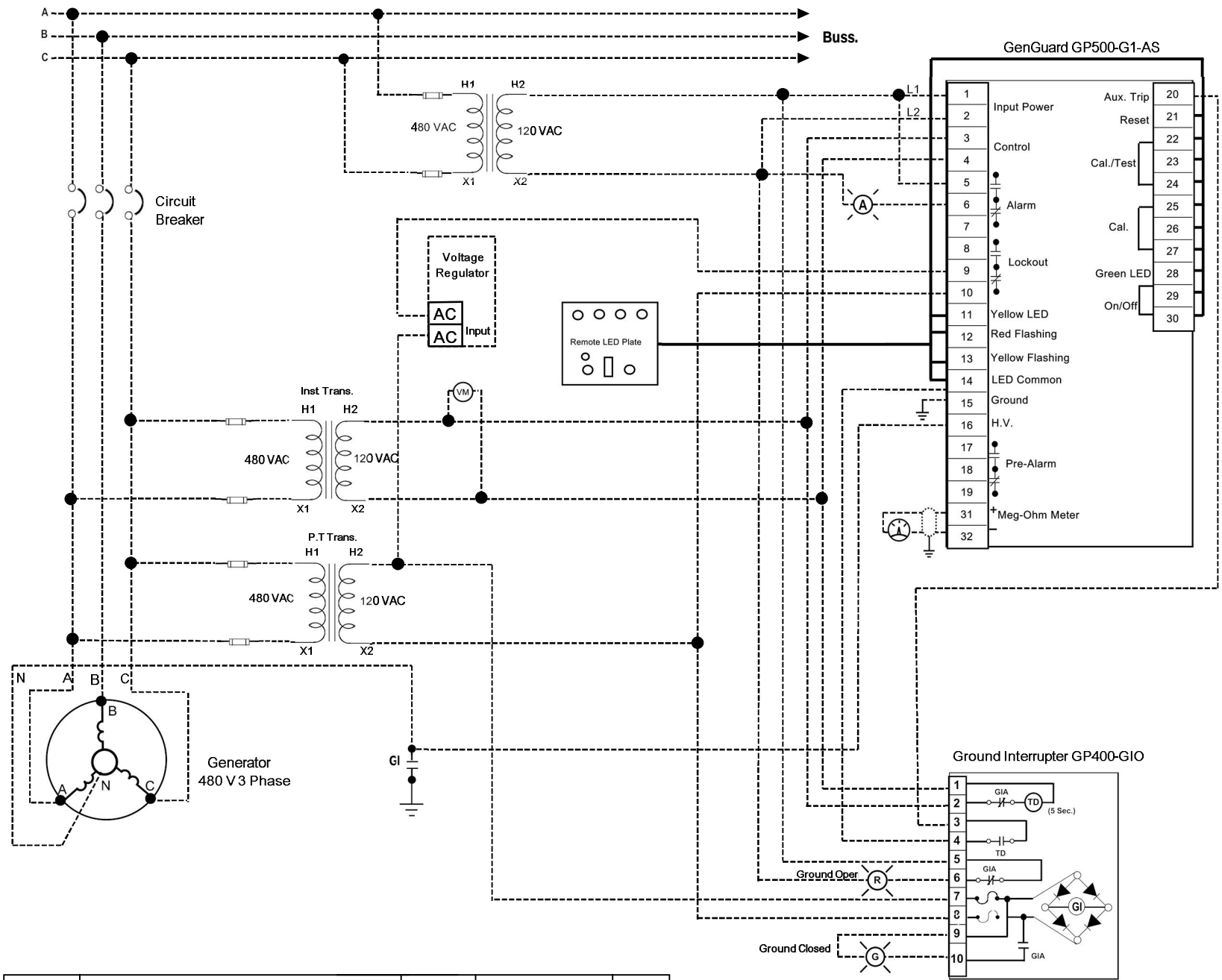
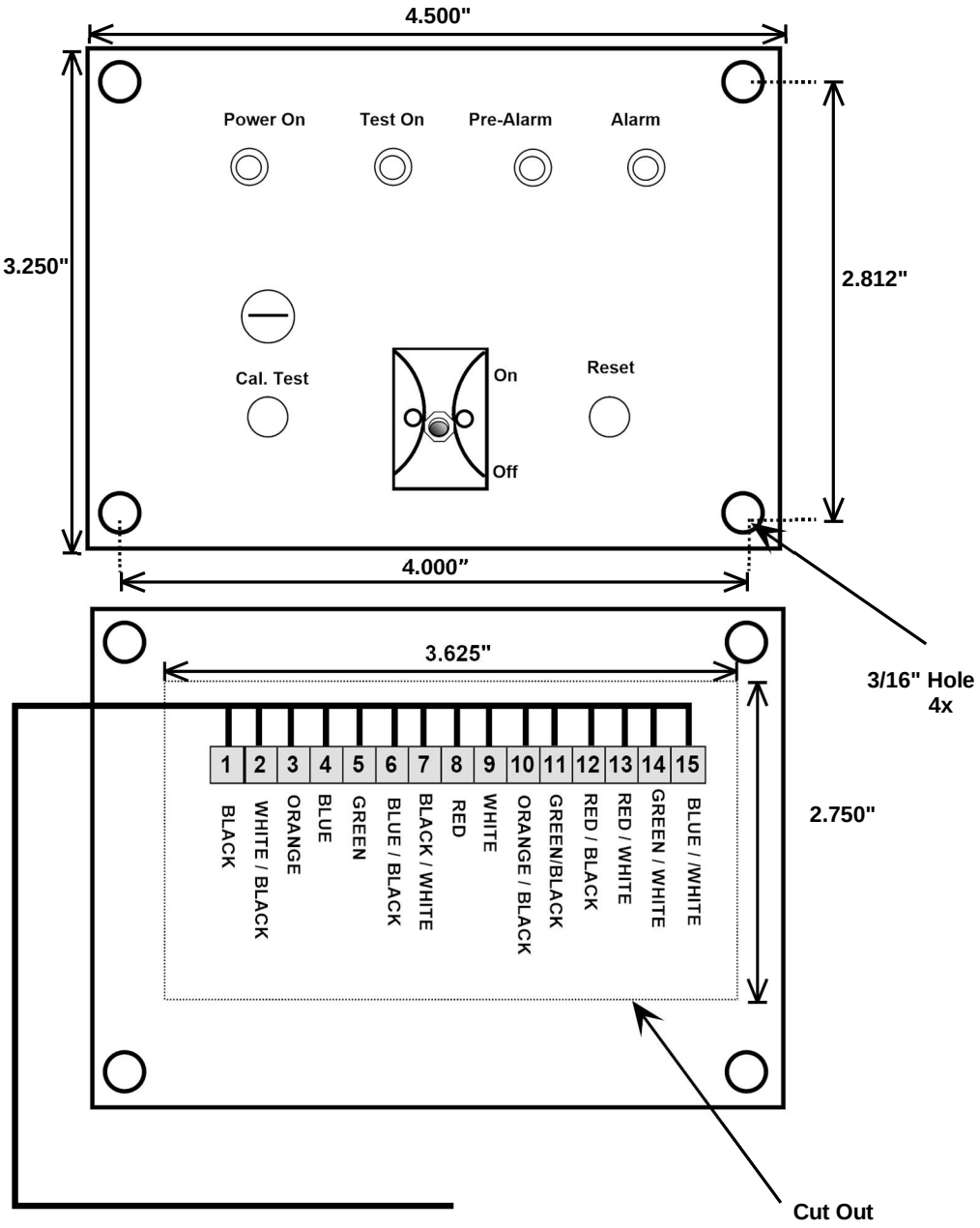


