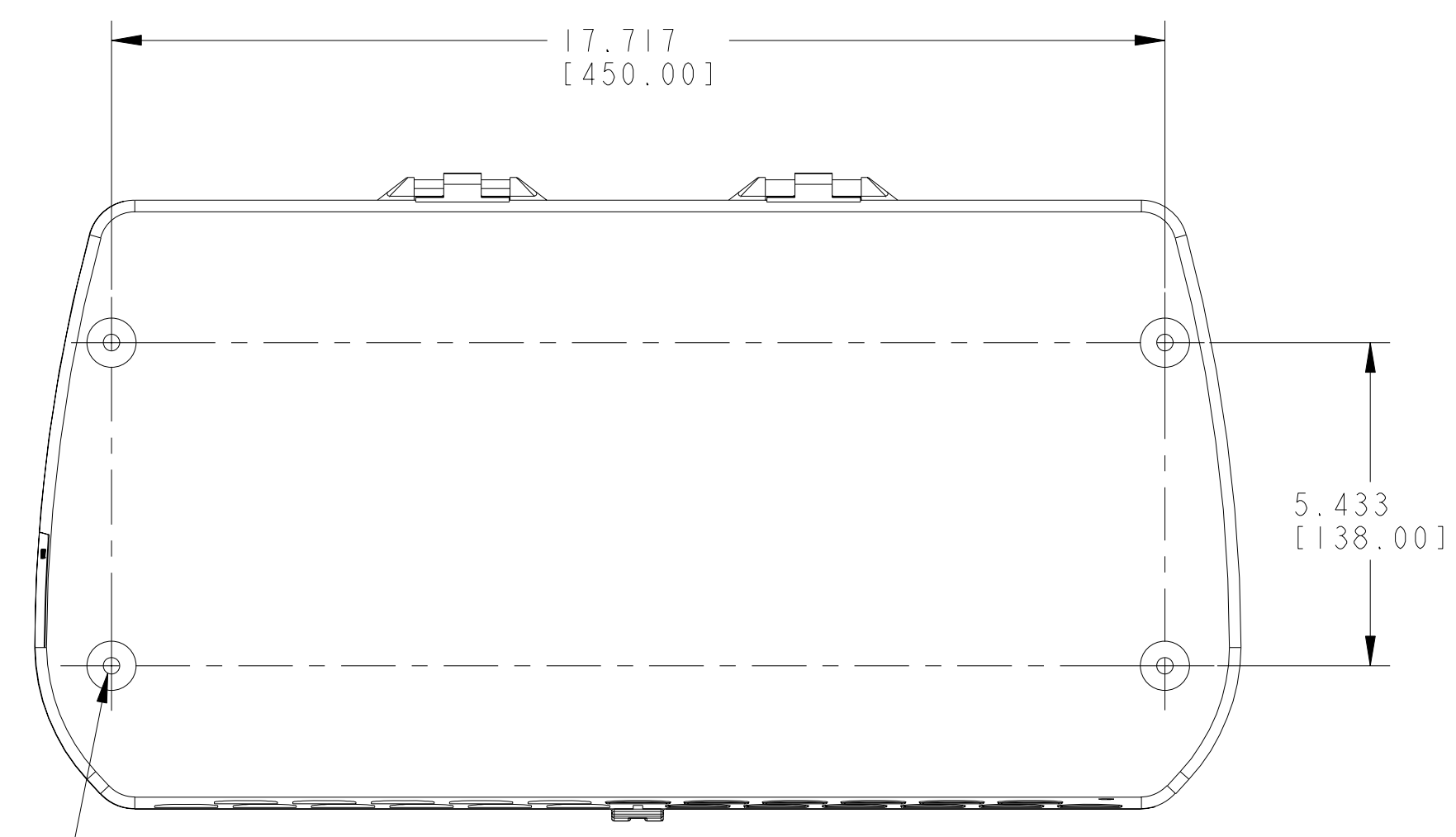
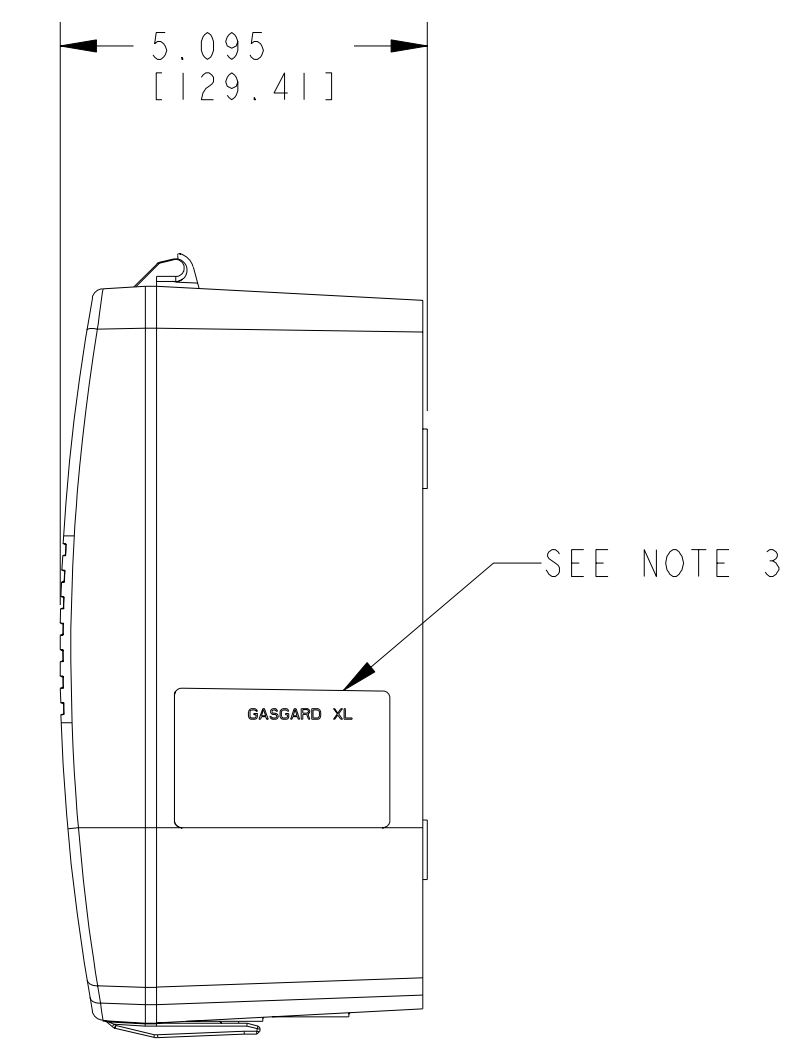
