

# BRAVO 7

A TOUGH, ELECTRIC, 7-FUNCTION  
MANIPULATOR FOR INSPECTION CLASS VEHICLES



**A Revolution for Subsea  
Inspection & Intervention**

— **DEXTEROUS**

7-Function (or custom fit)  
Highly Modular & Configurable

— **RUGGED**

300m Depth Rating  
10kg Full Reach Lift

— **SMART**

In-Built Kinematics  
Master Arm Controlled



## Be Confident.

The Bravo 7 is a 7-Function manipulator that opens up a new set of compact inspection and manipulation opportunities for service providers, researchers, and other operators.

Designed to conduct tasks usually reserved for human divers, the arm's dexterity and responsiveness pave the way for advanced applications.

The form factor was specifically designed for industry leading inspection-class ROVs making it a ready-to-go option for existing fleets.

Enabling:

- Complex inspection tasks
- Underwater valve manipulation
- Special Recovery Operations



## MECHANICAL

Lift Capacity 10kg (full reach)  
Weight (Air) 8kg  
Weight (Water) 4.5kg



## ELECTRICAL

Voltage 24-36V  
Wattage 150W Nominal  
COMS RS485/Ethercat



## ENVIRONMENTAL

Depth 300MSW  
Temp -35°C to 35°C  
Material AL6061

### Mission Specific End-Effectors



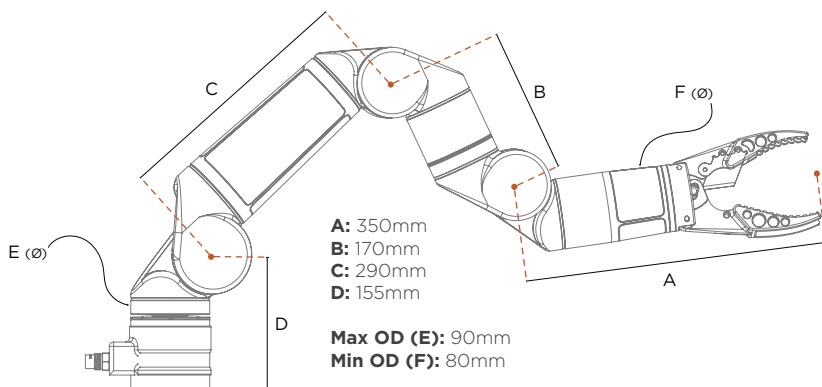
### Master Controller Enabled



### 6 Degrees of Freedom



**J1:** 0 to 210mm  
**J2:** Continuous (360°+)  
**J3:** 180°  
**J4:** Continuous (360°+)  
**J5:** 180°  
**J6:** 180°  
**J7:** Continuous (360°+)



**A:** 350mm  
**B:** 170mm  
**C:** 290mm  
**D:** 155mm

**Max OD (E):** 90mm  
**Min OD (F):** 80mm

(Default Configuration - customizable)

## OTHER SPECS

- Reach: 0.9m
- Max Lift Capacity: 20kg
- Joint Speed: 120deg/s
- Grabber Opening: 210mm
- End-effector Accuracy: <1cm
- Grabber close speed: <3s
- End-effector interface: PWR + 1 x Twisted Pair
- End effectors: grabbers, probe handlers, cutters

## FEATURES

- Ready-built and designed for industry leading inspection-class vehicles
- Master Arm Controlled
- All-Electric, Zero Oil
- Highly Modular and Configurable; 1 to 7-function versions available
- Embedded controllers - no additional POD
- Adjustable grab force - pick up a sea urchin or cut a cable
- One-click deploy/stow position
- Corrosion and scratch resistant anodized aluminium