

Features

- ◆ Dynamic roll and pitch accuracy to 0.05°
- ◆ Depth rated to 3000m (optional 6000m)
- ◆ Solid state angular rate gyro
- ◆ Survey to Class 1 IHO standard
- ◆ High dynamic accuracy during vessel turns

Benefits

- ◆ DMSView intuitive control software
- ◆ User-configurable outputs
- ◆ Real-time digital and analogue outputs
- ◆ Compact and lightweight

The DMS range of motion sensors has been designed specifically for the motion measurement needs of the marine industry. Whether it is achieving IHO standard survey from any size of vessel, or providing safety critical monitoring of offshore platforms, large vessels, helicopter landing decks, cranes and positioning systems, the DMS provides accurate motion measurement in all sea conditions.

Incorporating an enhanced external velocity and heading aiding algorithm for improved accuracy during dynamic manoeuvres, the solid state angular rate sensors offer reliability and a complimentary blending algorithm has proven that the DMS is the highest performance vertical reference unit ever produced by TSS.

The DMSView software programme is an intuitive Windows™ - based programme enabling installation, set-up and integrity checking, and monitoring of the sensor. The user can select from a series of frequently used data protocols or configure a bespoke output from a selection of variables.

The DMS is rated to 3000m as standard with 6000m available on request. The sensor can be supplied in various configurations for integration with towed vehicles and other bespoke applications. As with all TSS systems, the DMS is certified to meet all current and anticipated European legislation for electromagnetic compatibility and electronic emissions.



TSS DYNAMIC MOTION SENSORS

Dynamic accuracy	Heave	Roll & Pitch							
	All (except DMS-RP25)	DMS-05 DMS-10 DMS-25 DMS-RP25							
	5cm or 5% whichever is greater (period 0 to 20s)	0.05° 0.10°		0.25°	0.25°				
	Amplitude	±30°							
Maximum range	Heave ±10m; Roll & Pitch ±60°								
Bandwidth	Heave 0.05 to >30 Hz; Roll & Pitch 0 to 30Hz								
Data output rate	Digital: up to 200 Hz	Analogue: up to 500 Hz (with an external repeater)							
Available output parameters	Adjustable data packet output rate down to 1 Hz Heave; roll; pitch; remote heave; angular rate X, Y, Z – acceleration X, Y, Z (body frame); angular rate east north, up – acceleration east, north, up (geographical frame); IMU temperature; surge; sway; sensor status; external speed; external heading; UTC time								
Dimensions	172mm x 99mm diameter (excluding connector and mounting plate)								
Weight	3000m <2.3 Kg; 6000m <4.0 Kg in air								
Power supply	15-30 Vdc								
Temperature range	0°C to 55°C operating; -20°C to +70°C storage								
Power requirement	10-36V, <6.5W								
Velocity input packet formats	DMS-05, -10, -25 models only: NMEA 0183 (required VTG & GLL or GGA); TSIP; Doppler Speed Log								
Heading input packet formats	NMEA 0183; SGB; Robertson; Sperry LR40/60								
Depth rating	3000m (optional 6000m)								
Shock (survival)	30g peak 40ms half-sine								
Vibration (operating)	30mm/s or 0.2mm, 7-300 Hz								
Available output formats	DMSView for Windows offers standard TSS and other manufacturers' data strings in addition to user-configurable menu								
Software interface	Digital: RS232 or RS422 (software selectable) Analogue: via an optional remote interface for power, communications and aiding								
MTBF (computed)	50,000 hours								
Warranty	12 months international warranty including parts and labour								

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

1 Garnett Close, Greycaine Industrial Estate, Watford, Hertfordshire WD24 7GL, UK
Tel: +44 (0)1923 470800 Fax: +44 (0)1923 470842 Email: tssmail@tss-int.com

Aberdeen: 10 The Technology Centre, Aberdeen Offshore Technology Park, Claymore Drive, Bridge of Don, Aberdeen AB23 8GD, UK
Tel: +44 (0)1224 707081 Fax: +44 (0)1224 707085 Email: tssmail@tss-int.com

Houston: Hammerly Blvd, Suite 128, Houston TX 77043, USA
Tel: +1 713 461 3030 Fax: +1 713 461 3099 Email: tssusa@tssusa.com



www.tss-international.com