Meg-Alert, Inc. 715-356-1499	Legend: Meg-Ohm Meter, Ground Relay (GI), Sheilded Wires, Remote Alarm (A), Time Delay (TD), Customer Provided Wiring, Volt Meter (VM)	Drawn By: KM Delamater Checked: R. Zelm	*GP500-G1-AS* *with NRG* *Normally Open Contactor* **Typical Wiring Diagram**	Date: 8/21/2020 Scale: None

Remote LED Plate GP8013-G-AS



Hook-up to Power Supply

Column Wire #	Color Code
TB11	Blue
TB12	White/Black
TB13	Orange
TB14	Black Blue w/Black Stripe
TB21	Black w/White Stripe
TB22	Red w/ Black Stripe
TB23	Green w/ Black Stripe
TB24	Orange w/ Black Stripe
TB25	Blue w/White Stripe
TB26	Red w/ White Stripe
TB27	Green w/ White Stripe
TB28	Green
TB29	White
TB30	Red

Revised 11/18/2015

Tech Support: 800-778-5689

GenGuard
Automatic Insulation Testers
Models: GP500-G1-AS
Installation Instructions

Input power 120 +/- 10% VAC 50/60 Hz @ .5A Max. or 24VDC, 0.68A
Test Voltage 500 VDC @ 200uA Max.
Unit to be installed in a "clean" and "dry" environment, in a switchgear or a NEMA type enclosure.
Ambient Temp. -20° F to 140° F
Maximum relative humidity 80% for temperatures up to 31° C decreasing linearly to 50% relative humidity at 40°
Pollution degree 2 Altitude up to 2000m
Wiring: 16 AWG, 600V switchboard wire
MEASUREMENT CATERGORY III

1. The device is a Class 1 according to IEC 61010-1 for electric safety and chassis must be grounded to the main protective earth in the end application.

