

DPS 112



KONGSBERG



MARITIME DGNSS SENSOR FOR WORLDWIDE OPERATIONS

DPS 112 is a robust and reliable DGNSS (DGPS/DGLONASS) sensor suitable for a wide range of marine applications. It utilises the Seastar G2 service capable of world wide decimeter accuracy.

A member of the DPS Family

The Kongsberg Seatex award-winning DPS product line is well-proven and in use by professional marine and offshore users worldwide.

The DPS product series is developed and suitable for all applications in need for a confident position solution when operating in safety-critical environments.

Applications

DPS 112 is a cost efficient DGNSS solution designed for users where availability and reliability are paramount, with a meter-level position accuracy and the possibility to have decimeter accuracy with the Fugro Seastar G2 service.

DPS 112 has a built-in display for easy system configuration and status monitoring.

An external display unit with an intuitive and easy-to-use graphical interface tailored for DP operations is available, forming an ideal solution for workboats and platform support vessels.

GPS and GLONASS

One of the primary advantages of a combined GPS/GLONASS system is the increased satellite coverage. The addition of GLONASS increases system availability and the performance of DPS 112 is greatly enhanced compared to traditional DGPS systems when operating in highly obstructed environments and under challenging signal tracking conditions.

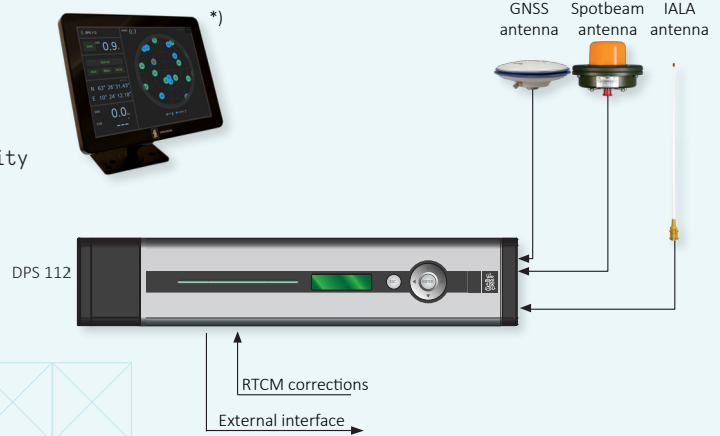
Seastar G2 service

The DPS 112 uses regional SBAS services such as WAAS, EGNOS, GAGAN and MSAS, and local DGPS services such as IALA DGPS.

In addition the DPS 112 can utilise the Fugro Seastar G2 service, delivered by Fugro's own network of dual system reference stations. This service provides consistent decimetre level accuracy positioning with 'orbit and clock' corrections with a global validity.

FEATURES

- Combined GPS L1/L2, GLONASS L1/L2 and SBAS receiver
- IALA beacon capability
- Built-in L-band receiver with Fugro Seastar G2 capability
- Optional standard RTCM correction input
- Easy software updates via USB
- Ethernet interface
- Embedded keypad and display
- Configurable output for external interfaces
- External display unit (optional)



*) Optional DPS Display Unit, see dedicated datasheet

TECHNICAL SPECIFICATIONS

DPS 112

PERFORMANCE

Seastar G2 service	10 cm, 95 % CEP
DGPS/DGLONASS accuracy	< 1 m, 95 % CEP
SBAS accuracy	< 1 m, 95 % CEP
Velocity accuracy	< 0.05 m/s, 95 % CEP
Output rate	1 Hz

INTERFACES

Serial ports	3 serial ports (2 NMEA output, 1 RTCM input), RS-232 or RS-422 (galvanically isolated)
Ethernet/LAN	1
USB	3

DATA OUTPUTS

Message formats	NMEA 0183 v. 3.0
Message types	GGA, GLL, GSA, GST, GSV, VER, VTG, ZDA
Alarm status	SNMP v. 2.0

DATA INPUTS

DGPS/DGLONASS corrections	RTCM-SC104 ver. 2.2, 2.3, Seastar XP2/G2
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WEIGHT AND DIMENSIONS

DPS 112 unit	5.8 kg, 89 mm x 444 mm x 357 mm
GNSS antenna	0.5 kg, 69 mm x 185 mm
IALA antenna	0.78 kg, 870 mm
Spotbeam antenna	1.4 kg, 96 mm x 150 mm

POWER SPECIFICATIONS

DPS 112 unit	100 - 240 V AC 50/60 Hz, max 60 W
GNSS antenna	5 V DC from processing unit
IALA antenna	10.2 V DC from processing unit
Spotbeam antenna	12 V DC from processing unit

ENVIRONMENTAL SPECIFICATIONS

Operating temperature range	
DPS 112 unit	-15 to +55 °C*)
GNSS antenna	-40 to +85 °C
IALA antenna	-55 to +70 °C
Spotbeam antenna	-30 to +70 °C
*) Recommended +5 to +40 °C	

Humidity

DPS 112 unit	Max. 95 % non-condensing
GNSS antenna	Hermetically sealed
IALA antenna	Hermetically sealed
Spotbeam antenna	Hermetically sealed

Mechanical

Vibration	IEC 60945/EN 60945
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Electromagnetic compatibility

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

Compliance to LVD, standard used	IEC 61010-1/EN 61010-1
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Specifications subject to change without any further notice.

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