

SS109HT / SS110HT / SS120HT ~ Subsea High Torque Positioner Assemblies

SIDUS Solutions' SS109HT, SS110HT, and SS120HT family of high torque, high performance positioners are designed for deepwater, subsea operations where strong currents, and harsh environmental conditions are extreme.



Item Description	Housing Material	Depth Rating
SS109HT	Hard Anodized Aluminum (Standard)	3000m, and 6000m
SS110HT	316L Stainless Steel	3000m, and 6000m
SS120HT	6Al4V Titanium	3000m, and 6000m

Features

- Torque:
 - 14 lbs / 18Nm each axis (24 VDC HT)
- Positional Accuracy: 0.1°
- Rotation Speed: Up to 20° per second
- Scan Range: 360° both axis / 180° Tilt axis with Yoke
- Depth Rated: 30m (air), 3000m, and 6000m
- Reversible Synchronous Motors
- Low Backlash Harmonic Drives



ELECTRICAL SPECIFICATIONS:

Input Voltage	24 VDC, 24 VAC or 115 VAC	
Maximum Drive Current	100mA – 900mA (24 VDC serial, speed dependent) 250mA (24 VDC analog) 750mA (24 VAC) 150mA (115 VAC)	
Maximum Static Current	100mA – 1.2 A (24 VDC serial, customer selectable) 650mA (24 VDC analog) 350mA (24 VDC) 100mA (115 VAC)	
Maximum Output Torque	24 VDC	14 ft lbs (18Nm)
	24 AC & 115VAC	10 ft lbs (13Nm)
Maximum Payload	50 lbs (23kg)	
Output Speed	0.5° to 20° per sec	
Position Feedback	12-bit resolution (Approx 0.1)	
Communication	Analog, RS485, or RS232	
Connector	Customer selectable, Subconn (Standard)	

ENVIRONMENTAL SPECIFICATIONS:

Operating Depth (SS109HT)	30m Up to 3000m (9842 ft) Up to 6000m (20,000 ft)	Air Filled Standard Internal Compensator External Compensator
Temperature Range	Operating Storage	-20° C ~ 50° C (-4° F to 122° F) -30° C ~ 60° C (-22° F to 140° F)
Housing Material	SS109 Anodized 6061-T6 Aluminum (Standard) SS110 316 Stainless Steel SS120 6Al4V Titanium	
O-Ring Material	Buna	
Fastener Material	316 Stainless Steel	
Gears	Precision strain wave gearing	
Positional Accuracy/Backlash	<36 arc minutes (Approx 0.05)	
Dimensions	8.45 in x 6.64 in x 3.68 in (215mm x 169mm x 94mm)	
Weight In Air	SS109HT: 9.3 lbs (4.2kg) SS110HT: 19.3 lbs (8.7kg) SS120HT: 12 lbs (5.5kg)	
Weight In Water	SS109HT: 5.9 lbs (2.7kg) SS110HT: 13.7 lbs (6.2kg) SS120HT: 7 lbs (3.2kg)	
Pressure Compensator	Internal Diaphragm	
Position Limits	(optional) +/-175° Pan, +/-90° Tilt	



CONTROLS:

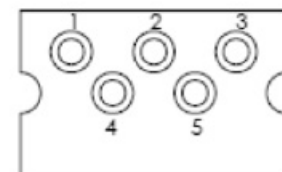
Recommended Controls	Laptop/PC with SIDUS Control Panel GUI Host device with Sidus serial commands Analog with feedback
Optional Controls	Optional integrated functions, Pelco-D Keyboard, mouse, or joystick control, digital feedback option
Control Methods	Laptop/PC with SIDUS Control Panel GUI with RS485 or RS232 to device Optional integrated functions, Pelco-D Keyboard, mouse, or joystick control Analog control with voltage feedback

CONNECTOR PINOUT:

PIN	Function
1	Ground
2	+24 VDC
3	N/C
4	D+
5	D-

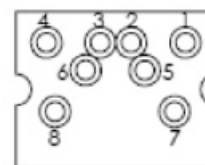
PIN	Function
1	Ground
2	Tilt CCW
3	Tilt CW
4	Pan CW
5	Pan CCW

PIN	Function
1	Ground
2	+24 VDC
3	Signal Ground
4	RX
5	TX



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PIN	Function	PIN	Function
1	Ground	5	Pan CCW
2	Tilt CCW	6	Tilt Feedback
3	Tilt CW	7	Pan Feedback
4	Pan CW	8	Not Connected



FAWM-8P-BC

DESIGN:

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