2. Position din rail inside the generator control panel for clearance and ease of wire installation. Drill four (2) holes for #10 screws and install rail(s). Snap the Genguard unit onto the din rail. When mounting the Genguard unit directly to the back pan use the two holes provided in the enclosure mounting brackets.

3. If a 2% meter option was ordered with the unit: Drill one (1) 2-3/4 inch diameter hole and three (3) 1/8 inch holes to match the meter. Mount the meter on the front panel of the generator control panel. If a 1-% meter was ordered use the pattern included with the meter. Drill one (1) 4-inch diameter hole and four (4) 3/8 inch holes.

4. To install the remote LED/Switch assembly, drill four (4) $^1/_8$" holes and cut out a 2 5/8" x 3 5/8" clearance hole for the assembly. Mount the assembly using the mounting holes provided in the panel (panel is normally located near the meter indicator).

5. Install warning stickers (provided with Meg-Alert) on the terminal boxes of all equipment to be tested.

6. Connect the input terminals (1) and (2) to the continuous input power source (see nameplate for the correct voltage).

7. Connect terminal (3) and (4) to a 120 VAC generator control power source. (See nameplate for correct voltage.) If DC input is used observe correct polarity, terminal (3) is positive, terminal (4) in negative. Voltage should be present only when the generator is running.

8. Connect terminal (5), (6) and (7) to an alarm panel or PLC inputs, for remote alarm circuit.

9. Connect terminal (8), (9) and (10) to interrupt the voltage regulator input power and lockout the equipment after a low alarm, if so desired.

10. Connect terminal (11-14) to remote LED's. Terminal (11) is the yellow LED positive output; terminal (12) is the red flashing LED positive output; terminal (13) is the yellow flashing LED positive output and terminal (14) is the LED common.

11. Connect the (ground) terminal (15) to the mechanical ground of the equipment to be tested.

12. Connect the (test) terminal (16) to the B phase winding in an AC system or the positive lead in a DC system.

13. Connect terminal (17), (18), and (19) to an alarm panel or PLC inputs for a remote Pre-Alarm signal, if desired.

14. Connect aux. trip terminal (20) to terminal (3) on the ground interrupter terminal block.

15. Connect terminals (21) through (30) to the remote LED/Switch assembly. Terminal (21) is the "reset" button. Terminal (22), (23), and (24) are the "Cal/Test button. Terminal (25), (26) and (27) are the "Cal. Pot" adjust. Terminal (28) is the green "Power On "LED positive output. Terminal (29) and (30) are the 'On/Off" switch.

16. Connect terminal (31) and (32) to the meter. Observe correct polarity; terminal (31) is positive and terminal (32) is negative. (NOTE: When using 4-20 mA transducer option, wire transducer input in series with the meter connections. (see wiring diagram)

17. Proceed with the Operating Instructions.

Tech Support: 800-778-5689

GenGuard
Automatic Insulation Testers
Models: GP500-G1-AS
Operating Instructions

Input power 120 +/- 10% VAC 50/60 Hz @ .5A Max. or 24VDC, 0.68A
Test Voltage 500 VDC @ 200uA Max.
Unit to be installed in a "clean" and "dry" environment, in a switchgear or a NEMA type enclosure.
Ambient Temp. -20° F to 140° F
Maximum relative humidity 80% for temperatures up to 31° C decreasing linearly to 50% relative humidity at 40°
Pollution degree 2 Altitude up to 2000m
Wiring: 16 AWG, 600V switchboard wire
MEASUREMENT CATERGORY III

1. After the installation is complete, apply voltage to the Genguard unit. Observe the green "POWER ON" LED and the yellow "TEST ON" LED are illuminated. The meter indicator will now display the value of the generator's insulation condition.

    A. Start the generator being tested and observe that the yellow "TEST ON" LED will turn off, and the meter indicator will read "Infinity "at the far left of the green band on the dial.

    B. Stop the generator, the yellow "TEST ON" LED should be illuminated, and the meter indicator will now read the value of the generator's insulation condition.

