

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



ADVANTAGES

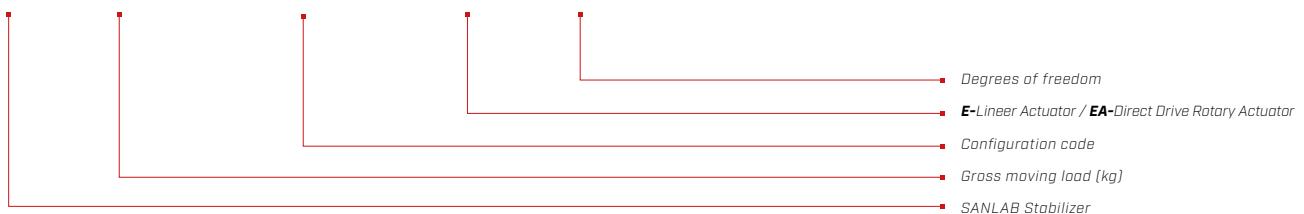
- Compatible with Military test specs of MIL-STD 810
- IMU-integrated stabilization
- High dynamic response with fast roll and pitch compensation
- IP66 protection for dust and water resistance, ensuring durability in harsh sea land environments
- Safe operation in mission-critical scenarios
- Compact 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 | 70 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 design 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 |

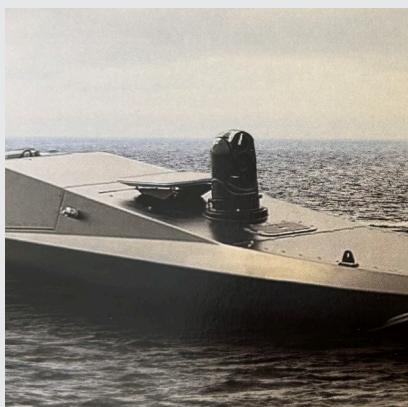
PERFORMANCE SPECIFICATIONS

| | Velocity | Acceleration | Excursion |
|-------|----------|-----------------------|--------------------|
| Roll | ± 10 °/s | ± 20 °/s ² | -15.00 ° - 15.00 ° |
| Pitch | ± 10 °/s | ± 20 °/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.



Unmanned Surface Vehicle
Antenna Stabilization Application



Unmanned Surface Vehicle
Drone Stabilization Application



Land Vehicle
Antenna Stabilization Application