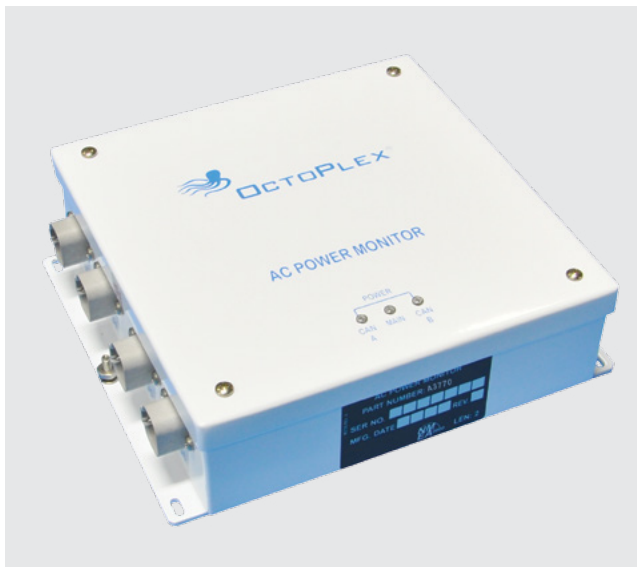


# AC MONITOR

## AC POWER MONITOR

### A1770-CE

The AC Monitor measures the voltage, current and frequency of up to four (4) Single phase single Line AC inputs, two (2) Single Phase Dual Line AC inputs, or one (1) Three phase Three Line AC input. The AC Monitor utilizes dual CAN connections for redundancy.



#### Product Highlights:

- ◆ Capable of Monitoring the following:
  - Four (4) Single Phase Single Line AC Input
  - Two (2) Single Phase Dual Line AC Inputs
  - One (1) Three Phase Three Line AC Input
- ◆ Dual CAN BUS Communication



## Installation

Depending on the type and number of AC power sources being monitored, the AC Power Monitor requires from one (1) to four (4) Deutsch DT06-4S connectors (Table 1). It is also recommended that 16 AWG wire is used for the connections to the AC sources (Table 2).

Table 1:

Deutsch DT06-4S Connector Pins
1. AC Line
2. AC Neutral
3. AC Current Transformer Input #1
4. AC Current Transformer Input #2

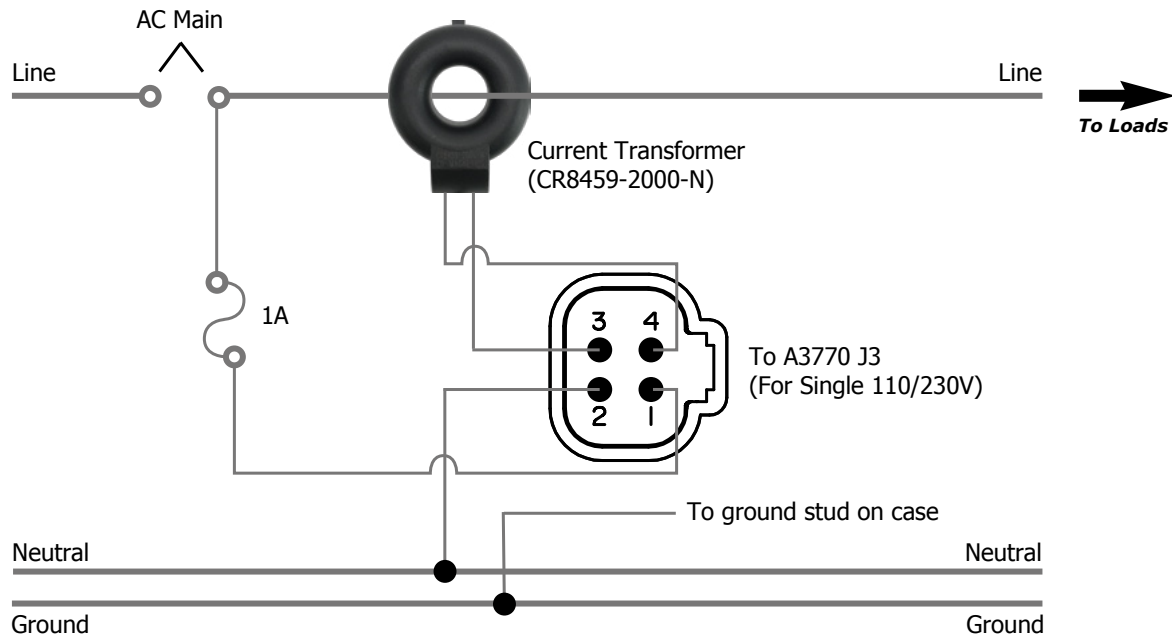
Table 2:

Wire Gauge	Contact Type	Deutsch Part Number
16 to 20	Solid	0462-201-16141
14 to 18	Stamped/Formed	1062-16-0122
14 to 18	Stamped/Formed	1062-16-0144

\*Manufacturer reserves the right to change product specification without prior notice. Please refer to our website for the latest details.

