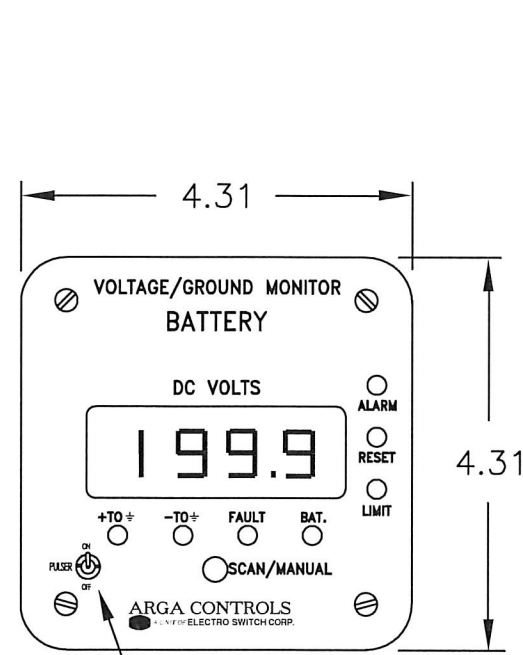
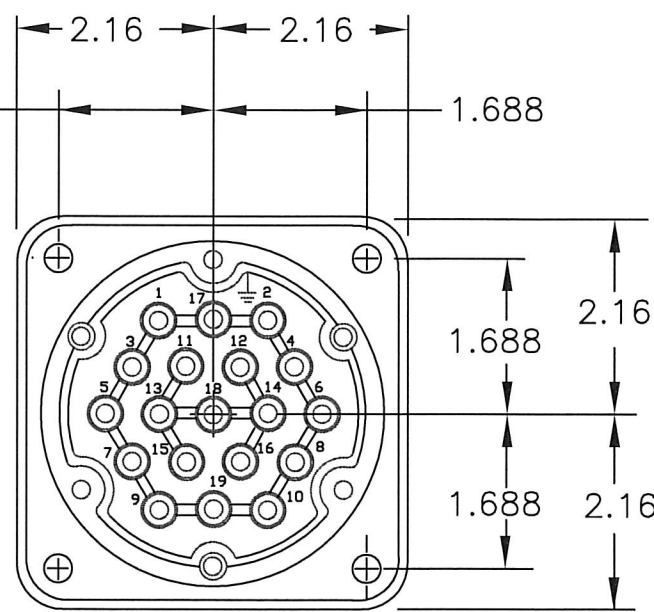
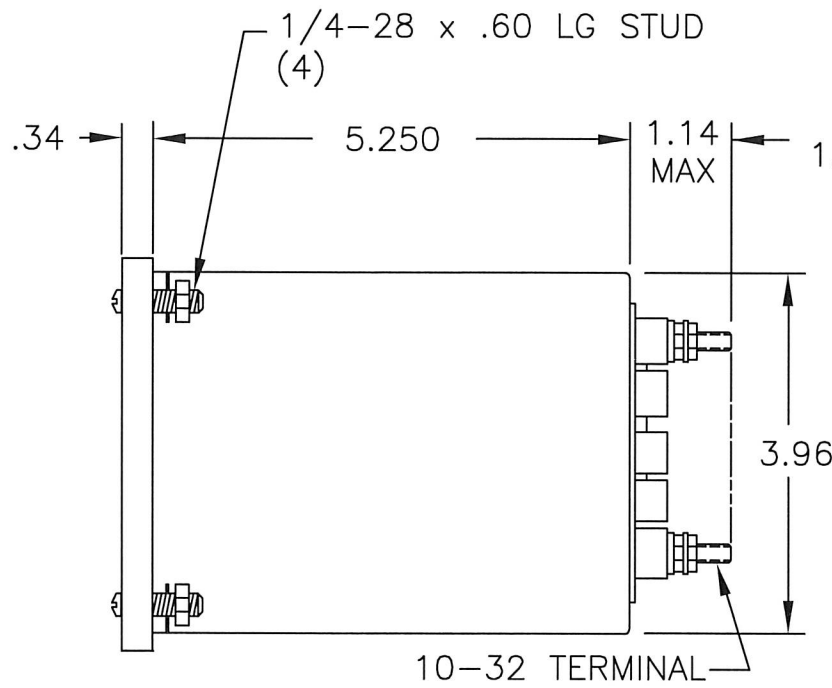


