

QTY. REVISION CODE

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0 1 2 3 4 5 6 7 8

0 MATRIX REVISION LEVEL

1 ENCLOSURE TYPE:

- R - Rack Mount
- P - General Purpose Plastic
- MS - Nema 4X Metal, 5 card
- MD - Nema 4X Metal, 10 card
- XS - XP Single Board
- XD - XP Dual Board
- SS - Nema 4X Stainless Steel, 5 card
- SD - Nema 4X Stainless Steel, 10 card
- Z - No Enclosure (Replacement Modules Only)

2 No. OF 9020 SENSOR CHANNEL 2-WIRE BOARDS (Dual Channel) *

0-10 (2 Sensor Points per Channel) ie: 5 = 10 points

3 No. OF 9010 SENSOR CHANNEL 2-WIRE BOARDS (Single Channel) *

0 - 10

4 No. OF 9020 SENSOR CHANNEL 3-WIRE BOARDS FOR 3-WIRE SENSORS (Dual Channel)

0 - 10 (2 Sensor Points per Channel) ie 5 = 10 points

5 No. OF 9010 SENSOR CHANNEL 3-WIRE BOARDS FOR 3-WIRE SENSORS (Single Channel)

0 - 10

6 POWER SUPPLY VOLTAGE:

- 1 - 110 VAC
- 2 - 220 VAC
- 3 - 24VDC

7 TLV STEL AND TWA FUNCTIONS:

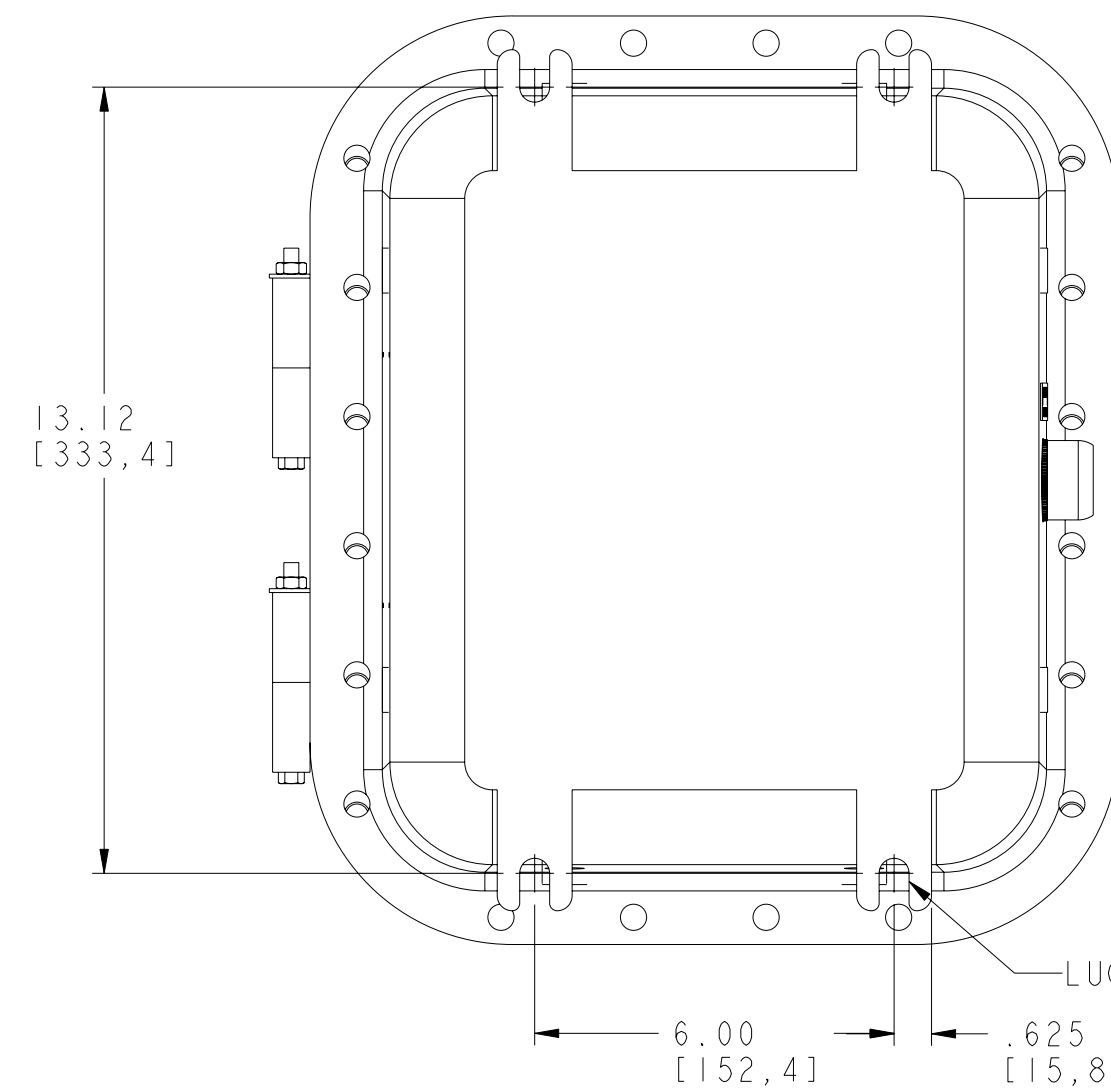
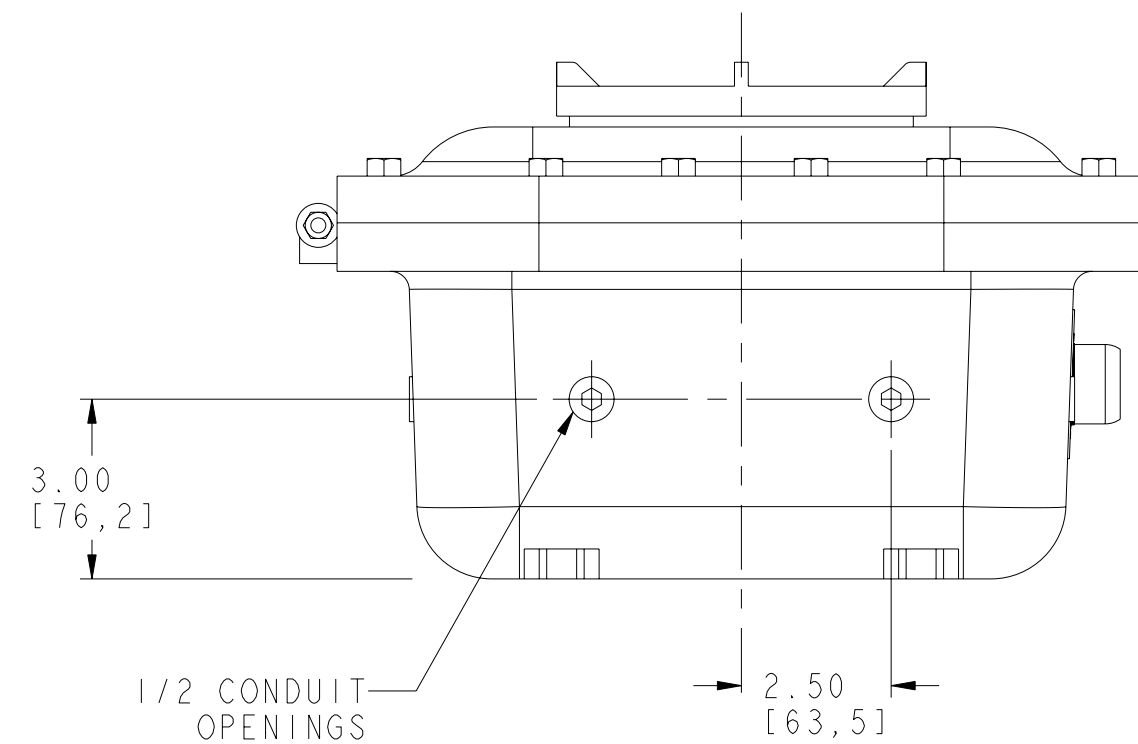
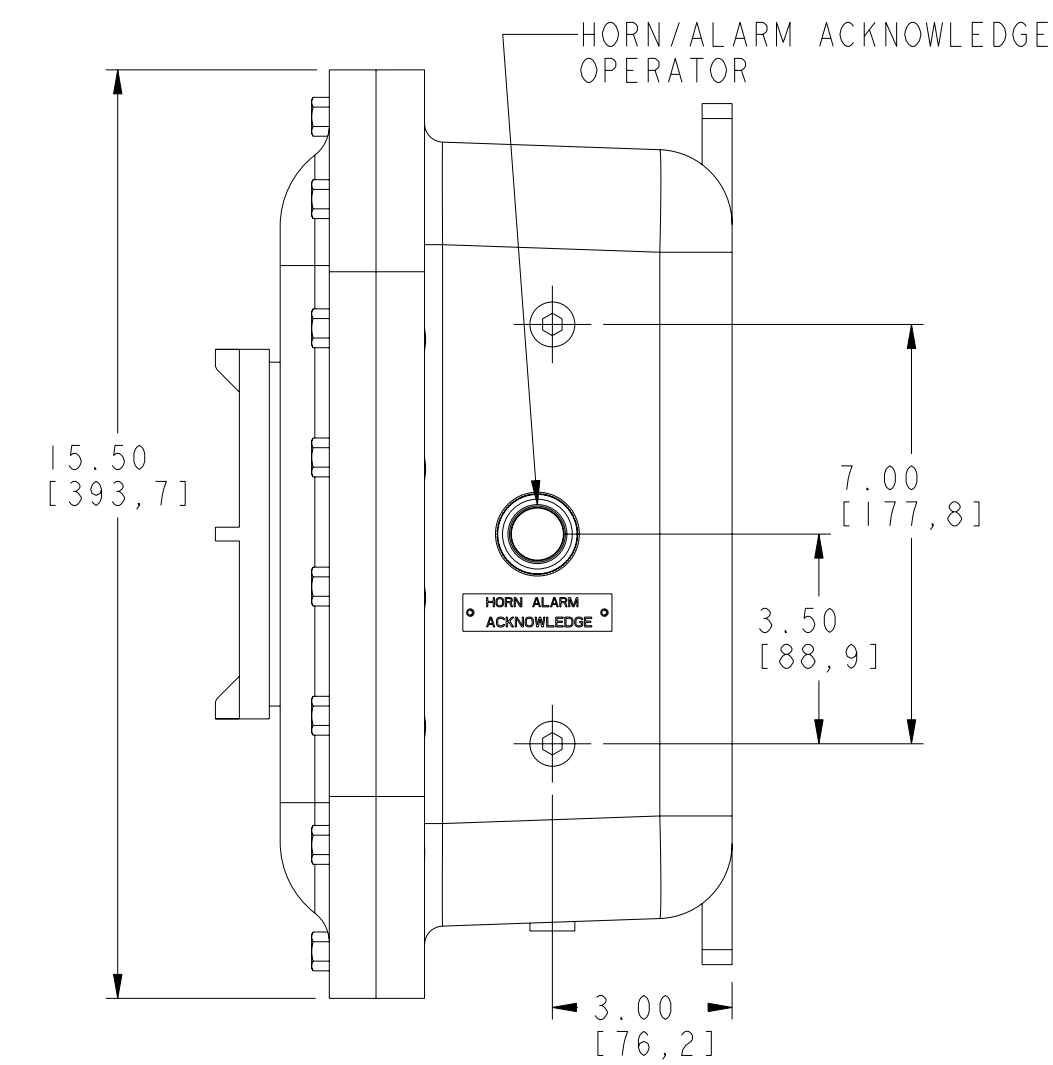
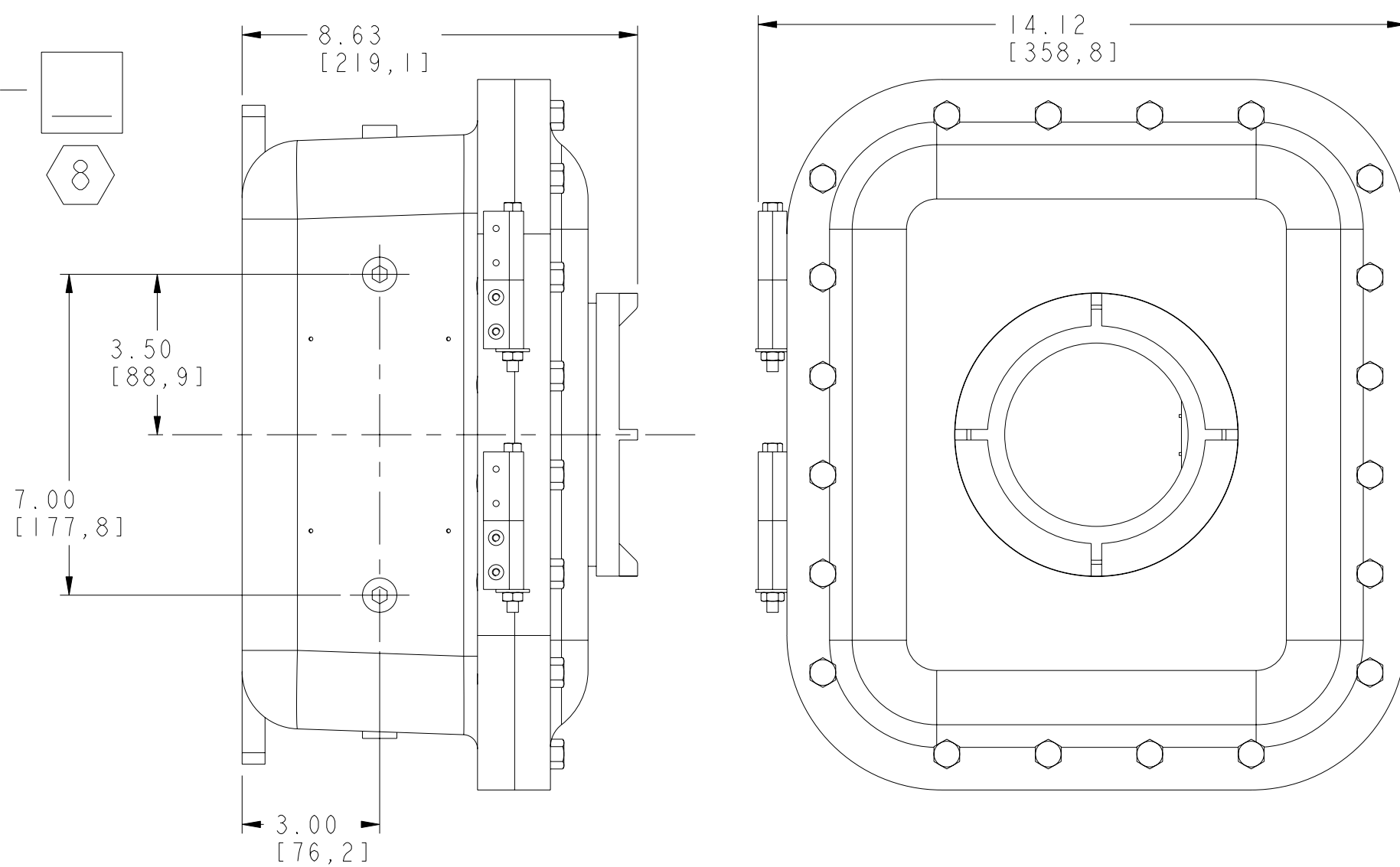
- 0 = NONE
- 1 = YES

