

DATA SHEET

TMI-Orion Dynamics

Electrical Rotary & Linear Actuator



Underwater Electrical Rotary & Linear Actuator module

The Electrical Rotary & Linear Actuator (ERLA) is a high-performance, compact and reliable module designed for underwater operation down to a depth of 500 meters. The Electrical Rotary & Linear Actuator module offers intuitive programmable position controls and embedded controllers. This modular system is also equipped with a connector for an additional module (optional camera, LED spot...). It is adapted to numerous operations and can be mounted on TMI-Orion S-ROV platform and Electrical Manipulator Arm and retrofitted to most of ROV systems.

- Manipulator component
- Underwater motion system (camera, projector pan and tilt, sonar, thruster...)
- Ballast correction system
- Sampling system
- ROV locking system
- Subaquatic tooling / ROV equipment
- For scientific community - Environment - Energy – Aquaculture...

SPECIAL FEATURES

- Ideal for applications with large thrusts where precision and motion control are needed.
- Position feedback
- 1 connector available for add-on capacity (additional actuator, camera, LED spot...)
- Capacity: 1 connector available + 1 optional connector
- With embedded electronic controller (no external POD required)



TECHNICAL SPECIFICATIONS

Material	Hard anodized aluminum (body), Stainless steel (rod)
Depth rating	500 m
Dimensions	L.252 mm x H.113 x W.90
Range	18 mm maximum (adjustable)
Weight	2.45 kg in air Weight in sea water (at $d=1.026 \text{ g/cm}^3$) / 1.3 kg 1.4 kg in fresh water
Operating temperature	From -10°C to $+60^\circ\text{C}$
Storage temperature	From -20°C to $+60^\circ\text{C}$
Connection (input)	SubConn micro series 8 male connectors MCBH8M
Connection (output)	SubConn micro series 8 female connectors MCBH8F
Power supply	9-24 VDC. The characteristics are done with 24 VDC nominal
Communication bus	RS485 (115 200 bauds)
Thrust force	80 kg (max)
Rotating speed	8 seconds per 360° (adjustable)
Rotating torque	16 N.m maximum



Electrical Rotary & Linear mounted with jaws

SOFTWARE AND RELATED PRODUCTS

Monitoring software

The Electrical Rotary & Linear Actuator Module comes with a monitoring software.

Other products

The Electrical Rotary & Linear Actuator Module can equip the S-ROV or the Electrical Manipulator Arm. Please visit our website for more information.

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