

GNSS Compass

## KC-1400

Safe navigation with multi-GNSS compass system



### Features

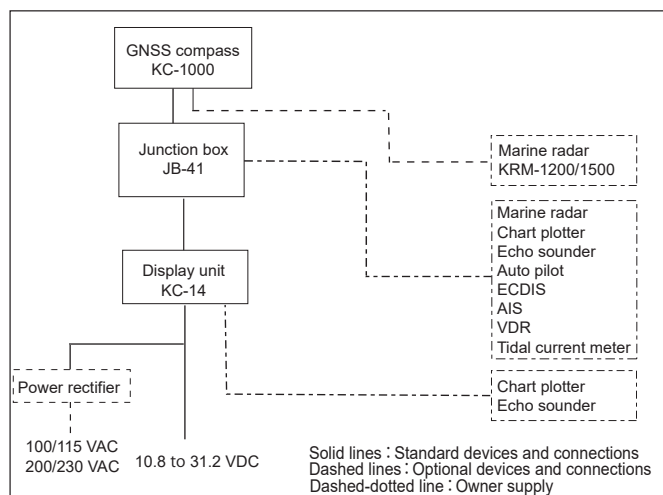
- ▶ Compatible with GPS / QZSS, Galileo, BeiDou, GLONASS
- ▶ Highly accurate heading, position, speed, rolling, pitching and heaving data
- ▶ SBAS (MSAS / WAAS / EGNOS) enabled
- ▶ 10,000 waypoints, 100 routes and 3,000 track points
- ▶ Built-in high-precision gyro sensor for backup
- ▶ Equipped with four data ports of NMEA0183 x 3, LAN (IEC61162-450) x 1
- ▶ 4.3-inch high-resolution Color LCD
- ▶ Equipped with numeric keypad

## SPECIFICATIONS

|                                  |                                                                                                                                                                                                                                                                                     |                                                                                                                                                             |                                                         |
|----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|
| Model                            | KC-1400                                                                                                                                                                                                                                                                             |                                                                                                                                                             |                                                         |
| Display unit                     | KC-14                                                                                                                                                                                                                                                                               |                                                                                                                                                             |                                                         |
| GNSS compass                     | KC-1000                                                                                                                                                                                                                                                                             |                                                                                                                                                             |                                                         |
| Display size and type            | 4.3-inch color LCD (480x272 dots, effective picture area: 95.04x53.86 mm)                                                                                                                                                                                                           |                                                                                                                                                             |                                                         |
| Receiving frequency              | 1575.4200 MHz / 1561.0980 MHz / 1602.5625 MHz                                                                                                                                                                                                                                       |                                                                                                                                                             |                                                         |
| Receiving channel                | 72 channels                                                                                                                                                                                                                                                                         |                                                                                                                                                             |                                                         |
| Received signal                  | GPS<br>QZSS<br>Galileo<br>SBAS<br>BeiDou<br>GLONASS                                                                                                                                                                                                                                 | 1575.4200 MHz<br><br><br><br>1561.0980 MHz<br>1602.5625 MHz                                                                                                 | L1 C/A<br>L1C/A, L1S<br>E1 B/C<br>L1 C/A<br>B1<br>L1 OF |
| Sensitivity                      | -148 dBm or less                                                                                                                                                                                                                                                                    |                                                                                                                                                             |                                                         |
| Setting time                     | 90 seconds or less (standard)                                                                                                                                                                                                                                                       |                                                                                                                                                             |                                                         |
| Time to position fix             | 50 seconds or less (standard)                                                                                                                                                                                                                                                       |                                                                                                                                                             |                                                         |
| Accuracy                         | Heading<br>Position<br>Velocity                                                                                                                                                                                                                                                     | 0.5° rms or less<br>GPS: 10m (2 drms, SA: OFF, PDOP: 3 or less)<br>SBAS: 3m (2 drms, SA: OFF, PDOP: 3 or less)<br>1 m / sec (rms, SA: OFF, PDOP: 3 or less) |                                                         |
| Heading resolution               | 0.1°                                                                                                                                                                                                                                                                                |                                                                                                                                                             |                                                         |
| Maximum rate of turn             | 45° / sec                                                                                                                                                                                                                                                                           |                                                                                                                                                             |                                                         |
| Maximum role/pitch angle         | 30°                                                                                                                                                                                                                                                                                 |                                                                                                                                                             |                                                         |
| Maximum follow-up acceleration   | 1 g                                                                                                                                                                                                                                                                                 |                                                                                                                                                             |                                                         |
| Base line length                 | 0.5 m                                                                                                                                                                                                                                                                               |                                                                                                                                                             |                                                         |
| Presentation mode                | Compass 1, Compass 2, ROT, NAV1, NAV2, NAV3, Navigation Graph, Highway, Plotter, POB                                                                                                                                                                                                |                                                                                                                                                             |                                                         |
| Position data display            | Latitude/longitude in increments of 0.0001 minutes, converted Loran C LOPs, converted Loran A LOPs, converted Decca LOPs                                                                                                                                                            |                                                                                                                                                             |                                                         |
| Navigational display             | Speed, Course, Distance/Bearing/XTD/CDI/Time to Waypoint, Present time (UTC or LOC), Satellite status, Distance/Bearing between two points, POB display                                                                                                                             |                                                                                                                                                             |                                                         |
| Instant (event) memory           | 1,000 points                                                                                                                                                                                                                                                                        |                                                                                                                                                             |                                                         |
| Waypoint memory                  | 9,000 points                                                                                                                                                                                                                                                                        |                                                                                                                                                             |                                                         |
| Route memory                     | 100 routes reverse trail possible                                                                                                                                                                                                                                                   |                                                                                                                                                             |                                                         |
| Alarm                            | GNSS Fix, ANCH, PROX, XTD, CDI                                                                                                                                                                                                                                                      |                                                                                                                                                             |                                                         |
| Compensation                     | Heading, Latitude/Longitude, LOP, Time difference, Pitch/Roll                                                                                                                                                                                                                       |                                                                                                                                                             |                                                         |
| Magnetic compensation            | Automatic or Manual                                                                                                                                                                                                                                                                 |                                                                                                                                                             |                                                         |
| Parameters                       | Sailing mode (Great circle / Rhumb Line), Position display (L/L Lop), Language, LOP (Loran C, Loran A, Decca), Memory of waypoints and name (up to 10 letters), Selection of measuring unit (nm, sm, km), Position/Velocity/Heading/Pitching/Rolling/ROT/Heaving averaging constant |                                                                                                                                                             |                                                         |
| Output data format and sentences | NMEA 0183 Ver.2.0, IEC 61162-1ed5, IEC 61162-450<br>AAM, APB, ATT, BOD, BWC, DTM, GBS, GGA, GLL, GNS, GSA, GSV, HDM, HDT, HVE, RMB, RMC, ROT, RTE, THS, VTG, WPL, XTE, ZDA, PKODG21, ALC, HBT (DATA3/4 only)                                                                        |                                                                                                                                                             |                                                         |
| Power supply                     | 10.8 to 31.2 VDC                                                                                                                                                                                                                                                                    |                                                                                                                                                             |                                                         |
| Power consumption (24 VDC)       | 12W or less                                                                                                                                                                                                                                                                         |                                                                                                                                                             |                                                         |

