

Marine DC / AC Power Monitor Data Sheet

Across Ocean Systems Ltd. offers an AC Power Monitor that will measure the AC power source Voltage, Frequency, Current and Power (adjusted with power factor) and output the measured data to NMEA 2000® marine network. The measured data can be displayed on our Pulse Vessel Monitoring System. The information will also be able to be presented on any Multi-function display that support standard NMEA 2000® AC Power PGNs. The supported PGNs are shown in the NMEA 2000® table on the next page. The unit comes standard with split-core current transformer that will allow measuring AC current up to 100 Amps. Current transformers for measuring larger loads are available upon request.



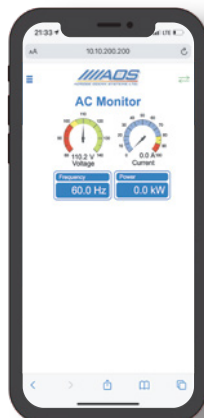
As the unit needs to be connected to AC Mains, while the installation is extremely simple, we recommend using certified electrician.



The device must be installed in the dedicated AC Compartment or in NEMA box to restrict undesirable contact to the AC Main terminals. All local regulations and electrical code must be followed!



All AOS Ltd. NMEA 2000® Digital Sensors have our standard Wi-Fi configuration interface that allows configuration directly from your iPhone / Android mobile phone, as well as from a PC or MAC computer. Using Chrome web browser is preferable. In the configuration pages, one can name the sensor, change the sensor instance as well as modify other sensor settings. Appropriate single or multiple output PGNs can be also selected, as some sensors support an output of multiple PGNs for the data they represents. Multi channel modules can output the same or different type PGNs for each channel. Where applicable simple multi-point calibration is available e. g. for calibration of tank level sensors.



Specifications

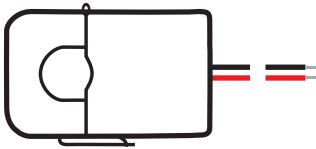
Electrical

Parameter	Value	Comment
Operating Voltage Range	80 - 260 VAC	Optically isolated from NMEA 2000®
Voltage resolution / accuracy	0.1 VAC / 0.5%	
Current Range	0 A to 100 A	Options for higher currents are available
Current resolution / accuracy	0.02A / 1%	Starting measure current: 0.02 A
Frequency Range	45 - 65 Hz	
Frequency resolution / accuracy	0.1 Hz / 0.5%	
Active Power	0 - 23 kW	Starting measure power: 0.4 W
Active Power resolution / accuracy	0.1 W / 0.5%	
NMEA 2000® Operating Voltage	9 VDC to 32 VDC	Powered via NMEA 2000® port
NMEA 2000® Power Consumption	< 50 mA / < 100* mA	*When Wi-Fi is enabled for configuration
NMEA 2000® LEN	2 LEN	NMEA 2000® Spec. (1 LEN = 50 mA)
NMEA 2000® Reverse Polarity	Protected	Indefinite

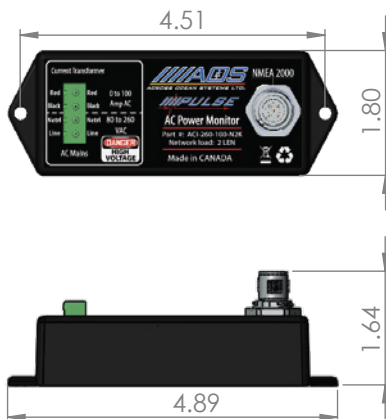
NMEA 2000® Supported PGNs

Parameter	PGN	Name	Update rate
System PGNs	059392	ISO Acknowledgment	
	059904	ISO Request	
	060160	ISO Transport Protocol, Data Transfer	
	060416	ISO Transport Protocol, Conn Management	
	060928	ISO Address Claim	
	065240	ISO Commanded Address	
	126208	NMEA Request/ Command/ Acknowledge	
	126464	PGN List - Transmit PGNs group function	
	126993	Heartbeat	60 sec
	126996	Product information	
126998	Configuration information		
Data PGNs	127744	AC Power / Current - Phase A	1.5 sec
	127747	AC Voltage / Frequency-Phase A	1.5 sec

Current Transformer



AC Monitor Unit



Mechanical and Environmental

Parameter	Value	Comment
NMEA 2000® Box	114.5mm X 45.8mm X 41.7mm (4.51" X 1.80" X 1.64")	Without a drop cable connected
Cable	Not Included - user selectable	Follow NMEA 2000® guideline
Current Sensor	55mm X 29.5mm X 31mm (2.17" X 1.16" X 1.22")	In closed position
Weight		
Operational / Storage Temp	-30C to +60C (-22F to 140F) -40°C to 70°C (-40 to 158F)	
Operational Humidity	90%	Non Condensing
IP Rating	IP66 / IP64	NMEA 2000® Box / Current Sensor

Standards Compliance

Across Ocean System's devices are NMEA 2000® Level A certified and designed to comply with the most stringent marine standards such as IEC 60945 and IEC 61162-3, as well as the European CE standard - Electromagnetic Compatibility section.



NMEA 2000® Level A certified