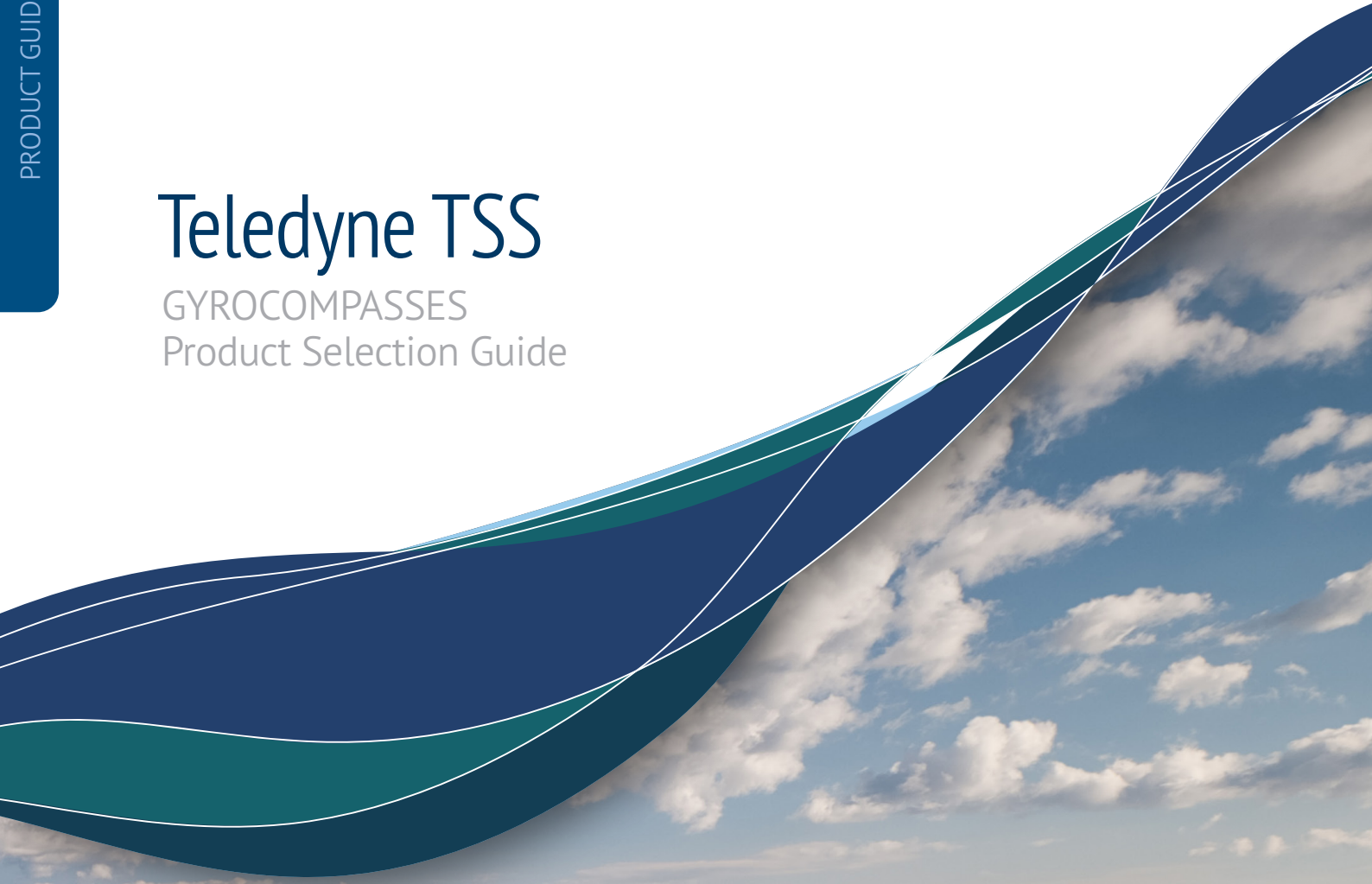




Teledyne TSS

GYROCOMPASSES
Product Selection Guide



TELEDYNE MARINE
TSS
Everywhere **you** look™

Pick your Gyrocompass... a simple 3-step process

- Step 1: Find your **Application**
- Step 2: Identify the **Product**
- Step 3: Select the **Specifications**