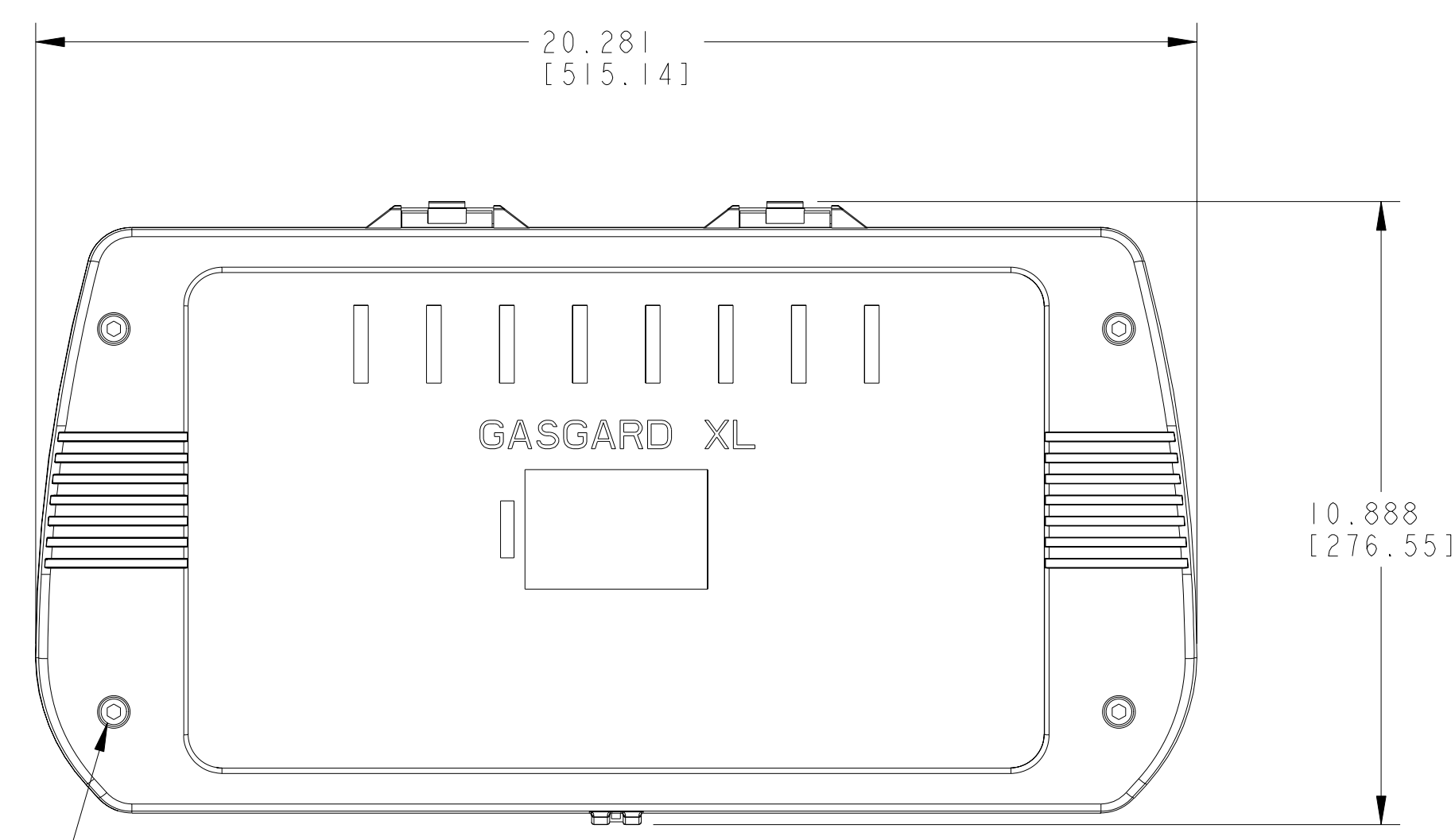
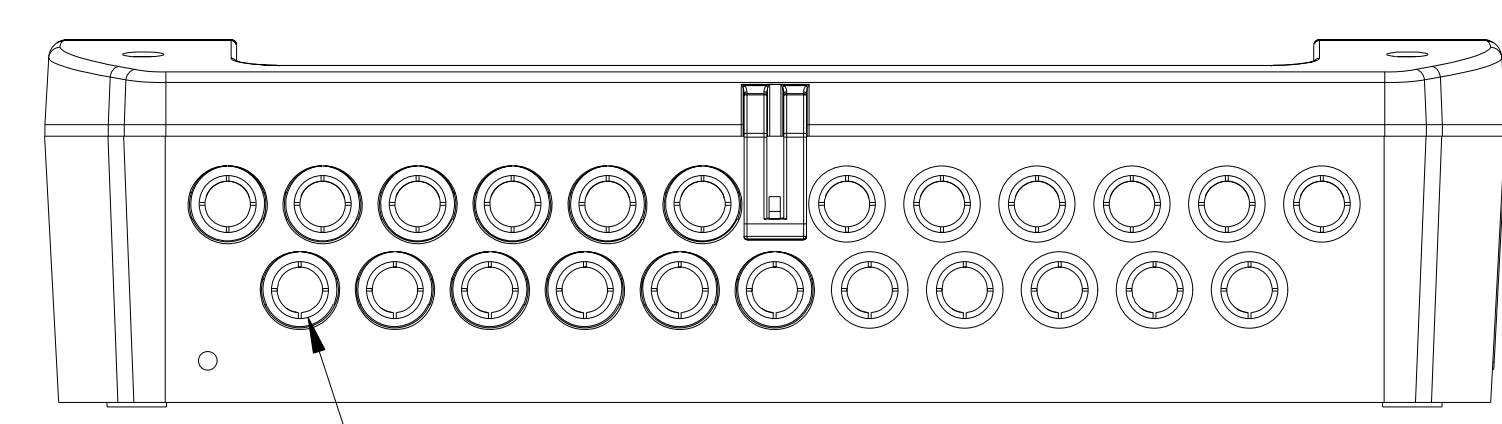


