

Vector

Affordable, compact, GPS compass



Vector

- GPS Compass provides accurate 2D heading and positioning data to radar, sonar, chartplotters and AIS
- Smart antenna design requires no external processor or display, simplifying installation & reducing redundant equipment
- Heading accuracy of 0.5 degrees
- Heading updates up to 10 Hz
- Position updates up to 5 Hz
- Integrated DGPS sources including WAAS and EGNOS
- Beacon DGPS source available with the Vector PRO
- Sub-meter differential positioning accuracy
- Fast start-up times
- Sustained tracking during rates of turn up to 25°/s
- Sealed enclosure with IP 67 rating
- NMEA 0183 interface with provision for external RTCM SC-104 corrections
- RS-232 and RS-422 serial ports



Type Approved. See back page.


www.csi-wireless.com

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General Specifications

Receiver Type:	L1, 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

Differential Beacon Specifications (PRO version only)

Channels:	2-channel, parallel tracking
Frequency Range:	283.5 to 325 kHz
Operating Modes:	Automatic and manual
Sensitivity:	2.5 dB μ V for 6 dB SNR @ 200 bps
Dynamic Range:	100 dB
Adjacent Channel Rejection:	61 dB @ \pm 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:	1 PPS (HCMOS, active high, rising edge sync, 10 k Ω , 10 pF load) 50 ns
IPPS Accuracy:	50 ns
NMEA Heading Messages:	\$HEHDT, \$HEROT, \$PSAT, HPR

Environmental

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

Power

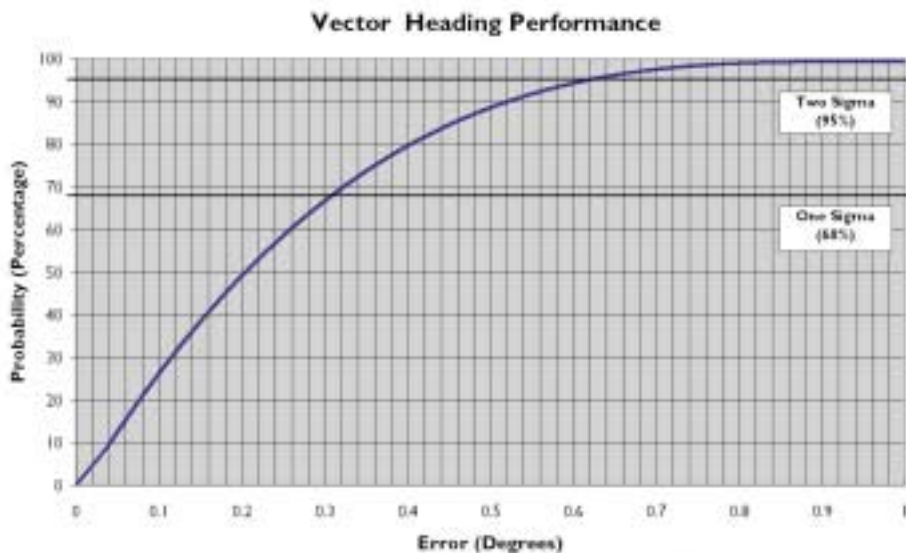
Input Voltage:	8.0 to 40 VDC
Isolated:	Power supply isolated from serial ports
Reverse Polarity Protection:	Yes (but not reverse polarity operation)
Power Consumption:	< 4.5 W
Current Consumption:	< 360 mA @ 12.0 VDC

Mechanical

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

Type Approved as a Verified THD (Transmit Heading Device) meeting Regulation V/19.2.5.1, IMO Resolution MSC.97 (73) 13.2.5 (2000 HSC Code), IMO Resolution A.382 (X), IMO Resolution MSC.116(73), IMO Resolution A.694(17) using General requirements -Methods of testing and required test results of Future ISO 22090-3, EN 60945 (2002), EN 61162

* Depends on multipath environment, number of satellites in view, satellite geometry, baseline length (for local services), and ionospheric activity
 ** Depends on multipath environment, number of satellites in view, and satellite geometry
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Note: 2.5 days of data collected at a 63m antenna separation under ideal conditions.

CSI Wireless Dealer



Avery label #05260 (laser print)

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4110 - 9th Street SE • Calgary • AB • Canada • T2G 3C4
 Phone (403) 259-3311 • Fax (403) 259-8866