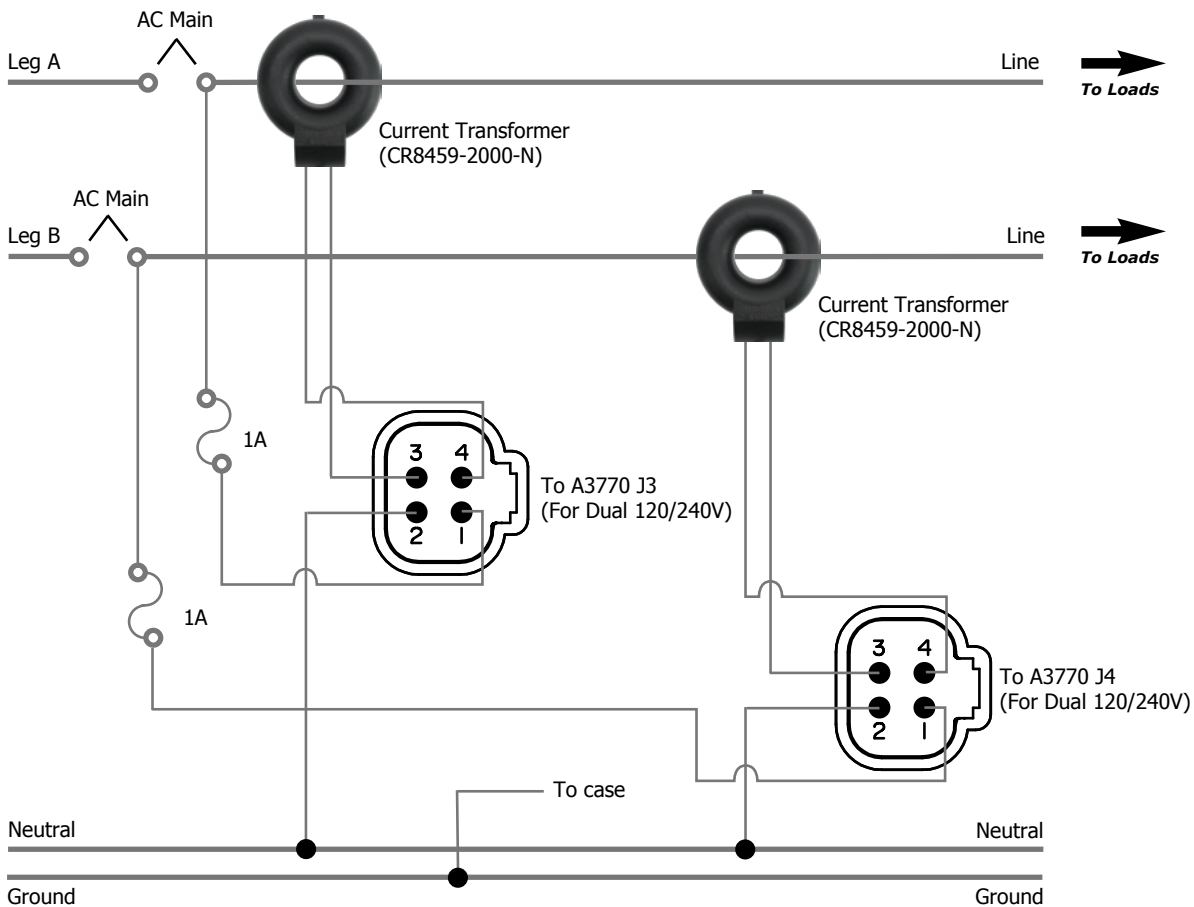
### AC Power Monitor Installation #1

Single 120 VAC/230 VAC (Euro)

