

Super SeaSpy

Underwater Video Camera with LED Array



Applications

- ROV inspection and ancillary camera
- ROV intervention tooling camera
- Search and inspection
- Restricted access area inspection
- Marine science research

An integrated array of high power LEDs ensures the camera always has light to operate. The Super SeaSpy is also fitted with an Ivanoff corrected lens system that optimises the picture quality by reducing radial distortion and reducing chromatic aberration. An additional integral video line driver can be fitted to compensate for attenuation of the signal when used through longer cables.

Benefits

- Compact design
- Dynamic light control
- Optimised illumination
- Water corrected optics
- Easy to install

Features

- 4000m depth rating
- Dynamic or manual illumination
- Evenly distributed beam from LED
- Optimised optics using Ivanoff correction
- Amplified video for long umbilical

The Trittech Super SeaSpy underwater video camera is a compact, high resolution, full colour camera with integral low voltage lighting. Built to survive the harsh underwater inspection environment, the Super SeaSpy has been designed to be compact and rugged, whilst providing high quality colour video.

The Super SeaSpy incorporates a ring of white LEDs, which provide uniform illumination over the field of view. The LED engine utilises dynamic light control, which automatically adjusts the lighting level to optimise video image quality, regardless of the reflectivity of the work surface. This feature also helps to enhance picture quality by reducing the amount of backscatter from suspended particles in the water column.

This integral lighting provides a camera that is suited for close proximity inspection work where little or no lighting is available. The Super SeaSpy is also specified for ROV intervention tooling by several of the major developers in this field.

Key Specification

Vertical resolution	550 lines
Focus range	50mm / 2inch to infinity
Power requirement	12 to 48V DC (drawing 4.8W at 24V)
Connector options	Trittech 6-pin connector or Schilling SeaNet
Dimensions	53mm x 82mm / 2.091in x 3.23in
Depth rating	4000m / 13,124ft
Weight in air	0.65kg / 1.44lbs
Weight in water	0.45kg / 1.00lbs

Optical	
Video System	PAL
Vertical resolution	550 lines
Scanning system	625 lines at 50 Hz
CCD module	1/3" Interline Transfer CCD
Viewing angle	72° in water (diagonal)
Focus range	50mm / 2inch to infinity
Primary lens	Fixed, 4.2mm (f/2.2) Ivanoff water corrected optics
Iris control	Auto Iris
Video output	1V peak to peak composite, 75Ω unbalanced
Signal to noise ratio	>48dB (AGC off)
Other features	Auto white balance, back light compensation, gamma correction

Illumination	
Minimum illuminance	0.5 lux
Illumination	10 lux at 1m / 3.23ft and 110 lux at 0.3m / 0.99ft
Illumination control	Dynamic Light Control, on/off, manual override

Electrical and Communication	
Power requirement	12 to 48V DC (4.8W at 24V)
Standard connector	Tritech 6-pin connector
Optional connector	Schilling SeaNet

Physical specification	
Depth rating	4000m / 13,124ft
Weight in air	0.65kg / 1.44lbs
Weight in water	0.45kg / 1.00lbs
Temperature rating (operating)	-10°C to 35°C / 14°F to 95°F
Temperature rating (storage)	-20°C to 50°C / 4°F to 122°F
Dimensions	53mm x 82mm / 2.091in x 3.23in
Shock	30g _n for 6ms in each axis (operating)
Vibration	Sinusoidal sweep & dwell in each axis from 5 to 150Hz at 10g _n (operating)
Materials	Housing: Stainless Steel 316 Lens: Water corrected optical acrylic

Specification subject to change in line with Trittech's policy of continual product development