

## Multi-purpose pan & tilt

oe10-102



- Extremely durable and compact design
- Harmonic gearing
- Digital or analogue control

The new OE10-102 is an electric multi-purpose pan and tilt unit offering exceptional torque, positioning performance and durability for the toughest subsea tasks. Its compact robust design, high shock & vibration tolerance and other environmental and electrical protection features ensure continuous performance in the harshest environments.

The OE10-102 is either controlled directly by application of hard-wired controls interfaced to manually operated switches or to existing ROV outputs (24VDC or optional 110VAC) or by use of a digital command via RS485 half duplex or RS232 serial data link.

Graphic User Interface (GUI) software and 9 BIT serial feedback is provided as standard and control protocol can be supplied on request. Use of the GUI allows full pan and tilt control, including: speed, "go to" functions and tilt travel limits.

The OE10-102 uses innovative Harmonic Drive gear systems enabling a high torque output (up to 35Nm from a 24V power input), minimal backlash and high positional accuracy and repeatability.

The pressure housing is manufactured from stainless steel as standard and incorporates a pressure compensation unit for reliable deep water operation to 6000m.

Electrical end stops limit both pan and tilt excursion. These can be set up via the GUI or by use of a non-penetrating magnetic switch. RS232 or RS485 can also be selected using this magnetic switch. Mechanical over travel stops can be fitted externally in 30 degree steps.

### Standard Features

#### Electrical

|                                |  |
|--------------------------------|--|
| Input Voltage                  | 12 to 24 VDC (110VAC optional)   |
| Maximum Current                | 2.8 amps per axis  |
| Maximum Output Torque P&T      | 30 to 35 Nm (depending on voltage and control type)  |
| Nominal Output Speed           | 13 to 30 Deg/second  |
| Limit Switches                 | External adjustable magnetic stop positions<br><br>Electrically adjustable by digital control  |
| Position Feedback              | 9 bit resolution accuracy serial output (approx ±2°)   |
| Control                        | Switched - Direct application of ±12 to 24VDC<br><br>Digital - RS485 Half Duplex (multidrop) or RS232.<br><br>GUI is inclusive. Control protocol available |
| Protection                     | Over-voltage protection on digital inputs and outputs  |
| Electro-Magnetic Compatibility | BS EN 61000-6-3 2007 Emission<br>BS EN 61000-6-1 2007 Immunity   |

#### Environmental

|                           |   |
|---------------------------|---|
| Operating Depth           | Up to 6000 metres                                 |
| Temperature Range         | Operating -5°C to +40°C<br>Storage -20°C to +60°C |
| Shock                     | 30g peak, 25 ms half sine pulse                   |
| Vibration (non-operating) | 10g, 20Hz to 150Hz in all three axes              |

#### Mechanical

|                      |  |
|----------------------|--|
| Gearbox              | Harmonic Drive   |
| Maximum Payload      | 25kg (55lbs) in air  |
| Backlash             | ±0.08°   |
| Dimensions           | 169mm (H) x 150mm (L) x 152mm (D)  |
| Housing Material     | Stainless Steel as standard  |
| Weight               | 9.5kg in air, 7.6kg in water   |
| Pressure Compensator | Integral Pressure Compensation   |
| Connector            | Burton 5506-2008 as standard<br><br>(Other options available, including Subconn BH 8M) |

#### Optional

Payload Mounting Brackets (Right Angle or direct drive)



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