

C-P7 Flow Measuring Instrument



1. Product Introduction

The C-P7 flow measurement pod integrates a radar flow meter, a non-contact water level meter, and a fixed-focus camera. It uses non-contact measurement and is not affected by debris such as silt and aquatic plants. The built-in algorithm model ensures that the flow is accurate, stable, and reliable, the pod uses professional two-axis mechanical stabilization technology with a stabilization accuracy of $\pm 0.01^\circ$. It supports connection with unmanned aerial vehicles through a quick-release interface and can be used in multiple industries such as hydrology, flood control and drainage, and environmental protection and sewage monitoring.

2. Product Feature

1. Without destroying the water flow pattern, intelligent water surface echo spectrum analysis algorithm and intelligent water level tracking and identification algorithm are used to ensure accurate, stable and reliable flow measurement data.
2. Non-contact measurement, not affected by silt, sediment, plants, temperature, condensation, etc.
3. The FMCW frequency modulated continuous wave mode has a large bandwidth and high ranging accuracy;
4. It has a high signal-to-noise ratio and strong anti-interference ability;
5. Video resolution: 720P@25fps;
6. Cooperating with the UAV ground station software, it can import cross-section information in real time, directly complete flow calculation, and output flow velocity, water level, instantaneous flow and cumulative flow;
7. Mechanical two-axis stabilization, $\pm 0.01^\circ$ stabilization accuracy;
8. Weight: 770g
9. Supports connection with unmanned aerial vehicles via quick-release interface;
10. Support DJI Skyplot and third party platform;

3. Technical Parameters

Items		Parameters
Functional index	2-axes image stabilization	Supported
	Network video output	Supported
Technical index of water level gauge	Frequency	24 ~ 26GHz
	Beam angle	10°
	Antenna	Planar microstrip array antenna
	Principle of water level measurement	Frequency modulation continuous wave -FMCW
	Range	0.25 ~ 80m
	Range accuracy	±2mm
	Resolution	1mm
Current meter technical specifications	Operating frequency	24 GHz
	Velocity measurable range	0.1 ~ 20m/s
	Rate accuracy	±0.01m/s; ±1%FS
	Beam angle	12°
Camera technical index	Video resolution	720P@25fps
Pod technical specifications	Stability enhancement accuracy	±0.01°
	Max controllable speed	Pitching direction (TILT) : ±200°/s
	Controllable rotation range	Pitching direction (TILT) :-50° ~ +50°
Complete machine technical index	Operating ambient temp.	-20°C ~ 60°C
	Storage ambient temp.	-20°C ~ 70°C
	Operation ambient humidity	≤85%RH (Non Condensing)
	Size	21×21×19CM
	Product Weight	770g
	AVG Power consumption	6.0W