

Meridian Gyrocompasses

Marine Navigation Systems

Highly accurate performance with low cost of ownership

The Meridian gyrocompass product range is suitable for the ever-changing needs of a modern intergrated 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 TSS range of repeaters and ancillaries; it becomes a single, dual or triple gyro system. The Meridian can also be used as a retrofit unit.

For simple installation the Meridian offers a large array of digital and analogue outputs plus easy 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 which gives freedom to install the main units in the most convenient location whilst installing the remote control unit where it can be seen and regularly used.

Unlike other marine navigation gyrocompasses available, the Meridian has a maintenance-free dry element with a meantime between failures of more than 30,000 hours; and post-installation there are no scheduled annual maintenance or servicing costs.



PRODUCT FEATURES & BENEFITS

- Type approved to Marine Equipment Directive
- Economic one-box solution
- Fast initial settle time
- Small, lightweight and versatile
- High dynamic heading accuracy
- Versatile range of repeaters and ancillaries



TELEDYNE MARINE
TSS
Everywhereyoulook™

Meridian Gyrocompasses Marina Navigation Systems



TECHNICAL SPECIFICATIONS

		Standard	Surveyor	
Performance	Heading accuracy	Static	0.10° secant latitude RMS	
		Dynamic	0.30° secant latitude RMS	
	Roll & pitch accuracy	N/A		
	Settle time	<45 minutes to within 0.7° from +/-30° initial heading offset		
	Angular rate	~200°/s		
	Settle point error	0.25° secant latitude	0.10° secant latitude	
	Settle point repeatability	0.25° secant latitude	0.10° secant latitude	
	Compensation	Latitude	80°N to 80°S	
		Speed	0 - 90 knots	
Power	Power supply	24Vdc (19 - 36Vdc)		
	Power consumption	>3A at power on / 1.3AS in ready mode		
Interface	Outputs	S' type	1 x Step by Step (5V TTL), 6 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 (IEC 61162-1/2) 5 x RS422, NMEA 0183 (IEC 61162-1/2)
				5 x RS232, NMEA 0183
			1 x printer port, NMEA 0183	5 x 20mA current loop
			1 x ROT (±10V)	
		Staus / Alarm	Alarm - 5V TTL and potential free relay	
			Status - 5V TTL and potential free relay Potential free status and alarm relays	
	Inputs	Latitude	Automatic - via RS232 or RS422, NMEA 0183 from GPS or manual	
		Speed	Automatic - via RS232 or RS422, NMEA 0183 from log or pulse/contact closure at 100, 200 or 400/NM from log or manual	
Physical Characteristics	Dimensions	344mm (h) x 267mm (w) x 440mm (d)		
	Weight in Air	15.5kg		
	Weight in Water	N/A		
	Rating	N/A		
Environmental and EMC	Operating temperature	0°C to +45°C (-15°C to +55°C with reduced accuracy)		
	Storage temperature	-25°C to +80°C		
	Environmental	Meets or exceeds IEC 60945		
	EMC	Meets or exceeds IEC 60945		
	Gimbal limits	±45° roll and pitch		
	MTBF	>30,000 hours (calculated); > 100,000 hours (in service data)		
	Shock (survival)	10g		
Options		An extensive range of gyrocompass repeaters and ancillaries available		
		Remote control mounting kit		
Compliance	Standards	IMO A424(XI), IMO A821(19), IMO A694(17), MSC 191(79), ISO 8728, ISO 16328, IEC 60945, IEC 62288, IEC 61162, US Coast Guard MRA, Marine Equipment Directive 96/98/EC		
	Export	Goods may be subject to export controls - details upon quotation		
Warranty		24 months international warranty including parts and labour		

Meridian Standard

The heart of the Meridian gyrocompass is the element, which is a dynamically tuned gyroscope (DTG). The DTG is 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.



Meridian Surveyor

The Meridian Surveyor boasts a wide range of interfaces to enable use on any marine vessels. Highly suited for survey applications providing 0.2° dynamic heading accuracy, the Meridian Surveyor offers higher performance and guaranteed reliability.