REVISIONS	
①	10-22-2008 INITIAL RELEASE FlameGard was SharpEye on SHEET 4 NOTE 11 and VIEW GJT JD
OCT 29 2008	



M8 BOLTS (4 PLACES)
USE METRIC ALLEN
WRENCH #6 TO REMOVE



NOTE:

- DIMENSIONS SHOWN IN INCHES [MILLIMETERS].
- INSTRUMENT HOUSING IS MADE OF ABS PLASTIC.
- CHECK TAG FOR AREA CLASSIFICATION.
- - - - INDICATES FIELD CONNECTIONS BY OTHERS.

(CONTINUED ON SHEET 2)

CUSTOMER _____

P.O. NO. _____

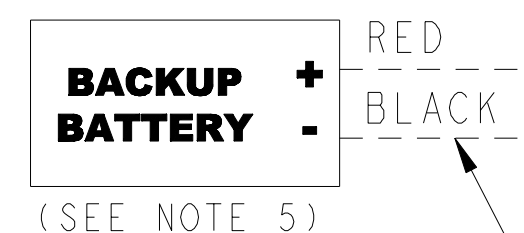
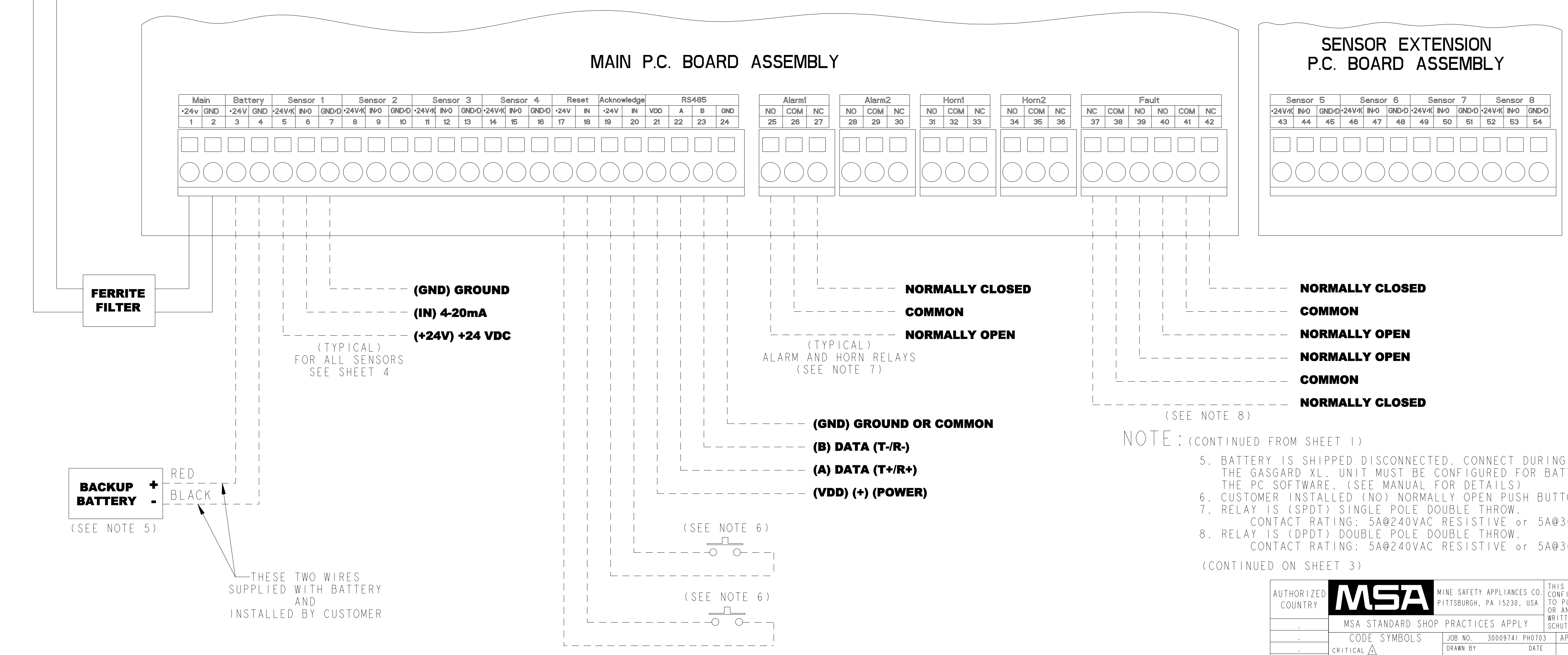
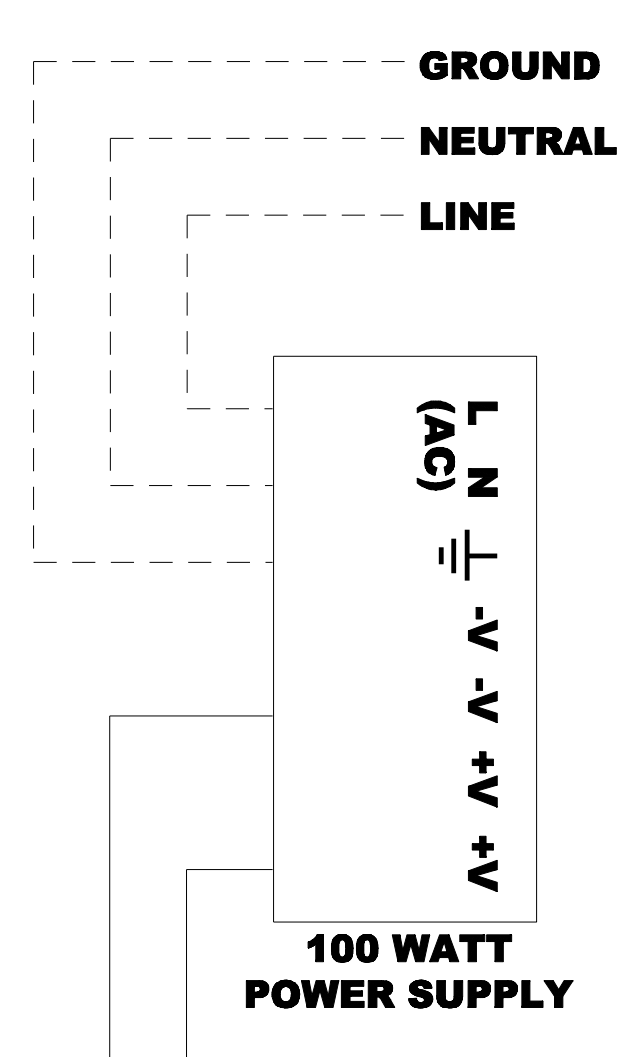
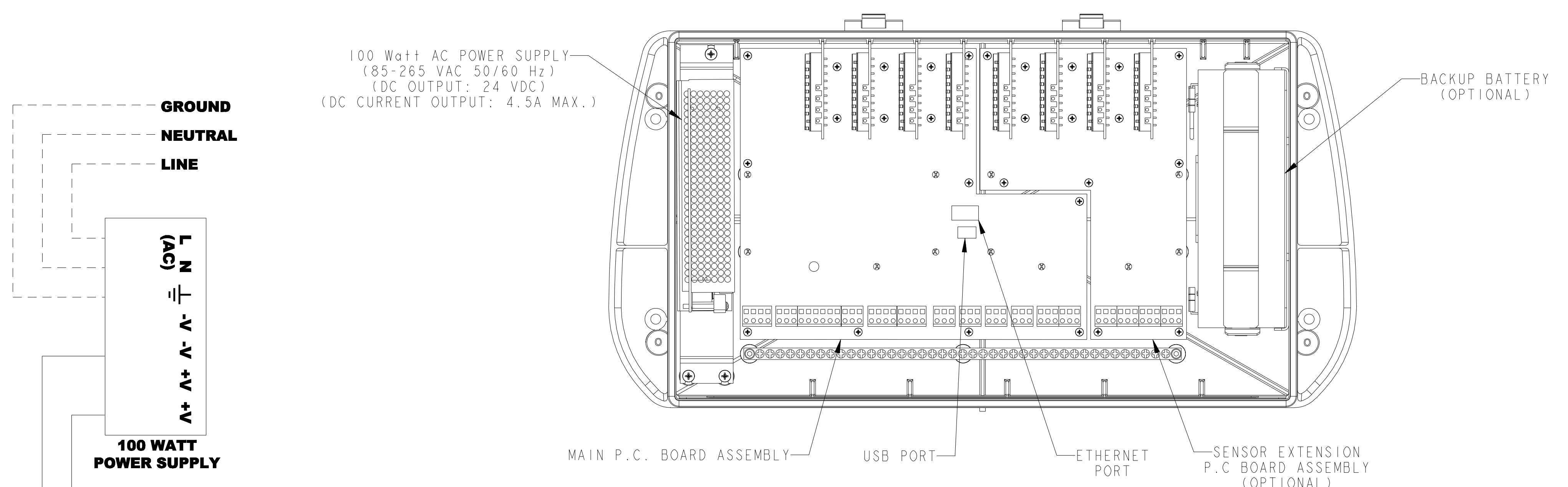
MSA NO. _____

