



SS251 Heavy Duty, Stainless Steel Pan & Tilt

Sidus Solutions' SS251 deepwater pan and tilt assembly is a powerful robotic positioning device. Within a small footprint, you are now able to position heavy loads with ease and high accuracy. Like the SS109, the SS251 gains its dependability and ease of maintenance through integration of reversible synchronous motors, extremely low backlash harmonic drives and precision ball bearings into a unique modular motor assembly.

This workhorse offers impressive torque ratings up to 65 ft-lbs securely locked into the corrosion resistant 316 stainless steel underwater housing. The distinctive modular design, simplifies field repair to using only small hand tools. Modifications can be made to include feedback circuits and limit switches for applications where rotational information is vital.

Electrical

Input Voltage	15-30 VDC
Maximum Drive Current	300mA – 2.2 A per axis (24 VDC serial, speed dependent) 2.0 A per axis (24 VDC analog)
Maximum Static Current 1.0	300mA – 1.2 A per axis (24 VDC serial, customer selectable) A per axis (24 VDC analog)
Maximum Output Torque	65 ft-lb (88 Nm)
Maximum Payload	150lbs (68kg)
Output Speed	0.5 to 35 deg/s
Position Feedback	12 bit resolution (approx 0.1°)
Communication	Analog, RS-485 or RS-232
Connector	Customer selectable – Seacon Brantner is standard

Environmental

Operating Depth	Up to 10,000 ft (3000 m) with internal compensation Up to 20,000 ft (6000 m) with external compensation
Temperature Range -20	°C to +50°C (-4°F to +122°F) operating -30°C to +60°C (-22°F to +140°F) storage
Housing Material	316 Stainless Steel
O-Ring Material	Viton
Fastener Material	316 Stainless Steel

Mechanical

Gears	Precision strain wave gearing
Backlash	36 arc minutes (approx 0.5°)
Dimensions	11.5 in x 9.7 in x 5.1 in (292mm x 246mm x 137mm)
Weight in Air	44.0lbs (20.0kg)
Weight in Water	26.0lbs (11.8kg)
Pressure Compensator	Internal diaphragm
Position Limits	(optional) +/-170° Pan, +/-90° Tilt (other configurations available)

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