

RSM 50

The Ruggedized Stabilization Platform 50 is designed to provide the highest possible level of stabilization for mobile mapping, scanning, imaging and video capturing with ground vehicles. The RSM 50 is the smallest and most cost-effective of SOMAG's land gyro stabilizers and suitable for deployment on UGVs for sensor stabilization up to $\pm 20.0^\circ$ in the roll and pitch axis.

TECHNICAL SPECIFICATIONS

Angular Stabilization Ranges	Pitch at 0° Roll: $\leq \pm 20.0^\circ$ Roll at 0° Pitch: $\leq \pm 20.0^\circ$ Yaw (Drift): no drift correction
Residual Deviation¹	$\leq 0.3^\circ$ rms
Payload²	40 kg 25 kg 12.5 kg 88.2 lbs 55.1 lbs 27.6 lbs
Continuous Torque	25 Nm
Dynamic Peak Torque³	50 Nm
Mass	11.5 kg 24.3 lbs
Dimensions	197.5 mm 7.8 in $\varnothing 306$ mm $\varnothing 12$ in
IP Class	IP 67
Operating Temperature	-32 °C ... +55 °C -22 °F ... +131 °F
Storage Temperature	-55 °C ... +85 °C -67 °F ... +185 °F
Communication Interfaces	Ethernet RS422 RS232 (optional)
Operational Voltage	24 VDC (24...30 VDC)
Average Power Consumption⁴ at Operational Voltage	50 W
Peak Power Consumption⁴ at Operational Voltage	250 W
	IACS E10, DNV GL, 2006/42/EC Machinery

Preliminary data, subject to change

¹ Vehicle motion $\leq \pm 18^\circ / 25^\circ/s / 40^\circ/s^2$ – small periodical lateral accelerations (≤ 0.5 g) acceptable; constant lateral accelerations for more than 1 minute resulting from vehicle's turning maneuvers are compensated by internal or external GPS input. No GPS input could reduce the performance of the Mount during turning maneuvers.

² Possible payload weight depends on lateral acceleration and CoG of payload / shown data is based on 0.9 g lateral acceleration and a CoG payload offset to the Mount surface of: 250 mm (9.8 in) | 400 mm (15.7 in) | 500 mm (19.7 in)

³ Maximum duration 90 s at 55 °C surrounding temperature | longer if temperature inside the unit is $< 55^\circ\text{C}$

⁴ Horizontal payload CoG offsets are not considered; without wind force and other possible external forces

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RUGGEDIZED STABILIZATION MOUNT



COMPACT AND LIGHTWEIGHT DESIGN

suitable for deployment on UGVs, cars
and other land vehicles



IP 67

for high performance stabilization
in rough maritime environments



INSTALLATION FLEXIBILITY

upside-down hanging application
possibility



ETHERNET INTERFACE

for integration in existing
networks

Field of Application



LAND

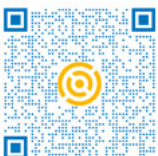
Application Examples



Antenna System



LiDAR System



SCAN ME.

Scan this QR-Code with
your phone to get further
information about the
RSM 50 - Land.

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