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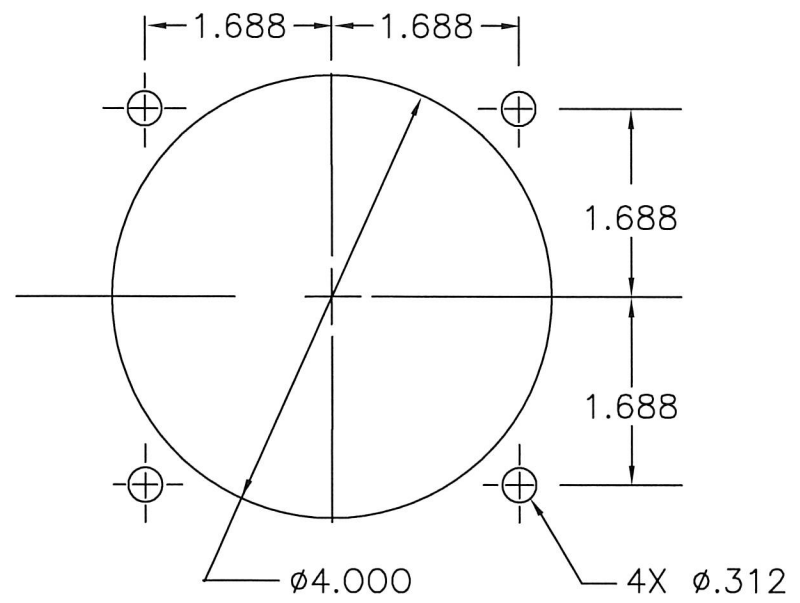
REVISIONS				
REV	DESCRIPTION	BY	DATE	APPROVED
F	REVISED IAW ECN 271	CB	10/31/14	D.J.
G	REVISED IAW ECN 377D	TC	7/31/15	DJ
H	REVISED IAW ECN ARGUMENTS 499	SPB	3/16/17	ALE
J	REVISED IAW ECN ARGUMENTS 521	SPB	09/07/17	ALE



"BB" OPTION ONLY
 (SEE NOTE 12)



TERMINAL LEGEND	
1	+ BATTERY INPUT
2	- BATTERY INPUT
3	GROUND
6	NO +GROUND FAULT
9	NO -GROUND FAULT
12	NO HI BAT. VOLTS
16	COMMON
17	NC LO BAT. VOLTS OPEN BAT. AC POWER LOSS
18	- OUTPUT
19	+ OUTPUT
5	ACV (CHARGER INPUT)
7	



PANEL CUTOUT

NOTES: UNLESS OTHERWISE SPECIFIED

QTY REQD	CAGE CODE	PART OR IDENTIFYING NO.	NOMENCLATURE OR DESCRIPTION	MATERIAL/SPECIFICATION	ITEM NO.
PARTS LIST					
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES DECIMALS ANGULAR .XX ± .03 ± 2° .XXX ± .005 DO NOT SCALE DRAWING			APPROVALS DRAWN WVN	DATE 07/27/03	ARGUMENTS CONTROLS A UNIT OF ELECTRO SWITCH CORP. TITLE BATTERY VOLTAGE/GROUND METER/ ALARM RELAY 125VDC
UNLESS OTHERWISE SPECIFIED THE SURFACE FINISH OF MACHINED PARTS SHALL NOT EXCEED A MAX READING OF 125 PER			CHECKED DJ	6/4/14	
ANSI B46.1-1978 THIRD ANGLE PROJECTION			ENGRG DJ	6/4/14	
NEXT ASSY		USED ON	QA	SIZE B	CAGE CODE 50290
APPLICATION				DWG NO. 25-498	REV J
				SCALE: 2/1	CAD FILE: 25-498revJ.DWG
				SHEET 1 of 2	

