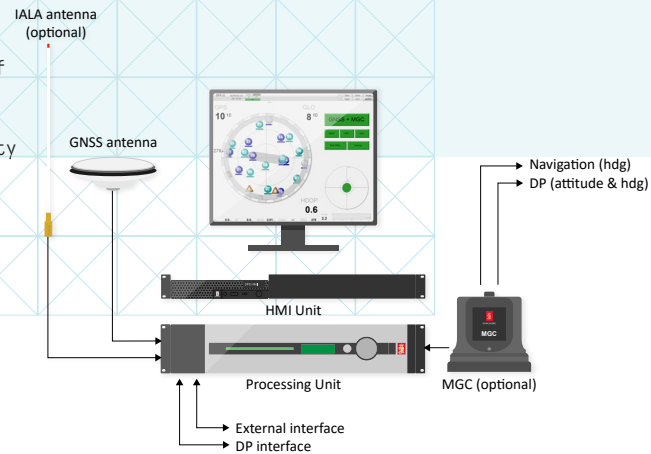




# FEATURES

- Multi-frequency GPS, Galileo and SBAS receiver
- Highly optimized integration of INS and GNSS without the use of 3<sup>rd</sup> party DGNSS services
- Dual frequency ionospheric compensation
- INS aided RAIM capability for enhanced integrity and reliability
- Fully capable to utilize differential correction services if required
- High-precision lever arm compensation of position and velocity
- Intuitive and easy-to-use HMI tailored to safety critical DP operations
- Scalable solution
- GNSS heading (requires two DPS systems)
- Spoofing detection capabilities
- Automatic data recording with replay functionality
- Remote service and diagnostics by utilizing K-IMS
- Galileo High Accuracy Service (HAS) ready
- GPS L5 ready



# TECHNICAL SPECIFICATIONS

## DPS i3

### PERFORMANCE

Non-differential position accuracy	1.3 m, 95% CEP
RTK	1 cm + 1.6 ppm RMS
High precision accuracy <sup>1</sup>	< 10 cm, 95% CEP
HAS precision accuracy	< 20 cm, 95% CEP
DGNSS position accuracy	< 1 m, 95% CEP
SBAS position accuracy	< 1 m, 95% CEP
Velocity accuracy	< 0.01 m/s, 95% CEP
Roll, pitch accuracy	MRU 5+: 0.007° RMS, MGC R2: 0.01°RMS, MGC R3: 0.007° RMS
Update frequency rate <sup>1</sup>	200 Hz
Latency	< 1 ms

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
IMU	RS-422
Ethernet/LAN	4
USB	3

### DATA OUTPUTS

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

### DATA INPUTS

DGNSS corrections	RTCM-SC104 v.2.2, 2.3, 3.0 and 3.1, Seastar XP/XP2/G2/G2+
RTK corrections	RTCM-SC104 v. 2.3, 3.0, 3.1 and CMR
Gyro compass	NMEA 0183 HDT, HRC, THS and Robertson LR22 BCD format
Display control	DDC

### INS SENSOR

Supported INS	MRU 5+, MGC R2, MGC R3 (See dedicated datasheets for technical information)
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<sup>1</sup> Dependent on subscription type

### WEIGHTS AND DIMENSIONS

DPS Processing Unit	5.4 kg, 89 x 485 x 357 mm
DPS HMI Unit	3.6 kg, 44 x 481 x 267 mm
GNSS antenna	0.5 kg, 69 mm x 185 mm

### POWER SPECIFICATIONS

DPS Processing Unit	100 - 240 V AC, 50/60 Hz, max 75 W
DPS HMI Unit	100 - 240 V AC, 50/60 Hz, max 170 W
GNSS antenna	5 V DC from Processing Unit

### ENVIRONMENTAL SPECIFICATIONS

#### Operating temperature range

DPS Processing Unit	-15 to +55 °C (*)
DPS HMI Unit	+5 to +35 °C (**)
GNSS antenna	-40 to +85 °C
(*) Recommended	+5 to +40 °C
(**) Recommended	+20 °C

#### Humidity

DPS Processing Unit	Max 95 % non-condensing
DPS HMI Unit	Max 90 % non-condensing
GNSS antenna	IP69K

#### Mechanical

Vibration	IEC 60945/EN 60945, IACS E10
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#### Electromagnetic compatibility

Compliance to EMC, immunity/emission	IEC 60945/EN 60945, IACS E10
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#### 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)
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#### PRODUCT SAFETY

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

GNSS systems	IEC 61108-1
Maritime navigation and radio communication equipment and systems	IEC 61162-1, IEC 60945
IMO regulations	MSC.112(73), MSC.113(73), MSC.114(73), MSC.115(73)

UK00A compliant

Specifications subject to change without any further notice.

## KONGSBERG DISCOVERY AS

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