

# Hammerhead

## Miniature Pan & Tilt Positioner



### FEATURES

- ▶ Ultra-compact pan and tilt positioner
- ▶ Absolute position feedback
- ▶ Unlimited rotation in both axes
- ▶ High torque
- ▶ Variable-speed brushless motors
- ▶ Corrosion-resistant 316 stainless steel housing (aluminum optional)
- ▶ Air-filled to 1,000m (3,300ft) or pressure-balanced, oil-filled to 6,000m (20,000ft)
- ▶ Multi-drop RS232 control with soft-addressing allows up to 250 units on a single serial port (power-emitting)
- ▶ ASCII protocol and Windows GUI
- ▶ User-settable soft-stops
- ▶ Wide input supply

*Technical specifications on reverse*

# Technical Specs

## Hammerhead

PARAMETER	HAMMERHEAD
Model Number	AR301
Depth Rating	1,000m (3,300ft) air-filled; 6,000m (19,700ft) oil-filled
Input Voltage	10–40VDC
Rated Torque (per axis @24V)	6.8N-m (5ft-lb)
Current Draw (per axis @24V)	No load: 120 mA, Rated load: 425mA; Limit: 450mA
Rotation Range (per axis)	Unlimited; soft limits may be set by user commands
Speed Range	Continuously variable 0–100%, in 1% increments
No Load Speed (max)	5.5rpm (33° per sec.)
Payload	10kg (22Lbs)
Position Feedback (each axis)	Absolute. Resolution: 0.1°; Accuracy: 0.2°
Gearbox Backlash	1.7° (100 arc-min.) <i>*Backlash is measured and reported by encoders</i>
Control	Multidrop RS232 or RS485 (2-wire); 254 soft-addresses
Housing Material	316 stainless steel (standard); anodized aluminum optional
Weight in Air (air-filled)	316 SS: 2.3kg (5.1Lbs); 6061AL: 1.3kg (2.8Lbs)
Weight in Water (air-filled)	316 SS: 1.6kg (3.5Lbs); 6061AL: 600g (1.3Lbs)
Operating Temperature	-10°C–40°C
Standard Connector Pinout (Impulse MCBH-4-MP)	1: GND; 2: +10–40Vdc; 3: RS232 RX (in) or RS485 (A)-; 4: RS232 TX (out) or RS485(B)+ <i>*Additional pins on custom connectors will be left unused</i>