Highly accurate performance with low cost of ownership

Surface navigation systems for when performance matters

Next generation of subsea attitude and heading reference systems

Application	Meridian Standard	Meridian Surveyor	SATURN AHRS 10/30/50	SATURN INS 10/30/50	MK31 INS	TOGS 1/3/5	TOGSINS 1/3/5	TOGSNAV 1/3/5
Non-IMO Navigation	•	•	•	•				
IMO Navigation	•	•	•	•	•			
IMO HSC Navigation	•	•	•	•	•			
Dynamic Positioning System	•	•	•	•				
DVL Aided Station keeping			•	•				
Rig Moves	•	•	•	•				
Offshore Construction			•	•		•	•	•
Hydrography		•	•	•			•	•
Survey		•		•				
Sonar stabilisation			•	•	•	•	•	•
Military ship Navigation	•	•	•	•	•			
Military specialist systems				•	•		•	•
ROV Work Class Navigation						•	•	•
ROV Survey work							•	•
ROV Station keeping							•	•

Product Specifications

Technology	Dynamically-Tuned Gyro (DTG)		Fibre Optic Gyro (FOG)		Ring Laser Gyro (RLG)	Fibre Optic Gyro (FOG)	
Depth rating	Surface Only		Surface Only		Surface Only	4000m & 6000m	4000m Only
Dynamic Heading (secant latitude RMS)	0.3°	0.2°	0.1° / 0.3° / 0.5°		0.1°	0.1° / 0.3° / 0.5°	
Static Heading (secant latitude RMS)	0.1°	0.05°	0.1° / 0.3° / 0.5°		0.1°	0.1° / 0.3° / 0.5°	
Inertial Navigation Performance				•	•	•	•
IMO Wheelmark Approval	•	•	•	•	•		
Roll and Pitch (RMS)			0.01° / 0.05°		0.05°	0.01° / 0.05°	
Heave			5cm or 5% / 5cm or 5% (delayed)		5cm or 5%	5cm or 5% / 5cm or 5% (delayed)	
Alignment / Settle Time	<45 minutes		10 minutes		<30 minutes	10 minutes	
Operating Voltage	24Vdc (18Vdc - 36Vdc)						
Power Consumption	35W		14W - 16W		20W	16W - 14W	20 - 31W
Dimensions	344mm (h) x 267mm (w) x 440mm (d)		179.5mm (h) 165mm (w) x 366mm (d)		190mm (h) x 224mm (w) x 375mm (d)	157mm (Ø) x 280.5mm (h) / 182mm (Ø) x 306mm (h)	
Weight in Air	15.5kg		7.1kg - 8.2kg		15kg	10.2kg - 14.5kg	16.9kg - 18.6kg
Weight in Water	N/A	N/A	N/A	N/A	N/A	5.4kg - 7.2kg	7.7kg - 8.7kg
Operating Temperature	0°C - +45°C		-20°C to +55°C		-15°C - +55°C	-20°C to +55°C	

Where is a gyrocompass used?

A gyrocompass system is used as a primary navigation source for surface and subsea vessels. On the surface, the purpose of a gyrocompass is to indicate the vessel's heading relative to true north. On board these surface vessels, gyrocompasses are often used alongside a range of repeaters which can be located on the ship's bridge for ease of use and access. On subsea vehicles, the gyrocompass offers a different range of capabilities and uses. Subsea navigation will usually require accurate roll and pitch (and sometimes heave), as well as pressure readings to establish more accurate position and depth. The combination of capabilities also reduces the amount of space taken up by the gyrocompass, especially on board vessels where space is at a premium. A range of solid state and mechanical gyrocompasses from TSS can provide solutions across a wide range of surface and subsea applications at different operating depths, some are highlighted below.



Survey Vessels



Commercial Shipping



Surface Vessels



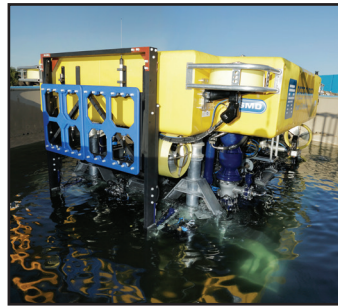
Fast Ferries



Yachts



Workboats



ROVs



AUVs

What sets us apart?

Technology

Teledyne TSS is synonymous with marine gyrocompasses and steering systems through its SG Brown heritage. For more than 100 years products have been designed and manufactured by the company for commercial marine and naval defence customers worldwide.

Service

Teledyne TSS operates a 24 hour, 365 days a year technical support hotline for all products. The Meridan Standard and Surveyor gyrocompasses are delivered with a 24 month warranty whilst all other TSS gyrocompasses are supplied with a 12 month warranty period. Extended warranties are available at an additional cost. The company also maintains highly specialised service and repair facilities from its Watford (UK) headquarters that are suitable for early model gyros as well current TSS gyrocompasses. The company also has the engineering capability to provide retrofit navigation, steering and stabilisation solutions via in-house skills and experience.



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