

SURVEYOR-SD-100

Colour Zoom Camera



underwater **vision** specialists

Features

- 36:1 Optical Zoom
- 550 HTV Lines
- Wide Dynamic Range
- 54.2° Diagonal Angle of View
- 100 Metre Rated Stainless Steel Housing
- Low Light Sensitive



Description

The Bowtech Products SURVEYOR-SD-100 underwater colour zoom camera, utilises Sony's latest ExView HAD™ CCD technology, delivering exceptional picture quality, with a 36:1 optical zoom lens, as well as a horizontal resolution of 550 TV lines, all within a 100 metre rated, high quality stainless steel housing, with a non-browning fused silica Spectrosil® window.

This camera is ideal for nuclear inspection applications. The 36:1 optical zoom allows the SURVEYOR-SD-100 to be located further away from the subject being viewed, compared to traditional cameras. This reduces the effects of radiation, resulting in an increased camera life.

One of the many unique features of this camera is the advanced backlight compensation technology, which dramatically improves the camera's dynamic range, resulting in clear image reproduction in extreme high-contrast environments, known as wide dynamic.

The camera captures the same image twice, first with a normal shutter speed and then with a higher shutter speed. The dark areas are captured at normal shutter speed and the bright areas are captured at high shutter speed. These are then combined into one image, using an advanced DSP LSI, thus clearly reproducing high-contrast images of the original scene.



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Specification – SURVEYOR-100

ELECTRICAL

Resolution, Horizontal:	550 TV Lines PAL/NTSC
Sensor Type:	1/4" Sony EX-View HAD™ CCD
Minimum Illumination:	1.4 Lux Typical @ f1.6, 50 IRE
Limiting Light Sensitivity:	0.04 Lux (faceplate)
Wide Dynamic Range:	On/Off
Signal to Noise Ratio:	>50dB
Scanning:	625 Line 50Hz PAL, 525 Line 60Hz NTSC
Voltage:	11-30Vdc
Current:	400mA Maximum
Composite Video Output:	1.0V pk-pk, Y/C (S-Video) Available
Electro-magnetic Compatibility:	EN50081-1 Emission/EN50082-1 Immunity
Control Options:	Single Wire Tristate, Two Wire Bipolar, RS-232 Input, USB, RS-485
Long Line Compensation:	Switched Internally

ENVIRONMENTAL

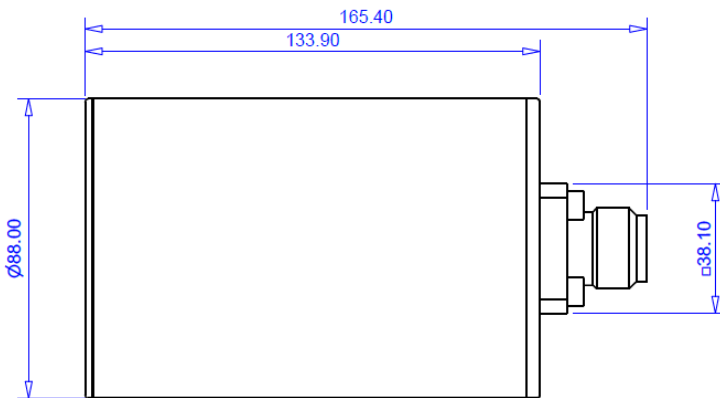
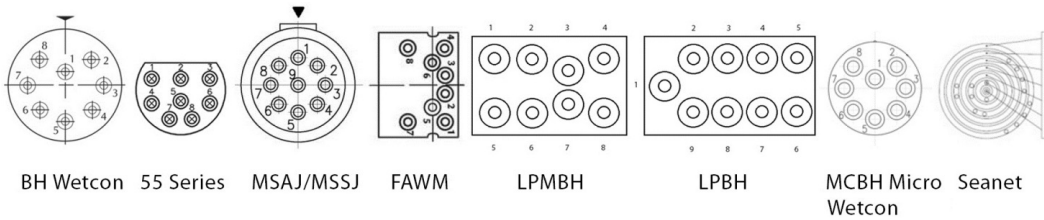
Water Depth:	100m
Storage Temperature:	-20 to +60°C
Operating Temperature:	-5 to +50°C
Shock 3 Axis: (operating)	30g Peak, 6ms Half-sine Pulse
Vibration 3 Axis: (operating)	10g, 20-150Hz

OPTICAL

Optical Zoom:	36:1 3.4mm to 122.4mm Focal Length
Digital Zoom:	12x (432x with Optical Zoom) Deactivated as Standard
Iris:	Automatic, f1.6 to Close
Focus Control:	Front Window to Infinity (wide), 1500mm to Infinity (zoom)
Angle of View:	72.25° Diagonal in Air, 54.2° Diagonal in Water
Window:	Spectrosil® (non-browning fused silica)

MECHANICAL

Housing Diameter:	88mm (3.46") Front Retainer
Length:	133.9mm (5.4") Excluding Connector
Weight in Air:	2.75kg (6lbs)
Weight in Water:	1.75kg (3.85lbs)
Standard Housing:	316/304 Stainless Steel
Standard Connector:	Large Selection of Connectors Available



(connector face patterns not to scale)



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