SIMRAD

GC80, GC85 & RGC50 Gyrocompasses

The Simrad GC series includes gyrocompasses and control units to suit any vessel type and application; from IMO-approved GC80 and GC85 solutions for merchant cargo ships, passenger vessels, and dynamic positioning Offshore Service Vessels, to the compact RGC50 for smaller non-SOLAS workboats, ferries and commercial fishing vessels.

GC80 & GC85

IMO type approved for use aboard standard and High Speed Craft respectively, Simrad GC80 and GC85 gyrocompasses are available with Compact, Dual or Expanded control units for installation as part of a single- or multi-gyro system. These control units offer a range of stepper and NMEA 0183 heading outputs for direct connection to heading repeaters, ECDIS, radar, autopilot and other navigation systems. Easily incorporated into new vessels or retrofits, the GC80 and GC85 suit a variety of applications from navigation for merchant vessels to dynamic positioning for OSVs.

These gyrocompasses were designed to meet the requirements of demanding offshore applications, and combine sophisticated technology with low-RPM rotation to eliminate the need for regular annual service or oil changes. In the event that service is required, the fully-sealed sensitive elements are field-swappable to allow for onboard service – minimizing or eliminating vessel downtime.

RGC50

Smaller and lighter than IMO-approved equivalents, the Simrad RGC50 brings the reliability and performance benefits of a gyrocompass to smaller non-SOLAS workboats, passenger ferries and commercial fishing vessels. The RGC50's integrated control unit offers a single 1:1 synchro electrical output; the optional GI51 Gyro Interface module translates this into stepper and NMEA 0183 outputs for direct connection to heading repeaters and other navigation equipment.

Pendulum Ferry function: Essential aboard double-ended ferries with interchangeable bow and stern, the RGC50 and GI51 offer a switchable 180-degree heading offset that allows either end to be configured as the bow quickly and easily during vessel operation.

Technical specifications overleaf.






Technical Specifications

	GC80	GC85	RGC50
Type Approval	Wheelmark IMO:A424 (XI), A694 (17). IEC: 60945, 61162. ISO: 8728 (1997)	Wheelmark IMO: A.821(19), MSC.97(73), SOLAS Chapter V Annex 19 – 13.2.6 (2000 HSC Code), IEC: 60945, 61162 ISO: 6328 (2001)	-
PERFORMANCE			
Settling time	< 3 hours		< 4 hours
Pitch/roll angle	±45°		
Follow up rate	> 75°/sec		Max 36°/sec
Settle point error (x secant latitude)	< ±0.1°		< ±1.8°
Static error (x secant latitude)	< ±0.1°		< ±1.0°
Dynamic error (x secant latitude)	< ±0.4°		< ±1.8°
POWER/INTERFACES			
Compatible control/interface units	GC80/85 Compact/Dual/Expanded Control Unit		Integrated Controller/GI51 Gyro Interface
Supply voltage	24V DC (all units) 110/220V AC (Dual/Expanded)		24V DC
Heading outputs	4x NMEA 0183, 1x stepper (Compact), 10x NMEA 0183, 4x stepper (Dual/Expanded)		Synchro 1:1 (integrated) NMEA 0183, stepper (GI51)
Rate Of Turn (ROT) outputs	3x analogue (Dual/Expanded only)		-
TECHNICAL/ENVIRONMENTAL			
Width	340 mm / 13.4 in		228 mm / 9 in
Depth	340 mm / 13.4 in		228 mm / 9 in
Height	438 mm / 17.2 in		253 mm / 10 in
Weight	23 kg / 50.71 lb		11 kg / 24.25 lbs

PART NUMBER	DESCRIPTION
27101617	GC80 Compact Gyro system
GC80 Exp Sys	GC80 Expanded Gyro System
GC80 Dual Sys	GC80 Dual Gyro System
GC85 Comp Sys	GC85 Compact Gyro system
GC85 Exp Sys	GC85 Expanded Gyro System
27102185	RGC50 Gyro
000-10124-001	RGC50 Pack-includes RGC50 and GI51

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