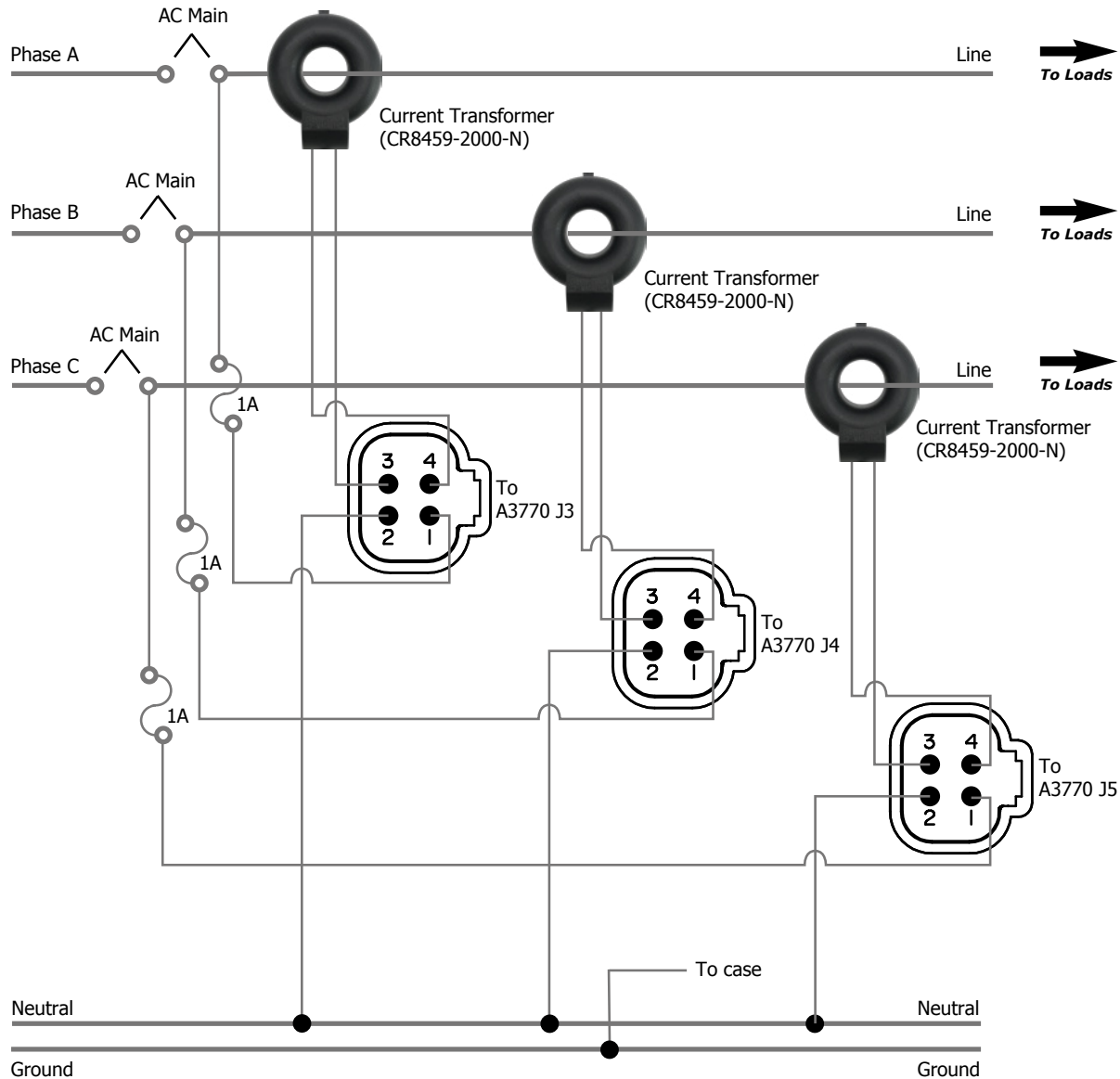


### AC Power Monitor Installation #2

Dual 120/240VAC



## AC Power Monitor Installation #3 Three Phase VAC (120/208VAC)



### CAN Connections

Two male Micro-C connectors are provided the right side of the AC Monitor for connection to the primary and secondary CAN bus via drop cables.



**NOTE**

Use the shortest drop length possible when connecting the AC Monitor to the CAN backbone. NMEA 2000 spec is maximum 6 meters for drop cables.

### Operation

There are three (3) LED's that are visible through the cover of the AC Power Monitor. The left and right LED's indicate that there is a primary and secondary network connection. The center LED displays the AC Input Power Status (i.e. whether the AC Power monitor is receiving power from the input connectors). The Multi-Function Display shows the AC voltage (RMS), current and frequency of up to four (4) line inputs; if one or more inputs are not used, that value shall be displayed as zero. The internal temperature of the unit is also displayed.

## Maintenance

The AC Monitor requires no maintenance. Any service or repair issues should be handled by a factory authorized technician.

