

DATA SHEET

TMI-Orion Dynamics

Electrical Linear Actuator



Underwater Electrical Linear Actuator

The Electrical Linear Actuator (ELA) is a high-performance, compact and reliable actuator designed for underwater operation down to a depth of 600 meters. The ELA offers intuitive programmable position controls and embedded controllers. This actuator is also equipped with an additional connector to chain with other actuators or to add modules (camera, projector...). It is adapted to numerous operations and can be mounted on various systems.

Applications include:

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

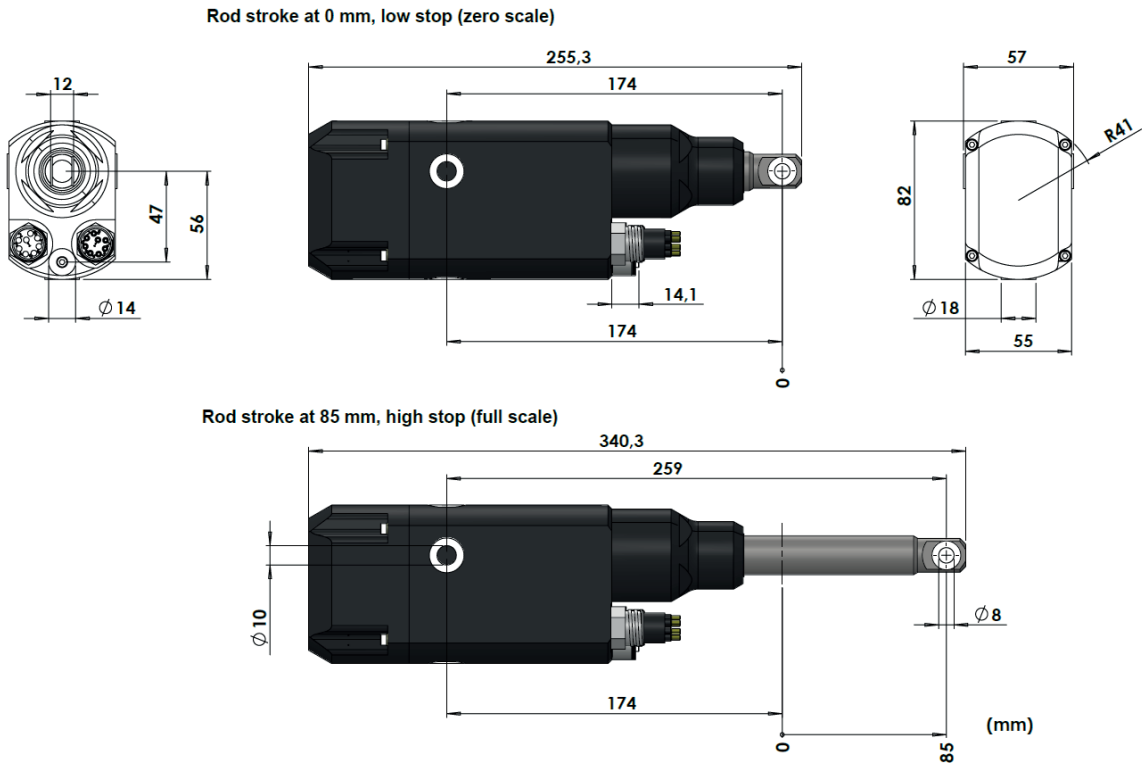
SPECIAL FEATURES

- Ideal for applications with large thrusts where precision and motion control are needed.
- Position feedback in velocity and position mode
- 1 connector available for add-on capacity (additional actuators, camera, projector...)
- With embedded electronic controller (no external POD required)

TECHNICAL SPECIFICATIONS

Material	Hard anodized aluminum (body), Stainless steel (rod)
Depth rating	600 m (air filled)
Dimensions	D. 82 mm x l. 256 mm
Range	up to 85 mm
Weight	2 kg in air 1.2 kg in fresh water
Operating temperature	From -10°C to +60°C
Storage temperature	From -20°C to +60°C
Connector	In: SubConn MCBH8M / out: SubConn MCBH8F (chainable with other TMI-Orion actuators)
Power supply	9-24 VDC. The characteristics are done with 24 VDC nominal (40 W max.)
Serial control bus	RS485 half-duplex (115 200 bauds 8-N-1)
Thrust capability	200 kg (max.)
Rod speed	Up to 4 mm per second (configurable)
Cathodic protection	Sacrificial anode

Dimensions (in millimeters)

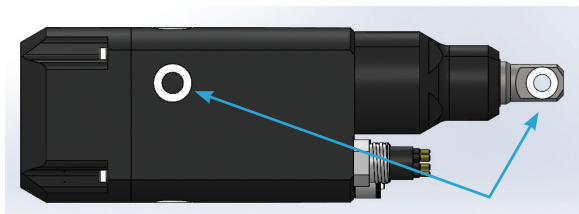


The linear actuator is articulated in 2 points: on the body and at the end of the rod.

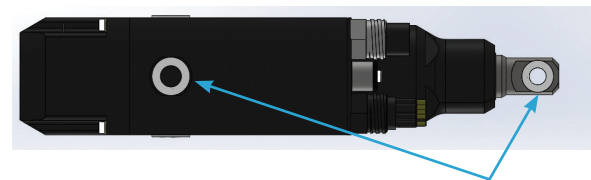
The articulation on the rod allows an axis of diameter 8 mm.

The articulation on the body allows 2 half-axes of diameter 10 mm.

The rod of the ELA can be rotated by 90°.



Position 1



Position 2

SOFTWARE AND RELATED PRODUCTS

Monitoring software

The Electrical Linear Actuator comes with a monitoring software (under Windows®).

Other products

Please visit our website for more information.

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