8 CUSTOM:

C -

- * IF 1 = R, 2 & 3 & 4 & 5 ≤ 10
- * IF 1 = P, 2 & 3 & 4 & 5 ≤ 1
- * IF 1 = MS, 2 & 3 & 4 & 5 ≤ 5
- * IF 1 = MD, 2 & 3 & 4 & 5 ≤ 10
- * IF 1 = XS, 2 & 3 & 4 & 5 ≤ 1
- * IF 1 = XD, 2 & 3 & 4 & 5 ≤ 2
- * IF 1 = SS, 2 & 3 & 4 & 5 ≤ 5
- * IF 1 = SD, 2 & 3 & 4 & 5 ≤ 10

CUSTOMER _____
 P.O.# _____
 MSA# _____
 LOCATION _____
 TAG# _____
 TOTAL NO. OF UNITS _____



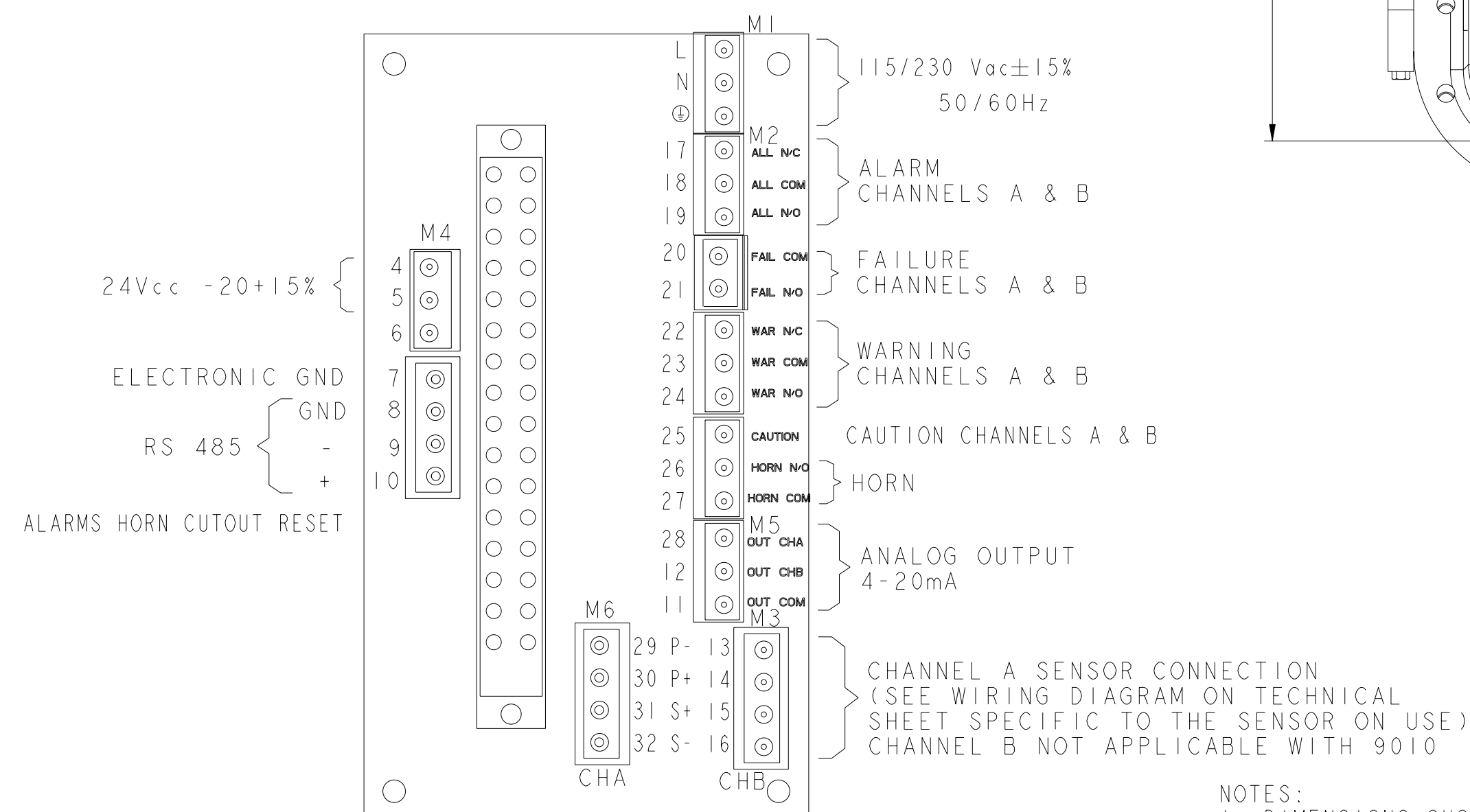
ULTIMA XE CABLE LENGTH AND WIRE SIZE (TOXIC GAS OR OXYGEN) SENSOR, 4-20 mA SIGNAL OUTPUT (TWO WIRE SENSOR)		
WIRE SIZE	MAXIMUM CABLE LENGTH IN FEET @ 24 VDC	MAXIMUM LOAD RESISTANCE
22 AWG	7000	600 Ohms

