

# OE10-104



KONGSBERG



## MEDIUM DUTY PAN & TILT

The OE10-104 is the latest generation of pan and tilt unit designed and manufactured by Kongsberg Maritime Ltd. This all-electric pan and tilt unit has been designed for positioning of cameras, lights and mechanical scanning sonar in subsea applications.

The OE10-104 utilises harmonic drive gearing and a 9-bit digital encoder to provide exceptional output torque (37 Nm @ 24V DC) and reliable & repeatable positioning accuracy ( $\pm 2^\circ$ ) with minimal backlash. The internal electronics are encapsulated within a compact and rugged 6000 msw depth rated stainless steel housing.

An intuitive graphical user interface is supplied with the OE10-104 allowing full pan and tilt control, use of 'Goto' functions, variable output speed, user defined end stops and feedback of status information such as; oil level, over current errors, stall errors, internal temperature and water ingress through either an RS232 or RS485 serial digital link.

The pressure housing is manufactured from cast 316L stainless steel and incorporates a positive pressure compensator with externally visible oil level indicator, for reliable deep-water operation to 6000 msw depth.

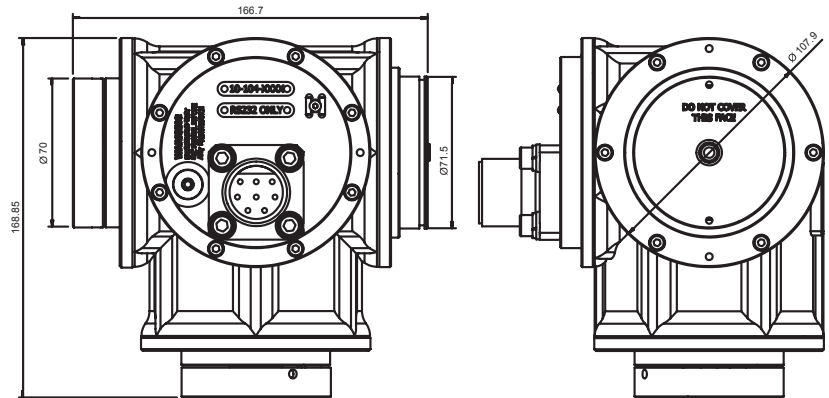


### Applications

*Directing cameras, lights and mechanical scanning sonar in a subsea environment whilst providing accurate positional feedback*

## FEATURES

- RS232 or RS485 Serial Digital Control
- 24 VDC Input
- High Torque Output
- 6000 msw Depth Rating
- Positive Pressure Compensator
- Externally Visible Oil Level Indicator



## TECHNICAL SPECIFICATIONS

### Performance

Output Torque	37 Nm @ 24 VDC
Shear Pin Torque	45 Nm
Output Speed	13 to 30 degrees / second
Mechanical End Stops	May be fitted every 30 degrees
Software End Stops	May be set through GUI
Backlash	±0.08°
Payload (Perpendicular to axis)	30 kg @ 100 mm radius (Using O.T.T bracket)
Payload (Axial Loading)	4 kg @ 75 mm (Using single axis bracket)*

### Electrical

Power Input	16 to 24 VDC, 2.4 A (max.)
Control	RS232 or RS485 serial digital link
GUI	Inclusive
Position Feedback	9-bit serial encoder, ± 2° accuracy
Error Feedback	Water Ingress, Over Temperature, Oil Level Indicator, Over Current Sensor, Stall Error

### Mechanical

Dimensions	Height: 169 mm Length: 167 mm Width: 124 mm (Excl. connector)
Weight	In air: 10.0 kg In water: 8.5 kg
Housing Material	Stainless Steel 316L A4, passivated finish
Connector	Burton 5506-2008, other connector options available
Pressure Compensation	Internal Positive Pressure Compensator

\*Consult with factory for payload limitations

Specifications subject to change without any further notice.

### Environmental

Operating Depth	6000 m
Temperature	Operating: -5°C to 40°C Storage: -20°C to 60°C
Shock	30 G peak acceleration, 25 ms half sine duration
Vibration	10 G, from 20 to 150 Hz in all three axes
Electromagnetic Compatibility	BS EN 61000-6-3: 2007 + A1: 2011 and BS EN 61000-6-1: 2007

### Options

Payload mounting brackets (right angle or direct drive)  
Other connector options available

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