

EOD301**ROBOTIC MANIPULATOR****NATO Stock Number: 1385-99-905-0766**

The Robotic Manipulator allows EOD operators to manipulate suspect devices and objects at a stand off distance of 3 metres. Tube sections are linked together, with a powered claw attachment at the operating end. The final section has a frangible joint, which fails in the event of an unplanned detonation. This ensures the load transferred to the operator is reduced. A fragment shield, forward of the operator offers extended protection in the event of an unplanned detonation. A counterweight tube assembly is behind the operator, which balances the manipulator.

The claw opens/closes and rotates under powered control. The angle is adjusted manually with locking screws.

The manipulator collapses down, and is stored in a 1700 Pelican case.

**Operational specification:**

Distance of operator from claw:	3metres
Overall length when fully assembled, and extended:	5.1metres
Maximum weight that may be lifted:	10kg
Maximum gripping force:	20kg
Manipulator weight, assembled, ready for use:	14kg
Manipulator weight, collapsed down, and stored in case:	21.5kg
Claw maximum opening:	200mm
Claw rotation:	360° cont

Battery life:

- Switched on, but jaws not used, battery life approx 80 hours

- Switched on, and used constantly for picking items up, and rotating, approx 3 hours
- Switched on, and used in typical mission, battery life approx 15-20 hours.

Operational environment:

Operational temperature range	-30°C to +60°C
Storage temperature range	-30°C to +65°C

Construction specification:

Claw:	Material: 6082 Aluminium Finish: Anodised
Tube	Material: 6082 aluminium, Finish: Anodised Number of tubes: 8 No forward of operator: 5 Tube connectors: Polyacetal tapered locking collars
Counterweight	
Material:	Stainless steel
Mass:	4.5kg
Electrical connectors/wire	
Material:	Polyacetal, gold plated brass, gold plated phosphor bronze
Wire:	5Amp, 24 strand 0.2 diameter
Motor specification	
Style:	Carbon brush
Stall current:	9A
Claw Control Specification:	
Claw open/close and rotate functions:	Non latching toggle switches
On/off control:	Latching toggle switch
Continuity test:	Non latching toggle switch
Adjustable load control:	Potentiometer
Battery specification	12V 3Ah Nickel metal Hydride.
Charger Specification:	Input: 110V/240V
Plug:	UK/Euro/USA

Materials: Ultra High Impact Copolymer Polypropylene main body, ABS latches, stainless steel pins, and a Neoprene gasket. Plastazote foam inner. Anodised steel spring clips and steel rivets in lid.

Weight and dimensions:	Weight (empty): 7.7kg Dimensions (Inner): 908L x 343W x 133H Dimensions (Outer): 968L x 406W x 155H
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