

Seahawk diver TV system

oe9020/21



- Rugged
- High resolution colour
- LIM protection

The Kongsberg Maritime OE9020/21 Seahawk Diver TV System sets the standard for professional diver systems world-wide, with diver safety and high quality video being the trade marks of this rugged and reliable system.

A state-of-the-art colour CCD camera, coupled with a carefully designed and optimised lamp, guarantees that the quality of video is as high as you would expect from a world leader in underwater TV.

In accordance with the recommendations of the AODC for the Safe Use of Electricity Underwater, Line Insulation Monitor (LIM) circuitry continually checks the lamp circuit to maximise safety.

The splash-proof controller is compatible with the majority of Kongsberg Maritime Underwater TV Cameras allowing easy upgrades and rapid change of operational application.

The standard Seahawk Diver TV System consists of:

- OE1260A Control Unit**
- OE14-372/373 Colour Camera**
- OE11-135 Mini Lamp**
- 50m Underwater Umbilical**
- Pistol Grip**
- Bracketry**
- Sunlight Viewing Hood**

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Surface control unit

oe1260a



- Rugged
- Splash-proof
- LIM protection

The Kongsberg Maritime OE1260A Surface Control Unit forms the core building block of the Kongsberg Maritime OE9020/21 Seahawk Television System.

The Control Unit has been designed in accordance with the recommendations of the AODC for the safe use of electricity underwater. Line Insulation Monitor (LIM) circuitry continually checks the lamp output circuit to maximise safety.

The splash-proof Control Unit can be powered from a variety of supply voltages. The Control Unit incorporates a multi-standard colour monitor and a Video output for a VCR. It is compatible with the majority of Kongsberg Maritime Underwater TV Cameras allowing easy upgrades and rapid change of operational application.

Standard Features**Electrical**

Input Power	Switchable, 110V / 220V 240V ac (50 / 60 Hz)
Camera Power	24V dc
Focus Control	12V switched bi-polar, 100mA
Lamp Power	0 to 110V ac, 300W maximum, Switched 0 - 35 - 46 - 59 - 81 - 110V
Lamp Circuit	Line Insulation Monitor (LIM)
Safety Protection LIM Sensitivity	10mA
LIM Trip Delay Time	5ms maximum
Electro-Magnetic Compatibility	EN50081-1 Emission / EN50082-1 Immunity
Controls	Power on/off, Lamp Control, LIM, Focus far/near and VCR output

Environmental

Temperature	Operating 0°C to +40°C Storage -20°C to +60°C
Vibration	10g, 20-150Hz, 3-axes (non-operating)
Shock	30g peak, 25ms half-sine pulse

Mechanical

Width	442mm (17.4")
Height	443mm (17.4")
Depth	480mm (18.9"), 392mm (15.4") (without lid)
Weight	30.0Kg



High resolution colour camera

oe14-372/373



- High resolution CCD
- Diver and Vehicle Deployment
- Can drive up to 1200 meters of coax

The Kongsberg Maritime oe14-372 (625 Line/50Hz PAL) and oe14-373 (525 Line/60Hz NTSC) colour inspection camera utilises interline transfer CCD solid-state sensor technology to produce excellent light sensitivity and image definition.

The professional features associated with all Kongsberg Maritime cameras have been built into a compact and rugged underwater housing, ideally suited for diver and vehicle deployment.

The unique, high integrity housing design incorporates a rubberised front end assembly which protects against impact damage.

Video output can be adjusted to compensate for high frequency and amplitude losses in coax cables up to 1200 meters long.

Standard Features

Electrical

Horizontal Resolution	460 TV Lines
Light Sensitivity (Limiting)	0.02 Lux (faceplate)
Signal to Noise Ratio	> 48dB
Sensor Type	1/3" Interline transfer CCD
Scanning	625 Line/50Hz PAL (oe14-372) 525 Line/60Hz NTSC (oe14-373)
Power Input	Constant Voltage 16V-24V dc, 250mA
Video Output	1.0V Pk-Pk composite video into 75 Ω
White Balance	3200K
Electro-Magnetic Compatibility	EN50081-1 Emission/ EN50082-1 Immunity

Environmental

Water Depth	1,500 metres
Temperature Range	Operating -5°C to +40°C Storage -20°C to +60°C
Vibration	10g, 20-150Hz, 3-axes (non operating)
Shock	30g peak, 25mS half-sine pulse

Optical

Standard Lens	2.3mm
Iris Control	Fixed
Focus	250mm to infinity
Angle of View	90° diagonal in water

Mechanical

Diameter	52mm (main body), 66mm (front end)
Length	150mm (excl. connector)
Weight	0.42Kg in Air, 0.20Kg in Water
Standard Housing	HE30T6 Marine Grade Aluminium
External Finish	Hard Anodised, Black Dyed
Connector	Impulse LPBH 3M (or equivalent) Other connector options available



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Miniature underwater lamp

oe11-135



- 300W halogen floodlight
- ROV applications
- 70° beam coverage

Kongsberg Maritime's range of underwater lamps has been designed to address the specific requirements of high quality underwater video inspection and observation tasks.

The OE11-135 is a compact high power lamp specifically designed for diver and ROV deployment applications.

The lamp is fitted with a 115V, 300 Watt high efficiency halogen bulb and produces a broad, even beam of white light which is ideal for the demanding requirements of colour underwater video tasks.

Standard Features

Electrical

Lighting	High efficiency quartz halogen bulb fully variable output.
Luminous Output	4650 lm
Illumination @ 1 metre	550 Lux
Colour Temperature	3200K
Colour Quality (CRI)	100
Beam Angle	>70° (half power points)
Power	115V / 300 Watt
Reflector	Integral internal body reflector

Environmental

Depth Rating	3,000 metres standard
Temperature	Operating -5°C to +40°C Storage -20°C to +60°C
Vibration	10g, 20-150Hz, 3-axes (non operating)
Shock	30g peak, 25mS half-sine pulse

Mechanical

Diameter	68mm (2.7") front end, 48mm (1.9") main body
Length	97mm (3.8") excl. connector
Weight	0.38Kg (0.85lbs) in Air, 0.21Kg (0.46lbs) in Water
Body	6082-T6 Marine Grade Aluminium
External Finish	Hard Anodised, Clear Finish
Connector	EO Type (or equivalent) 59F2M Right-angle Connector options available

Features

Replaceable Rubber Bump guard
Simple 'No-Tool' Bulb Replacement
Replaceable Glass and Connector



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