

# Platform Tilt Sensor

Automatic Power's Tilt Sensor will measure any tilt of a platform and report via remote radio link the degree of tilt from the X-Y axis. When fitted with an accelerometer the tilt sensor can report a collision of a buoy. The tilt sensor can be configured for use with any type of data communication radio—VHF-FM, SATCOM, UHF. It can also be integrated into a NavAid monitoring system, and the new AIS (Automated Information System) mandated by IMO and the USCG.

The tilt sensor is equipped with Automatic Power's proprietary ACC-1 controller, presenting the platform operator with a very versatile unit offering (4) digital I/O interfaces, (4) analog interfaces and RS-232/485 interfaces permitting extensive monitoring and control of AtoN or other equipment.

It operates on 12V or 24V and consumes less than one amp-hr/day making it ideal for use with solar power battery systems.



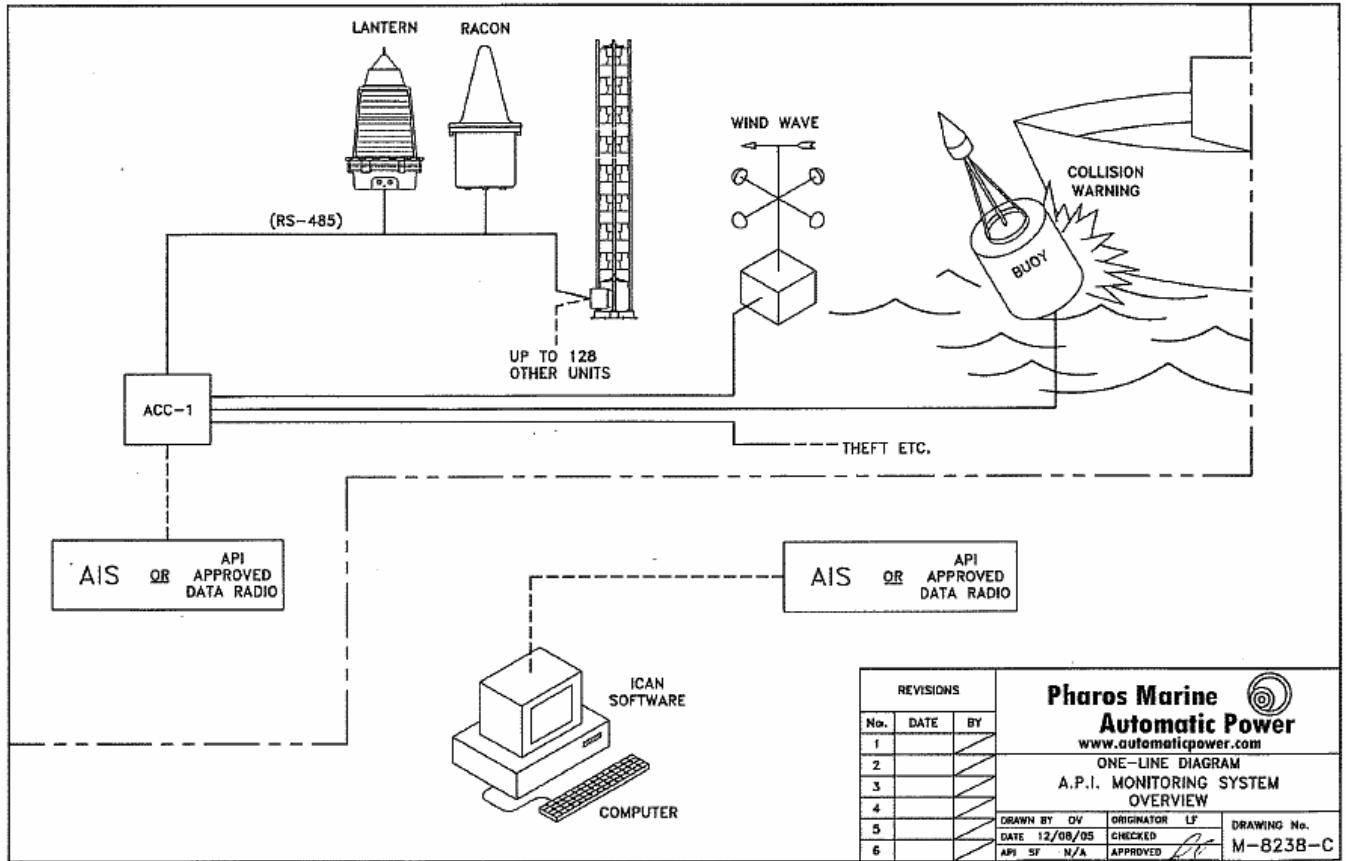
**Tilt Sensor**

<b>Specifications</b>	
Fitting	NEMA-4x Enclosure
Input Voltage	9 to 36 VDC
Protection	Overcurrent and Reverse Polarity protection
Temperature Range	-15 ° to +50°C
Humidity	95% relative humidity at 30°C
Tilt Angle Alarm	User configurable
Data Radio	VHF, UHF, SATCOM depending on requirement
I/O Interfaces	(1) RS232/RS485 port configurable by slide switch (1) RS485 port (4) Schmitt trigger-type Digital Inputs with hysteresis, protected up to 36V (4) Bi-directional, buffered, analog input channels, one of which is capable of directly sensing high side current flows (4) Open-drain FET outputs capable of directly driving relay coils rated up to 36V (1) TTL-compatible serial radio interface for interfacing with OEM radio modules
Data Storage	Standard 256K serial flash data storage for data logging (upgradeable either on the board or by attaching an external memory daughter board)
Additional Features	- Optional Accelerometer - Powerful ARM 32-bit microcontroller - 10-ampere solar charging regulator - Battery-backed real-time clock for uninterrupted time keeping - Independent watch-dog circuitry for complete deadlock free operation by overcoming the weakness of the microcontroller's own watchdog protection - Firmware field-upgradable



213 Hutcheson St. • Houston, Texas 77003 • (713) 228-5208 • Fax (713) 228-3717

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REVISIONS			Pharos Marine Automatic Power		DRAWING No. M-823B-C
No.	DATE	BY	DRAWN BY	ORIGINATOR	
1			DV	LF	www.automaticpower.com ONE-LINE DIAGRAM A.P.I. MONITORING SYSTEM OVERVIEW DATE 12/08/05 CHECKED API SF M/A APPROVED
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