

SGB2000

SOLID STATE GYROCOMPASS

A high performance solid state gyrocompass.

With more than 100 years of experience in navigation technology, Teledyne TSS Ltd has produced a gyrocompass that meets the needs of customers requiring a cost-effective primary navigation solution. With no moving parts and no regular maintenance required, the SGB2000 offers a real alternative to mechanical gyrocompasses with low through life costs. The SGB2000 has been designed to satisfy the demand for a rugged, high performance solid state gyrocompass by using high grade inertial sensing elements with exceptionally high MTBF.

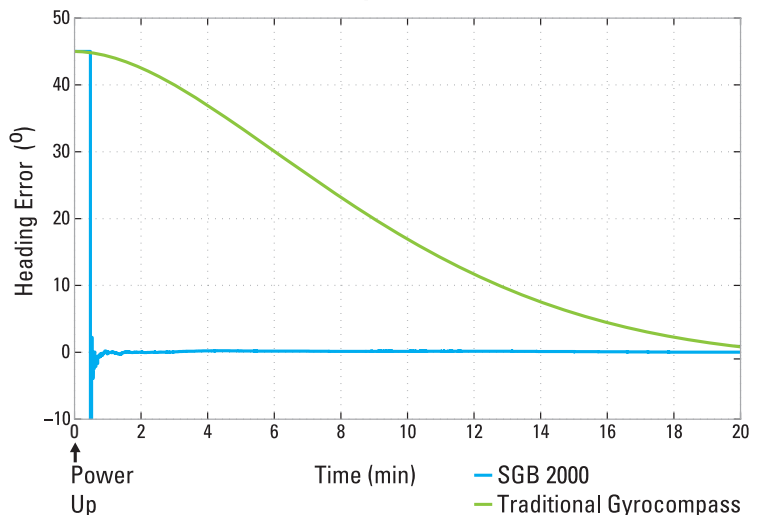
The SGB2000 has a flexible interface allowing easy connectivity to existing ships systems. A comprehensive range of repeaters are available from Teledyne TSS to complement the SGB2000.

The extremely accurate and stable heading can be maintained during turns of up to 200 degrees per second making the system ideal for use on fast survey craft and in river/harbour environments. The SGB2000 is available in both surface and subsea housings allowing the unit to be used in a range of environments and applications.



- Maintenance free ring laser gyros and accelerometers with MTBF in excess of 300,000 hours
- Latitude and speed corrected
- 3000m subsea housing available with horizontal or vertical mounting for ROV and subsea structure mounting
- Multiple configurable I/O channels
- Fast settling time
- Low power consumption

Gyrocompass Settle Times



SGB2000-Solid State Gyrocompass

TECHNICAL SPECIFICATIONS

Heading	Dynamic accuracy	<0.25° RMS secant latitude
	Alignment time	<15 minutes
	Data latency	<3 ms
	Resolution	0.01° (or as dictated by O/P packet format)
Roll and Pitch	Accuracy	0.025° RMS
	Range	±90°
	Limits	None
	Axis alignment	<0.005°
	Data latency	<3ms
	Resolution	0.01°
Data Parameters	Serial outputs	3 configurable I/O Channels
	Data protocols	RS232 and RS422
	Data output rate	Up to 200Hz
	Baud Rate	1200 – 115,200
	Data Bits	7 or 8
	Stop Bits	1 or 2
	Parity	None, even or odd
	Data output formats	TSS1, TSS HHRP, TSS1 + NMEA HDT, TSS3, Simrad EM1000, Simrad EM3000, Atlas, NMEA PRDID, BMT1, Polled, User configurable
Aiding	GPS	NMEA 0183 GGA and VTG
Environmental	Ambient operating temperature	-10°C to +55°C operational, -20°C to +70°C storage
	Shock (survival)	10g
	Housing: Surface Subsea 3000m	IP65 rated, aluminium Aluminium
Physical	Dimensions: Surface Subsea	380mm (l) x 240mm (w) x 183mm (h) (including connectors) 235 (d) x 350mm (h) (including handles & connectors)
	Weight: Surface Subsea	13Kg 20Kg in air; 12.8Kg in water
Electrical	Power requirement	18-36V DC 20W
Regulatory Approval	CE, EMC	
MTBF	System	>30,000 hours
	RLGs and Accelerometers	>300,000 hours
Warranty	12 months (including parts and labour).	

Due to continuous development, specifications may vary from those listed above.



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