

## Multi-purpose pan &amp; 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
	Electrically adjustable by digital control
Position Feedback	9 bit resolution accuracy serial output (approx 0.7°)
Control	Switched - Direct application of $\pm 12$ to 24VDC
	Digital - RS485 Half Duplex (multidrop) or RS232.
	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 BS EN 61000-6-1 2007 Immunity

## Environmental

Operating Depth	Up to 6000 metres
Temperature Range	Operating -5°C to +40°C 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	$\pm 0.08^\circ$
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 (Other options available, including Subconn BH 8M)

## Optional

Payload Mounting Brackets (Right Angle or direct drive)

