

GENERAL

ALIARADAR Radar Flow Meter is an automatic flowmeter based on microwave technology, which measures the flow velocity and level of the fluid in a non-contact way to enable flow measurement. The sensor is used to monitor the flow velocity of open channels such as rivers, irrigation canals or sewage systems, and for monitoring and control of hydroelectric plants and wastewater treatment plants. The product features low power consumption, small size, high reliability and easy maintenance; the measurement process is not affected by temperature, sediment, river pollutants, flottage on the surface and other factors.

FEATURES

- Velocity measuring up to 20 m/s, accuracy up to ± 0.01 m/s
- Water level measuring range up to 40 m, accuracy up to ± 2 mm
- Dual direction flow measurement
- With rain mode to prevent interference caused by rain
- Waterproof grade IP68, perfect for outdoor installation
- Non-contact measurement, unaffected by wind, temperature, haze, sediment, flottage, etc.
- Low power consumption, can be powered by solar energy, easy to install and maintenance-free
- RS485 / 4-20 mA interface, excellent configuration software and monitoring system

STANDARD SPECIFICATION

● Measure Principle

Velocity : Radar Doppler
Level : Radar

● Velocity

Radar Power : 100 mW
Radar Frequency : 24 GHz
Measuring Range : 0.03-20 m/s
Measuring Accuracy : ± 0.01 m/s; $\pm 2\%$ FS whichever is greater
Measuring Resolution : 1 mm/s
Beam Angle α : 12°

● Level

Radar Power : 10 mW
Radar Frequency : 60 GHz (80 GHz)
Measuring Range : 0.2-7 m, 0.2-10 m, 0.2-20 m,
0.2-30 m, 0.2-40 m
Measuring Accuracy : ± 2 mm; $\pm 0.05\%$ FS whichever is greater
Measuring Resolution : 1 mm
Beam Angle α : 8°

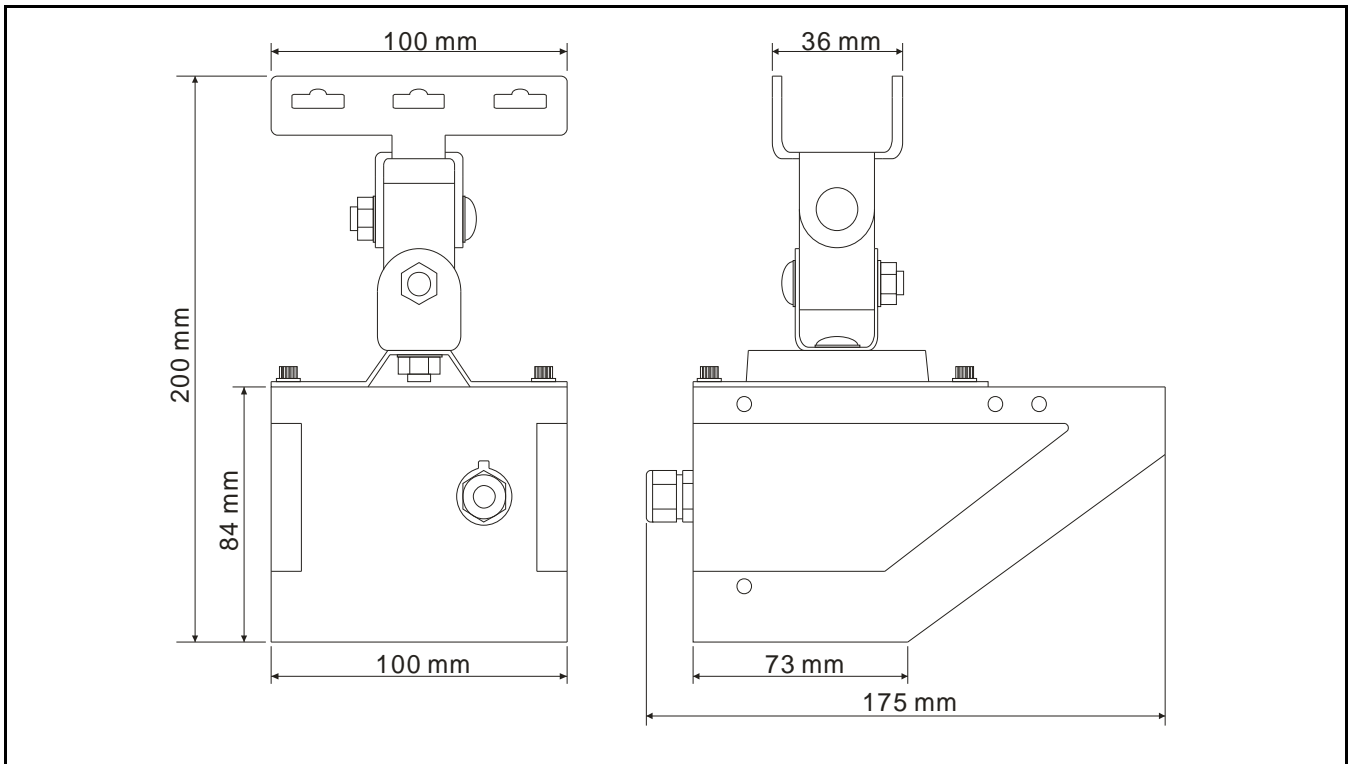
- Process Temperature : $-35\sim 70$ °C
- Housing Material : PTFE - coated Aluminum Alloy
- Protection Class : IP68



