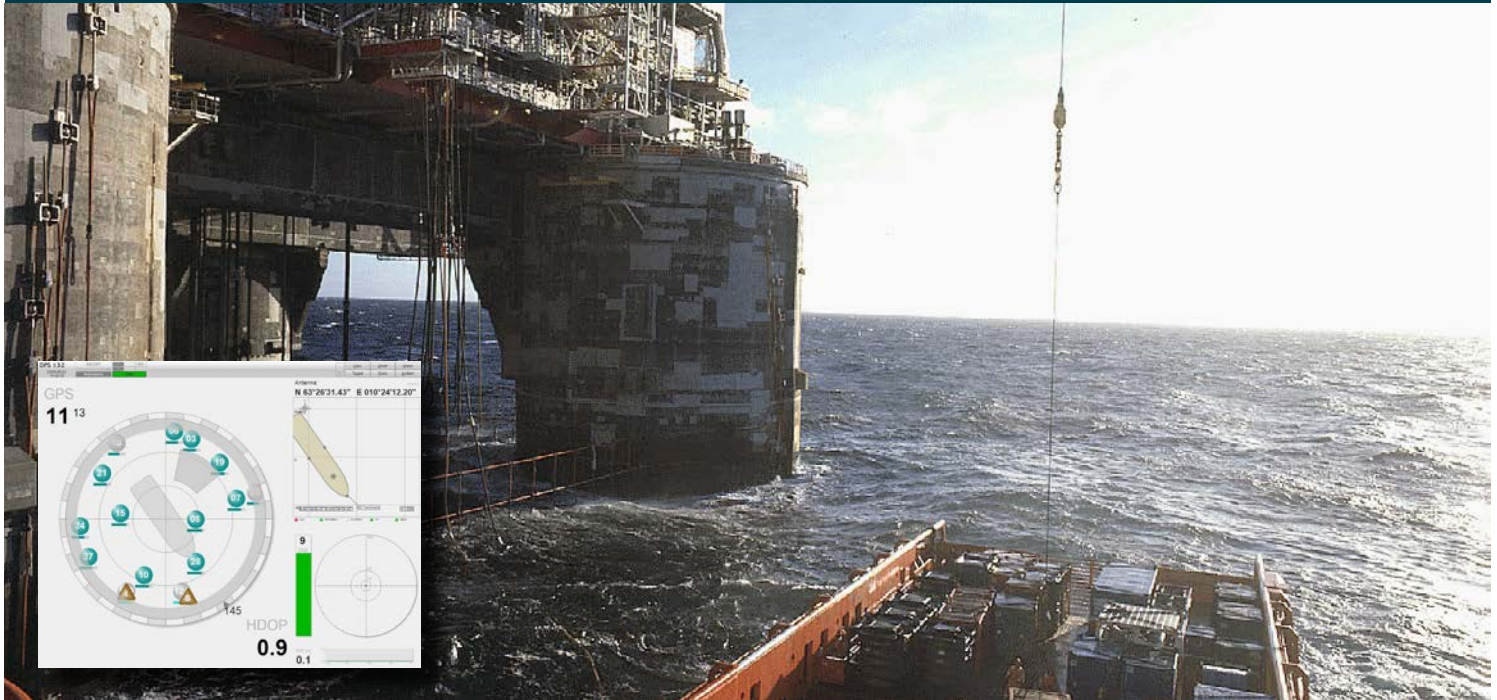


DPS 132



KONGSBERG



May 2014

DUAL FREQUENCY GPS AND SBAS POSITION REFERENCE SYSTEM

DPS 132 is a combined dual frequency GPS and SBAS system with a dual channel IALA beacon receiver. It is designed for DP applications where requirements with respect to reliability, accuracy and autonomous integrity monitoring are of extreme importance.

Reliable positioning

DPS 132 utilises all available data from GPS and DGPS signals, increasing the reliability of system outputs and minimising the effects of anomalous measurements. DPS 132 has a built-in autonomous real-time quality control feature continuously monitoring the quality of the calculated position. Alarms and warnings are activated if critical tolerances are exceeded or if position quality degrades. DPS 132 is based on dual frequency GPS and allows real-time compensation of errors introduced by high ionospheric activity providing enhanced availability and accuracy in equatorial and polar regions.

Networked architecture

DPS NAV Engine® runs all critical computations independent from the DPS HMI to ensure continuous and reliable operation. DPS NAV Engine® runs in a safe mode protected from unintended user operations. Several DPS HMIs can be connected to the same DPS NAV Engine® in a networked architecture.

Multiple information layers

Multiple layers of information give the DP operator unmatched opportunities for a customized visual presentation. Electronic chart, seabed maps, well head positions, static targets and AIS target information are some of the functions that are easily enabled by selecting or combining the different information layers.