LOCATION _____

TAG NO. _____

TOTAL NO. OF UNITS _____

AUTHORIZED COUNTRY	MSA	MINE SAFETY APPLIANCES CO. PITTSBURGH, PA 15230, USA	THIS DRAWING IS THE PROPERTY OF MSA AND IS MADE AVAILABLE TO YOU IN CONFIDENCE AND SUBJECT TO THE FOLLOWING: NO PERMISSION IS GRANTED TO PUBLISH, USE, REPRODUCE, TRANSMIT OR DISCLOSE THIS DRAWING, OR ANY INFORMATION CONTAINED THEREIN TO OTHERS WITHOUT THE PRIOR WRITTEN CONSENT OF MSA EXCEPT FOR THE MANUFACTURE OF ARTICLES FOR MSA. SCHUTZVERMERK NACH DIN 34 BEACHTEN. MSA AUER GmbH.	DO NOT SCALE DWG.
		MSA STANDARD SHOP PRACTICES APPLY	APPROVAL AGENCY CODE: YES NTOSH ATTR. DOC.:	
	CODE SYMBOLS	JOB NO. 30009741 PH0703	DATE 10-2-2008	INSTALLATION OUTLINE, GASGARD XL
	CRITICAL Δ	DRAWN BY GT	CHECKED BY J. DiLEO	
	MAJOR A Δ MINOR (NO MARK)	PROJ. ENGR. S. TURNER	QUALITY ASSURANCE J. DANNHARDT	
	MAJOR B Δ	MANUFACTURING A. POLOCHAK		
	100% INSPECTION Δ	TOLERANCES UNLESS OTHERWISE SPECIFIED		CADD REF: SK3015-1021
	FRACTIONAL $\pm 1/64$	2 PL DEC. ± 0.01		SCALE: 1:000
	3 PL DEC. ± 0.005	ANGULAR ± 1 deg.		SHEET 1 OF 4
	SEE MSA STANDARD SHOP PRACTICES FOR DRILLED HOLE TOLERANCES	D.		SK3015-1021



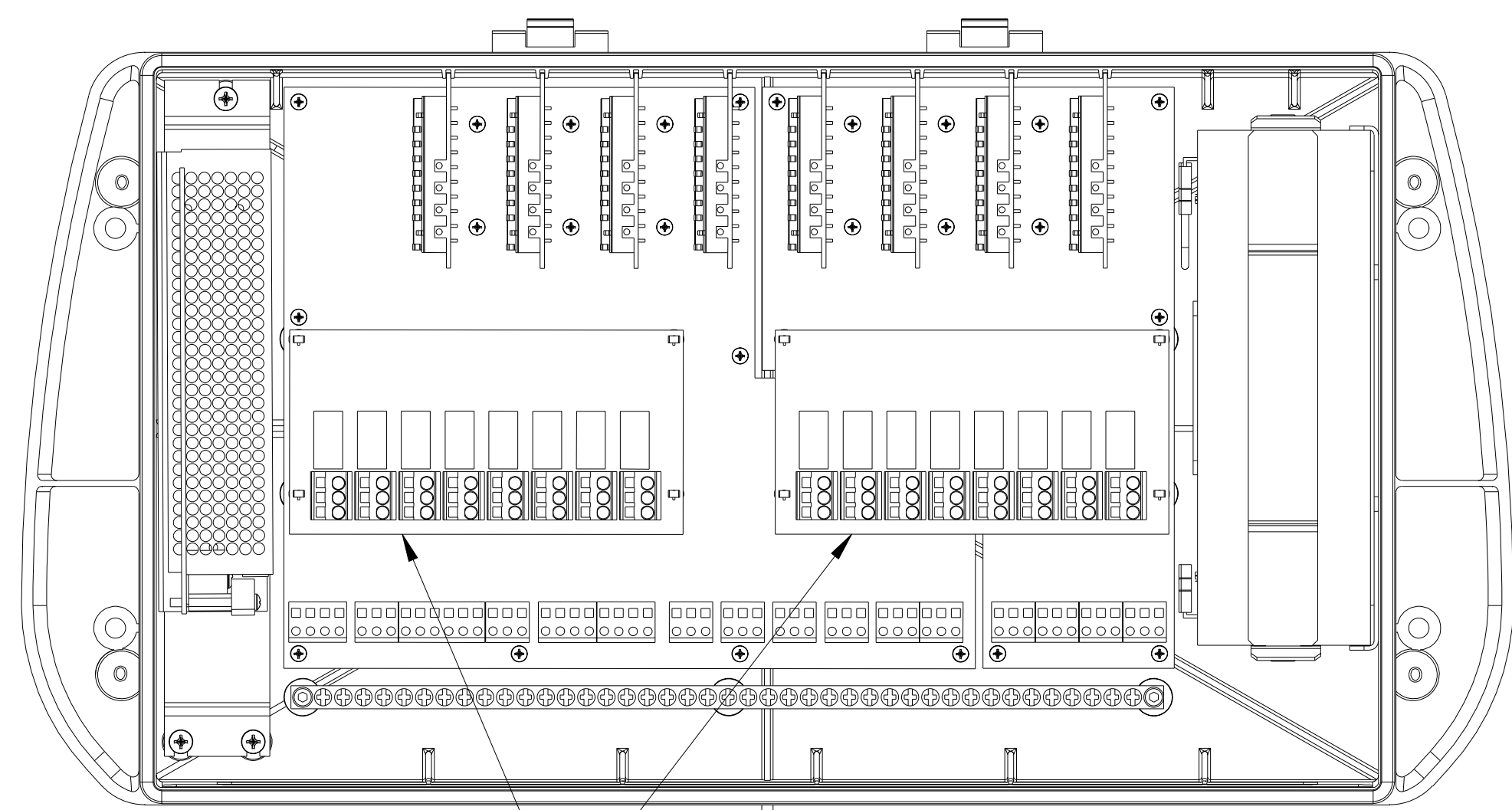
THESE TWO WIRES SUPPLIED WITH BATTERY AND INSTALLED BY CUSTOMER

NOTE: (CONTINUED FROM SHEET 1)