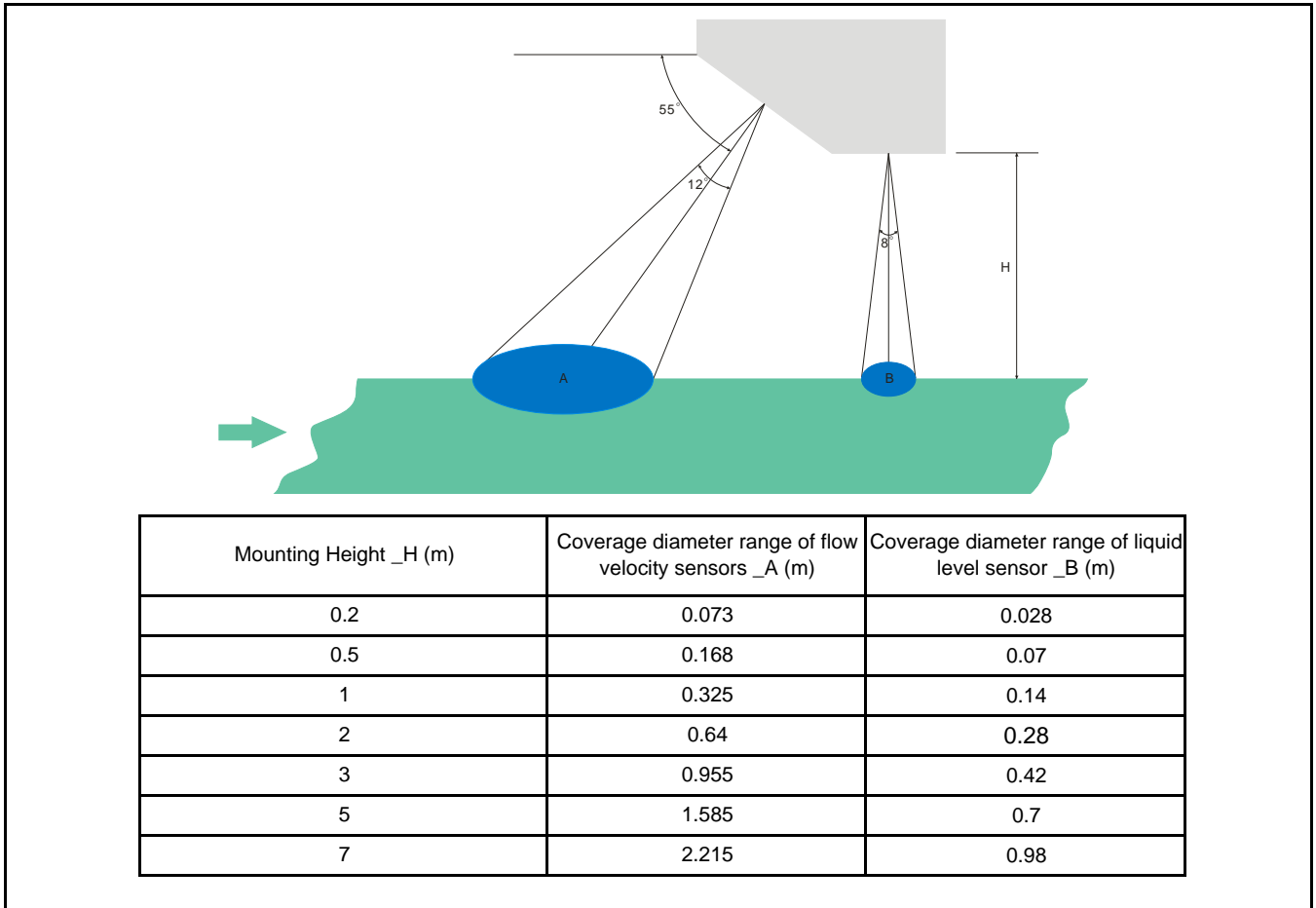
- Display & Recorder : ARC800 (Option)
DIN Size : 96 * 96 mm
Input : RS485 / Universal Input
Output : 4-20 mA, Relay
- Flowmeter Output : 4-20 mA (Option)
Load : Max. 500 Ω
Output Type : Liquid level, Distances, flow rate
- Flowmeter Communication : RS485 (MODBUS RTU Protocol)
- Communication Interface : RS485
9600 bps-115200 bps
8 bit, non parity
1 bit stop
- Power Supply : 7-32 VDC
5.5-32 VDC (Option)
- Operating Current :
Work Mode : ≤ 25 mA at 12 VDC
Standby Mode : ≤ 1 mA at 12 VDC
- Lighting Protection Grade : 6 KV
- Remote Cable Length : Max. 200 m
- Dimensions : 160 * 100 * 90 mm
- Weight : < 1 kg
- Mounting : Pole Mounting



