

Mini-3D Underwater Stereoscopic Video Camera

Introducing the latest underwater stereoscopic video camera from Curtin's Centre for Marine Science & Technology:



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The Mini-3D underwater stereoscopic video camera has been specifically designed for use on underwater Remotely Operated Vehicles (ROVs) as used in the oil and gas industry. The camera's small size makes it well suited for use on small inspection ROVs, and it requires no additional cabling or umbilical capacity.

Stereoscopic video provides many advantages over regular 2D video. Improved image understanding, improved ability to see through suspended matter or turbid water, improved ability to see through visual clutter, and an improved ability to judge size and distance. For ROVs that are fitted with a manipulator arm, stereoscopic video also improves teleoperation performance - reducing task times and reducing the risk of damage. Low resolution photogrammetry is also possible.

Good feedback has been received from field-usage of CMST's stereoscopic video systems: "ROV operators really felt the system was the answer to increasingly difficult/complex manipulator tasks."

The camera has been developed in cooperation with Welaptega Marine Limited (Canada).

Specifications

Features: 3D Video capture; 2D, field-sequential 3D, or dual-channel 3D video output modes; PAL composite video format (NTSC also available) (SVideo output planned)

Optical: 6mm or 4.5mm auto-iris lenses (other lens options available); lens separation 32mm (centre to centre); minimum illumination: 5 Lux

Video Output: 1 or 2 composite video signals, left and right channel, 1 volt peak-peak, 75 ohm impedance

User Controls: 3D mode selection between 2D, field-sequential 3D and dual-channel 3D.

Connector: 1 x 8pin Impulse IE55-1508-FCR.

Compatibility: Pin-for-pin compatible with regular 2D video cameras; compatible with ROV systems' existing video cabling.

Power Requirements: 15-24 V DC, 200mA.

Dimensions: Diameter 94mm, Length 129 mm (without underwater connector), Length 162mm (with underwater connector), Weight 1.3kg

Enclosure: Anodised aluminium housing with polycarbonate lens ports

Depth Rating: 300m (4000m rated cameras also available)



Curtin CMST's range of Underwater Stereoscopic Cameras

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