

DSC 24,000 Digital Still Camera



Dome Port Camera in a 6,000 Meter Titanium Housing

The Ocean Imaging Systems (OIS) DSC 24,000 Digital Still Camera represents the next step in the performance of underwater digital cameras. Featuring a 24.1 million pixel sensor, a Nikon F mount lens, high pressure optical glass view port and various housing options, the DSC 24,000 offers exceptional image quality for ROV, towed and autonomous applications.

By utilizing a completely unmodified Nikon D7100 digital camera, the DSC 24,000 is able to utilize high quality Nikon 20mm lenses, while allowing for relatively inexpensive and easy camera body and/or lens replacement.

A custom control PC board provides autonomous intervalometer functions, remote control capability and high efficiency power management, required for long term deployments.

The mechanical packaging and electrical design of the DSC 24,000 have been done with an eye towards upgrading the camera body as newer and higher performing cameras become available. The camera is offered with four housing options (17-4 Stainless Steel, 316 Stainless Steel, 6AL-4V Titanium, and Anodized 6061-T6 Aluminum).

The DSC 24,000 can be paired with the model 3831 strobe to create a completely autonomous, self powered camera system.



Camera system mounted on a frame for bottom contact (pogo) operation.



Antarctic Starfish. Picture Courtesy of Dr. Craig Smith – University of Hawaii.

SPECIFICATIONS:

CAMERA:

Camera Body: Nikon D7100 SLR
 Sensor: 23.5 x 15.6 mm CCD with 24.71 million total pixels
 Image Size: 6,000 x 4,000
 Storage: Dual redundant 16.0 Gbyte SD card standard
 Capacity (16G SD card): ~1,000 Images, JPEG Fine

OPTICS:

Lens: Nikkor 20mm f2.8
 Field of view: 33°(v) x 48°(h) x 57°(diagonal)

MECHANICAL:

Outside diameter: 7.5" (19cm)
 Length: 9.0" (22.9cm)

STANDARD CONNECTORS:

4 Pin connector for RS-232 control and setup
 6 Pin connector for USB download of images
 8 Pin connector for interface to strobe & ext. power

OPTIONAL CONNECTOR:

2 Pin connector for optional lasers
 2 Pin connector for optional video output

WEIGHTS:

	<u>Aluminum</u>	<u>316 Stainless</u>	<u>17-4 Stainless</u>	<u>Titanium</u>
Weight in air (approx.):	9.1 kg (20.0 lbs)	21.8 kg (48.0 lbs)	20.9 kg (46.0 lbs)	12.3 kg (27.0 lbs)
Weight in water (approx):	3.2 kg (7.0 lbs)	15.9 kg (35.0 lbs)	15.0 kg (33.0 lbs)	6.4 kg (14.0 lbs)
Operating Depth:	2,000 meters	2,000 meters	6,000 meters	6,000 meters



Camera mounted on a tripod for long term deployment.
 Dr. Peter Linke - GEOMAR



Camera system mounted on a bottom grab.



2,000 Meter camera with optional lasers.



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