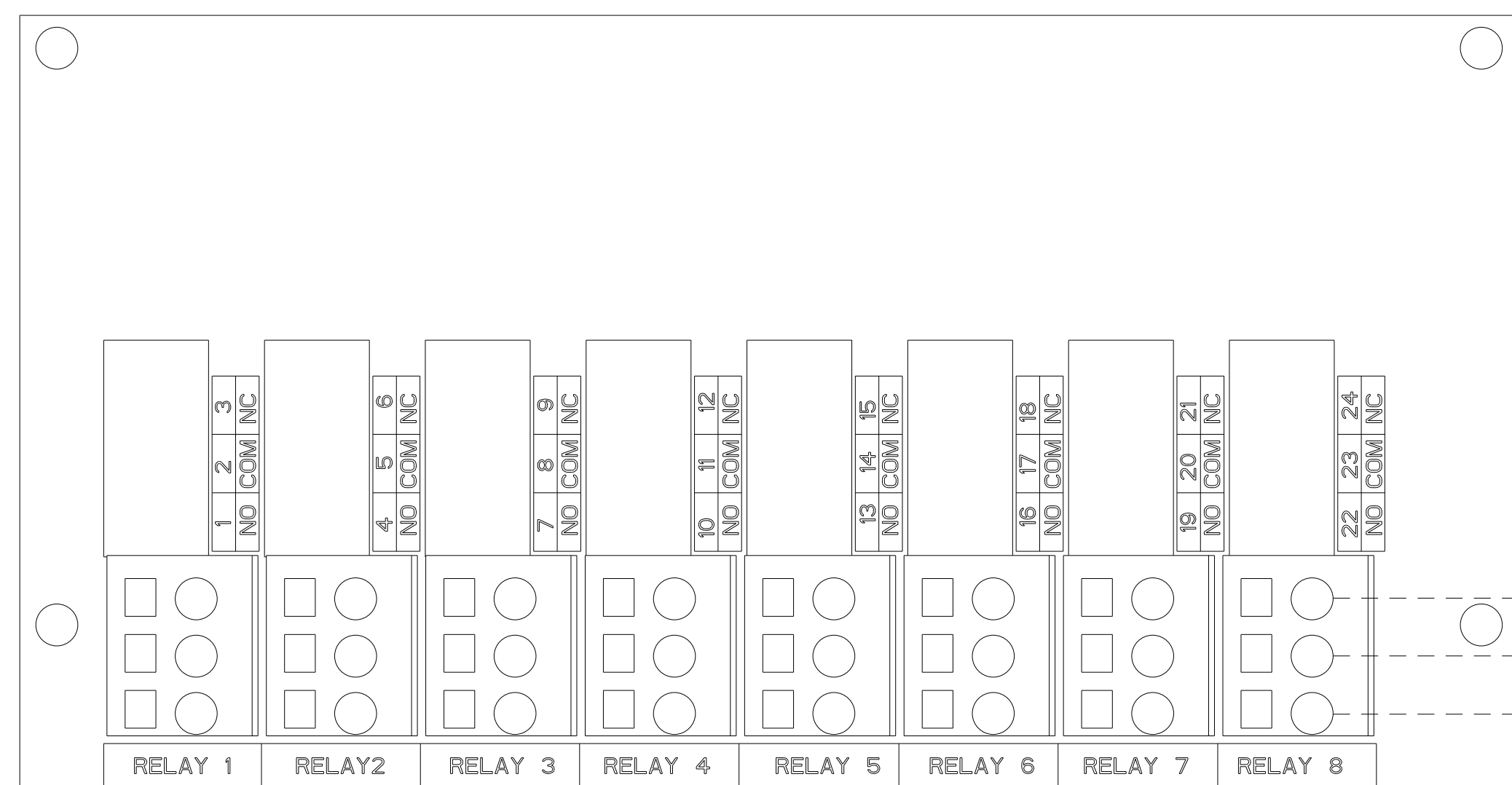
5. BATTERY IS SHIPPED DISCONNECTED. CONNECT DURING INSTALLATION OF THE GASGARD XL. UNIT MUST BE CONFIGURED FOR BATTERY BACKUP THROUGH THE PC SOFTWARE. (SEE MANUAL FOR DETAILS)
6. CUSTOMER INSTALLED (NO) NORMALLY OPEN PUSH BUTTON SWITCH.
7. RELAY IS (SPDT) SINGLE POLE DOUBLE THROW.
CONTACT RATING: 5A@240VAC RESISTIVE or 5A@30VDC RESISTIVE
8. RELAY IS (DPDT) DOUBLE POLE DOUBLE THROW.
CONTACT RATING: 5A@240VAC RESISTIVE or 5A@30VDC RESISTIVE

(CONTINUED ON SHEET 3)

AUTHORIZED COUNTRY	MSA	MINE SAFETY APPLIANCES CO. PITTSBURGH, PA 15230, USA	THIS DRAWING IS THE PROPERTY OF MSA AND IS MADE AVAILABLE TO YOU IN CONFIDENCE AND SUBJECT TO THE FOLLOWING: NO PERMISSION IS GRANTED TO PUBLISH, USE, REPRODUCE, TRANSMIT OR DISCLOSE THIS DRAWING, OR ANY INFORMATION CONTAINED THEREIN TO OTHERS WITHOUT THE PRIOR WRITTEN CONSENT OF MSA EXCEPT FOR THE MANUFACTURE OF ARTICLES FOR MSA. SCHUTZVERMERK NACH DIN 34 BEACHTEN. MSA AUER GmbH.	DO NOT SCALE DWG.
MSA STANDARD SHOP PRACTICES APPLY	CODE SYMBOLS	JOB NO. 30009741 PH0703	APPROVAL AGENCY CODE: YES/NTOSH ATTR. DOC.:	
	CRITICAL Δ	DRAWN BY GT	DATE 10-2-2008	INSTALLATION OUTLINE, GASGARD XL
	MAJOR A Δ	CHECKED BY J. DiLEO	10-28-08	
	MAJOR B Δ	PROJ. ENGR. S. TURNER	10-28-08	
	100% INSPECTION Δ	QUALITY ASSURANCE J. DANNHARDT	10-28-08	
	TOLERANCES UNLESS OTHERWISE SPECIFIED	MANUFACTURING A. POLOCHAK	10-28-08	CADD REF: SK3015-1021
	FRACTIONAL $\pm 1/64$			SCALE: 1:000
	2 PL DEC. ± 0.01			SK3015-1021
	3 PL DEC. ± 0.005			
	ANGULAR ± 1 deg.			
	SEE MSA STANDARD SHOP PRACTICES FOR DRILLED HOLE TOLERANCES			



CHANNEL RELAY
 P.C. BOARD ASSEMBLIES
 (OPTIONAL)



NORMALLY CLOSED
COMMON
NORMALLY OPEN

TYPICAL WIRING FOR RELAYS 1-8 (SEE NOTE 9)

NOTE: (CONTINUED FROM SHEET 2)

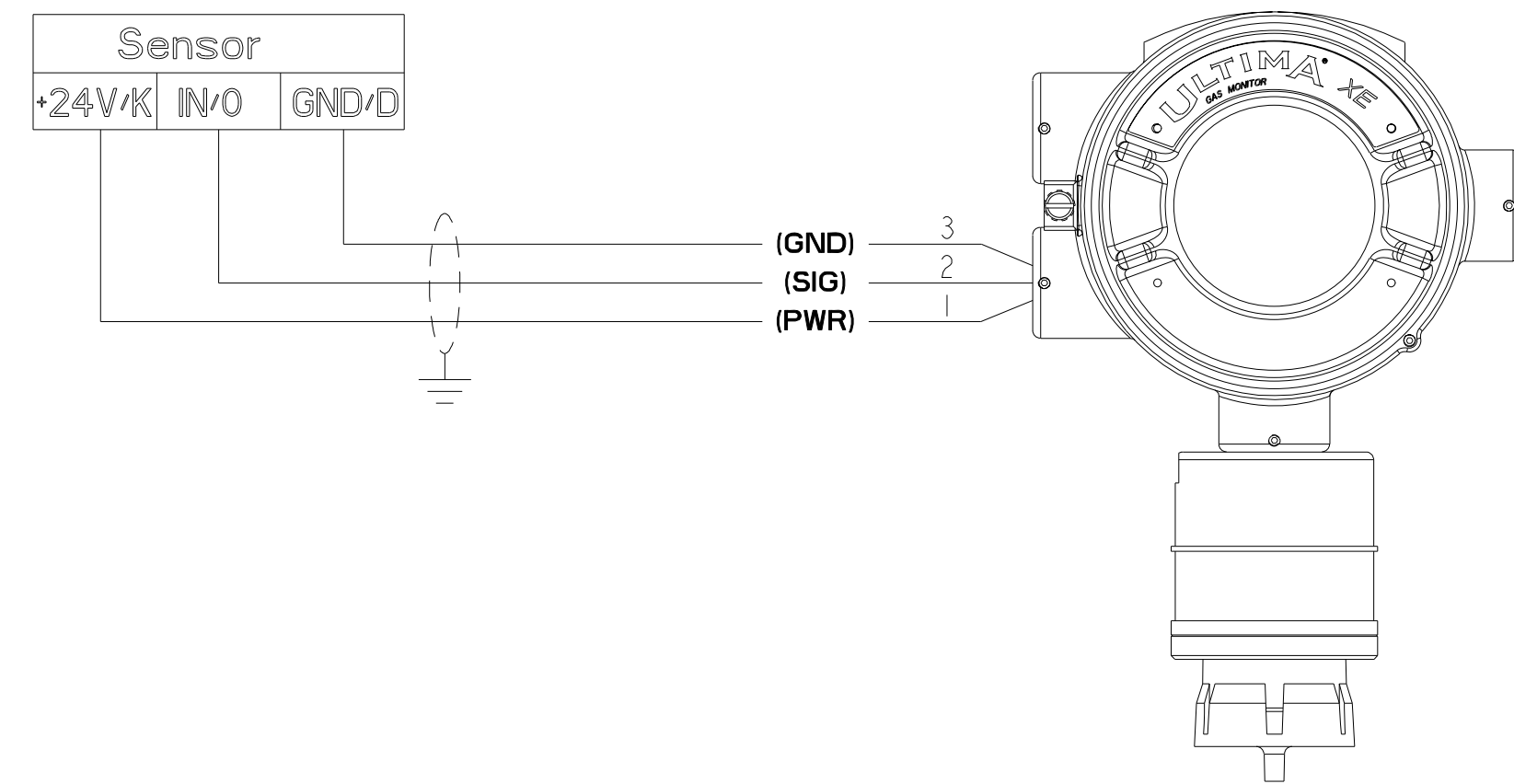
9. RELAYS ARE (SPDT) SINGLE POLE DOUBLE THROW.
 CONTACT RATING: 5A@240VAC RESISTIVE or 5A@30VDC RESISTIVE

