

# OE10-107



## Medium Duty Rotator Unit

- 24 VDC Input
- Built in Testing
- RS232 or RS485 Serial Control
- 6000msw Depth Rating

Imenco's OE10-107 medium duty rotator unit offers exceptional torque and accurate positioning performance, packaged within an extremely rugged housing. This all electric rotator has been designed for positioning of cameras, lights, mechanical scanning sonar and tooling in subsea applications. The OE10-107s compact dimensions make it ideally suited for use on tooling and survey skids, observation class ROVs and larger work class ROV systems.

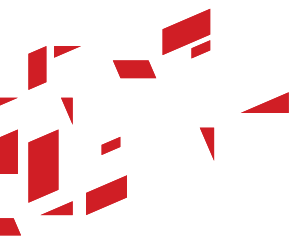
Unlike traditional rotary actuators, the OE10-107 requires a 24 VDC power supply, freeing up ports on the ROV's hydraulic valve pack for mission critical tooling. The OE10-107 features enhanced motor driver circuitry allowing direction change commands to be implemented every 0.5 seconds. Innovative harmonic drive gearing and a 9-bit digital encoder provide exceptional output torque (30 Nm @ 24 VDC).

With a position feedback accuracy of ( $\pm 2^\circ$ ) and minimal mechanical backlash ( $\pm 0.08^\circ$ ), the operator always knows the orientation of the attached sensor, reducing the risk of cable damage and sensor failure.

The OE10-107 utilises built in testing technology to monitor a variety of system parameters, increasing product reliability whilst decreasing repair cycle times, therefore decreasing through life costs.

A new and intuitive graphical user interface is supplied with the OE10-107 free of charge, giving full rotator control, use of 'Goto' functions, variable output speed and user defined end stops. The unit is available in two control configurations, either RS232 or RS485 (half duplex) serial digital link.

The internal electronic assembly is protected within a compact and ruggedised oil filled housing, manufactured from 316L stainless steel and incorporating a bladder style pressure compensator for reliable deep-water operation to 6000msw.



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## Applications

- Positioning cameras, lights and mechanical
- scanning sonar in a subsea environment

## Technical Specifications

Performance	
Output Torque	37 Nm @ 24 VDC (dependent on output speed)
Holding Torque	26 Nm
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	Axial Load – 30 Kg / 66 lbs on mounting plate (max in air) Radial Load – 12 Kg / 26 lbs on mounting plate (max in air)
Electrical	
Power Input	16 to 24 VDC, 2.48A (max)
Control	RS232 or RS485 serial digital link
GUI	Inclusive
Position Feedback	9-bit serial encoder, ±2° accuracy
Mechanical	
Dimensions	Height: 133mm Diameter: 108mm (Excl. connector and pressure compensator)
Weight	In air: 5.4 Kg In water: 4.4 Kg
Housing Material	Stainless Steel 316L A4, passivated finish
Connector	Burton 5506-2008 or customer specified
Pressure Compensation	Oil filled bladder type compensator
Environmental	
Operating Depth	6000 msw
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 + A1: 2011 Emission and BS EN 61000-6-1: 2007 Immunity

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