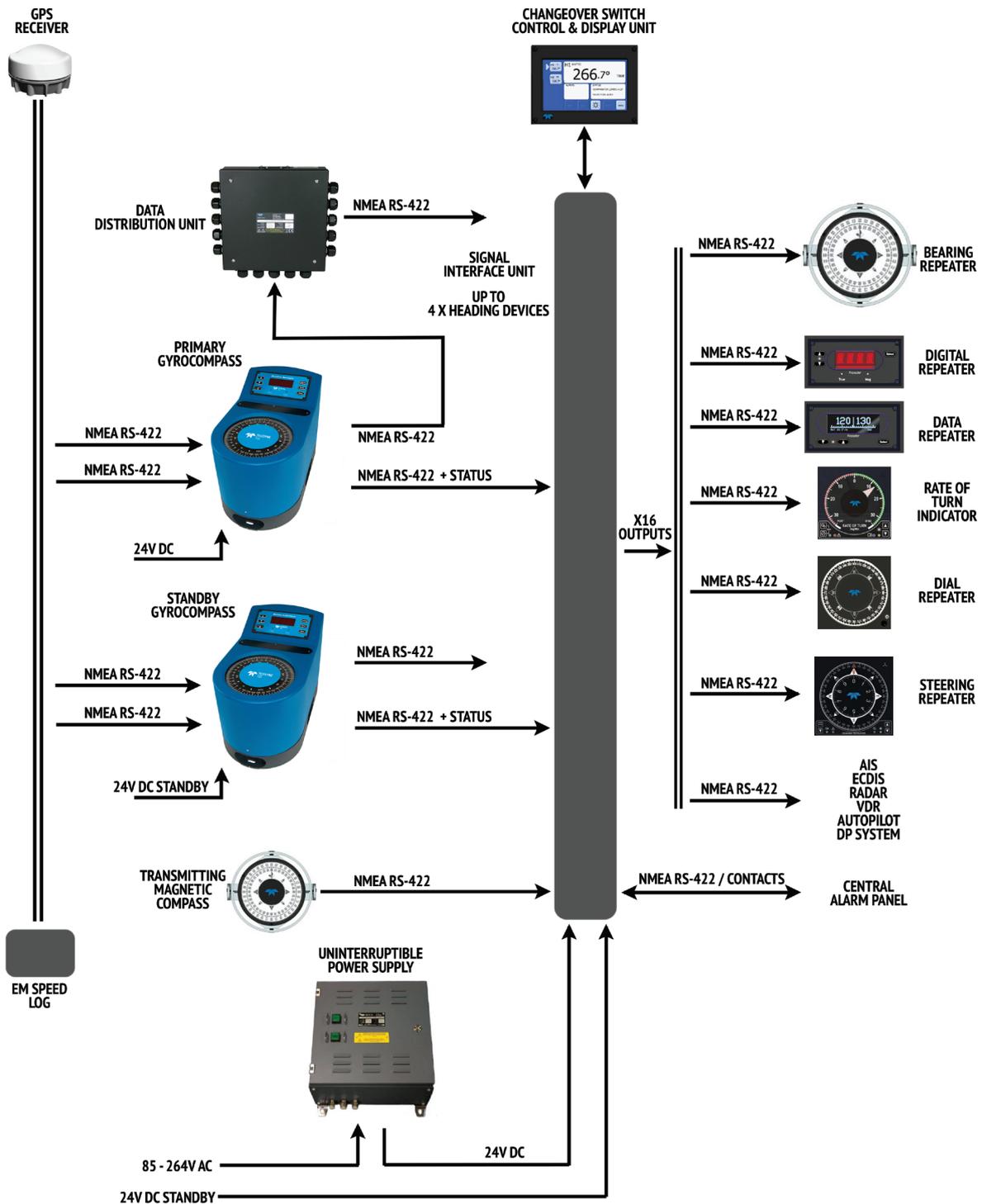
Remote Control Unit Option



For simple installation the Meridian offers a large array of digital and analogue outputs plus easy to use digital set-up and self-test modes that are activated via the control unit.

The versatility and flexibility of the Meridian gyrocompass can be clearly demonstrated with the remote control unit option, which is supplied with the gyrocompass system. 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 Full Meridian Gyrocompass System



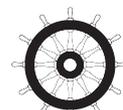
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