

Surveyor-SD

Colour zoom camera

The Teledyne Bowtech SURVEYOR-SD underwater colour zoom camera utilises CCD technology, delivering exceptional picture quality, with a 28:1 optical zoom lens and a horizontal resolution of 670 TV lines, all within a 4,000 (or 6,000) metre rated high quality titanium housing, with a 99.7% optically clear sapphire window.

The camera features advanced back light compensation technology, which dramatically improves the cameras dynamic range, resulting in clear image reproduction in extreme high-contrast environments, known as wide dynamic.

An IP optional output can be specified which can deliver H.264 or Motion JPEG on multiple streams at full frame rate in all resolutions up to D1 (720x480 NTSC, 720x576 PAL).

The camera is controlled via a Bluetooth handheld tablet.

The device will allow the user to perform functions such as:

- Control Zoom
- Control Focus
- Select Light Source Colour Temperature
- Open or Close Camera Iris
- Change Camera control Methods



Applications: ROV/AUV, Defence

PRODUCT FEATURES AND BENEFITS

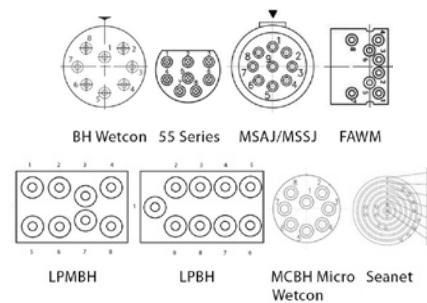
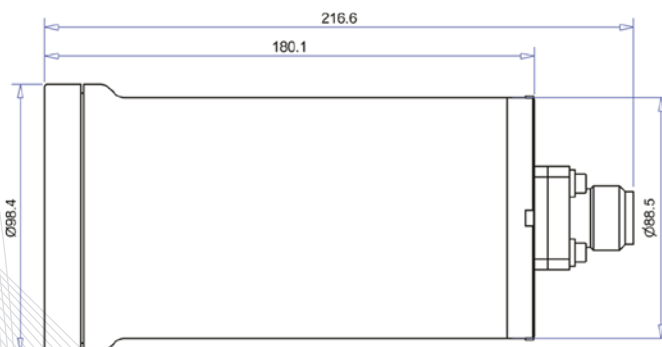
- High resolution colour 670 TV lines
- Wide angle 72° diagonal in water
- Remote setup via GUI application and/or Bluetooth
- Handheld tablet
- Composite output or Ethernet option
- Low light sensitivity 3×10^{-2} lux faceplate
- 4000m or optional 6000m depth rated titanium housing
- 28:1 optical zoom
- Wide dynamic

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TECHNICAL SPECIFICATIONS

Electrical	Resolution	670 TV lines horizontal, 570k pixels
	Minimum Illumination	0.4 lux typical @ f1.35, 50 IRE
	Limiting Light Sensitivity	0.03 lux (faceplate)
	Sensor Type	SUPER-HAD II CCD
	Wide Dynamic Range	On/Off
	Signal to Noise Ratio	>50 dB
	Scanning	625 line 50Hz PAL, 525 line 60Hz NTSC
	Input Voltage	11 to 30 Vdc
	Current	400 mA maximum
	Composite Video Output	1.0V pk-pk @ 75 Ω
	Electro-magnetic Compatibility	EN50081-1 Emission / EN50082-1 Immunity
	Control Options	Single wire bipolar, RS232 or RS485 input
	Ethernet Video Compression	H.264 (MPEG-4 Part 10/AVC) Motion JPEG
Ethernet Video Resolution	NTSC 720x480 to 176x120, PAL 720x576 to 176x144	
Environmental	Depth Rating	4000m or 6000m options
	Storage Temperature	-20°C to +60°C
	Operating Temperature	-5°C to +50°C
	Shock	3 axis (operating), 30g peak, 6ms half-sine pulse
	Vibration	10g, 20-150Hz
Optical	Optical Zoom	28:1 3.5mm to 98.0mm focal length
	Digital Zoom	12 x (432x with optical zoom) deactivated as standard
	Angle of View	72° diagonal in water (60° horizontal, 46° vertical), 96° diagonal in air
	Iris Control	Automatic, f1.35 to close
	Focus Control	Front window to infinity (wide), 1500mm to infinity (zoom)
	Window	Sapphire glass
	Dimensions	98.4mm (front retainer) (d) x 180.1mm (4,000m), 183.6mm (6,000m) (l) (excluding connector) Camera length will be increased by 23mm for Ethernet output
Mechanical	Weight in Air	2.7kg
	Weight in Water	1.33kg
	Standard Housing	Titanium alloy grade 5 6AL-4VASTM B3 48
	Connector	Large selection of connectors available



Specifications subject to change without notice.
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