REACH ROBOTICS

RA-3XXX

ALPHA 3

3-FUNCTION MANIPULATOR

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

LIGHTWEIGHT & COMPACT
Small footprint for easy integration

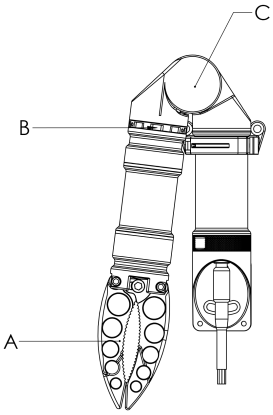
RELIABLE PERFORMANCE
Engineered for tough underwater conditions

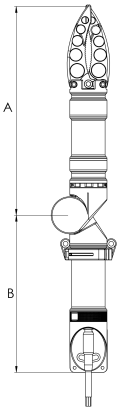
FIELD SERVICEABLE
Quick maintenance with replaceable components

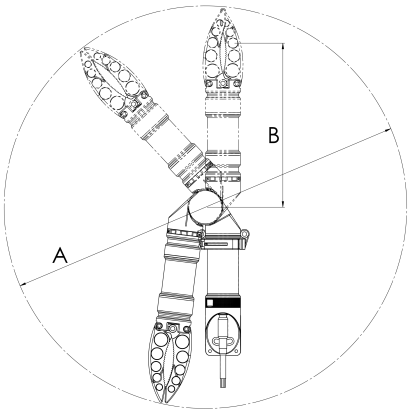
EASY TO INTEGRATE
Simple mechanical and electrical interfaces

Lift Capacity	Reach	Functions	In-Air Weight	Depth Rating
4 kg / 8.8 lb	**210 mm / 8.3 in**	**3**	**0.9 kg / 2 lb**	**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

You can use our Software Development Kit (SDK), available with the purchase of a manipulator, or map movements to your existing ROV controller. For more information, contact sales@reachrobotics.com.

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 DC
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