

## Digital Stills Camera



The compact underwater digital stills colour camera allows electronic photographic quality images to be captured that far surpass those gained when using topside video-grabber equipment.

Each image is framed using real-time video and is temporarily stored in on-board memory (sizes available from 16MB to 512MB). The image can then be uploaded to the surface via RS485 or RS232 telemetry lines.

When used with the dedicated flash gun, the TTL (through-the-lens) flash metering gives accurate exposure measurement.

The Graphical User Interface software allows the operator to adjust a wide range of parameters including image capture, quality and size, focus, zoom, exposure and image download.

Image resolution and size is selectable from 2048 x 1536, XGA, VGA or 3:2 (35mm format). Images are stored in standard uncompressed TIFF or compressed JPEG file format. Optical zoom range is 3x, from 38mm – 115mm (35mm equivalent), with a maximum aperture of f2.5 – 4. The camera incorporates water correction optics offering a tailored design of 5 lens elements in total, for optimum image quality.

### Standard Features

#### Electrical

Image Resolution	Selectable from a range between 2048* 1536 pixels and 2048* 1360 pixels
Light Sensitivity	ISO 100, 200, 400 Automatically Selected 0.05 Lux (faceplate)
Scene Illumination	1.7 Lux
Sensor Type	1/1.8" format high density CCD sensor
Signal to Noise	>41dB
Framing Video	625 Line / 50Hz PAL 525 Line / 60Hz NTSC
Power Input	Constant Voltage 16V-24V dc 1.5A (max) with Flash Gun, 700mA (max) camera only
Image Storage	Images digitally stored in internal memory Estimated capacities of fine quality JPEG images on a 521Mb card are At 2048* 1536 resolution - 320 images at 620* 480 resolution - 3200 images
Up-load times	XGA 1024x768 pixel image size Fine resolution file size 400kB JPEG compression Estimated up-load time for 1 image = 35s
Electro-Magnetic Compatibility	EN50081 - Emission EN50082-1 Immunity

#### Environmental

Water Depth	3000 metres
Temperature	<b>Operating</b> -5°C to +40° in water <b>Storage</b> -20°C to +60°C <b>Vibration</b> 10g, 20 -150Hz 3 axes (non-operating) <b>Shock</b> 30g peak, 25ms half-sine pulse

#### Optical

Standard Lens	f=8 - 24mm [35mm (135) format equivalent to 38 – 115mm] f/2.5 – 4 with macro
Iris Control	Automatic (factory set) Manual override available
Focus Control	50mm to infinity Manual mode allows focus to 20mm
Angle of view	(7.5°)* 24°-60° diagonal in water *with digital zoom

#### Mechanical

Size	Diameter 154mm exc. Guard Length 181mm exc. Connector
Weight	Air 6.4kg Water 3.0kg
Standard Housing	Titanium alloy 6AL/4V ASTM B348
Connector	8 Pin Burton 5506-1508