(CONTINUED ON SHEET 4)

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	MSA STANDARD SHOP PRACTICES APPLY		JOB NO. 30009741 PH0703	APPROVAL AGENCY CODE: YES NTOSH ATTR. DOC.: .
	CODE SYMBOLS	DRAWN BY	DATE	
	CRITICAL Δ	GT	10-2-2008	
	MAJOR A Δ	CHECKED BY	PROJ. ENGR.	
	MAJOR B Δ	J. DiLEO	10-28-08	
	100% INSPECTION Δ	S. TURNER	10-28-08	
	TOLERANCES UNLESS OTHERWISE SPECIFIED	J. DANNHARDT	10-28-08	
	FRACTIONAL $\pm 1/64$	MANUFACTURING		
	2 PL DEC. ± 0.01	A. POLOCHAK	10-28-08	
	3 PL DEC. ± 0.005	CADD REF: SK3015-1021	SCALE: 1:000	
	ANGULAR $\pm 1 \text{ deg.}$	D.	SK3015-1021	
	SEE MSA STANDARD SHOP PRACTICES FOR DRILLED HOLE TOLERANCES		SHEET 3 OF 4	

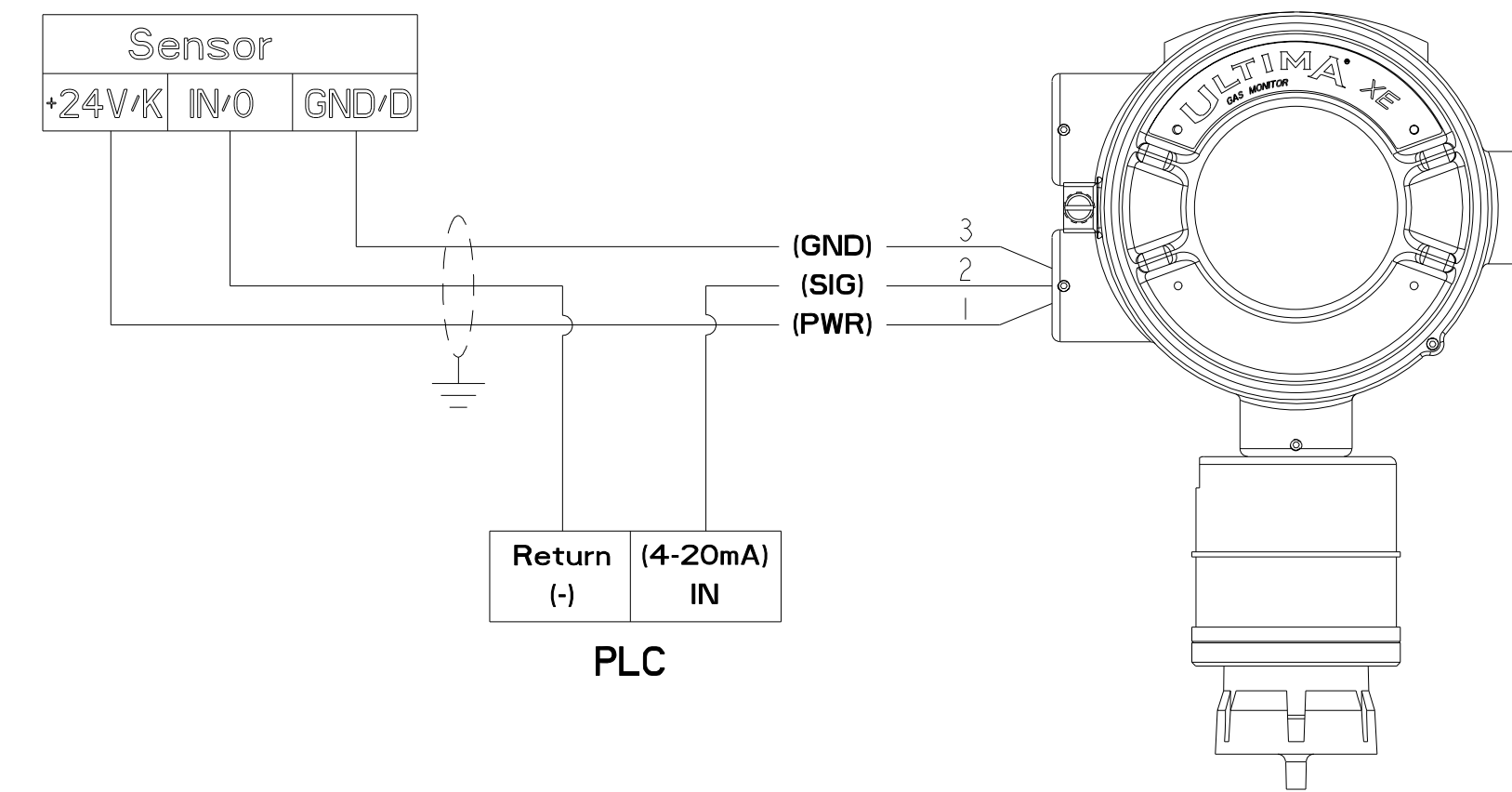
**INSTALLATION OUTLINE,
 GASGARD XL**

GASGARD XL MAIN P.C. CONNECTIONS



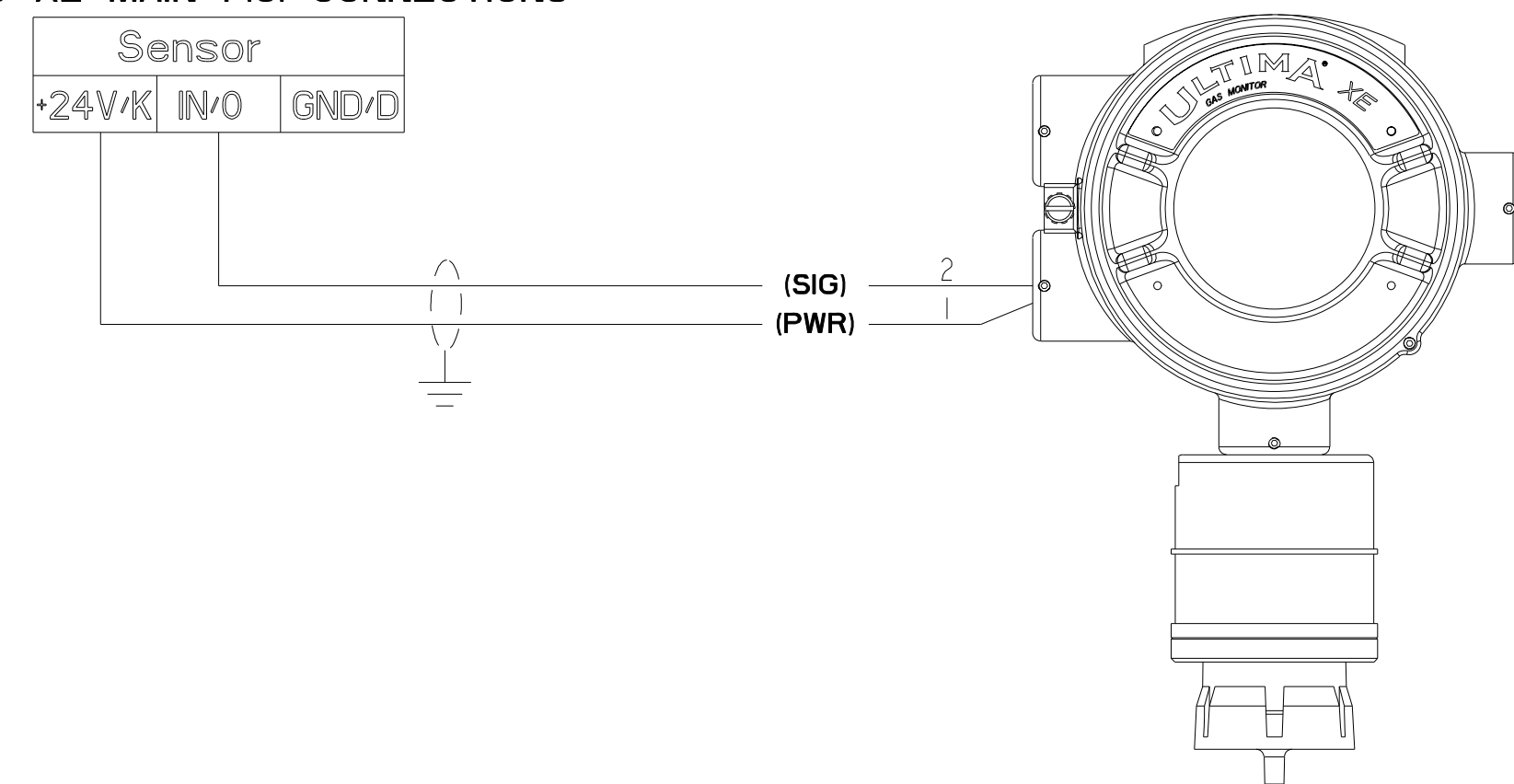
ULTIMA XE or XIR (3 WIRE)
 (SEE NOTE 10)

GASGARD XL MAIN P.C. CONNECTIONS



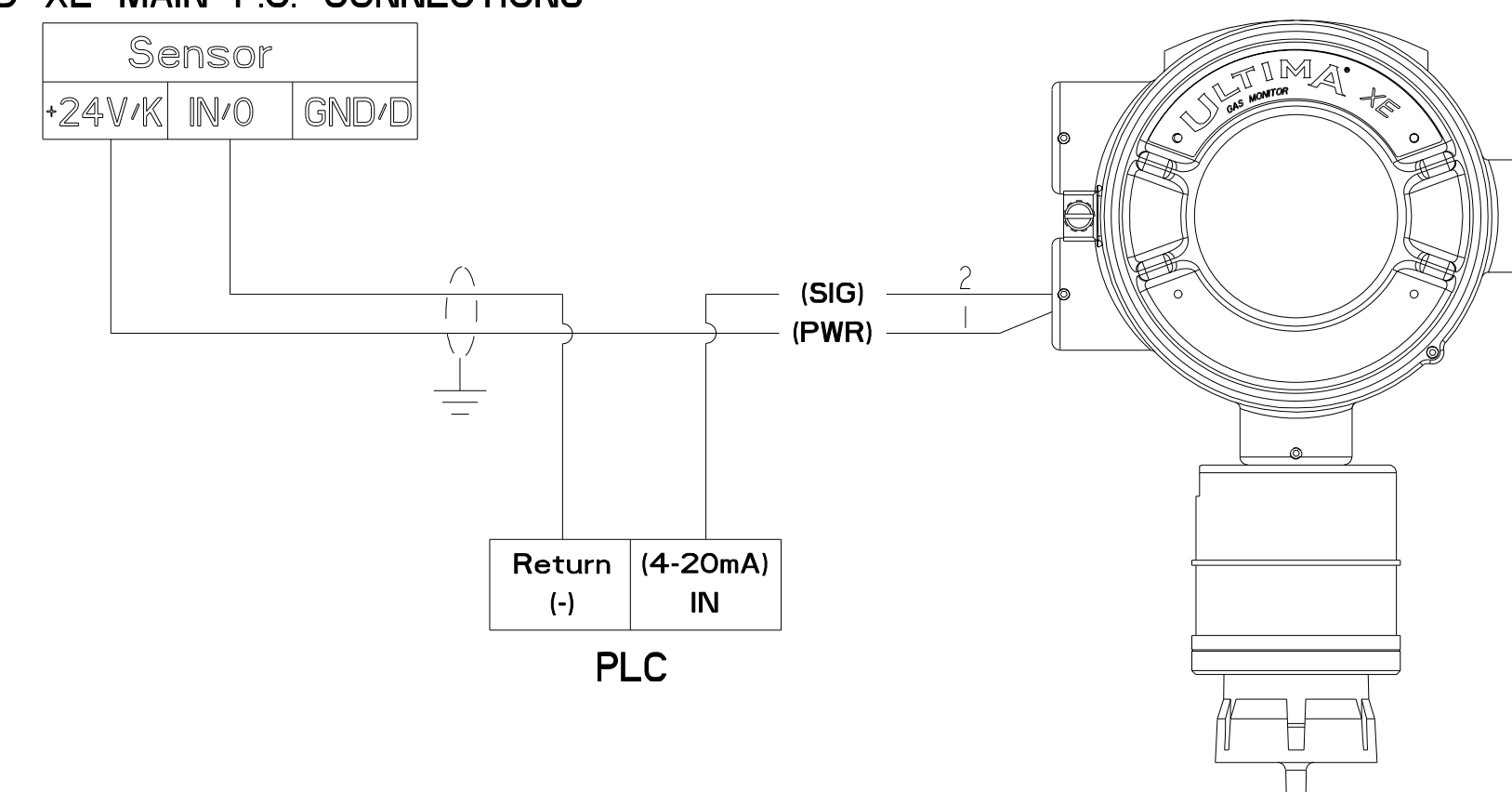
CONNECTIONS TO PLC (3 WIRE)
 (SEE NOTE 13)