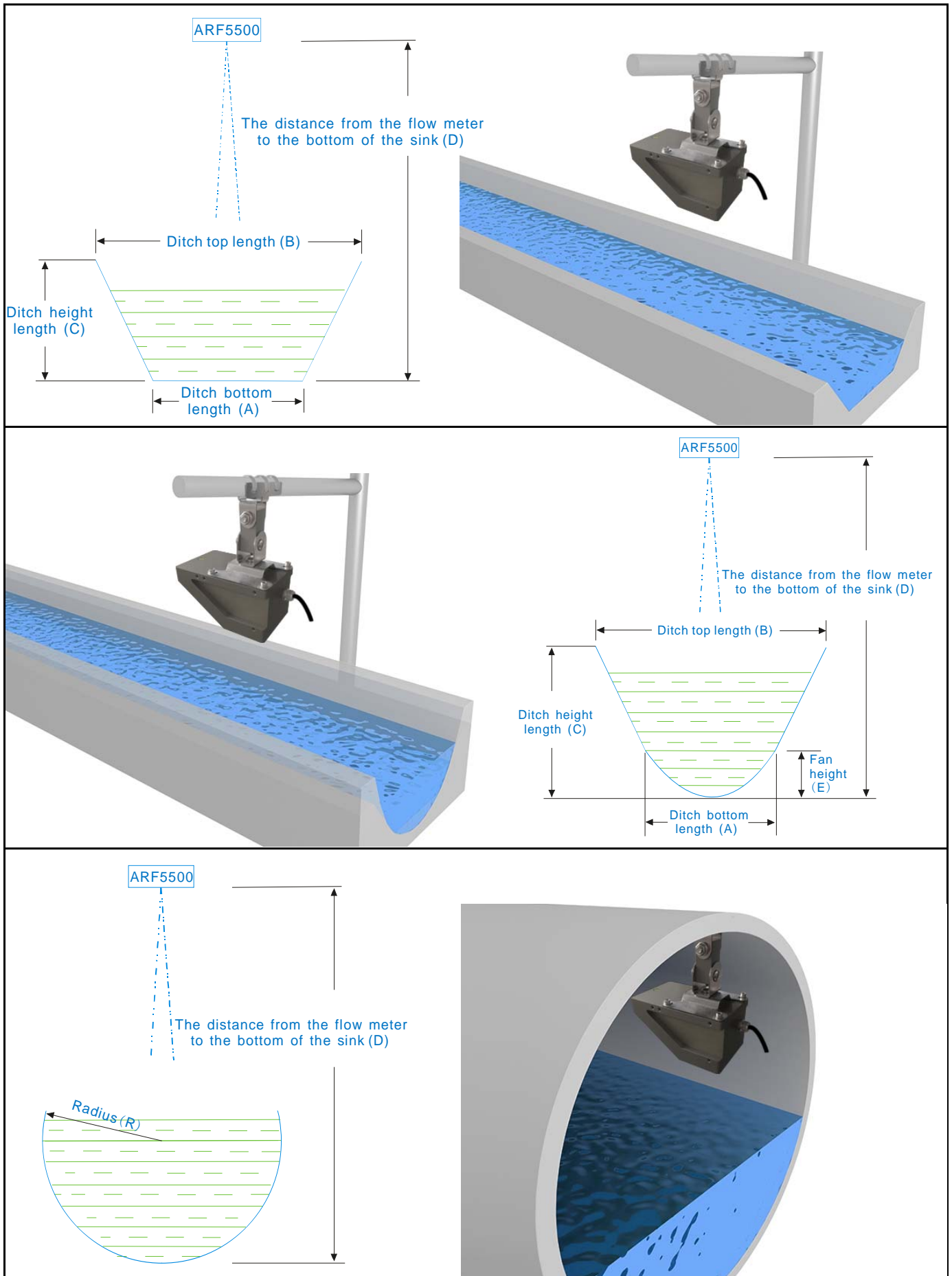
➤ DIMENSIONS



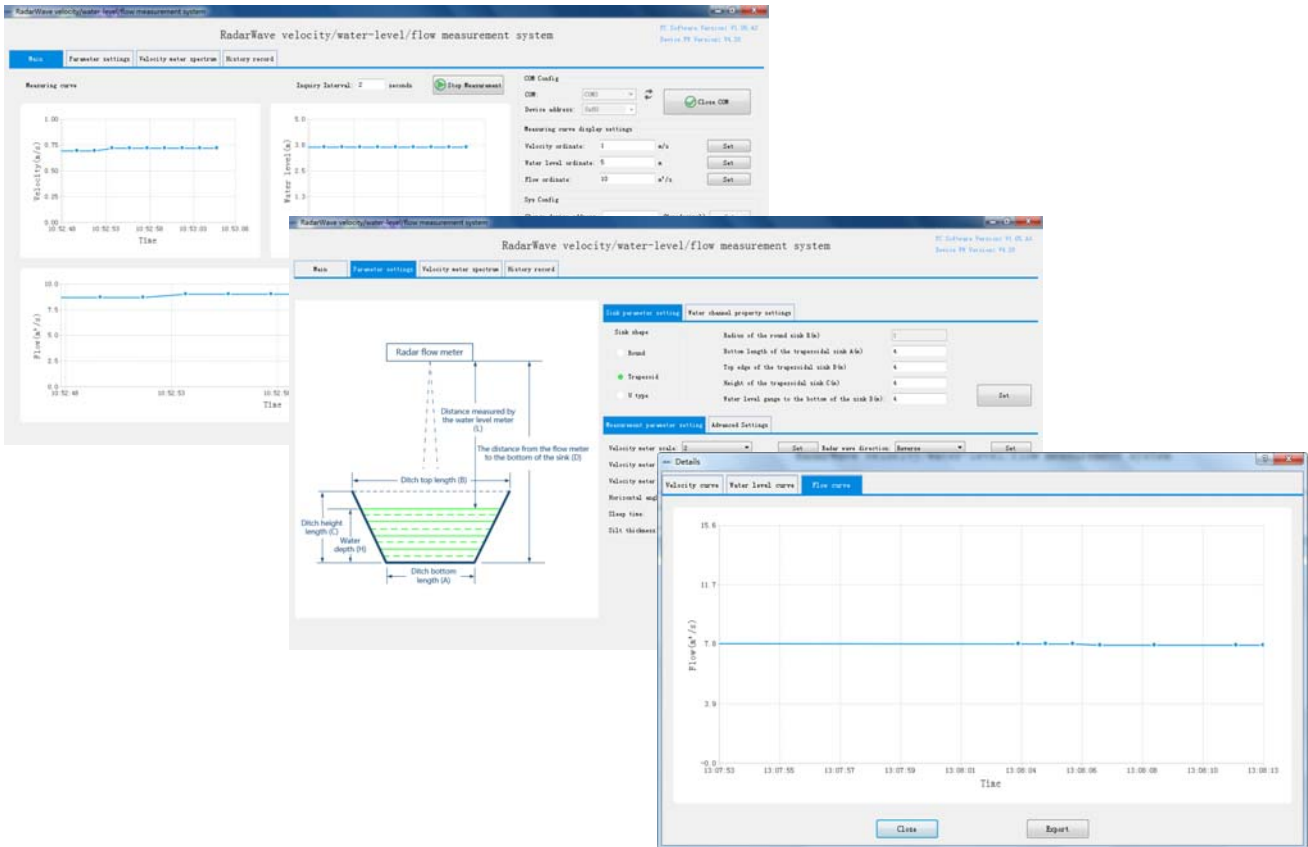
➤ INSTALLATION



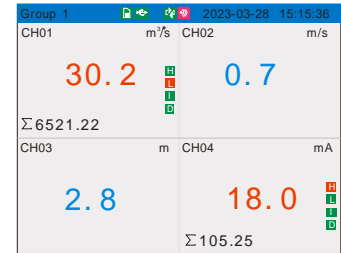
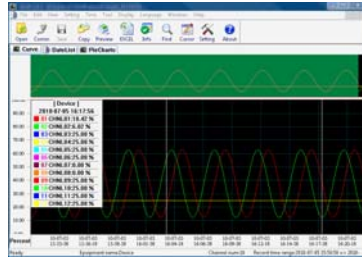
APPLICATION



SOFTWARE



Paperless Recorder ARC800



MODEL SELECTION GUIDE

ARF5500 Series

Example: ARF5500-07-A1-010-NN

ARF5500-	XX-	XX-	XXX	-XX	Description
Level Range	07-40				0.2-7 meter, 0.2-10 meter, 0.2-20 meter, 0.2-30 meter, 0.2-40 meter
Output	NN-				RS485 Output
	A1-				RS485 and 4-20 mA Output
Cable Length		010-200			Remote Cable Length 10-200 m
Option			-NN		None
			-PR		ARC800-U4-A-R2-D-AC *1set