

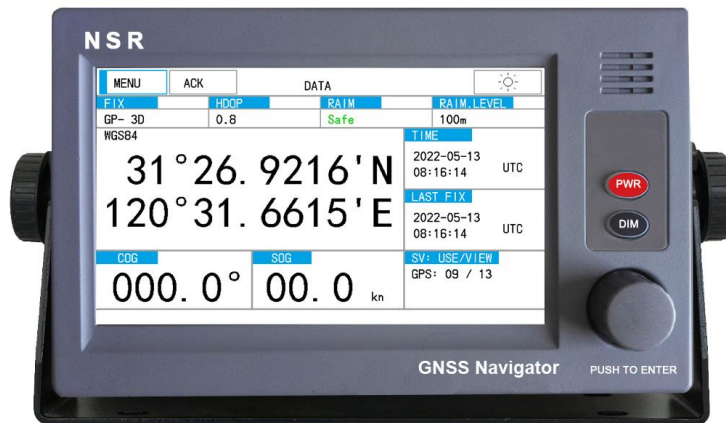
GNSS EQUIPMENT

NGR-1000/NGR-3000

NSR's new generation of IMO GNSS:

- Large 7 inch color LCD
- Touch screen operation
- Data interface to BAM/INS
- GPS, BDS, GLONASS
- DGPS with NSR beacon
- Type approval with DNV (MED) and CCS

NGR-1000	CCS
NGR-3000	DNV



- Comprehensive navigation data displays.
- Storage for up to 999 waypoints and 30 routes.
- 7 inch, color LCD, touch screen operation with adjustable brilliance.
- Dedicate port for BAM system/INS connection.
- 3 GNSS data outputs.
- Possible to be upgraded to DGNSS.
- Meets the requirements of relative IMO and IEC regulation & standards, including IMO MSC.112 (73), IMO MSC.302 (87), IEC 61108-1, IEC 62923-1, IEC 62923-2, IEC 62288 etc.



SPECIFICATIONS

● GNSS RECEIVER

- Receiving System: 50 channels parallel
- RX Frequency: GPS L1, GLONASS L1, BDS B1
- RX Code: C/A code
- Position Accuracy: Approx. 2.5m, 95% of the time,
horizontal dilution of position (HDOP) ≤ 4
- Tracking Velocity: 999 kts
- Position-fixing Time: Warm start: 30 seconds
Cold start: 45 seconds
- Position Update Interval: 1 second

● DISPLAY SECTION

- Display: 7 inch, color LCD, touch screen operation
- Fix Mode: GPS/GLONASS/BDS
- Alerts: Lost of Position, HDOP > 4, DGNSS lost

● INPUT/OUTPUT DATA

- Output Data: RS422, max 3 ports,
Baud Rate 4800/9600/19200/38400 bps
- Sentences: GNS, GBS, GGA, RMC, VTG, ZDA, DTM, etc.
- BAM/INS Connection: IN/OUT, RS422

● POWER SUPPLY:

DC 24V (range 12 ~ 36 V), 0.25 ~ 0.50 A

● OTHERS

- Size: 145 (H) × 264 (W) × 83 (D) mm
- Weight: 1.25 kg (Main Unit)

● ENVIRONMENTAL CONDITIONS

- Ambient Temperature: Antenna Unit: -25°C ~ +70°C
Main Unit: -15°C ~ +55°C
- Relative Humidity: 95% at 40°C
- IP Grade: IP66 (Antenna Unit)
IP22 (Main Unit)

EQUIPMENT LIST

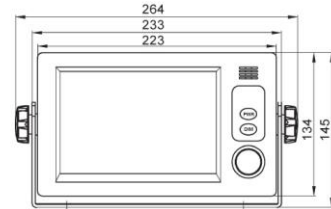
● STANDARD

- | | | |
|---------------------------|-------------------|-------|
| - GNSS Navigator | NGR-1000/NGR-3000 | 1 set |
| - GNSS Antenna with Cable | NGA100 | 1 pc |
| - Installation Materials | | 1 set |

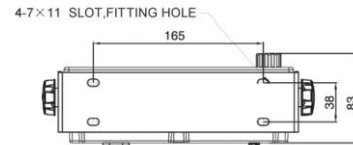
● OPTIONS

- | | | |
|---------------------------------------|-----------------|-------|
| - Beacon Unit (DGPS Beacon & Antenna) | NDG-100 | 1 set |
| - NMEA Distribution Box | NND-100/NND-200 | 1 set |
| - AC/DC PSU | PS-10 | 1 pc |
| - Flush Mount Bracket | | 1 pc |

SIZE DIMENSION

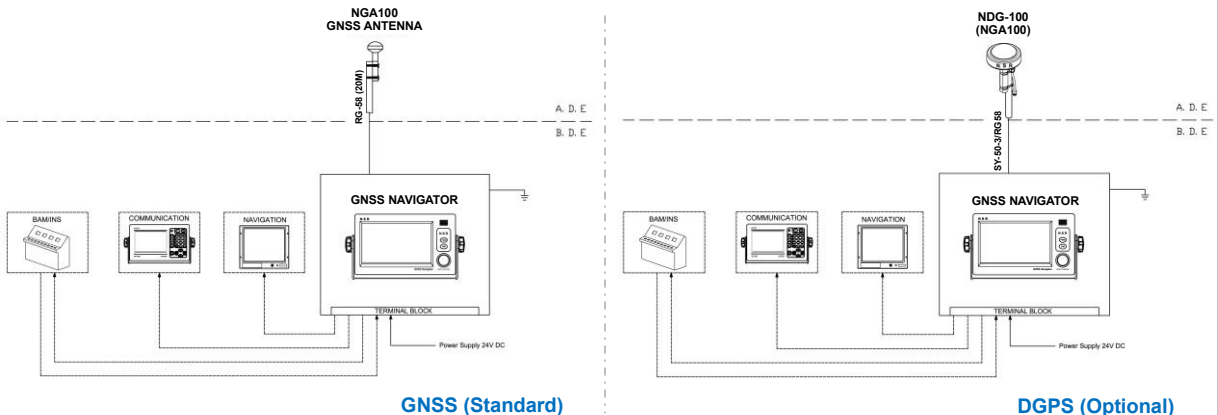


FRONT VIEW



BOTTOM VIEW

SYSTEM DIAGRAM



GNSS (Standard)

DGPS (Optional)