2. Press the "CAL/TEST" button at this time to check the proper operation of the Genguard unit and to see if the meter is calibrated correctly. Hold the test button for approximately 10 to 15 seconds. The meter indicator should go to the "TEST" position on the dial. (If not, adjust the "CAL POT" located on the remote LED/Switch assembly to align the indicator with the 'TEST" mark on the meter dial) After a short delay, the Genguard will signal a "PRE-ALARM" condition, the yellow Pre-alarm LED will begin flashing, and the Pre-alarm contacts will change state. Next the red "ALARM" LED should start flashing indicating a "LOW ALARM" condition and the yellow "TEST ON" LED should now be off. The "ALARM" and "LOCK OUT" contacts should now have changed state indicating a "LOW ALARM" and the "LOCK OUT" preventing the generator from operating if the circuit is used**. NOTE:** The megohm meter will return to the "Infinity" mark during a "LOW ALARM" condition.

3. Press the reset button and the Genguard unit should return to a test condition. The red "ALARM" LED should stop flashing; while the yellow "TEST ON" LED should now be illuminated. The meter indicator will now be showing the insulation value of the generator being tested. **NOTE:** The yellow pre-alarm LED will flash when in a "PRE-ALARM" condition and then reset automatically when the meter indicator goes above the set point.

4. The Genguard system is now ready for normal operation.

EQUIPMENT MAINTENACE

Only Qualified personnel shall perform maintenance of this device.

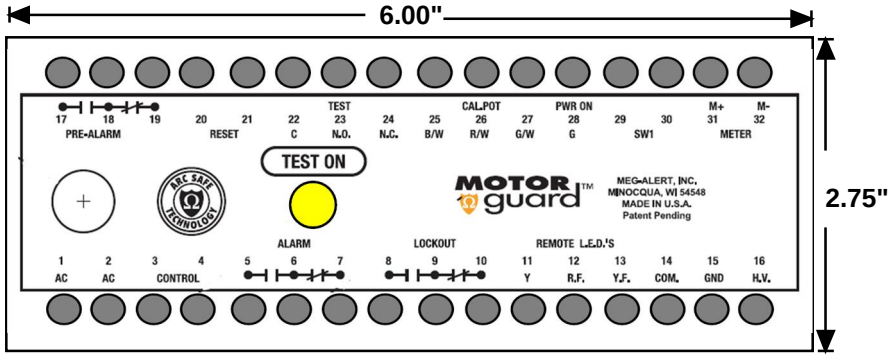
Before use all cables shall be checked for cracking or damage.

Only a 1.5A 250V AGC fuse shall be used with this device.

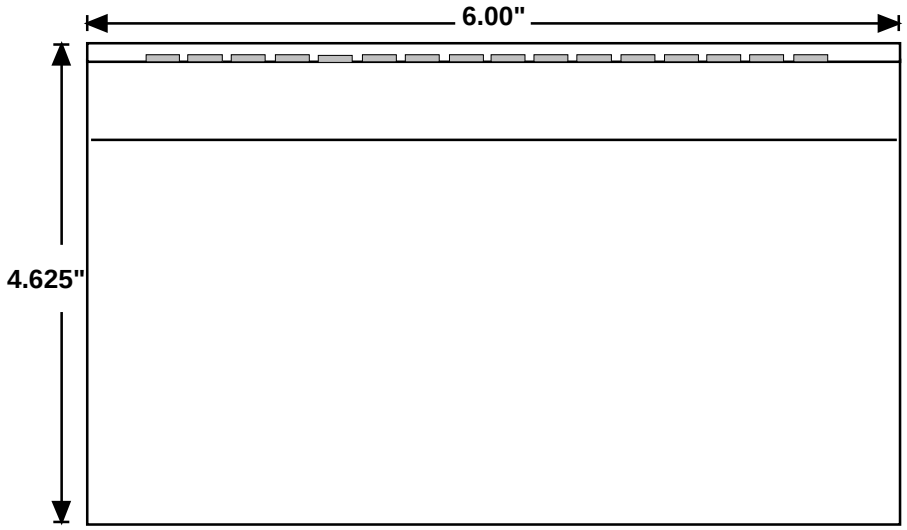
WARNING:
Before servicing any equipment being tested with a Meg-Alert system, one must turn off and lockout the Meg-Alert power and short the windings to ground in order to remove any possible capacitive charge that may be present in the unit.

