



GSM 4000

The GSM 4000 Gyro Stabilization Mount is the successor to the world-renowned GSM 3000 and the flagship of SOMAG's airborne Gyro Mount line. The 3-axis gimbal is designed to automatically stabilize large format aerial cameras, scanners, LiDARs and other imaging sensors and compensate for drift, roll and pitch in real time for the best possible data capture quality.

TECHNICAL SPECIFICATIONS

Angular Stabilization Ranges	Pitch at 0° Roll: $\leq \pm 8.8^\circ$ Roll at 0° Pitch: $\leq \pm 7.0^\circ$ Yaw (Drift): $\leq \pm 25.0^\circ$
Residual Angular Rate¹	$\leq \pm 0.2^\circ/\text{s rms}$
Residual Deviation	without IMU support ¹ : $\leq 0.3^\circ \text{ rms}$ with IMU support ^{1,2} : $\leq 0.02^\circ \text{ rms}$
Payload³	10...120 kg 22...264.6 lbs
Mass	29 kg 63.9 lbs
Dimensions (Regular Leveling Positions)	Length: 615 mm 24.2 in Width: 530 mm 20.9 in Height ⁴ : 175 mm 6.9 in
Usable Diameter	$\varnothing 410 \text{ mm} \varnothing 16.1 \text{ in}$
Operating Temperature	-15 °C ... +55 °C -5 °F ... +131 °F
Storage Temperature	-55 °C ... +85 °C -40 °F ... +185 °F
Communication Interfaces	RS 232 USB
Operational Voltage	28 VDC (24...30 VDC)
Average Power Consumption at Operational Voltage	50 W
Peak Power Consumption at Operational Voltage	180 W
Applied Standards	RTCA DO-160-G, EUROCAE-14G, ISO 7137, 2006/42/EC Machinery

Preliminary data, subject to change

¹ Vehicle angular motion $< 10^\circ/\text{s}$ and with typical data acquisition profile frequency spectrum

² Deviation from perpendicular depends on accuracy of used IMU

³ Minimum payload is based on usage of Passive Vibration Isolation Ring

⁴ Minimum 149.5 mm (5.8 in) | Maximum 200.5 mm (7.9 in)

GSM 4000

GYRO

STABILIZATION MOUNT



INDUSTRY STANDARD

for large format cameras
and scanners



HIGHEST PAYLOAD STABILIZATION

of SOMAG Airborne
Gyro Stabilization Mounts



BEST STABILIZATION ACCURACY

for large format cameras
and scanners



LIFT-UP FUNCTION

for easy access to the camera
lens or bottom of the sensor

Field of Application



AIRBORNE

Application Examples



Vexcel UltraCams



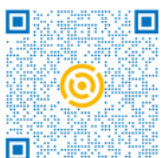
Riegl LiDARs



Teledyne Optech
LiDARs



IGI Mapping Systems



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information about the
GSM 4000.

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