## Environmental

|                       |              |                |
|-----------------------|--------------|----------------|
| Operating temperature | Display unit | -15°C to +55°C |
|                       | GNSS compass | -25°C to +55°C |
| Water protection      | Display unit | IPX4           |
|                       | GNSS compass | IPX6           |



## EQUIPMENT LIST

### Standard Equipment

|                                         |            |                                                      |
|-----------------------------------------|------------|------------------------------------------------------|
| Display unit                            | KC-14      | With mounting bracket and hard cover                 |
| GNSS compass                            | KC-1000    | With bird protector                                  |
| DC power cable                          | CW-276-2M  | With 5-pin connector and one end plain               |
| Connecting cable                        | CW-430-5M  | 6 pin water resistant connector and one end plain    |
| NMEA cable                              | CW-427-15M | 12-pin water resistant connector and one end plain   |
| Junction box                            | JB-41      | For connection between Display unit and GNSS compass |
| Operation Manual, Installation material |            |                                                      |

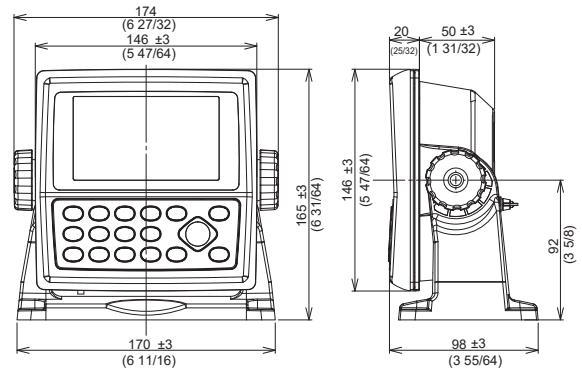
### Option

Connecting cable, Junction box, Power rectifier, AC power cable, LAN cable, NMEA extension cable, LAN extension cable

## DIMENSIONS AND WEIGHT

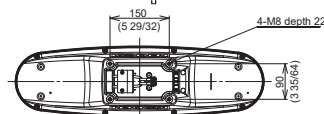
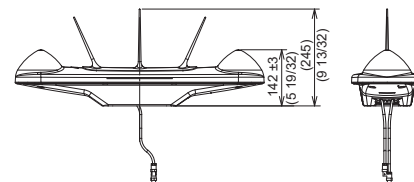
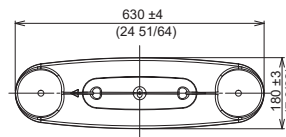
Display unit  
KC-14

Unit: mm (inch)



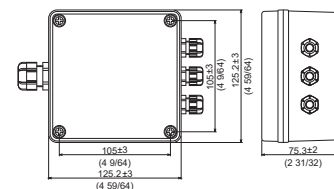
Weight : 0.89kg (1.96lb)

GNSS compass  
KC-1000



Weight : 2.5kg (5.51lb)

Junction box  
JB-41



Weight : 0.48kg (1.06lb)

• Design and specifications are subject to change without notice.



Koden Electronics Co., Ltd.

Tamagawa Office:

2-13-24 Tamagawa, Ota-ku, Tokyo, 146-0095 Japan

Tel: +81-3-3756-6501 Fax: +81-3-3756-6509

Uenohara Office:

5278 Uenohara, Uenohara-shi, Yamanashi, 409-0112 Japan

Tel: +81-554-20-5860 Fax: +81-554-20-5875

overseas@koden-electronics.co.jp

[www.koden-electronics.co.jp](http://www.koden-electronics.co.jp)



To ensure proper and safe use of the equipment, please carefully read and follow the instructions in the Operation Manual.

For details, please contact: