

Digital Volt Amp Meter Panel

Version: 1.00 3/3/00



Product Description:

The Digital Volt Amp Meter Panel will display multi-phase voltage, frequency, and current readings in a variety of formats, and as an additional safety measure, the unit will indicate voltage differential between ground and neutral. This two space unit can be integrated into any new modular power distribution system we manufacturer. Its rugged chassis is made of 1/8" black anodized aluminum with a durable Plexiglass display panel, backlit with a series of multi-colored LED indicators. Yellow mode buttons facilitate distro addressing, mode selections, and display options.

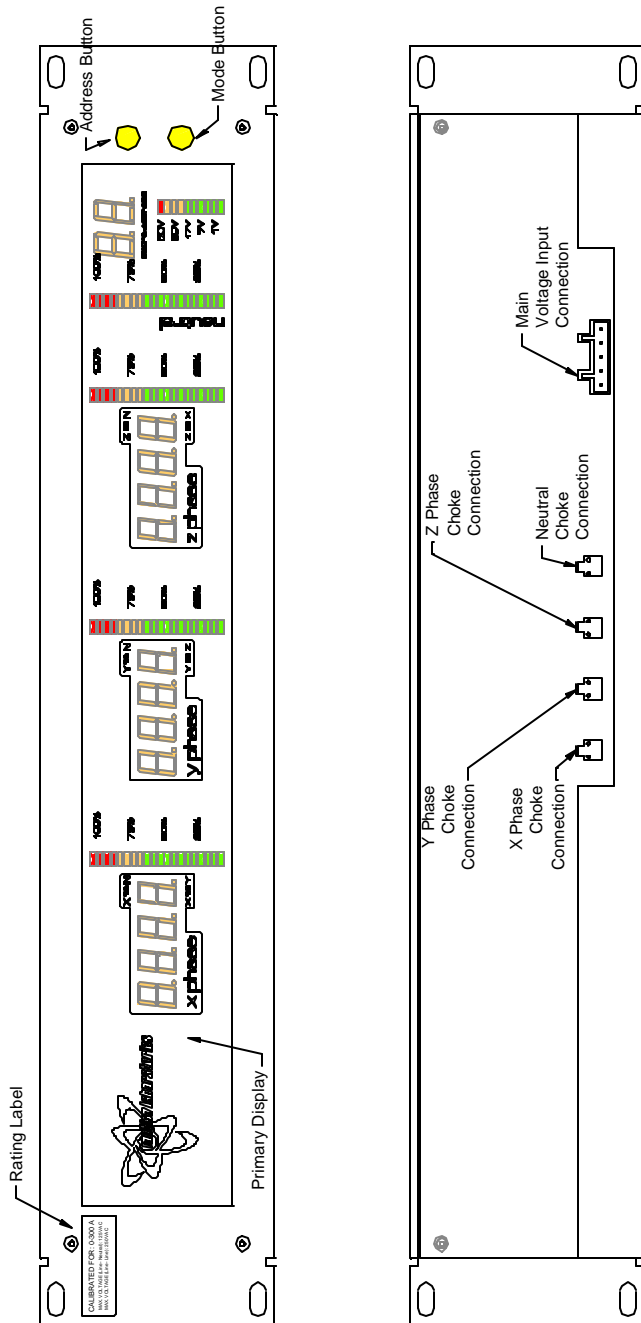


Figure 1

The Primary Display is broken down into 4 areas of viewing, one for each phase of power and the last field which displays information concerning the neutral, ground to neutral differential, and distro addressing.

Phase Fields

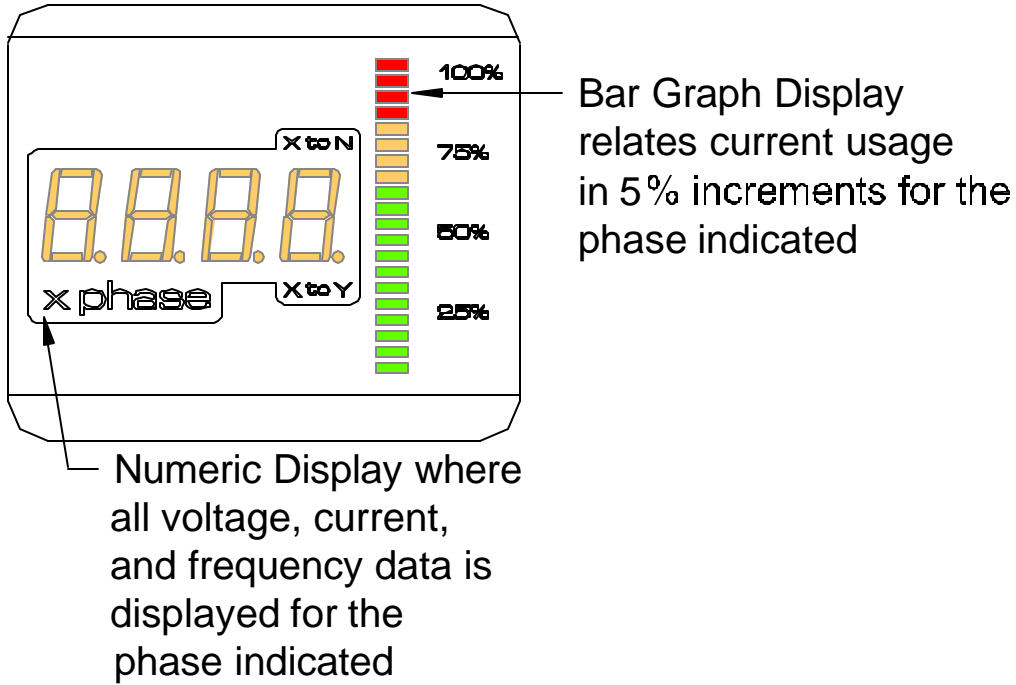


Figure 2

Neutral Field

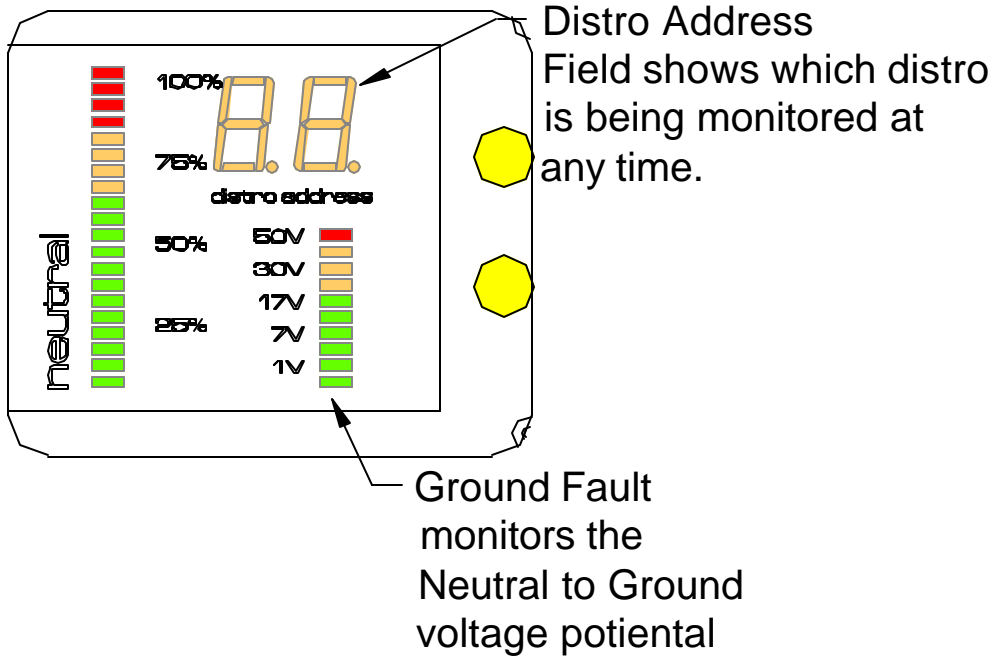


Figure 3

Features: Each Primary display field is capable of displaying the following information:

- 1) Phase to neutral voltage for X, Y and Z phases.
- 2) Phase to phase voltage for X-Y, Y-Z, and Z-X combinations.
- 3) Actual current consumption in a numeric readout
- 4) Frequency for each phase.
- 5) Ground to neutral voltage difference.
- 6) Graph like amperage readings for current consumption VIA a 20 segment light ladder.
- 7) Voltage Mode Indication: each phase field contains two mode indicators, one for Phase to Neutral and one for Phase to Phase.

