Professional Solutions for Hazardous Area & Subsea Systems

SS110
Pan & Tilt Device

Sidus Solutions' SS110 underwater pan and tilt assembly is a robotic positioning device which improves the versatility and reliability of video inspection systems. The dependability and ease of maintenance of this robust pan and tilt are achieved through the integration of reversible synchronous motors, low backlash harmonic drives and precision ball bearings into an unique modular motor assembly. These unitized motor modules develop an impressive ten foot pounds of torque and are securely locked into the corrosion resistant one-piece underwater housing.

The distinctive modular design, found only in the SS110 assembly, simplifies field repair to using only small hand tools. No soldering is required and can be customer serviced if necessary. In addition to the standard 120 volt and 24 volt AC configurations, additional versions include 24 volt DC utilizing stepper motors, are also available. Modifications can be made to include feedback circuits and limit switches for applications where position information is vital.

Sidus Solutions supplies complete turnkey inspection system equipment and services. Ask your representative today about other Sidus Solutions product offerings and services

Specifications

Dimensions:	
Height	8.2 in. / 208 mm
Width	6.6 in. / 168mm
Depth	3.3 in. / 81 mm
Weight:	19.3 pounds / 8.7 kilograms (in air)
	13.7 pounds / 6.2 kilograms (in water)
Housing:	316L stainless steel
Connector:	Customer selectable
Operating	100 feet / 30.48 meters (air filled)
Depth:	10,000 feet / 3,048 meters (oil filled)
	18,000 feet / 6,000 meters (ext. compensation)
Power:	120 VAC, 24 VAC & 24 VDC
Torque:	10 foot pounds / 13.6 Nm (each axis)
Rotation Speed:	Up to 10 deg per second
Gear Backlash:	36 arc minutes
Scan Range:	360 degrees both axis
	180 degrees tilt axis with yoke

Design and Specifications are subject to change.

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Technical Specifications: SS110 Pan & Tilt Device

MODELS
SS110 pan & tilt 316 stainless steel
SS109 pan & tilt hard-anodized 6061 T6 aluminum
SS120 pan & tilt 6Al4V titanium

ELECTRICAL

Input voltage:	120VAC 50/60Hz	24VAC 50/60Hz	24VDC N/A
Power Requirements:	.15A	.75A	.13A

Pan & Tilt
Connectors: Seacon (mate supplied) or customer specified
Motors: Reversible Stepper
Optional: Preset internal mechanical or software controlled limit switch.
Conductor Requirements: 5 or 6

Digital feedback option requires 2 additional conductors
DC brake option for analog configuration requires additional conductor

MECHANICAL
Pan: 0-360° (internal hard-stops available both axes)
Tilt: 0-360° (0-180° with yoke)
Speed: 3-10° per second (serial), 4° analog
Torque: 13 ft. lbs. AC / 10 ft. lbs. DC
Gear backlash: 36 arc minutes
Gearing: Harmonic drive gears
Bearings: Heavy duty bearings
Duty Cycle: 100% unlimited rating when operated below max torque.
Gear life: 15,000 hours @ 75% of rated torque

GENERAL
Construction: 6061-T6-billet aluminum
Optional: 316 stainless steel or titanium
Finish: aluminum mil spec anodized, stainless steel electroplate, titanium

Environment: 10° to 120° F (-23° to 49°C)
Unit weight: 19.3lbs./8.7kg (in air)
13.7lbs / 6.2kg (in water)

RECOMMENDED CONTROLS
SS201 Series Desktop/Flush Mount
SS202 Serial Control RS485/232/422

Laptop/PC

Optional integrated functions, Pelco-D, GE, Other protocols available upon request.

RECOMMENDED MOUNTS
907 series: standard base plates for mounting in any position
CS series: custom specified mounting plates

OPTIONS
Oil compensated for 6.5km depth rating
Digital feedback readings
Sidus GUI
Key board, mouse or joystick control
HT model option: up to 20° per second (14 ft. lbs max, 24 VDC only)

ACCESSORIES
907 series: bracketry & mounts
902 series: lighting
904 series: cameras

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