

ISIIS-DPI Plankton Shadowgraph Camera

Model: ISIIS-DPI P75

Overview

The **ISIIS-DPI P75** is designed for researchers seeking to quantify and visualize planktonic organisms and particles at the **mesoplankton scale**.

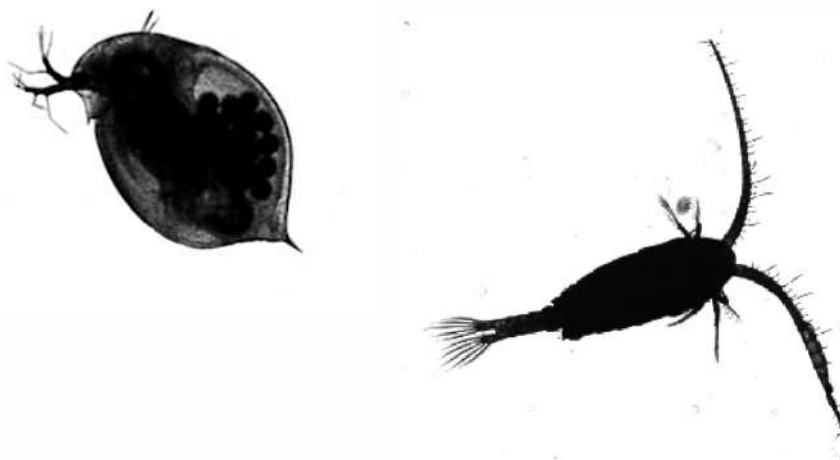
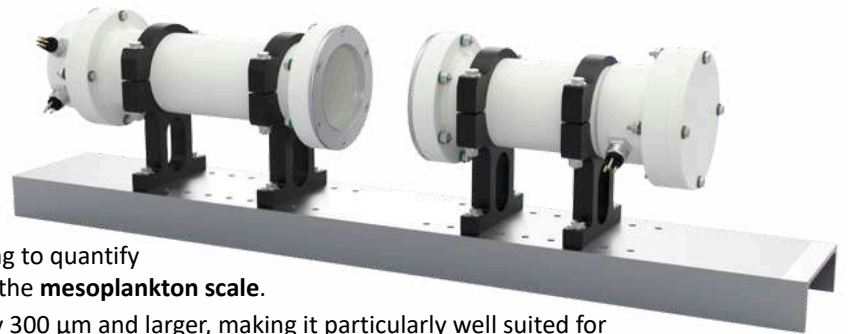
It is optimized for imaging organisms approximately 300 μm and larger, making it particularly well suited for studies focused on **copepod-sized taxa, larval stages, aggregates, and gelatinous organisms**—all within their natural spatial distributions.

By combining a large imaged volume, high frame rate, and compact form factor, the P75 enables statistically robust sampling of plankton communities in both freshwater and marine environments. It can be deployed from small vessels, towed platforms, or profiling systems. With the ability to capture high-quality imagery at up to 20 frames per second, the P75 is especially effective for observing patchiness, fine-scale vertical structure, and fragile gelatinous taxa that are poorly captured by traditional nets.

The P75 is available in two depth configurations to match mission requirements. A 60 m-rated acetal housing is ideal for lakes, rivers, estuaries, and coastal applications where ease of handling and rapid deployment are priorities. For deeper or more demanding environments, a 1,000 m-rated aluminum housing provides extended operational range and increased safety margins for offshore and deep-water missions, without compromising optical performance.

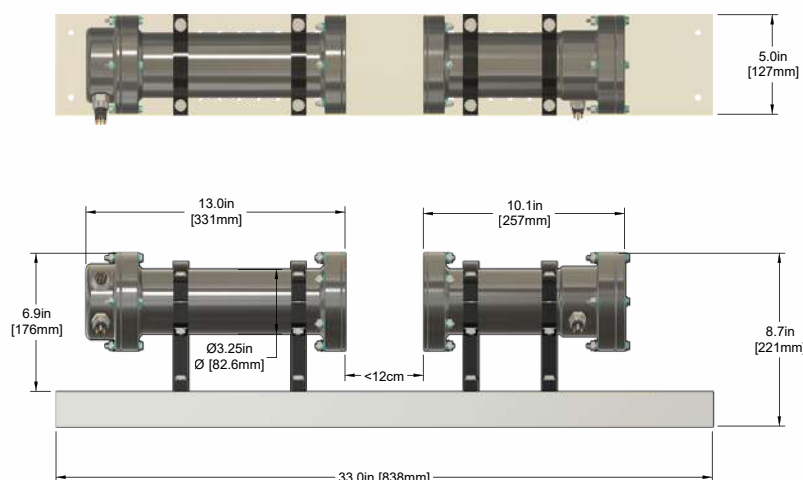
Mounted on a rigid beam, the ISIIS-DPI P75 allows users to adjust the spacing between optical pods. This flexibility enables researchers to balance resolution and sampled volume to meet specific scientific objectives.

The P75 integrates seamlessly with SIDEKICK Performance, allowing plankton imagery to be synchronized with complementary oceanographic measurements. The result is a compact, field-proven system that simplifies deployment while enabling quantitative, environmentally contextualized plankton studies.



ISIIS-DPI Plankton Shadowgraph Camera | P75

	60m Rating	1,000m Rating
Enclosure Material	Black Acetal	Anodized Aluminum
Weight in Air	7.6 Kg	9.4 Kg
Weight in Water	1.9 Kg	3.7 Kg



Features

Standard Field of View: 48mm x 48mm

Standard depth of Field: 100 to 150mm

Pixel Resolution: 26µm/pixel

Recommended for Particles: >300µm

Max. Water Speed * 3.25 knots

* 100 % coverage condition; higher flow implies sub-sampling.

Image File Size 3.33MB, 1830 px x 1820 px

Camera resolution: 5MP sensor, 3.45µm pixels, 2/3"

Camera Frame Rate: up to 30fps

Light: Blue 475nm, Red 630nm as an option

Power: 12V 6 Watts

Connectors: MCBH8M-CAT, 2 x MCBH2M-Power

Deployment Methods

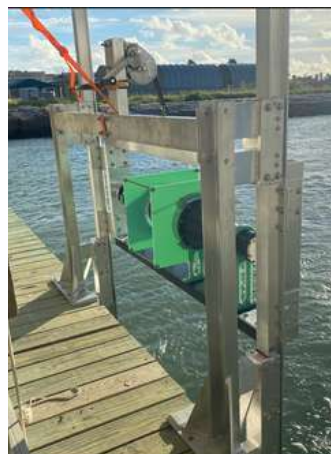
CTD Rosettes



Towed Vehicles



Piers & Mesocosms



Small Boats

