SIDUS Solutions

SS309 / SS310 / SS320 — Compact rotators

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Manufacturer / system supplier: SIDUS Solutions

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Applies to the named models and revision only. Housing, interface and performance differences must follow the individual model tables. Source discrepancies are recorded on the ROVITEC product pages; request the approved specification before integration.

Original manufacturer source

https://www.sidus-solutions.com/wp-content/uploads/2025/12/SS309_SS310_SS320_Subsea_Positioner_Family_Specifications_2025.pdf

Manufacturer pages follow unchanged. Local distribution copy.

SIDUS

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.

Item	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	6Al4V 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

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 (SS109HT)	30m Up to 3000m (9842 ft) Up to 6000m (20,000 ft)	Air Filled Standard Internal Compensator 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** Anodized 6061-T6 Aluminum (Standard) **SS310** 316 Stainless Steel **SS320** 6Al4V Titanium	
O-Ring Material	Buna	
Fastener Material	316 Stainless Steel	

MECHANICAL SPECIFICATIONS:

Gears	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	**SS309:** 2.9 lbs (1.3kg) **SS310**: 5.6 lbs (2.5kg) **SS320:** 3.5 lbs (1.6kg)
Pressure Compensator	Internal Diaphragm
Position Limits	(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

DESIGN:

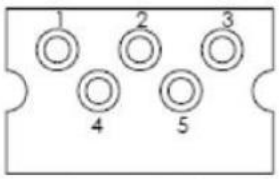
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CONNECTOR PINOUT:

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

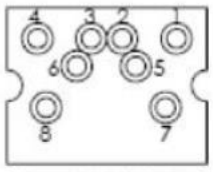
PIN	Function
1	Ground
2	Tilt CCW
3	Tilt CW
4	Pan CW
5	Pan CCW

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



FAWL-5P-BC

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