DPS i1 with HAS

KONGSBERG

Maritime DGNSS sensor for worldwide operations

DPS i1 is a robust and reliable DGNSS sensor suitable for a wide range of marine applications. It utilises the Fugro Seastar® G4 service which is capable of world wide decimeter accuracy.

A member of the DPS family

The Kongsberg Discovery's award-winning DPS product line is well-proven and used by professional marine and offshore operators worldwide.

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

Applications

DPS i1 is a cost efficient DGNSS solution designed for users where availability and reliability are paramount. Galileo HAS provides free of charge high-accuracy PPP corrections. The system also supports decimeter accuracy with the Fugro Seastar® G4 service.

DPS i1 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 avialable, forming an ideal solution for workboats and platform support vessels.

GNSS infrastructure

The DPS i1 utilises GPS, Glonass, Galileo and BeiDou, providing enhanced satellite coverage compared to single and dual GNSS solutions. The utilisation of all available systems contributes to an enhanced operational availability in areas where obstructions and signal tracking can be challenging.

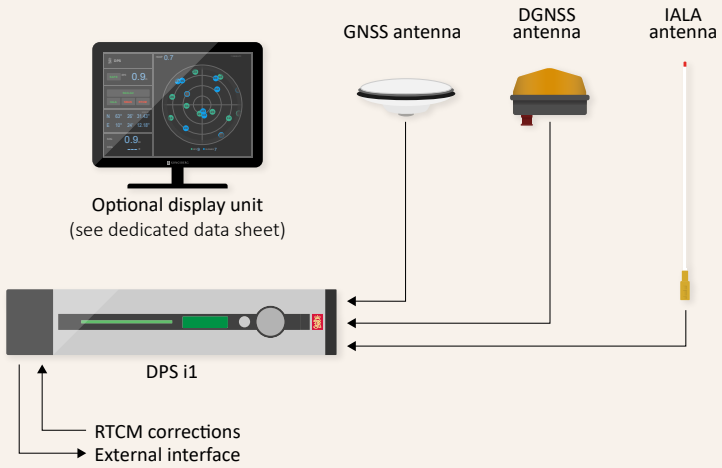
Seastar® G4 service

The DPS i1 uses regional SBAS services such as WAAS, EGNOS, GAGAN and MSAS as well as local DGNSS services such as IALA DGPS.

In addition, the DPS i1 can utilise the Fugro Seastar® G4 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

- Multi-frequency GPS, GLONASS, Galileo, BeiDou and SBAS receiver
- Galileo High Accuracy Service (HAS) supported
- IALA beacon capability
- Built-in L-band receiver with Fugro Seastar® XP3/G4 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)



Technical specifications

DPS i1 with HAS

Performance

Seastar® G4 service	10 cm, 95 % CEP
DGNSS accuracy	< 1 m, 95 % CEP
SBAS accuracy	< 1 m, 95 % CEP
HAS precision accuracy	< 20 cm, 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	2
USB	1

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

DGNSS corrections	RTCM-SC104 ver. 2.2, 2.3, Seastar XP3/G4

Weights and dimensions

Processing Unit	6.3 kg, 89 × 444 × 357 mm
GNSS antenna	0.5 kg, 55 × 176 mm
IALA antenna	0.78 kg, 870 mm
DGNSS antenna	1.4 kg, 91 × 152 mm

Power specifications

Processing Unit	100 - 240 VAC, 50/60 Hz, max 62 W
GNSS antenna	5 VDC from Processing Unit
IALA antenna	10.2 VDC from Processing Unit
DGNSS antenna	12 VDC from Processing Unit

Environmental specifications

Operating temperature range

Processing Unit	-15 - +55 °C[1]
GNSS antenna	-40 - +85 °C
IALA antenna	-55 - +70 °C
DGNSS antenna	-45 - +70 °C

Humidity

Processing Unit	Max. 95 % non-condensing
GNSS antenna	95 % non-condensing
IALA antenna	Hermetically sealed
DGNSS antenna	Hermetically sealed

Mechanical

Vibration	IEC 60945/EN 60945, IACS E10

Electromagnetic compatibility

Compliance to EMC, immunity/emission	IEC 60945/EN 60945, IACS E10

Spectrum

Compliance to Article 3.2, standards used	ETSI EN 303 413 V1.2.1 (2021-04) ETSI EN 300 330 V2.1.1 (2017-02)

Product safety

Compliance to LVD, standard used	IEC 61010-1/EN 61010-1

1 *Recommended room temperature (20 °C)*

Specifications subject to change without any further notice.

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