Rating Label: Each unit has a rating label that indicated the current operating range that the meter has been calibrated to. Its most important relationship is to the light ladder as this reading is given in percent of the value marked on the rating label.

Operation:

On power up the display will illuminate all display segments as a self-test for 1 second, followed by displaying the software version of the display (see Fig 4)

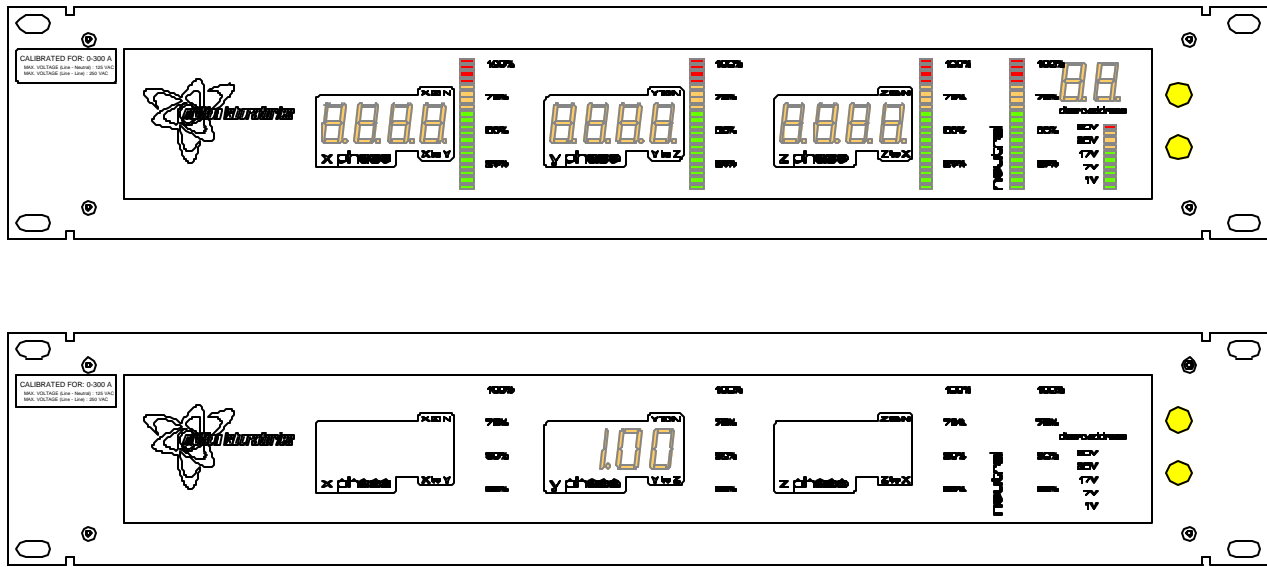


Figure 4

Mode Button: This Button toggles the display through the various modes of operation such as:

