

Riptide family of autonomous undersea vehicles

Deeper, farther, faster, smarter



μUUV 4.875" Diameter ~25 lbs 300m rated



1MP UUV 7.5" Diameter ~65 lbs 300m rated



2MP UUV 9.375" Diameter ~120 lbs 300m rated

BAE Systems' Riptide family of autonomous undersea vehicles can be easily and affordably scaled, tailored, and customized to solve your undersea challenges.

By combining best-in-class hydrodynamics, ultra low power processing, and game changing new energy technology, we are bringing next-generation capabilities to the undersea vehicle market.

Key features and benefits

- Agnostic, modular system design enables easy modification and customization for various development needs
- Vehicle design is optimized for high efficiency, with the best hydrodynamic signature in its class
- Multiple energy source options allow maximum flexibility for endurance, safety, shipping, and mission optimization
- Riptide UUVs are affordable, providing a sustainable and scalable development solution for developers of autonomy and behaviors, power systems, subsea sensors, and new payloads

Riptide family of autonomous undersea vehicles specifications

Vehicle		μUUV	1MP	2MP
Diameter		4.875" (12.4 cm)	7.5" (19.1 cm)	9.375" (23.8 cm)
Sensor payload section		Dry or wet (flooded), empty or with Riptide integration of customer specified sensor(s)	Dry or wet (flooded), empty or with Riptide integration of customer specified sensor(s)	Dry or wet (flooded), empty or with Riptide integration of customer specified sensor(s)
Payload/battery section length, base vehicle		22.0" (55.9 cm)	25.5" (64.7 cm)	31.5" (80 cm)
Optional payload section lengths	Dry	22.0" (55.9 cm) 40" (101.6 cm) Custom	25.5" (64.7 cm) 48" (121.9 cm) Custom	31.5" (80 cm) 60" (152.4 cm) Custom
	Wet	20.5" (52 cm) Custom	25.5" (64.7 cm) Custom	31.5" (80 cm) Custom
Depth rating *See note 1		1000 ft (300 m)	1000 ft (300 m)	1000 ft (300 m)
Weight (in air, base vehicle)		25 lbs (11.3 kg)	65 pounds (29.5 kg)	120 pounds (54.5 kg)
Speed (maximum)		10+ knots	7+ knots	6+ knots
Energy options		Alkaline primary (standard) Lithium primary NiMH rechargeable Lithium rechargeable, Aluminum sea water battery	Alkaline primary (standard) Lithium primary NiMH rechargeable Lithium rechargeable Aluminum sea water battery	Alkaline primary (standard) Lithium primary NiMH rechargeable Lithium rechargeable Aluminum sea water battery
Endurance (standard vehicle - no payload) **See note 2		>30 hours	Determination in process	Determination in process
Alum sea water battery endurance typical (estimated - no payload) **See note 2		> 400 hours	> 400 hours	> 400 hours
Communications		WiFi, Iridium (optional)	WiFi, Iridium (optional)	WiFi, Iridium (optional)
Navigation sensors		AHRS, with optional INS and DVL	AHRS, with optional INS and DVL	AHRS, with optional INS and DVL
Software		Open source, provided to customers	Open source, provided to customers	Open source, provided to customers
Maintenance		Field maintainable by operational team	Field maintainable by operational team	Field maintainable by operational team
Export license details		US Commerce Dept. controlled under ECCN 8A001	US Commerce Dept. controlled under ECCN 8A001	US Commerce Dept. controlled under ECCN 8A001

Note 1: Additional depth rating options include 1500m, 6000m, and custom

Note 2: Endurance at 2 knots is given without payload as customer payload power consumptions vary by application

For more information contact:

BAE Systems
Paco Santana
36 Cordage Park Circle, Suite 330
Plymouth, MA 02360
T: 774 343 9023
E: jose.santana@baesystems.com
W: www.baesystems.com
Cleared for open publication on 08/19

Disclaimer and copyright

This document gives only a general description of the product(s) and service(s) and, except where expressly provided otherwise, shall not form any part of any contract. From time to time, changes may be made in the products or the conditions of supply.

Not export controlled per ES-FL-082219-0187
Approved for public release; Unlimited Distribution

BAE SYSTEMS is a registered trademark of BAE Systems plc.
©2019 BAE Systems. All rights reserved.
CS-19-D45