



January 2016

## HIGH DEFINITION PAN AND TILT ZOOM (PATZ) CAMERA

- **Unique 230° optical viewing**
- **10:1 optical zoom lens**
- **Multi-standard video capability**

The Kongsberg Maritime OE14-522 Underwater HD PATZ Camera with its uniquely designed, precision machined, omega dome provides completely enclosed pan and tilt viewing angles, previously unobtainable. The domed port and optical zoom provide a close-up inspection capability combined with the flexibility of a 10x magnification for standoff inspection. A smooth belt driven Pan and Tilt mechanism provides accurate and infinitely variable speed control head movement.

The OE14-522 is a multi-standard camera with the ability to change video formats by IR remote control (RC) or by GUI.

Video output is available as Component (Y, Pb, Pr) and HD-SDI on coax or fibre connectors (Single or Multi-mode). CWDM alternative wavelengths are also available. It is possible to easily switch to high resolution composite video output if HD is not required for certain tasks.

Long line drive can be set by RC or GUI and allows the component signal to drive three matched coax cables with no degradation over 300 metres. In addition to full

control of the camera using the GUI, white balance can be set to 3,200K, 5,800K or to auto tracking and back light compensation can be switched on or off using the remote control.

The Kongsberg Maritime IR remote control allows camera control set-up. Camera control can be single wire (tri-state), RS485, RS232 or Pelco-D.

The inclusive Kongsberg Maritime Graphical User Interface (GUI) provides control functionality via the serial link.

### Applications

- Marine Science
- Manned Submersibles
- ROV HD Inspection with Independent Pan & Tilt
- ROV SD High Quality Inspection

# TECHNICAL SPECIFICATIONS

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## Performance

Horizontal Resolution	800 TVL/PH
Light Sensitivity	100 mV video at $15 \times 10^{-3}$ lux faceplate 350mV video at 1.1 lux faceplate
Minimum Scene Illumination	2 lux
Signal to Noise Ratio	>54 dB (weighted)

## Electrical

Scan Standard	1080i / 720p, 50 fps 1080i / 720p, 59.94 fps PAL / NTSC VBS Composite video
Sensor Elements	1920 (H) x 1080 (V)
Video Output	HD-SDI over coax, HD-SDI over fibre (SM,MM, CWDM), Component (Y,Pb,Pr), PAL and NTSC composite video
Power Input	16V - 24V dc, 1A (max)
Control	Single wire (tri-state), RS485, RS232

## Optical

Lens	5.1mm to 51mm, F1.8 to F2.1 10x Optical Zoom
AOV in water	Horizontal: 40.5°, Vertical: 23.9°, Diagonal: 45.1°
Iris Control	Automatic (Manual using the GUI)
Focus Range	10mm to infinity (at wide angle), 1000mm to infinity (at narrow angle)

## Angular Coverage

Pan & Tilt	Pan: $\pm 115^\circ$ , Tilt: $\pm 112^\circ$ (with lens at widest angle setting)
Pan & Tilt, Zoom and Focus Control	GUI or optional Joystick Terminal

## Mechanical

Dimensions	Diameter: 140mm (Main Body), 170mm (Dome) Length: 226.5mm (excl. connector)
Weight	In air 6.4Kg, in water 4.4Kg
Housing Material	Titanium alloy 6AL/4V ASTM B3 48
Connector	Configuration dependant

## Environmental

Operating Depth	4,500 msw (Other depth rated housing options are available)
Temperature	Operating: -5 to 40°C, Storage: -20 to 60°C
Shock	30G peak acceleration, 25ms half sine duration, on all three axes
Vibration	10G, from 20 to 150Hz on all three axes
Electromagnetic Compatibility	BS EN 61000-6-3: 2007 Emission and BS EN 61000-6-1: 2007 Immunity

## Features

White Balance	Switch between 3,200K, 5,800K & Auto using the Remote Control or GUI
Back Light Compensation	Switch on and off using the Remote Control or GUI

*Specifications subject to change without any further notice*

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