

ALPHA 3

3-FUNCTION MANIPULATOR

The world's smallest, lightest, three-function subsea manipulator.



LIGHTWEIGHT & COMPACT

Small footprint for easy integration



RELIABLE PERFORMANCE

Engineered for tough underwater conditions



FIELD SERVICEABLE

Quick maintenance with replaceable components



EASY TO INTEGRATE

Simple mechanical and electrical interfaces

Lift Capacity
4 kg / 8.8 lb

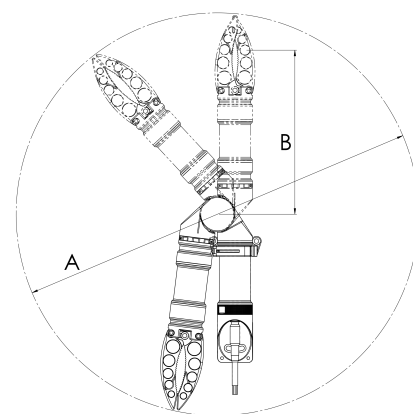
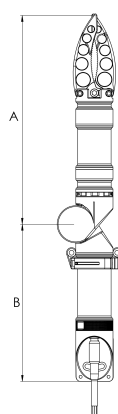
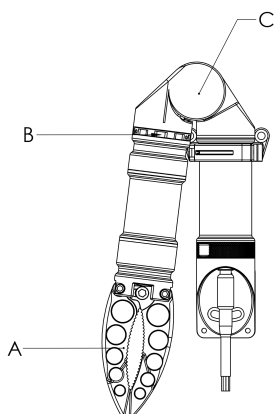
Reach
210 mm / 8.3 in

Functions
3

In-Air Weight
0.9 kg / 2 lb

Depth Rating
300 MSW / 980 ft

TECHNICAL DRAWINGS



JOINT ROTATION

A	90°
B	350°
C	200°

COMPONENT DIMENSIONS

A	225mm
B	169mm

RANGE OF MOTION

A	Ø459mm
B	187mm

END EFFECTOR OPTIONS



CUTTER JAWS
RA-1018



PARALLEL JAWS
RA-1012



QUAD JAWS
RA-1017



SOFT JAWS
RA-1048



SPECIAL RECOVERY TOOL
RA-1037



STANDARD JAWS
RA-1014

KEY FEATURES

- All-Electric.
- 3-Functions for Precise Manipulation.
- Designed and Tested for Harsh Environments.
- Intuitive User Interface with 3D Visualisation and Telemetry.
- Software Developer Kit (SDK) for Custom Control Applications.

MOUNTING KITS

Contact us at sales@reachrobotics.com for mounting options.

CONTROLLER OPTIONS

Contact us at sales@reachrobotics.com for control options.

ACCESSORIES



REACH ALPHA VACUUM PULLING KIT
Maintain and Monitor



REACH MICRO IP CAMERA
Smallest 300m IP Camera for Underwater Inspection

SPECIFICATIONS	REACH ALPHA 5	REACH ALPHA 3	REACH ALPHA 2	REACH ALPHA ACTUATOR
Functions	5	3	2	1
Reach	360 mm / 14.2 in	210 mm / 8.3 in	160 mm / 6.3 in	N/A
Wrist Rotation Torque	0.6 Nm / 5 lb-in	0.6 Nm / 5 lb-in	0.6 Nm / 5 lb-in	8 Nm
Wrist Rotation Speed	60° / s	60° / s	60° / s	N/A
Grab Speed	5 s	5 s	5 s	N/A
Grab Force	10 kg / 22 lb	10 kg / 22 lb	10 kg / 22 lb	N/A
Lift Capacity	2 kg / 4.4 lb	4 kg / 8.8 lb	N/A	N/A
Weight (Air)	1.36 kg / 3 lb	0.9 kg / 2 lb	0.39 kg / 0.85 lb	0.34 kg / 0.75 lb
Weight (Water)	0.9 kg / 2 lb	0.65 kg / 1.4 lb	0.24 kg / 0.5 lb	0.15 kg / 0.33 lb
Outer Diameter	40 mm / 1.6 in	40 mm / 1.6 in	40 mm / 1.6 in	40 mm / 1.6 in
Connector Cable	Teledyne 6 Pin IE55 Impulse Cable	Teledyne 6 Pin IE55 Impulse Cable	Teledyne 6 Pin IE55 Impulse Cable	Teledyne 6 Pin IE55 Impulse Cable
Control Modes	Position, Velocity, Cartesian Velocity (X, Y, Z)	Position, Velocity	Position, Velocity	Position, Velocity
Voltage	18 - 30 V	18 - 30 V	18 - 30 V	18 - 30 V
Power (Nominal)	35 W	20 W	11 W	11 W
COMS	Serial (232 / 485)	Serial (232 / 485)	Serial (232 / 485)	Serial (232 / 485)
Rated Depth	300 MSW / 980 ft	300 MSW / 980 ft	300 MSW / 980 ft	300 MSW / 980 ft
Rated Temp	5 - 35 °C / 41 - 95 °F	5 - 35 °C / 41 - 95 °F	5 - 35 °C / 41 - 95 °F	5 - 35 °C / 41 - 95 °F
Storage Temp	-10 - 80 °C / 14 - 176 °F	-10 - 80 °C / 14 - 176 °F	-10 - 80 °C / 14 - 176 °F	-10 - 80 °C / 14 - 176 °F