

DATA SHEET

TMI-Orion Dynamics

Electrical Manipulator Arm - 5F



Reliable and rugged manipulator for underwater operations.

The 5F Electrical Manipulator Arm (EMA) is a high performance, compact and reliable multi-function manipulator designed for underwater operation.

Applications include:

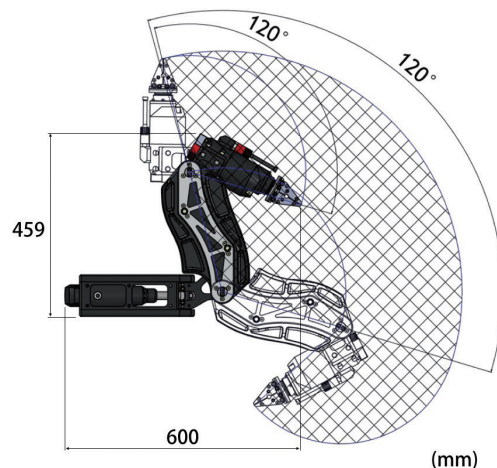
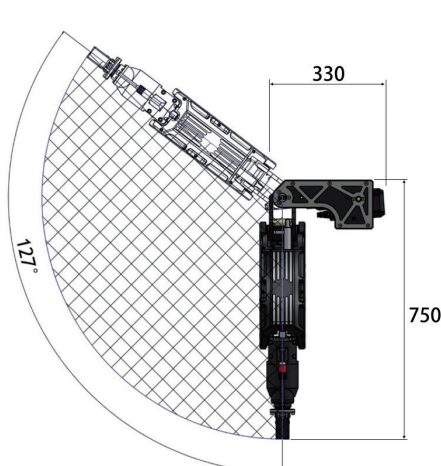
- Underwater precision manipulation,
- Sample collection,
- Leak detection,
- Subaquatic tooling and grabbing,
- Miscellaneous repairs,
- For scientific community - Environment - Energy - Fish farms ...

SPECIAL FEATURES

- Depth rate: 600 m (air filled),
- 5 functions: slew, elevation, elbow, rotate, jaw (close/open) - Multiple jaws available,
- 1 connector available for add-on capacities (cameras, projectors, lasers...),
- Easy to operate, switch and remove,
- Compact design with embedded electronic controller (No additional POD required),
- Built-in control command with game pad or cartesian mode,
- Easy mounting for left or right arm.

TECHNICAL SPECIFICATIONS

Functions	Slew	Elevation	Elbow bend	Jaw	Jaw rotation
	127°	120°	120°	close/open	continuous



TECHNICAL SPECIFICATIONS



Depth rating	600 m (air filled)
Lift capabilities (full extension)	16 kg dynamic 50 kg static strength
Full reach length (fully extended from slew pivot)	700 mm
Material	Polyethylene, hard anodized aluminum and Stainless Steel
Weight	16 kg in air 11 kg in fresh water
Height in stowed position	459 mm
Operating temperature	From -10°C to +60°C
Storage temperature	From -20°C to +60°C
Power supply	9-24 VDC. The characteristics are done with 24 VDC nominal (150 W max.)
Serial control bus	RS485 half-duplex (115 200 bauds 8-N-1)
Connector	In: SubConn MCBH8M / out: SubConn MCBH8F
Built-in control command	Game pad or cartesian mode
Cathodic protection	Sacrificial anode

SOFTWARE AND RELATED PRODUCTS

Monitoring software

The EMA 5F comes with the monitoring EMAPilot Software (under Windows®). This software allows you to manipulate the arm with the joystick, to get 3D feedback from the EMA thanks to the position feedback and to use it in Cartesian mode.

Other products

Visit our website for more information.



Electrical Manipulator Arm air filled version

TMI-Orion S.A.
Parc Bellegarde - Bâtiment A
1, chemin de Borie
34170 Castelnau-le-Lez - France
T.: +33 (0)4 99 52 67 10 – F.: +33 (0)4 99 52 67 19

TMI TMI-ORION
DYNAMICS
www.tmi-orion-dynamics.com

USA : TMI-USA, Inc.
11491 Sunset Hills Road, Suite 310
Reston, VA 20190 - USA
T : +1 703 668 0114 – F : +1 703 668 0118