

HammerHead

POSITIONER
SERIES



Miniature pan-and-tilt positioner

Features

- ▶ Ultra-compact pan-and-tilt positioner with absolute position feedback
- ▶ Variable-speed brushless motors give unlimited rotation in both axes
- ▶ Corrosion-resistant 316 stainless steel or 6061-T6 (AHC black) aluminum housing
- ▶ Rated to 1,000 m (3,300 ft) air-filled or to 6,000 m (20,000 ft) pressure-balanced and oil-filled
- ▶ Multi-drop RS232 or RS485 control with soft-addressing allows up to 254 units on a single serial port
- ▶ ASCII protocol and Windows GUI
- ▶ User-settable soft-stops
- ▶ Wide input supply
- ▶ Built-in “go-to” positioning functions with user presets
- ▶ Also available as a single-axis rotator

Technical specifications on reverse.

Arctic Rays specializes in deep-sea lighting and imaging systems and other custom solutions specifically for use on AUVs, ROVs, manned submersibles and other offshore and underwater structures.

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ARCTIC RAYS
SUBSEA TECHNOLOGIES

HammerHead

Technical Specifications

PARAMETER	SPECIFICATION
Model Number	AR 301
MECHANICAL	
Axes	Two, independent orthogonal
Rated Torque (per axis @ 24 V)	6.8 N-m (5 ft-lbs)
Rotation Range	Unlimited (360° continuous); internal soft limits may be set by user commands.
Speed Range (no load)	3–30%/sec. (0.5–5 RPM)
Speed Control	Proportional; 0–100% in 1% increments
Maximum Payload	10 kg (22 lbs); consult factory for mounting recommendations
Position Feedback	Absolute digital; resolution: 12-bit (0.1°)
Gearbox Type	Planetary
Backlash	60 arc-min (1.0°) standard; backlash is reported by encoders
Braking	Electronic
Housing Materials	6061-T6 aluminum (AHC black) or 316 stainless steel
Weights	Aluminum: 1.2 kg in air; 660 g in seawater; 316SS: 2.2 kg in air; 1.6 kg in seawater; add 200g when oil-filled
ELECTRICAL	
Voltage	10–40 VDC standard
Current Draw (per axis @ 24 V)	No load: 120 mA; rated load: 350 mA, limit: 450 mA
INTERFACE	
Connector	Subconn MCBH4M standard
Control	Multidrop RS232 or RS485 (2-wire) serial; 254 soft addresses
Positioning Methods	Go-to absolute, go-to preset, user-defined (speed commands)
Pressure Compensation (oil-filled only)	Integral PBOF tube standard; external port optional
ENVIRONMENTAL	
Depth Rating	1,000 m (3,300 ft) air-filled; 6,000 m (20,000 ft) oil-filled
Temperatures	-10°C to 45°C operating; -10°C to 60° C storage

