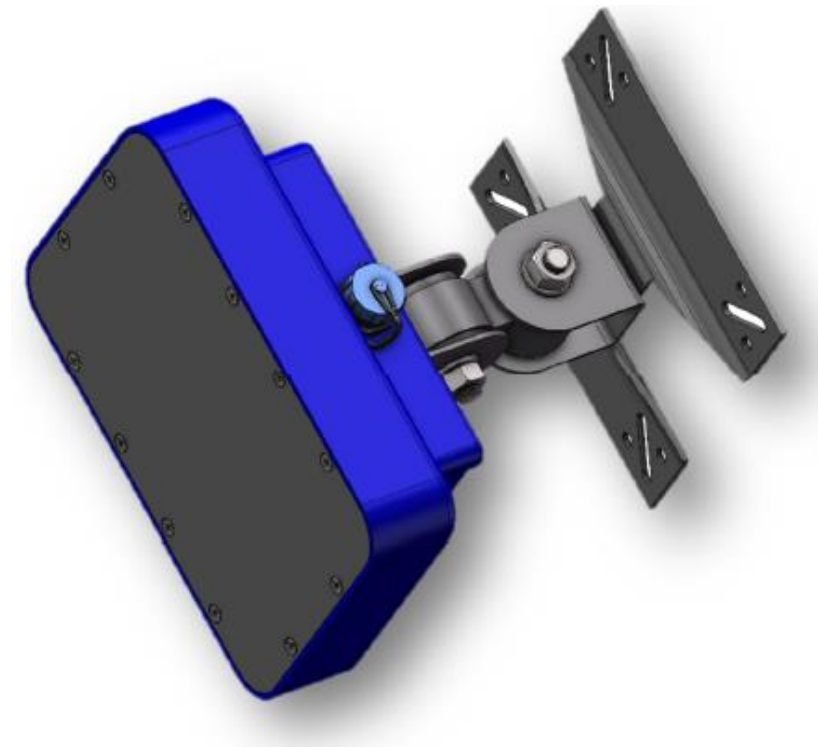


Planar Array Antenna Surface Velocity Radar

Characteristics

- Non-contact surface velocity radar / hydrological measurement products, fully enclosed IP68 protection design with fixed installationusage type.
- The use of planar array antenna design with field adaptability, Eliminate field ecological nterference, maintenance-free Identify data influenced by sensor movement (e.g., wind, traffic) using Meta data from integrated vibration and tilt sensors.



Applications

- The ASL-2021-SVR is a simple, non-contact, compact surface water speed radar sensor for measuring open channel flow.
- Designed for flow measurements in open channels and rivers where reliable velocity data is required continuously during floods or high concentrations of suspended sediment.
- The sensor is mounted above the water surface, using flexible brackets for vertical or horizontal mounting away from floating debris. Speed measurements and sensor status information from the integrated vibration and tilt sensors are available via RS-485/Modbus. It is also compatible with AQUAflow software for system calibration.

Specifications

Radar Emission Frequency	25.3GHz
Measurement Range	0.10 ~ 15 m/s, Detection distance 1 ~ 50 m
Measurement Accuracy	±2% of measured value / Resolution 0,1 mm/s
Measuring Response Time	Effective data output time for power boot <5s, Measurement data update cycle <1.5s
Radar Opening Angle	12° Azimuth / 24° Elevation
Dimensions	158mm x 100mm x 57 mm (H)
Electrical Connection	M12/ 4 wires of watertight aerial plug, AWG≤0.785/18
Antenna Type	Φ80mm Planar array antenna, 25dB (with POM antenna cover)
Signal output	RS-485 (Option: Relay/4-20mA/SDI-12/Wi-Fi /RTU/Bluetooth/IIoT)
Communication protocol	RS485 MODBUS (include attitude tilt angle & ambient temperature, measurement flow rate value output)
Ambient Temperature	-40....85 °C
Relative Humidity	≤95%RH
Environmental Pressure	860 ~ 1060 mbar (12,47 ~ 15,37psi)
Power Supply	9.0~38VDC, 4 wires, < 120mW
Diagnostic Method	Remote PC / mobile Application Software: AQUAflow
Shell Material	Anodized Aluminum + POM or PTFE (Antenna cover)
Mounting Method	M6 Universal Joint Bracket, Rotation range of swivel mount, Lateral axis: ±90°,Longitudinal axis: ±90°
Ratings	IP68
Standard Lead-time	4 to 5 weeks (Non-customized products)

ASL-2021-SVR Dimensions;

