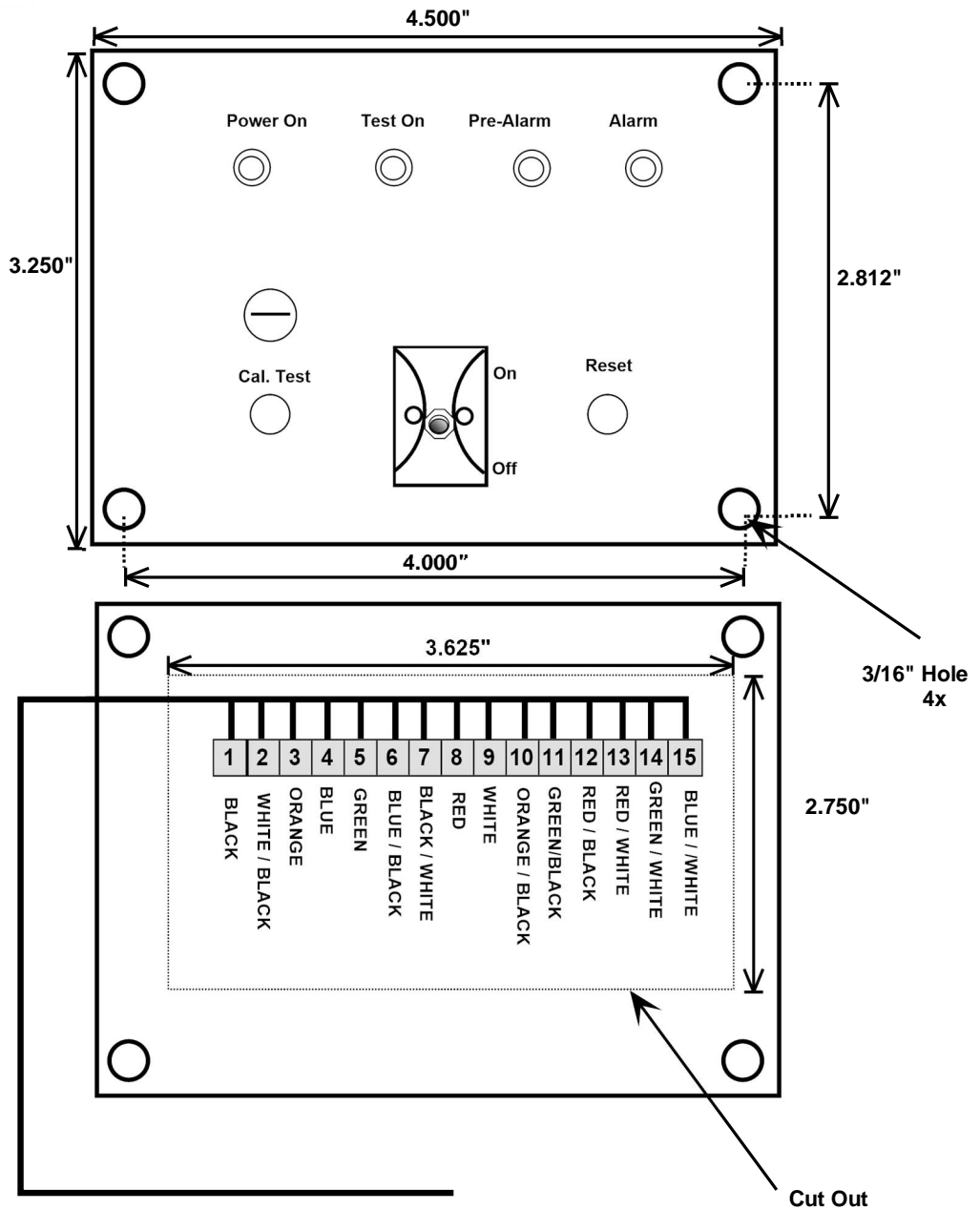


	Legend Remote Alarm Meg-Ohm Meter Volt Meter Frequency Meter Shielded Wires Customer Provided Wiring	Drawn By: KM Delamater	GP500-G-AS Typical Wiring Diagram	Date: 10/21/2019
		Checked: R. Zelm		Scale: None