## General Specifications

### Electrical

AC Voltage Input	90VAC – 264VAC
Operating Frequency	50/60 Hz
CAN Bus Voltage	+15 VDC ( $\pm 0.5$ )
Load Equivalence Number (LEN)	1

### Mechanical

Dimensions	7.52" X 8.51" X 2.67"
CAN Bus Connectors	Two (2) Micro-C Male
Mounting	4 each 4 x 0.16 #6 hardware
Orientation	N/A

### Certifications

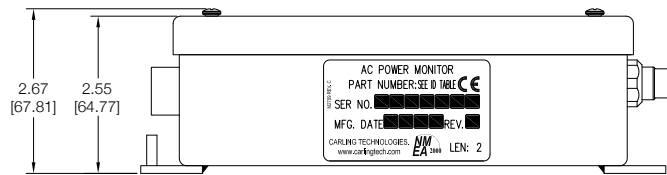
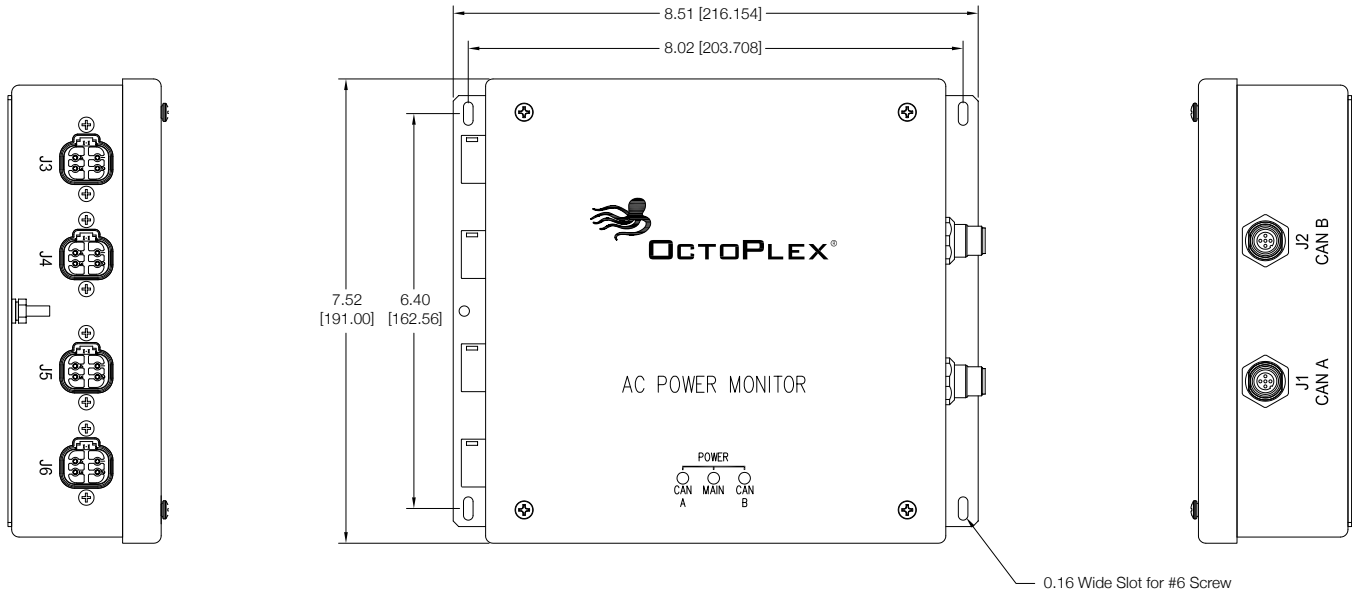
NMEA 2000	Category B
Lloyd's Register	Lloyd's Type Approved, Test Specification #1, Env 2
CE	<b>IEC 60533</b> Electrical and Electronic Installations in Ships <b>IEC 60945</b> Maritime Navigation and Radio Communication Equipment and Systems

### Environmental

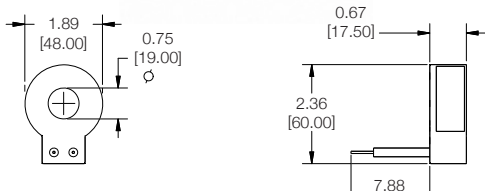
Radiated, RF Field Immunity	IEC-61000-4-3
Electrical Fast Transient/Burst Immunity	IEC 61000-4-4
Voltage Surge Immunity	IEC 61000-4-5
Conducted, Immunity	IEC 61000-4-6
Conducted Emissions	IEC 60945
Voltage Variation Immunity	IEC 61000-4-11
Conducted LF Immunity	IEC 61000-4-16
ESD Immunity	IEC-61000-4-2
Insulation Resistance	IEC-60092-504
Operating Temperature	-40°C to +70°C
Storage Temperature	-40°C to +85°C
Vibration	IEC-60068-2-6 Test Fc
Temperature Cycle	IEC 60945
Humidity	IEC-60068-2-30 Test Db
Corrosion	IEC 60945
Weight	3.6 lbs (1.64 kg) nominal

## Dimensional Specifications: in. [mm]

### AC Power Monitor A1770-CE



### Transformer CR8459-2000-N



For complete detail, please visit the following link: [www.crmagnetics.com/Assets/ProductPDFs/CR8400%20Series.pdf](http://www.crmagnetics.com/Assets/ProductPDFs/CR8400%20Series.pdf)