

Seatex DPS 132 with SeaSTAR HP and XP engine

The High Performance Dual Frequency GPS, SBAS Navigation DGPS and Positioning Reference System



DPS 132 XP/HP is a combined dual frequency GPS with SBAS, and dual-channel IALA beacon receiver.

DPS 132 XP/HP is with its unique multiple reference stations (MULTIREF) solution, capable of simultaneous integration of SBAS, IALA/USCG corrections, and subscription based differential correction services. The DPS 132 XP/HP system is designed for DP applications where extremes with respect to reliability, accuracy and autonomous integrity monitoring are required.

Reliable Positioning

The DPS 132 XP/HP uses the dual frequency GPS to calculate and eliminate the effects of ionospheric noise. This feature is crucial in the border areas of SBAS coverage, where the reliability of the broadcasted ionospheric models degrades. Independent software modules and sophisticated anti-multipath technology assure robustness and reliability.

The DPS 132 XP/HP utilises all available data from GPS and DGPS signals, increasing the reliability of the system outputs and minimising the effect of anomalous measurements. The DPS 132 XP/HP has a built-in autonomous real-time quality control feature continuously monitoring the quality of the calculated position. This is in accordance with requirements in the UKOOA standard for offshore positioning accuracy and reliability. Alarms and warnings are activated if critical tolerances are exceeded or if position quality degrades.

DGPS Corrections

The DPS 132 XP/HP can primarily utilise the SBAS (Satellite Based Augmentation System is the generic term for WAAS/Egnos/MSAS), where available and in parallel make use of DGPS correction signals received from up to 24 reference stations.

When used with the Seastar-XP/HP data activated, the accuracy improves from meter level to decimeter level.

In order to increase the reliability and accuracy multiple positions are calculated. This results in a primary position with improved quality compared to a traditional DGPS solution. Simultaneous reception and use of correction signals in MF and UHF frequency bands, Inmarsat standard A, B and M terminals and Spotbeams are possible.

Target Monitoring

The DPS 132 XP/HP includes a target-monitoring feature that provides a graphical display of vessel position relative to a desired target and associated quality information. Three circular position limits may be defined along with various visual and audible alarms.

Navigation Planning Software

The DPS 132 XP/HP is delivered with navigation software with route planning capability. The number of routes and waypoints are unlimited.

