

# ISIIS-DPI Plankton Shadowgraph Camera

Model: ISIIS-DPI P100

## Overview

The **ISIIS-DPI P100** is a mid-size imaging solution designed for studies requiring **increased sampled volumes** while maintaining high-quality imaging of **mesoplankton and fragile organisms**. Offering a very similar resolution as the P75, it is particularly well suited for investigations where maximizing water volume per image is critical.

When optimized for organisms approximately 500  $\mu\text{m}$  and larger, the P100 can achieve a depth of field approaching 20 cm with a field of view of  $\sim 61 \times 61$  mm, significantly increasing the imaged volume. Alternatively, the system can be configured to resolve organisms down to  $\sim 300$   $\mu\text{m}$ , offering a larger field of view than the P75 while trading some depth of field to limit focus degradation and maintain image quality.

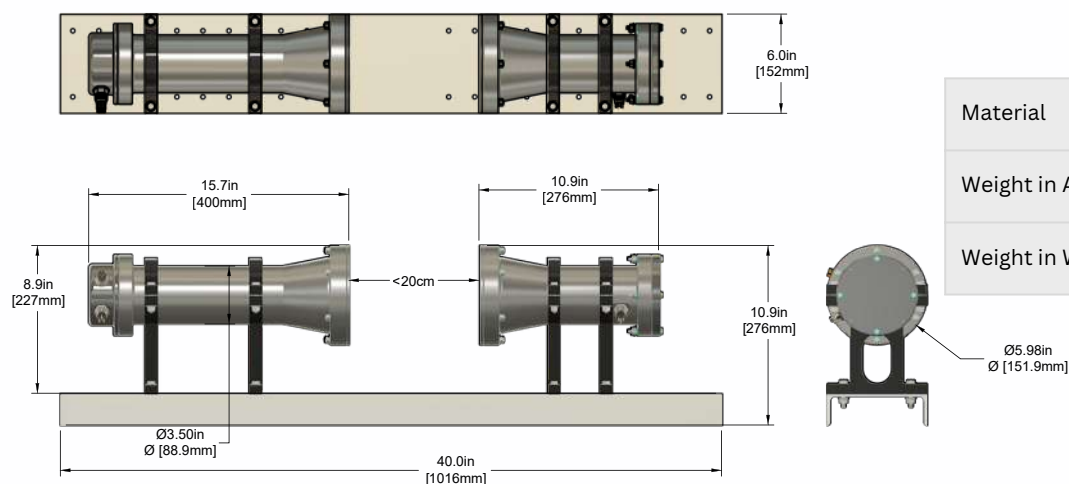
The P100 samples approximately 0.74 L per image, compared to 0.28 L for the P75, providing a substantial gain in volumetric sampling. Like the P75, it can be towed at speeds up to 3.25 knots, making it compatible with a wide range of platforms and survey strategies, including towed vehicle transects and large-area mapping.

As with all ISIIS-DPI P-series systems, the P100 is available in 60 m and 1,000 m depth-rated configurations. The P100 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 | P100



	60m Rating	1,000m Rating
Material	Black Acetal	Anodized Aluminum
Weight in Air	11.2 Kg	13.8 Kg
Weight in Water	3.0 Kg	5.7 Kg

## Features

**Standard Field of View:** 61mm x 61mm

**Standard depth of Field:** 100 to 200mm

**Pixel Resolution:** 30µm/pixel

**Recommended for Particles:** >500µm

**Max. Water Speed \*** 3.25 knots

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

**Image File Size** 4.2 MB, 2050 px x 2045 px

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

**Camera Frame Rate:** up to 27fps

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

**Power:** 12V 6 Watts

**Connectors:** MCBH8M-CAT, 2 x MCBH2M-Power

## Deployment Methods

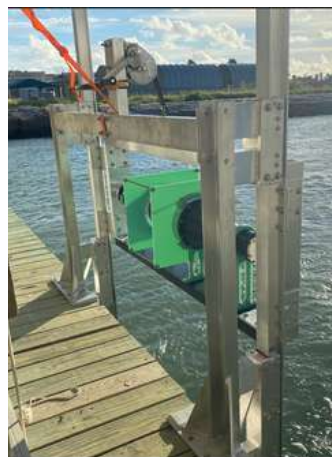
Towed Vehicles



Multiple Nets



Piers & Mesocosms



CTD Rosettes