Ease-of-use HMI

The DP has an intuitive and easy-to-use graphical user interface developed in close co-operation with experienced DP operators. This HMI enables the operators to assess the quality of their positioning quickly and effectively during operation. For better visibility under different light conditions the operator can easily select between a set of colour palettes, including a well tested night display.

Multiple differential signals

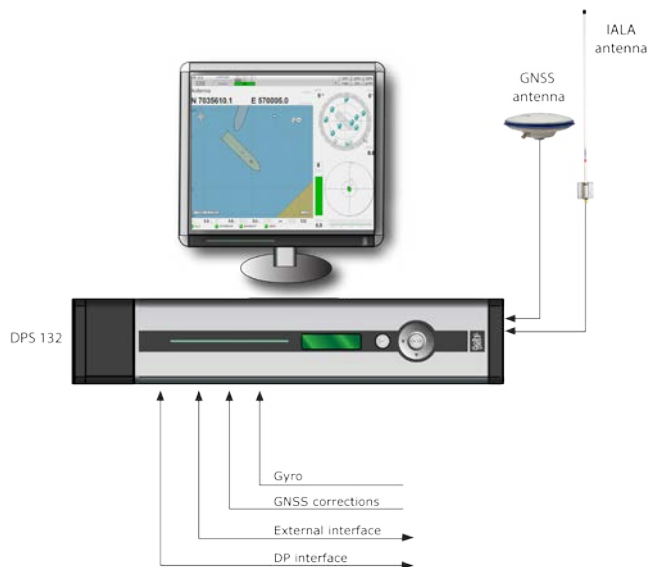
DPS 132 is, with its unique multiple reference stations (MULTIREF) solution, capable of simultaneous integration of the free-of-charge SBAS (e.g. WAAS, EGNOS, MSAS, GAGAN) and IALA/USCG corrections, and a multitude of subscription based correction services. When used with high precision services, the accuracy improves from metre level to decimetre level.

Satellite prediction

Periods with limited satellite availability and poor geometry, caused by poor satellite coverage or obstructed environments, are a major risk for safety critical operations. DPS 132 provides a satellite prediction tool helping the operator foresee these situations and plan for an operation where reliable position throughout the operation is crucial.

FEATURES DPS 132

- Combined GPS L1/L2 and SBAS receiver
- Dual frequency ionospheric compensation
- On-line monitoring and display of QC data
- Easy-to-use HMI tailored to safety critical DP operations
- Interface to heading sensors
- Lever arm compensation
- Automatic data recording with replay functionality
- Skyplot with satellite prediction and shadow sectors
- Target monitoring
- Speed view
- Electronic bearing line (EBL)
- Electronic chart/seabed maps
- AIS Interface
- Audible and visual alarms
- UKOOA compliant



TECHNICAL SPECIFICATIONS

PERFORMANCE

High precision accuracy	10 cm, 95 % CEP
DGPS accuracy	< 1 m, 95 % CEP
SBAS accuracy	< 1 m, 95 % CEP
Velocity accuracy	< 0.05 m/s, 95 % CEP
Output rate	1 Hz

All accuracy specifications are based on real-life tests conducted in the North Sea under various conditions. Operation in other locations under different conditions may produce different results.

INTERFACES

Serial ports	8 isolated ports, 6 configurable between RS-232 and RS-422
Ethernet/LAN	4
USB	3

DATA OUTPUTS

Message formats	NMEA 0183 v. 3.0, Proprietary
Message types	ABBDP, DPGGA, DTM, GBS, GGA, GLL, GNS, GRS, GSA, GST, GSV, RMC, VBW, VTG, ZDA

DATA INPUTS

DGPS corrections	RTCM-SC104 ver. 2.2, 2.3, 3.0, 3.1, Seastar XP
Gyro compass	NMEA 0183 HEHDT, HEHRC and Robertson LR22 BCD format

WEIGHT AND DIMENSIONS

DPS 132 unit	5.4 kg, 89 x 485 x 357 mm
GNSS antenna	0.5 kg, 69 mm x 185 mm
IALA beacon antenna	0.9 kg, 1100 mm

POWER

DPS 132 unit	100 - 240 V AC, 50/60 Hz, max 60 W
GNSS antenna	5 V DC from processing unit
IALA beacon antenna	10.2 V DC from processing unit

ENVIRONMENTAL SPECIFICATIONS

Operating temperature range

DPS 132 unit	-15 to +55 °C (*)
GNSS antenna	-40 to +85 °C
IALA beacon antenna	-55 to +55 °C

(*) Recommended +5 to +40 °C

Humidity

DPS 232 unit	Max. 95 % non-condensing
GNSS antenna	Hermetically sealed
IALA beacon antenna	Hermetically sealed

Mechanical

Vibration	IEC 60945/EN 60945
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Electromagnetic compatibility

Compliance to EMC/D, immunity/emission	IEC 60945/EN 60945
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PRODUCT SAFETY

Compliance to LVD, standard used	IEC 60950-1/EN 60950-1
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Specifications subject to change without any further notice.