

SS20-C01-EA2D



2DOF STABILIZER

SANLAB combines deep know-how in robotics and stabilization technologies with a strong customer focus to deliver industry-leading 2 degrees of freedom (2DOF) stabilizers. Stabilization systems ensures precise positioning despite the movement of any sea and land vehicles.

2DOF Stabilizers, engineered specifically for high-accuracy stabilization of electro-optic systems, drones, radars, and targeting systems. Their compact and modular architecture ensures seamless integration into customer-specific platforms, enabling stable operation in challenging environments with minimal vibration and drift.

APPLICATIONS

- Electro-optical systems stabilization
- Drone landing pad
- RCWS stabilization
- Radar systems stabilization
- Antenna systems stabilization
- Satellite systems stabilization

0.35 m

0.71 m



ADVANTAGES

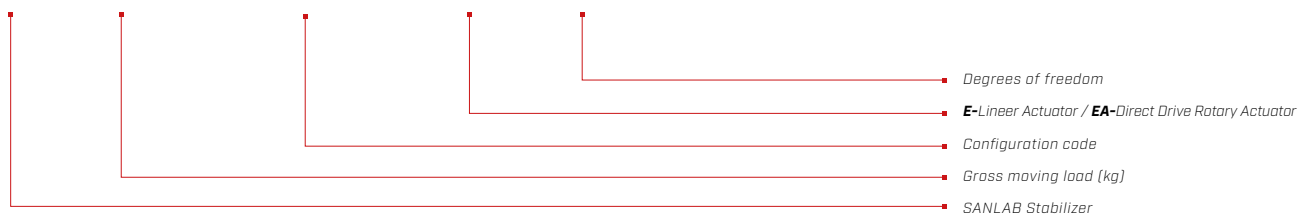
- Compatible with Military test specs of MIL-STD 810
- IMU-integrated stabilization
- High dynamic response with fast roll and pitch compensation
- IP66 protection for dust and water resistance, ensuring durability in harsh sea land environments
- Safe operation in mission-critical scenarios
- Compact and modular structure, simplifying integration into a variety of platforms including drones, unmanned surface vehicles, naval ships, armored vehicles, and ground stations

DIMENSIONS

Overall Dimensions (L-W-H)	0.71 m - 0.65 m - 0.35 m
Net Weight (product only)	35 kg
Shipping Dimensions (L-W-H)	0.90 m - 0.85 m - 0.60 m
Crate Weight	90 kg
Packaging Type	Wooden crate

- Cost-effective design, offering high performance with optimized production and operational costs
- IPC based real time controller
- Real-time system performance monitoring
- Easy integration with host systems
- Customizable structure
- User-friendly desing for easy installation, operation, and maintenance

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SPECIFICATIONS

Gross Moving Load up to	20 kg
Protection Class	IP66
Center of Gravity Above Top Platform	0.20 m (Max)
Moment of Inertia About X-Y-Z axis	5 kg.m ²
Power Supply	18-32 VDC
Operating Temperature Range	-10°C to +50°C
Motor Type	Servo Motor
Actuator Type	Direct Drive Rotary Actuator
Control Interface	Ethernet, CAN, Serial Port

PERFORMANCE SPECIFICATIONS

	Velocity	Acceleration	Excursion
Roll	$\pm 10^\circ/\text{s}$	$\pm 20^\circ/\text{s}^2$	-15.00 [°] - 15.00 [°]
Pitch	$\pm 10^\circ/\text{s}$	$\pm 20^\circ/\text{s}^2$	-15.00 [°] - 15.00 [°]

CUSTOMIZATION

Stabilizers are designed with flexibility in mind and can be tailored to meet unique project requirements. Modular mechanical and electronic design makes it easy to customize key features like payload, actuator type and accuracy.

For tailored solutions or to explore customization options, please get in touch with us.



Antenna Stabilization Application



Drone Stabilization Application



Satellite Stabilization Application