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



GenGuard
Automatic Insulation Testers
Models: GP500-G-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 CATEGORY 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. Mount the meter according to drawings supplied.
4. To install the remote LED/Switch assembly (GP8013-MU-AS), there are 2 ways to mount the assembly.
 - Option A) When the optional EZ mount bracket (Part number GP8013-EZBK) is provided, Drill (4) 1/8" holes to mount the bracket and (1) 5/8" hole for the cable.
 - Option B) For a flush mount drill four (4) 1/8" holes and cut out a 4.75" x 3.625" Clearance hole for the assembly. Mount the assembly using the mounting Holes provided in the panel.
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 **optional** 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 and reset button common.
11. Connect the (ground) terminal (15) to the mechanical ground of the equipment to be tested.



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MEASUREMENT CATEGORY III

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 terminal (20) to terminal (3) on ground interrupter when used on a grounded neutral generator.
15. Connect terminals (21) through (30) to the remote LED/Switch assembly. Terminal (20) and (21) are 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.



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Pollution degree 2 Altitude up to 2000m

Wiring: 16 AWG, 600V switchboard wire

MEASUREMENT CATEGORY 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".
 - 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 carrot (1 Meg-Ohm). 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. 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.
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 MAINTENANCE

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:

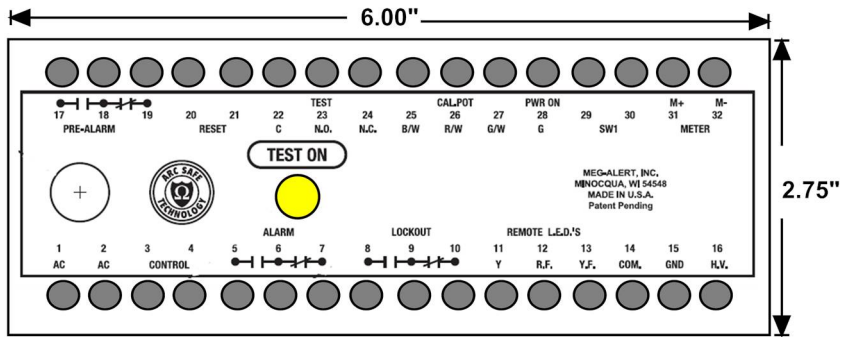
Before servicing any equipment being tested with a Meg-Alert system, one must turn off and lockout the Meg-Alert power and short the windings to ground in order to remove any possible capacitive charge that may be present in the unit.



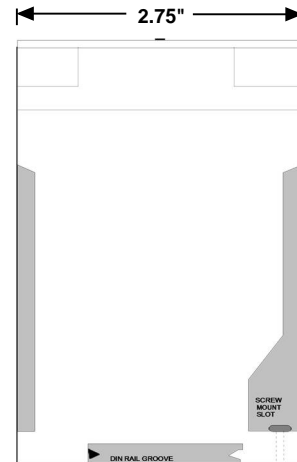
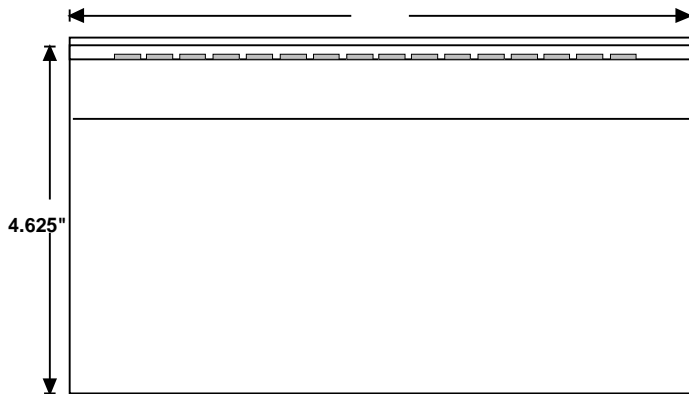
Technical Support: 800-778-5689

