# OE14-212/213

## Applications

- Inspection
- Tooling Skids
- Observation and Situational Awareness
- Vessel Hull Mount

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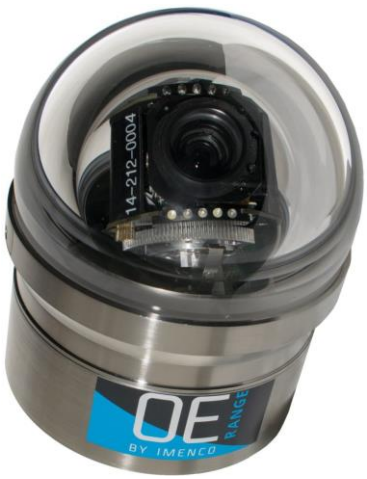


## Colour Zoom Rotate & Tilt Camera (ZRAT)

- 10:1 Zoom Lens
- 205˚ Optical Viewing
- 4500msw Depth Rating
- Integrated LED Lighting

The OE14-212 (PAL) and OE14-213 (NTSC) zoom, rotate and tilt colour camera has been designed primarily for use in subsea environments and is ideally suited to inspection & survey tasks, general observation & situational awareness tasks, restricted access applications, internal pipe and flooded caisson inspection.

The OE14-212/3 (ZRAT) zoom, rotate and tilt colour zoom camera has a unique gimbal head design, providing continual rotation and coverage on the pan axis and 205˚ angular coverage on the tilt axis. With a 10:1 optical zoom lens the OE14-212/3 will focus from as close as 10mm from the front port to infinity, making it the perfect choice for both close up and stand-off inspections.

Packaged within a robust 4500msw depth rated marine grade titanium alloy housing, the OE14-212/3 (ZRAT) camera has been fully qualified to withstand extremes of temperature, shock, vibration and stringent EMC standards, making it suitable for use in the most extreme of marine environments.

Camera functions can be operated via a single wire (tri-state) voltage control system or by using Imenco's proprietary command protocol over an RS485 or RS232 serial link. Camera functions can also be operated using the Pelco-D protocol over an RS485 serial link.

The OE14-212/3 is supplied with a hand held infra-red remote control and GUI (Graphical User Interface) both are included free of charge and have been intuitively designed for ease of use. An optional flange mount housing assembly is also available for integration into research vessels and mega yacht hulls.

For further information, email
camera.sales.uk@imenco.com

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## Technical Specifications

| Performance | |
|---|---|
| Horizontal Resolution | 460 TVL/PH (OE14-212)<br>470 TVL/PH (OE14-213) |
| Light Sensitivity | 100mV video at 15 x $10^{-3}$ lux faceplate |
| Minimum Scene Illumination | 0.16 lux (nominal) |
| Signal to Noise Ratio | >50dB (weighted) |
| **Electrical** | |
| Scan Standards | 625 lines 50 Hz CCIR (OE14-212)<br>525 lines 60 HZ EIA RS170A (OE14-213) |
| Sensor Elements | 752 (H) x 582 (V) (OE14-212)<br>768 (H) x 494 (V) (OE14-213) |
| Video Output | 1V pk-pk composite video into 75Ω |
| Power Input | 16 – 30 VDC, 650mA (max) - inrush current 1.24A@16vdc (10ms) |
| Control | Single wire (tri-state), RS232, RS485 |
| **Optical** | |
| Lens | 4.2mm to 42mm 10:1optical zoom F1.8 to F2.9 |
| AOV in water | Horizontal: 36˚<br>Vertical: 26˚<br>Diagonal: 43.7˚ |
| Iris Control | Automatic (manual control available via GUI ) |
| Focus Range | 10mm to infinity (at wide angle) 1200mm to infinity (at tele angle) |
| **Mechanical** | |
| Dimensions | Diameter 148 (at widest point) |
| Weight | In air: 5.9Kg, In water: 4.2Kg |
| Housing Material | Titanium alloy 6AL/4V ASTM B3 48 |
| Connector | 8 Pin Burton 5506-1508 or customer specified (side or rear entry) |
| **Environmental** | |
| Operating Depth | 4500 msw (other depth rated housing options 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 |
| **Angular coverage** | |
| Rotate<br>Tilt | >360˚<br>205˚ terminal (102.5) Both figures include AOV at zoom wide position |
| Rotate & Tilt, Zoom & Focus control | GUI or optional joystick terminal |



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