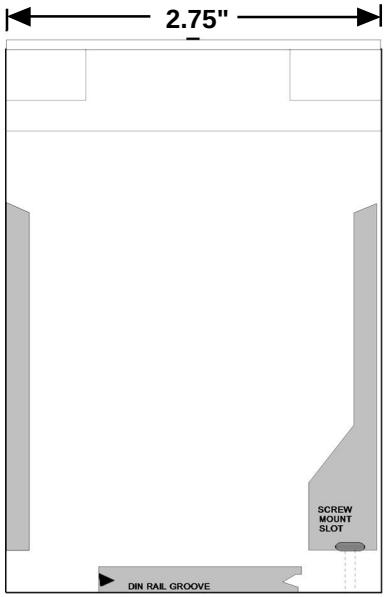
Models: GP500-MU-AS
GP500-G-AS

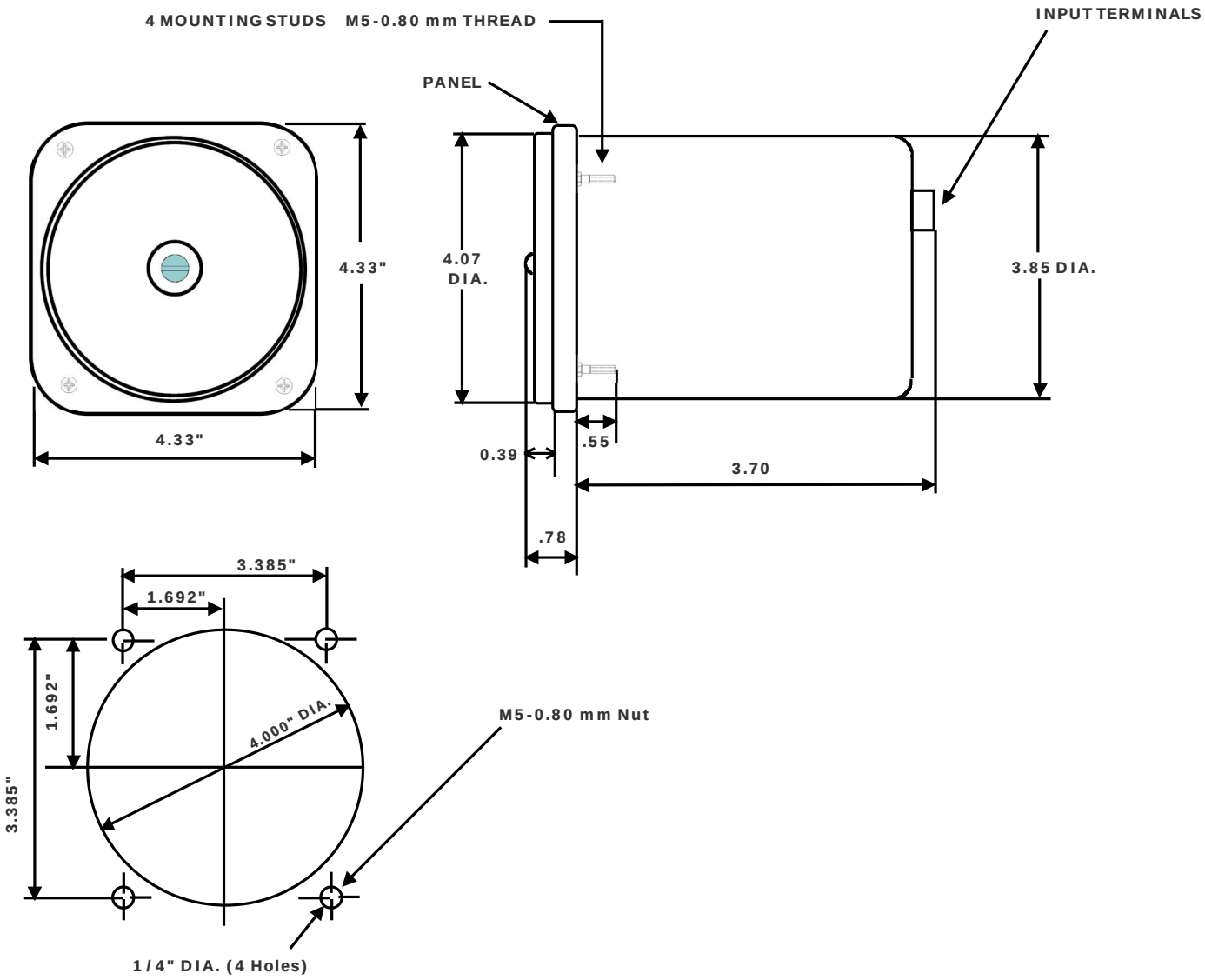
FRONT VIEW



SIDE VIEWS







1 % Switchboard Meter Dimensions GP7000 Series Meg-Alert, Inc. 715-356-1499	DRAWN BY KM Delamater		DATE 2/5/2018
	CHECKED R. Zelm	SCALE None	SHEET NO. 1