

The MiniPOS is a full inertial navigation system for use in the subsea positioning industry. Highly accurate accelerometers are combined with Ring Laser Gyro (RLG) technology to produce a system that can provide accurate positional data without the need for any external sensors.

System outputs from the MiniPOS are extensive and controllable. Information from the MiniPOS is available in both Current loop and RS232 formats. The user can select exactly the parameters required in the data telegram. By limiting the data telegram to only the parameters required, the update rate can be raised to very high speeds (>10 per second).

Doppler Velocity Log (DVL) can also be applied as a system input to improve accuracy and reduce the effects of drift. Known position inputs can also be applied from GPS or subsea acoustics.

## FEATURES AND BENEFITS

- Inertial navigation
- Very small size
- Very low power
- Variable data output
- Topside display
- Depth sensor
- 6,000 m depth rating
- Battery backup



## TECHNICAL SPECIFICATION

Heading accuracy 0.169 Degrees  
Pitch and roll 0.028 Degrees

### UNIT RESOLUTIONS:

Latitude 180 x 2-31 Degrees  
Longitude 180 x 2-31 Degrees  
Depth 0.1 Meters  
Roll Angle 180 x 2-15 Degrees  
Pitch Angle 180 x 2-15 Degrees  
True Heading 180 x 2-15 Degrees  
North Velocity 2x10<sup>-10</sup> m/s 6.56x10<sup>-10</sup> f/s  
East Velocity 2x10<sup>-10</sup> m/s 6.56x10<sup>-10</sup> f/s  
Up Velocity 2x10<sup>-10</sup> m/s 6.56x10<sup>-10</sup> f/s  
X-Axis Acceleration 2x10<sup>-10</sup> m/s<sup>2</sup> 6.56x10<sup>-10</sup> f/s<sup>2</sup>  
Y-Axis Acceleration 2x10<sup>-10</sup> m/s<sup>2</sup> 6.56x10<sup>-10</sup> f/s<sup>2</sup>  
Z-Axis Acceleration 2x10<sup>-10</sup> m/s<sup>2</sup> 6.56x10<sup>-10</sup> f/s<sup>2</sup>  
X-Axis Angular Rate 2x10<sup>-10</sup> m/s<sup>2</sup> 6.56x10<sup>-10</sup> f/s<sup>2</sup>  
Y-Axis Angular Rate 2x10<sup>-10</sup> m/s<sup>2</sup> 6.56x10<sup>-10</sup> f/s<sup>2</sup>  
Z-Axis Angular Rate 2x10<sup>-10</sup> m/s<sup>2</sup> 6.56x10<sup>-10</sup> f/s<sup>2</sup>

Bi-Directional Current Loop or RS232  
RS422 for DVL and GPS interfacing

### DEPTH RATING:

Standard 3000 meters (9842.4 feet)  
Special 6000 meters (19,685 feet)  
Consumption 35W (max.)  
IP Voltage 100-260Vac (universal)  
Or IP Voltage 18-32Vdc  
Run up 5 to 10 minutes (min) from switch-on  
Subsea unit 182 dia x 300 mm (7.17" dia. X 11.8")  
Weight dry 9.8kg (21.6lbs )  
Weight in water 2.33kg (5.13lbs )  
Mounting (4 holes) M8 148 x 148mm (M8 5.83 x 5.83")

Note: Dynamic Positioning Services reserve the right to amend this specification without prior notice.