

NMEA2000® AC MONITOR

FEATURES

- ◆ Inputs for AC voltage (300 VAC MAX)
- ◆ Inputs for 200 Amp AC current transformers
- ◆ User Settable Circuit Type
- ◆ Heartbeat LED confirming NMEA transmission
- ◆ NMEA2000® Micro-C interface plug
- ◆ Robust environmentally protected enclosure and connections
- ◆ The unit reports, AC voltage, current, frequency, power

The Oceanics Systems 3420 AC Monitor accurately measures the AC voltage, AC current, AC frequency and AC power and reports them over the NMEA2000® network.

The unit can be used for single phase, two phase, three phase and split phase systems and is suitable for measuring AC sources such as shore power, generators and inverters. It can also measure the voltage and frequency on AC bus bar systems.

The voltage sensing is by simple phase and neutral connections to the unit. Current sensing is done by a state of the art AC current transformer placed around the conductor with no need to break the connection.



The unit has inputs for up to three phase voltages and up to three phase current transformers. It is supplied with a single phase current transformer. Additional transformers will be required to measure two phase, three phase and split phase circuits.

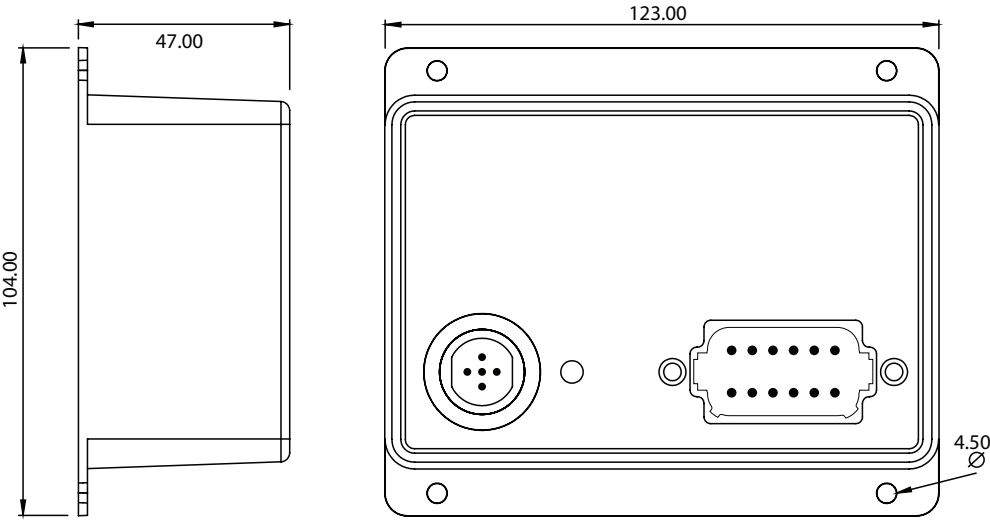
The 3420 has a blue LED that flashed as the unit transmits data over the network with configuration done with a suitable Oceanic Systems display unit, our Monex PC software or preconfiguration when ordering direct from Oceanic Systems. Up to 254 units can be present on a single network.

The connections to the sensors are made via a waterproof and corrosion resistant DT15-12PA Deutsch Connector which allows for a secure and reliable connection.

NMEA2000® AC MONITOR

Part Number: 3420

Dimensions



3423 200 AMP AC Current Transformer



Design Standard

NMEA2000	Level B
Maritime Nav and RadioComm Equipment	IEC60945
CE and FCC	Electromagnetic Compatibility

NMEA2000 Parameter Group Numbers (PGNs)

Type	PGN No.	PGN Name
Monitor	PGN127744	AC Power/Current- Phase A
	PGN127745	AC Power/Current- Phase B
	PGN127746	AC Power/Current- Phase C
	PGN127747	7 AC Voltage/Frequency-Phase A
	PGN127748	7 AC Voltage/Frequency-Phase B
Protocol	PGN127749	7 AC Voltage/Frequency-Phase C
	PGN126464	Tx/Rx PGN List
	PGN126996	Product Information
	PGN126998	Configuration Information
	PGN059392	ISO Acknowledge
	PGN059904	ISO Request
	PGN060928	ISO Address Claim
	PGN126208	Command/Request Group
	PGN126993	Transmit Heartbeat

Electrical and Mechanical

Parameter	Value
Operating Voltage	9 to 28 VDC
Power Consumption	30mA Average Operating
Load Equivalence Number	1
Reverse Battery Protection	Indefinitely
Load Dump Protection	Yes to SAE J1113
Size	123mm x 104mm x 47mm
Weight	120g

Environmental

Parameter	Value
IEC60954 Classification	Protected
Degree of Protection	IP40
Operating Temperature	-25C to 50C
Storage Temperature	-40°C to 70°C
Relative Humidity	93%RH @40° per IEC60945-8.2
Vibration	2-13.2Hz @ +-1mm, 13.2-100Hz @7m/s2 per IEC60945-8.7
Electromagnetic Emission	Conducted and Radiated Emission per IEC60945-9
Electromagnetic Immunity	Conducted, Radiated, Supply, and ESD per IEC60945-10
Safety Precautions	Dangerous Voltage, Electromagnetic Radio Frequency per IEC60945-12

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