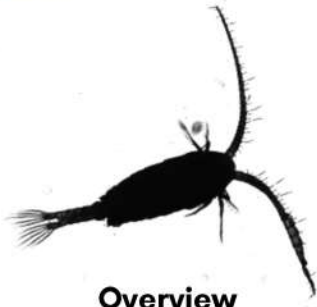


# ISIIS-DPI Plankton Shadowgraph Camera

Model: ISIIS-DPI P75F



## Overview

The **ISIIS-DPI P75F** is a compact, low-drag shadowgraph imaging system delivering the full optical performance of the ISIIS-DPI P75 in a **folded-path form factor** engineered for **gliders and AUVs**. It quantifies and visualizes planktonic organisms and particles at the mesoplankton scale, optimized for organisms approximately **300  $\mu\text{m}$  and larger**.

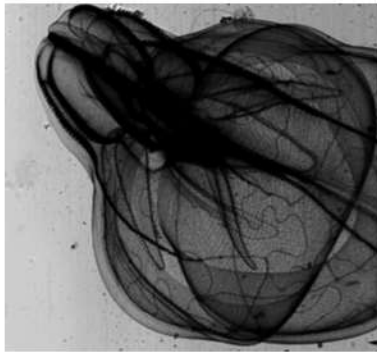
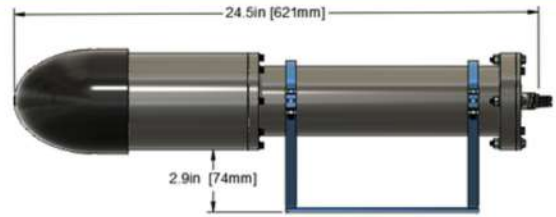
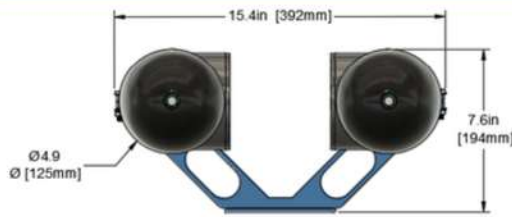
Despite its minimal footprint, the P75F retains the telecentric optical design and 26  $\mu\text{m}/\text{pixel}$  resolution of the P75, with a **48mm  $\times$  48mm field of view** and a **120mm depth of field**. Images are output as full-resolution files over Gigabit Ethernet, keeping the interface simple and the integration flexible.

The P75F is designed as a camera-only unit: image acquisition and logging are handled externally, giving integrators full freedom over their data pipeline. It is natively compatible with our SIDEKICK Sentinel low-power logging system, and equally at home paired with a Raspberry Pi 4 or similar single-board computer — with open acquisition code available on request.

Power draw and hydrodynamic drag are minimized without compromise to image quality, making the P75F the imaging payload of choice for long-duration autonomous missions.



# ISIIS-DPI Plankton Shadowgraph Camera | P75F



1.89"  
[48 mm]

1.89" [48 mm]

## Features

**Standard Field of View:** 48 mm x 48 mm

**Standard depth of Field:** 120 mm

**Pixel Resolution:** 26  $\mu\text{m}$ /pixel

**Recommended for Particles:** >300  $\mu\text{m}$

**Water Sampled per frame** 300 mL

**Light:** Blue 475nm / Exposure active

**Material:** Hard anodized Aluminum  
Sapphire viewport

**Weight in air:** 9.3 kg

**Weight in water:** -0.5 kg

**Camera resolution:** 1900 px x 1900 px, 3.5 $\mu\text{m}$  pixel

**Camera sensor:** 2/3" Sony IMX264, global-shutter

**Camera Frame Rate:** 20fps

**Image File Size** ~4 MB / frame

**Power:** 12V @ 3 Watts

**Depth Rating:** 1,000m

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

**Communication:** Giga-ethernet

## Deployment Methods

Gliders



AUVs



Plankton Nets

