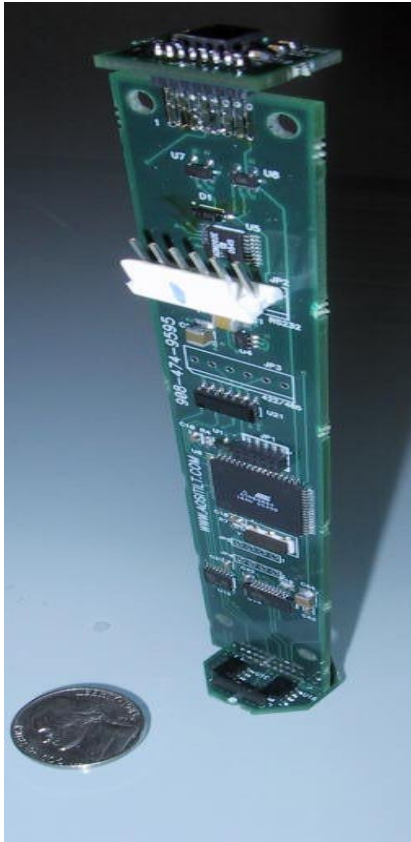


KuSaBa Engineers Pvt. Ltd.

EZ-COMPASS-3AV

Vertical Tilt Compensated Compass / Linear Dual Axis Tilt System



Low cost VERTICAL SOLID STATE advanced Pitch / Roll / Temperature compensated COMPASS / MAGNETOMETER system is built around a state of the art CMOS microcontroller utilizing AOSI's proprietary algorithm on a 0.9"DIAM x 6" assembled PCB is designed to fit sub 1" tubular probes.

The unit outputs continuous heading, magnetic field, dual axis tilt and temperature data over the standard RS-232 and RS-422 and RS-485* interfaces. The AZIMUTH is generated from a 3 axis semiconductor magnetometer with 12 bit (0.08 deg) resolution. The LINEAR tilt information is available with 12 bit resolution for over +- 90arcdeg. COMPASS/TILT module is perfectly suitable for logging, bore hole profiling, antenna orientation, numerous navigation, research, training, construction, entertainment and other precision orientation, navigation and leveling applications.

The COMPASS is able to output multi-sensor information in NMEA-0183 mode and responds to numerous generally used commands. Easy link through the Hyper Terminal Windows accessory facilitates custom calibration, hard iron compensation, data acquisition, and data averaging, scan delay, dumping factor and data display.

| Parameter | Specification | Units/description |
|-----------------------|------------------------|--------------------------------|
| Azimuth Range | 0--360 | deg, continuous |
| Azimuth Resolution | 12 (0.08) | bit (deg) |
| Azimuth Repeatability | < 0.25 | deg, typical horizontal |
| Azimuth Accuracy | < 0.3 | deg, typical horizontal |
| Magnetic Field | + -2 | Gauss typical |
| Magnetic Resolution | < 1 | mGauss typical |
| Pitch Range | +90 to -90 | arcdeg after linear correction |
| Roll Range | +90 to -90 | arcdeg after linear correction |
| Weight | 20 | grams |
| Dynamic Range | 10 | reading/sec |
| Tilt Resolution | 12 | bit full scale, both axis |
| Tilt Repeatability | <2 | bits |
| Temperature | -40 to +85 | deg C |
| Communication | 1200--38400 baud,8,N,1 | RS-232 and RS-422 standards |
| Supply | 6---15 | Vdc |
| Size | 0.9: diam x 6"L | PCB Board |
| NMEA-0183 mode | 5 select modes | 1999 Revision |

* RS-485 is activated upon special request

SOFT NORTH: North direction could be manually reset by software to compensate for local declination angle

CABLE: Special cable for PC interfacing is available. Unit should be locally calibrated.

Specifications of sensors may change without notice.