25-498 J B A

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REVISIONS				
REV	DESCRIPTION	BY	DATE	APPROVED
	SEE SHEET 1			

SPECIFICATIONS

1. BATTERY INPUT: 50 TO 180 VDC, 3VA.
2. GROUND RESISTORS: 30K + 1% FROM EACH BUS TO GROUND.
3. VOLTAGE INDICATION: 0 TO + 199.9 VDC IN .6" BRIGHT RED LED DIGIT AND DECIMAL POINT. ACCURACY IS + .2VDC.
4. RANGES:
 - A. +BUS TO GROUND (+ TO \oplus)
 - B. -BUS TO GROUND (- TO \ominus)
 - C. GROUND FAULT VOLTAGE (FAULT)
 - D. BATTERY VOLTAGE (BAT)
5. SCANNING: AUTOMATICALLY SCANS EACH RANGE. EACH READING IS 3 SEC. SCANNING STOPS ON INDICATED VALUE WHEN SCAN/MANUAL IS PUSHED. SCAN RESUMES ON NEXT READING WHEN PUSHED AGAIN. LED LIGHTS INDICATING RANGE BEING SHOWN.
6. ALARMS:
 - A. "- FAULT" RELAY ENERGIZES AND LATCHES WHEN THE + FAULT VOLTAGE EXCEEDS THE + SET VALUE FOR THE TIME SET. THE "ALARM" LED LIGHTS. SET RANGE IS 13.0 TO 100.0 V.
 - B. "+ FAULT" RELAY ENERGIZES AND LATCHES WHEN THE - FAULT VOLTAGE EXCEEDS THE - SET VALUE FOR THE TIME SET. THE "ALARM" LED LIGHTS. SET RANGE IS -13.0 TO -100.0 V.
 - C. "HI BATTERY" RELAY ENERGIZES AND LATCHES WHEN THE BATTERY VOLTAGE EXCEEDS THE "HI" SET VALUE FOR THE TIME SET. THE "ALARM" LED LIGHTS. SET RANGE IS 125.0 TO 150.0 V.
 - D. "LO BATTERY" RELAY DEENERGIZES AND LATCHES WHEN THE BATTERY VOLTAGE IS BELOW THE "LO" SET VALUE FOR THE TIME SET. THE "ALARM" LED LIGHTS. SET RANGE IS 100.0 TO 125.0 V.
 - E. OPEN BATTERY: CONTACT TO TERMINAL 17 CLOSES WHEN BATTERY IS OPEN OR HIGH RESISTANCE. THE "ALARM" LED BLINKS. USER CAN SELECT EITHER OF FOLLOWING OPEN BATTERY DETECTION METHODS.
 - VOLTAGE DROP: ALARMS WHEN INPUT VOLTAGE DROPS MORE THAN SET VALUE (1 TO 10%) IN 1 SEC. OR LESS & REMAINS LOW FOR .1 SEC. OR MORE.
 - AC RIPPLE: ALARMS WHEN AC INPUT VOLTAGE COMPONENT EXCEEDS SET VALUE (.02 TO 2V) FOR MORE THAN 1 SEC.
 - F. POWER LOSS, CHARGER AC: ALARMS WHEN AC INPUT TO THE CHARGER FALLS BELOW 70V, NORMAL INPUT IS 110 TO 240VAC. ON FAULT, THE "ALARM" LED lights AND CONTACT TO TERMINAL 17 CLOSES.
7. TIME DELAY: CAN BE SET FROM 5 TO 60 SECONDS WHEN HELD FOR ONE SECOND.
8. RESET: PANEL PUSH BUTTON OTHERWISE THE ALARM WILL BE RESET AUTOMATICALLY AFTER THE TIME DELAY PROVIDED THE CAUSE IS REMOVED.
9. CONTACT RATING: 2A AT 120 VAC OR 28 VDC. 150VDC AT 25mA.

10. LIMIT SETTING: DISPLAY OF LIMIT SETTING BY PRESSING AND HOLDING THE "LIMIT" BUTTON ON FRONT PANEL WHEN RANGE LIGHT IS ON. LIMITS AND TIME DELAY ARE SET BY REMOVING THE FRONT BEZEL (4 SCREWS). THIS CAN SAFELY BE DONE WITH THE POWER ON.
11. OUTPUT OPTION:
 - 25-498-101: HAS AN ISOLATED 0 TO 1mADC OUTPUT, INTO 0 TO 10K LOAD, FOR 90 TO 180 VDC INPUT. ACCURACY IS ± 0.2 VDC.
 - 25-498-1420: HAS AN ISOLATED 4 TO 20mADC OUTPUT, INTO 0 TO 500 Ω LOAD, FOR 90 TO 180 VDC INPUT. ACCURACY IS ± 0.2 VDC.
 - 25-498-J3.0: HAS RS485 DIGITAL OOUTPUT DNP3.0 AND MODBUS PROTOCOLS. SCALING IS 0 TO 2000 COUNTS FOR 0 TO 180 VDC. CH0 IS BATTERY VOLTS, CH1 IS GND FAULT VOLTS, CH2 IS -BUS TO GND, CH3 ALARMS A TO F OF PRAGRAPH 6. ACCURACY IS ± 4 COUNTS
12. OPTIONAL GROUND FAULT DETECTOR
"BB" OPTION: SUPPLIED WITH HANDHELD GROUND FAULT DETECTOR UNIT MODEL 200C, WITH ON/OFF SWITCH ON FRONT PANEL, VOLUME ADJUST, AND LED & AUDIBLE INDICATORS FOR DETECTED GROUND FAULTS. (ADD "-BB" SUFFIX TO P/N)

ARGA CONTROLS
 A UNIT OF ELECTRO SWITCH CORP.

SIZE	CAGE CODE	DWG NO.	REV
B	50290	25-498	J
SCALE: 2/1		CAD FILE: 25-498revH.DWG	SHEET 2 OF 2