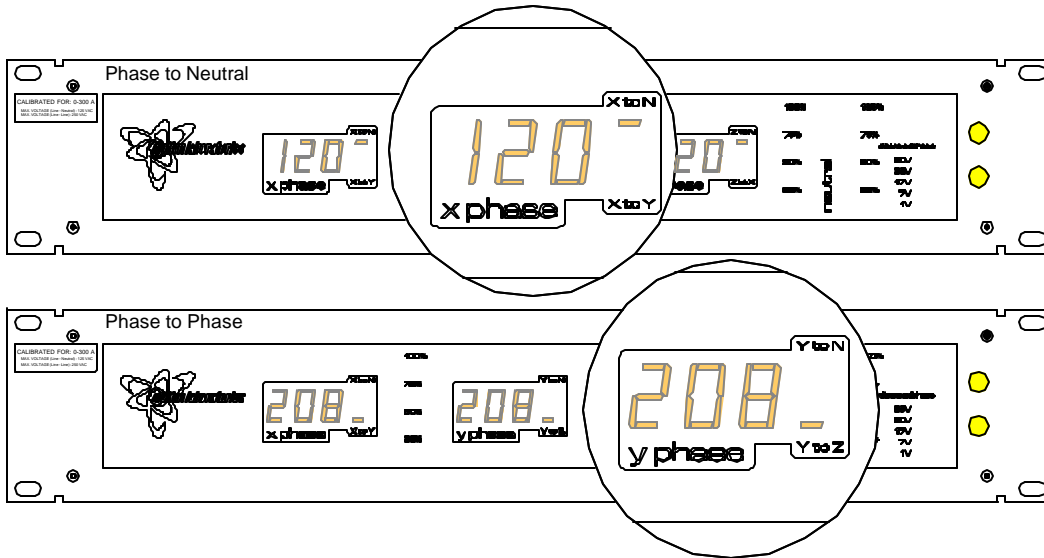


Figure 5

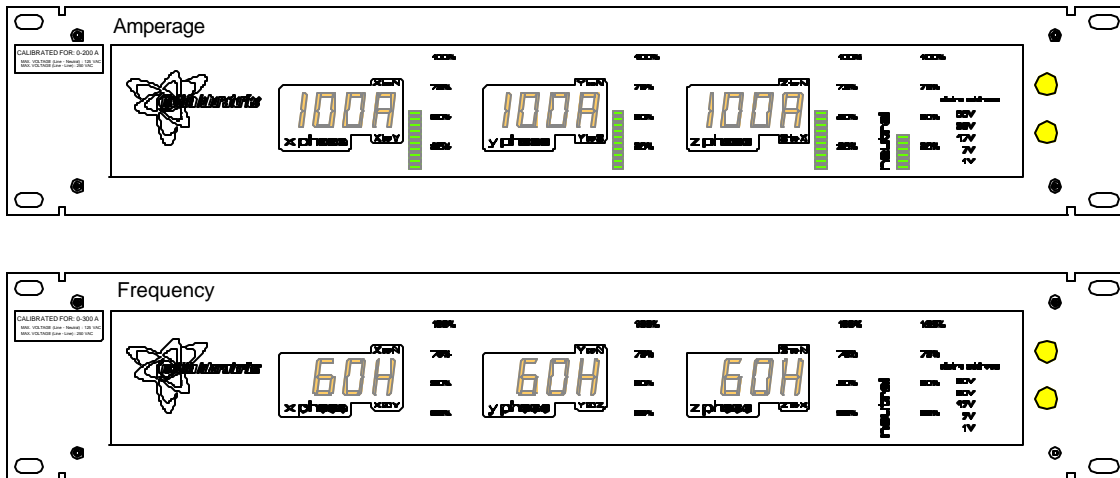


Figure 6

Mode Memory: The DVAM will remember all display modes and settings after twenty seconds of continuous use and will restart in the same mode at the next power up.

Error Messages

The display has provisions for indication of several error conditions. The error message and description follows:

Add COnF

Address Conflict. You will receive this message on the display if two or more PDs are addressed the same. The address in question is displayed in the address window.

NEu

Neutral error. You will receive this message if the neutral is either not connected to the system or is energized at line voltage. This error condition can only be detected when no load is connected to the PD. If more than one PD is feed with the same power feed and the neutral is disconnected at the source, the load to all PDs must be off this condition to be detected.

OFF LinE

PD offline. This message appears when you address a PD that is not powered up or isn't connected in the system. This can also indicate a broken unit.

Err 1

EEPROM read error. This is an internal error indicating a malfunction in the reading of user settings from the internal EEPROM. Service will be required to correct.

Err 2

EEPROM write error. This is an internal error indicating a malfunction in the writing of user settings to the internal EEPROM. Service will be required to correct.

Specifications:

Height:	3.5" (2 Rack Spaces)
Width	19.0"
Mounting	Standard 19" Rack Mounting
Material	1/8" Aluminum
Finish	Black Anodize
Input Power operation)	120/208 VAC 3PH (both X and Y must be present for
Voltage range (Phase to Neutral)	50V to 150V \pm 2V
Voltage range (Phase to Phase)	50V to 250V \pm 4V
Current range	50A to 600A \pm 2A
Frequency Range	50Hz to 100Hz \pm Hz
Ground voltage range	0V to 50V \pm 1V
Input power	120/208V 3 ϕ X and Y phase required for unit to operate