

Meridian Standard

GYROCOMPASS

Highly accurate performance with low cost of ownership.

The Meridian gyrocompass is a product suitable for the ever-changing needs of a modern integrated navigation bridge system. This includes highly accurate performance with low cost of ownership and system flexibility. Due to the Meridian's small size and fast settle time of less than 45 minutes, there are no limits to the type of vessel for which it is suitable.

The Meridian gyrocompass can be installed as a stand-alone unit or, together with any of the Meridian range of repeaters and ancillaries, it becomes a single or dual gyro system. The Meridian can also be used to replace many existing gyrocompasses as a retro fit unit.

For simple installation the Meridian offers a large array of digital and analogue outputs plus easy to use set-up and self-test modes that are activated via the control unit. The versatility and flexibility of the Meridian can be clearly demonstrated with the remote control unit option. This gives freedom to install the main unit in the most convenient location whilst installing the remote control unit where it can be seen and regularly used.

The heart of the Meridian gyrocompass is the element, which is a dynamically tuned gyroscope (DTG). The DTG is a high precision technology which, due to its size, accuracy, reliability and shock resistance, is used in many different applications.

The guaranteed accuracy of the Meridian gyrocompass is obtained through specialised high quality engineering. This gives exceedingly stable heading and means that the gyro will follow a high turn rate of up to 200° per second.

Unlike virtually every other marine navigation gyrocompass currently available, the Meridian has a maintenance-free dry element with a meantime between failure of more than 30,000 hours. After installation there are no scheduled annual maintenance and servicing costs.



Features

- IMO, HSC & Wheelmark certified
- Economic one-box solution
- Fast initial settle time
- Small, lightweight and versatile
- Dynamic heading accuracy of 0.6°
- Multiple analogue and digital outputs
- Start up power requirement of <3A
- Low cost of ownership
- MTBF of >30,000 hours
- 200° per second rate of turn



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TECHNICAL SPECIFICATIONS

Display	360° compass card and digital display	
Performance	Settle point error	0.25° secant latitude
	Static error	0.10° secant latitude RMS
	Dynamic accuracy	0.60° secant latitude
	Settle point repeatability	0.25° secant latitude
	Follow-up speed	200°/second
	Settling time	45 minutes, or less to within 0.7°
Outputs	"S" type	1 x Step by Step (5V TTL), six steps per degree
	Synchro	1 x 26V 400Hz sector value 360° (1:1 ratio) 11.8V line to line
	Serial data	11 x RS422, NMEA 0183 5 x RS 232, NMEA 0183 1 x printer port, NMEA 0183 1 x ROT 20/second (10V)
	Status/alarm	5V TTL power fail/gyro fail 5V TTL system ready Potential free relays
Inputs	Latitude	NMEA 0183 via RS232 or RS422 from GPS
	Speed	Pulse or contact closure at 100, 200 or 400 per NM for Log/GPS NMEA 0183 via RS232 or RS422 from Log/GPS
Compensation	Latitude	80° N to 80° S
	Speed	0-90 Knots
Environmental	Ambient operating temperature	0°C to 45°C (-15°C to +55°C with reduced accuracy)
	Storage temperature	-25°C to +80°C
	Gimbal limits	±45° roll and pitch
	Meantime between failure	>30,000 hours
	Shock	10g
Operating voltage	Input voltage	24V d.c. (18-36V d.c.)
Operating power	Start-up	<3A at switch on / <1.5A in ready mode
Dimensions	Size	344mm (h) x 267mm (w) x 440mm (d)
	Weight	15.5 Kg
Accessories (included)	Operators handbook, spare fuse	
Options	Remote control unit option kit; Stepper amplifier; various repeater	
Standards	IMO A424 (X1), IMO A821 (19), BS EN 60945, BS EN ISO8728 (1994), CE Marking, Marine Equipment Directive 96/98/EC, High Speed Craft (HSC)	
Warranty	24 months international warranty including parts and labour	

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



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