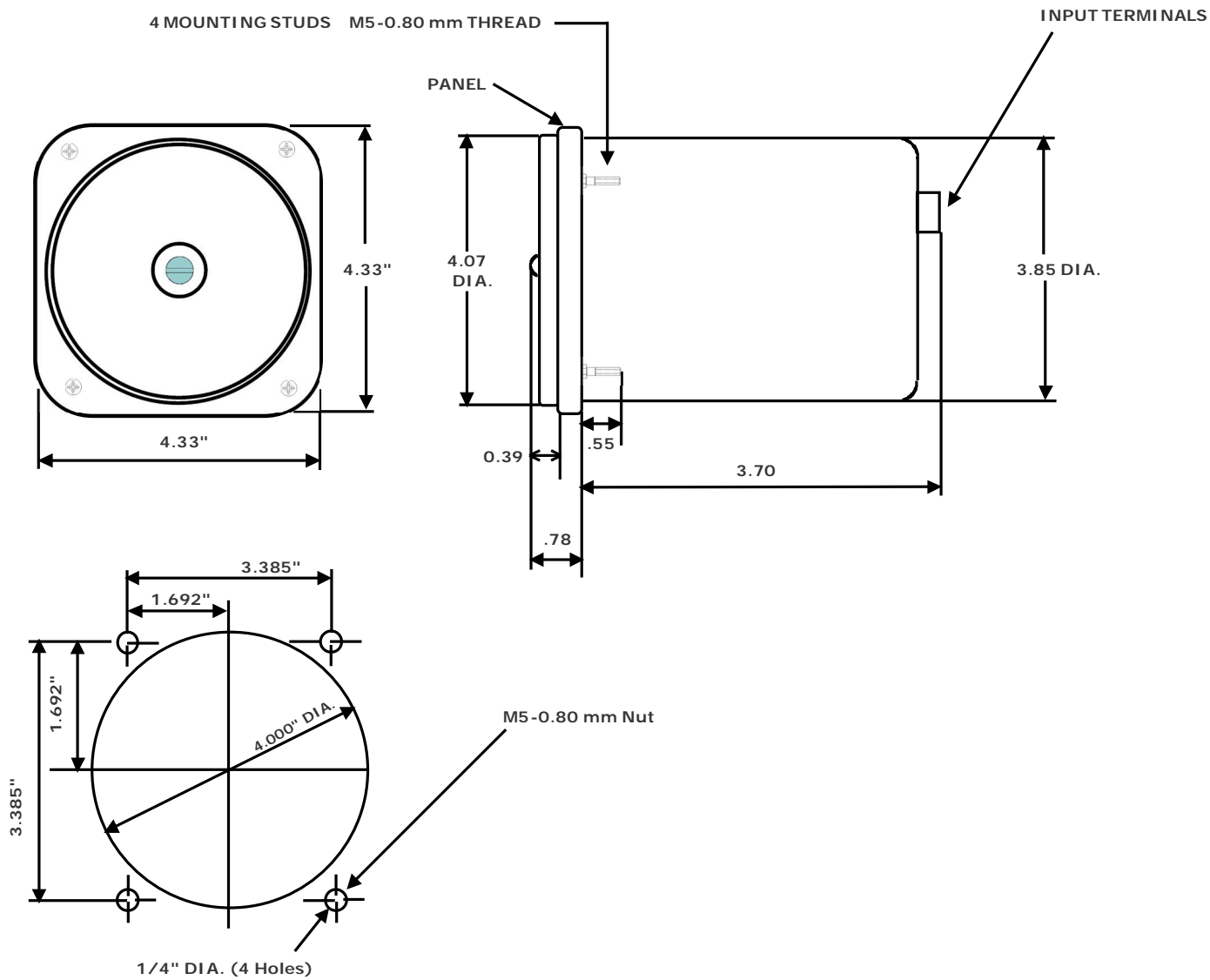
Models: GP500-MU-AS
GP500-G-AS
GP500-CG-AS
GP1000-ARL-AS


FRONT VIEW



SIDE VIEWS





1 % Switchboard Meter Dimensions GP7000 Series 	DRAWN BY		DATE
	KM Delamater		2/5/2018
	CHECKED	SCALE	SHEET NO.
R. Zelm	None	1	