

# Meridian Subsea

GYROCOMPASS

## Exceptional performance and accuracy.

Seafarers the world over have relied on SG Brown gyrocompasses for almost 100 years. The Meridian Subsea uses a Dynamically Tuned Gyro (DTG) element, which provides exceptional performance and accuracy and removes the need for routine maintenance, significantly reducing cost of ownership.

The high accuracy heading output can be maintained for turn rates in excess of 200° per second making the system ideal for operation in even the most hostile subsea environments.

The design of the Meridian Subsea is simple yet highly robust and the fast spin-up time of less than 45 minutes allows for vastly increased efficiencies over earlier mechanical gyro technologies.

The Meridian Subsea may be upgraded to the Subsea RP with addition of a Roll Pitch Module. This enables output of roll and pitch data with up to 0.1° accuracy making the unit useful in a wider variety of subsea control, installation or monitoring applications.

Also optional in either the Subsea or Subsea RP models is the addition of an integral battery back-up module. This can cover short-term power supply loss and power supply switch over.



- Maintenance-free DTG element
- Dynamic heading accuracy of  $\pm 0.2^\circ$
- <45 minutes settling time
- Start-up power requirement of 1.8A
- Low cost of ownership
- MTBF of 30,000 hours
- Depth rated to 3000m
- Very high turn rate of 200° per second
- Configuration via PC interface S/W
- Optional integral Roll & Pitch module with battery back-up



# Meridian Subsea

GYROCOMPASS

## TECHNICAL SPECIFICATIONS

<b>Heading</b>	Settle point	0.1° sec lat
	Static accuracy	<0.05° RMS sec lat
	Dynamic accuracy	<0.2° sec lat (Scorsby and Intercardinal motion tests)
	Follow up speed	200°/sec
	Settling time	<45 minutes, to within 0.7°
<b>Latitude input</b>	Automatic – via RS232 or RS422, NMEA 0183 from SDC software	
<b>Speed input</b>	Automatic – via RS232 or RS422, NMEA 0183 from SDC software	
<b>Latitude compensation</b>	80°N to 80°S	
<b>Speed compensation</b>	0 – 20 knots	
<b>Operating temperature</b>	0°C to +55°C	
<b>Storage temperature</b>	-25°C to +80°C	
<b>Gimbal limits</b>	±45° pitch and roll	
<b>Shock survival</b>	10g	
<b>Mean time before failure</b>	>30,000 hours	
<b>Input voltage</b>	24VDC (18-36 VDC)	
<b>Start-up current</b>	1.8A	
<b>Dimensions</b>	215mm (d) x 516mm (h)	
<b>Weight</b>	28.6Kg in air 6.5Kg in water	
<b>Depth rating</b>	3000m	
<b>Accessories included</b>	Operators handbook, transit case, spare connectors	
<b>Standards</b>	IMO A 424 (X1), IMO A 821 (1bv9), BS EN 60945, BS EN ISO 8728 1994, BS 6217 1981, CE Marking, Electromagnetic Compatibility (EMC) Directive and the Marine Equipment Directive 96/98/EC	
<b>OPTIONS</b>		
<b>Roll &amp; Pitch Module</b>	Accuracy 0.1° or 1% whichever is greater, update rate 50 Hz, TSS1 or HHRP output formats	
<b>Battery Back-up Module</b>	Internal auto-recharging batteries giving up to 1 minute back-up power supply	
<b>Warranty</b>	12 months international warranty including parts and labour	

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

WORLD LEADERS IN MARINE NAVIGATION



**TELEDYNE TSS**

A Teledyne Technologies Company



Certificate Number: 160263  
BS EN ISO 9001 : 2000

**Sea and Land Technologies Pte Ltd**

65 Tuas Avenue 1  
Singapore 639508  
Email: enquiry@sea-landtech.com.sg  
Website: http://www.sea-landtech.com.sg

Tel : +(65) 6518 0777  
Fax : +(65) 6563 0366