SS309 / SS310 / SS320 ~ Series Subsea Rotators

SS309 Rotator Assembly





SIDUS Solutions' SS309, SS310, and SS320 family of high-performance rotators are designed for deepwater, subsea operations where strong currents, and harsh environmental conditions are extreme.

ltem	Housing Material	Depth Rating	
SS309	Anodized 6061-T6 Aluminum	3000m w/ internal compensation	
		6000m w/ external compensation	
SS310	316 Stainless Steel	3000m w/ internal compensation	
		6000m w/ external compensation	
SS320	6AI4V Titanium	3000m w/ internal compensation	
		6000m w/ external compensation	

Features

- Max Output Torque: SS309/SS310/SS320 14 ft lbs(18Nm) (24 VDC)
 10 ft-lbs(13Nm) (24 VAC and 115 VAC),
- Maximum Payload: 50 lbs (23kg)
- Positional Accuracy: 0.1°
- Position Limits: (Optional) +/- 175° Pan, +/- 90° Tilt
- Communication: Analog, RS485, or RS232
- Low Backlash Harmonic Drives

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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	24VDC 14 ft lbs (18Nm)		
	24AC & 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	30m		Air Filled	
(SS109HT)	Up to 3000m (9842 ft)		Standard Internal Compensator	
	Up to 600	0m (20,000 ft)	External Compensator	
Temperature Range	Operating		-20° C ~ 50° C (-4° F to 122° F)	
	Storage		-30° C ~ 60° C (-22° F to 140° F)	
Housing Material	SS309	SS309 Anodized 6061-T6 Aluminum (Standard) SS310 316 Stainless Steel		
	SS310			
	SS320	6Al4V Titanium		
O-Ring Material	Buna	Buna		
Fastener Material	316 Stainl	316 Stainless Steel		

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MECHANICAL SPECIFICATIONS:

Gears	Precision strain wave gearing		Precision strain wave gearing	
Positional Accuracy/Backlash	<36 arc minutes (Approx 0.05)			
Dimensions 3.3" dia (94mm) x 6.64" length (169mm) x 8.45" height (215mm)				
Weight In Air	SS309: 4.6 lbs (2.1kg)			
	SS310: 9.4 lbs (4.3kg)			
	SS320: 5.9 lbs (2.7kg)			
Weight In Water	\$\$309: 2.9 lbs (1.3kg)			
	SS310 : 5.6 lbs (2.5kg)			
	\$\$320: 3.5 lbs (1.6kg)			
Pressure Compensator	Internal Diaphragm			
Position Limits	nits (optional) +/-175° Pan, +/-90° Tilt, other configurations available			

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		

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DESIGN:

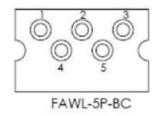
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CONNECTOR PINOUT:

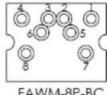
PIN	Function	
1	Ground	
2	+24 VDC	
3	N/C	
4	D+	
5	D-	

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	



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