GASGARD XL MAIN P.C. CONNECTIONS



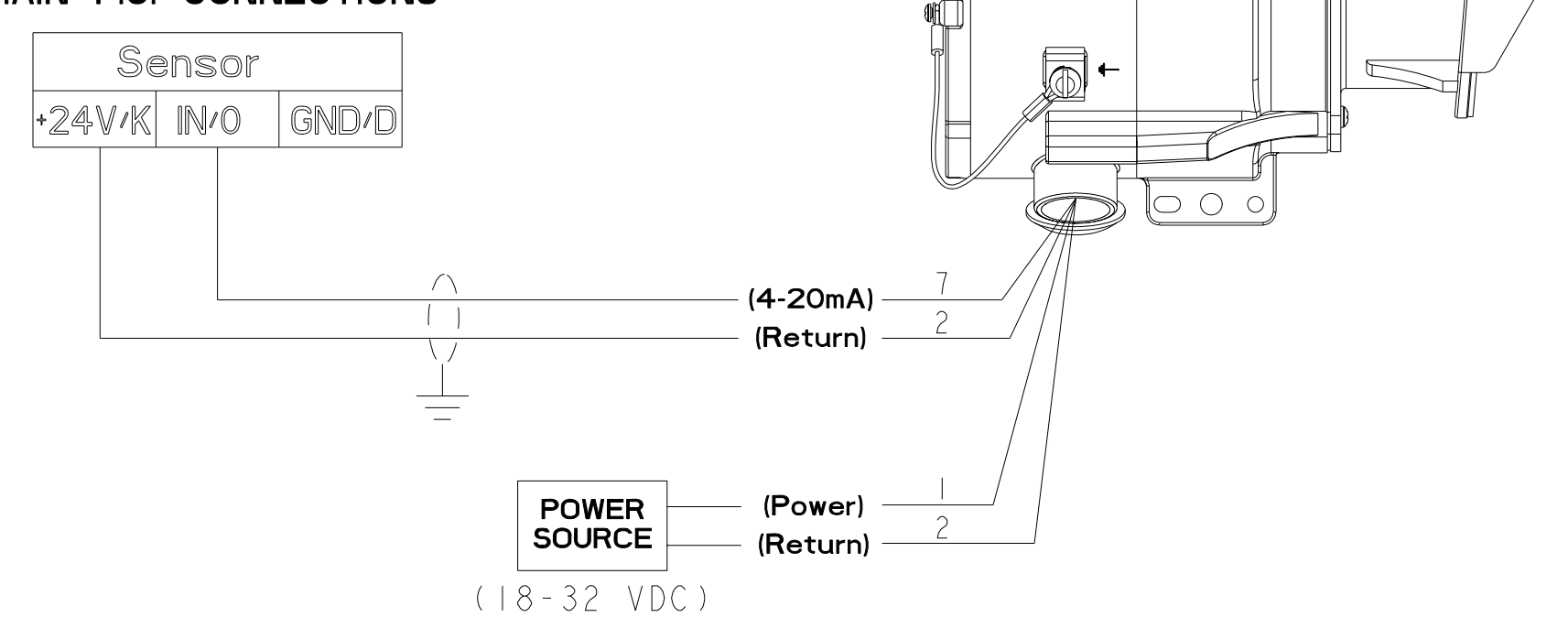
ULTIMA XE (2 WIRE)
 (SEE NOTE 10)

GASGARD XL MAIN P.C. CONNECTIONS



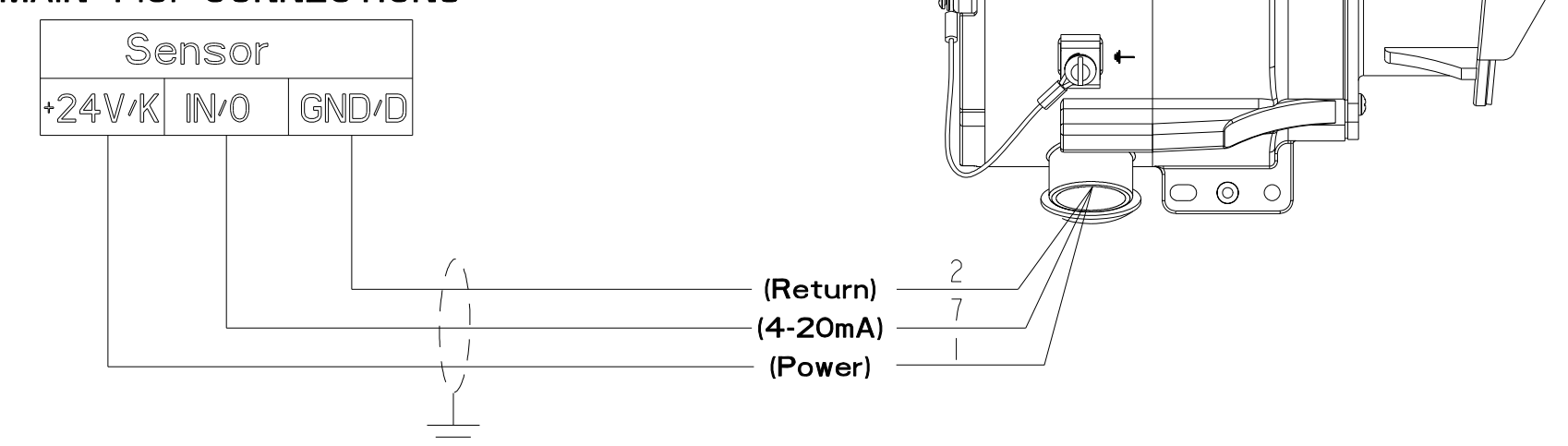
CONNECTIONS TO PLC (2 WIRE)
 (SEE NOTE 13)

GASGARD XL MAIN P.C. CONNECTIONS



SafEye
 (SEE NOTE 12)

GASGARD XL MAIN P.C. CONNECTIONS



FlameGard Ⓞ
 (SEE NOTE 11)

NOTE: (CONTINUED FROM SHEET 3)

- 10. SEE ULTIMA X MANUAL and INSTALLATION OUTLINE DRAWINGS FOR MORE DETAILS.
- 11. SEE FlameGard MANUAL FOR MORE DETAILS.
- 12. SEE SafEye MANUAL FOR MORE DETAILS.
- 13. MAX. LOOP RESISTANCE WITH PLC and GASGARD XL NOT TO EXCEED 600 Ohms. THE PLC 4-20mA INPUT MUST BE ISOLATED FROM GROUND.

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	CODE SYMBOLS	JOB NO. 30009741 PH0703	DATE 10-2-2008	INSTALLATION OUTLINE, GASGARD XL
	CRITICAL ⚠	DRAWN BY GT	CHECKED BY J. DiLEO	
	MAJOR A ⚠	PROJ. ENGR. S. TURNER	QUALITY ASSURANCE J. DANNHARDT	
	MAJOR B ⚠	MANUFACTURING A. POLOCHAK		
	100% INSPECTION ⚠			
	TOLERANCES UNLESS OTHERWISE SPECIFIED			
	FRACTIONAL ± 1/64			
	2 PL DEC. ± 0.01			
	3 PL DEC. ± 0.005			
	ANGULAR ± 1 deg.			
	SEE MSA STANDARD SHOP PRACTICES FOR DRILLED HOLE TOLERANCES			
		D.	SK3015-1021	SHEET 4 OF 4

**INSTALLATION OUTLINE,
GASGARD XL**

CADD REF: SK3015-1021 SCALE: 1:000

SK3015-1021