



GPS Compass

Vector PRO

Celestial Fix Makes The Difference

Highly accurate, stable, fast start-up, compact and affordable GPS COMPASS from KODEN!



With Pole Mount Base
(Swivel Mount is not included in standard equipment)



With Fixed Mount Base

FEATURES

Precise 2D heading and positioning data to radar, sonar, chart plotter and AIS

- Heading accuracy 0.5 degrees
- Heading updates up to 10 Hz
- Position updates up to 5 Hz
- SBAS (WAAS and EGNOS) and Beacon ready
- Sub-meter differential positioning accuracy
- Fast start-up times
- Sustained tracking rates up to 25°/s
- NMEA 0183 interface with provision for external RTCM SC-104 differential corrections
- Built-in Beacon receiver is optionally available.
- RS-232C and RS-422 serial ports
- Sealed enclosure specified to IP 67 rating
- Simple to install, with minimal cabling required

SPECIFICATIONS

Receiver Type	LI, C/A code, with carrier phase smoothing
Channels	12-channel, parallel tracking (10 channel when tracking SBAS)
Update Rate	5 Hz position max, 10 Hz heading max
Horizontal Accuracy	<1 m 95% (DGPS)* <5 m 95% (autonomous, no SA)**
Heading Accuracy	<0.5 degrees rms
Rate of Turn	25°/s max
Pitch / Roll Accuracy	<1 degree rms
Start-up Time	<60 s typ.
Heading Fix	<20 s
Satellite Reacquisition	<1 s

* Depends on multipath environment, number of satellites in view, satellite geometry, baseline length (for local services), and ionospheric activity.

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Differential Beacon Specifications

Channels	2-channel, parallel tracking
Frequency Range	283.5 to 325 kHz
Operating Modes	Automatic and manual
Sensitivity	2.5 dB mV for 6 dB SNR at 200 bps
Dynamic Range	100 dB
Adjacent Channel Rejection	61 dB at ± 400 Hz offset

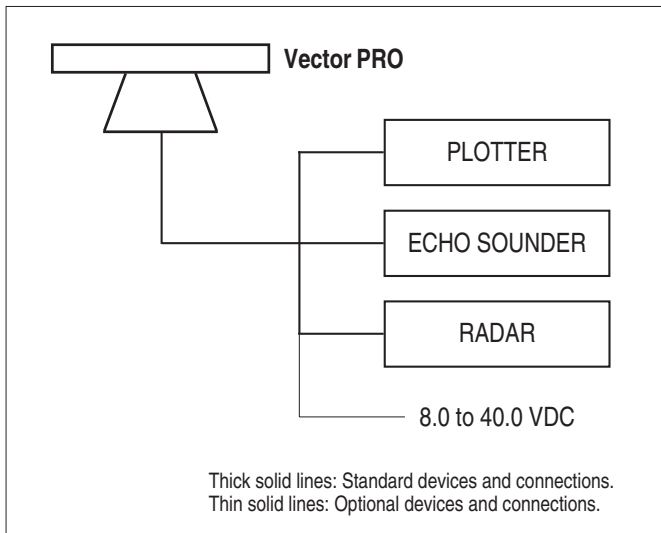
Communications

Serial Ports	3 full duplex RS-232 and 2 half-duplex RS-422
Isolation	All serial ports optically isolated from power supply
Baud Rates	4800, 9600, 19200
Data I/O Protocol	NMEA 0183 and SLX binary
Correction I/O Protocol	RTCM SC-104
Timing Output	IPPS (HCMOS, active high, rising edge sync, 10 Ω, 10 pF load)
IPPS Accuracy	50 ns
NMEA Heading Messages	GPGGA, GPGLL, GPGSA, GPGST, GPGSV, GPRMC, GPRRE, GPVTG, GPZDA, RD1, HEHDT, HEROT

Environmental

Operating Temperature	-30°C to +70°C
Storage Temperature	-40°C to +85°C
Humidity	100% condensing

CONNECTIONS



EQUIPMENT LIST

Power

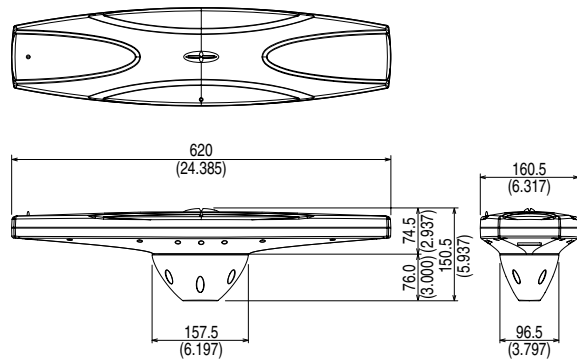
Input Voltage	8.0 to 40 VDC
Isolated	Power supply isolated from serial ports
Reverse Polarity Protection	Yes (but not reverse polarity operation)
Power Consumption	< 4.5 W
Current Consumption	< 360 mA at 12.0 VDC

Mechanical

Dimensions	60 cm L x 16 cm W x 18 cm H (Not including mounts)
Weight	<1.5 kg
Power/Data Connection	18-pin, Environmentally sealed

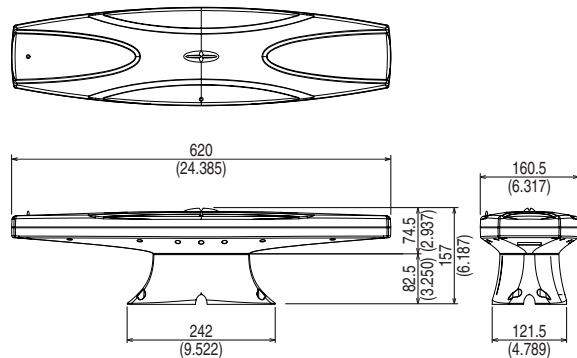
DIMENSIONS AND WEIGHT

Vector PRO with Pole Mount



Weight: 1.5 kg (3.3 lb)

Vector PRO with Fix Mount



Weight: 1.5 kg (3.3 lb)

Unit: mm (inch)

* Specifications subject to change without notice.

KODEN

KODEN ELECTRONICS CO., LTD.
Equipos Navales Industriales S.A. e.n.i.s.a

Certified to ISO 9001 (TUV PRODUCT SERVICE)



Safety
precaution

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

FOR DETAILS, PLEASE CONTACT:

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