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>
<thead>
<tr>
<th>Deutsch DT06-4S Connector Pins</th>
<th>Wire Gauge</th>
<th>Contact Type</th>
<th>Deutsch Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. AC Line</td>
<td>16 to 20</td>
<td>Solid</td>
<td>0462-201-16141</td>
</tr>
<tr>
<td>2. AC Neutral</td>
<td>14 to 18</td>
<td>Stamped/-formed</td>
<td>1062-16-0122</td>
</tr>
<tr>
<td>3. AC Current Transformer Input #1</td>
<td>14 to 18</td>
<td>Stamped/formed</td>
<td>1062-16-0144</td>
</tr>
<tr>
<td>4. AC Current Transformer Input #2</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*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.

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.

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.
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 (± 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: IEC 60533 Electrical and Electronic Installations in Ships
  IEC 60945 Maritime Navigation and Radio Communication Equipment and Systems

**Environmental**
- Radiated, RF Field Immunity: IEC-61000-4-3
- Electrical Fast: IEC 61000-4-4
- Transient/Burst Immunity: IEC 61000-4-5
- Voltage Surge Immunity: IEC 61000-4-6
- 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