ULTIMA XE CABLE LENGTH AND WIRE SIZE (COMBUSTIBLE GAS) SENSOR, 4-20 mA SIGNAL OUTPUT (THREE WIRE SENSOR)		
WIRE SIZE	MAXIMUM CABLE LENGTH IN FEET @ 24 VDC	MAXIMUM LOAD RESISTANCE
22 AWG	1000	600 Ohms
18 AWG	2500	
16 AWG	4200	
12 AWG	10000	

ULTIMA XE CABLE LENGTH AND WIRE SIZE (POWER SUPPLY 24 VDC) (TOXIC GAS OR OXYGEN) SENSOR, 4-20 mA SIGNAL OUTPUT (THREE WIRE SENSOR)		
WIRE SIZE	MAXIMUM CABLE LENGTH IN FEET @ 24 VDC	MAXIMUM LOAD RESISTANCE
22 AWG	12000	600 Ohms

ULTIMA XE POWER CABLE DISTANCES WITH INTERNAL RELAYS (4-20 mA MODEL)				
SENSOR TYPE	POWER SUPPLY VOLTAGE	WIRE SIZE	MAXIMUM CABLE LENGTH (IN FEET)	MAXIMUM LOAD RESISTANCE (mA OUTPUT ONLY)
CATALYTIC COMBUSTIBLE	12 VDC	16 AWG	900	300 Ohms
CATALYTIC COMBUSTIBLE	24 VDC		3000	600 Ohms
TOXIC OR OXYGEN	12 VDC		2500	300 Ohms
TOXIC OR OXYGEN	24 VDC		8000	600 Ohms

ULTIMA XIR MAXIMUM CABLE LENGTH AND 4-20 mA SIGNAL LOAD		
POWER SUPPLY	24 VOLTS	
CONFIGURATION	NO RELAYS	RELAYS INSTALLED
18 AWG CABLE (6.6 OHMS/1000 FT.)	2000 FT.	1500 FT.
16 AWG CABLE (4.2 OHMS/1000 FT.)	3500 FT.	2500 FT.
14 AWG CABLE (2.6 OHMS/1000 FT.)	5000 FT.	4000 FT.
MAXIMUM LOAD ON 4-20 mA SIGNAL	600 OHMS	



TYPICAL ELECTRICAL CONNECTIONS

NOTES:
 1. DIMENSIONS SHOWN IN INCHES AND [MILLIMETERS].
 WEIGHT: APPROX. WEIGHT 52 LBS. (23.6 KG.)
 MATERIAL: ALUMINUM

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MSA STANDARD SHOP PRACTICES APPLY	JOB NO. 30006520PH0705	APPROVAL AGENCY CODE: NO NIOSH ATTR. DOC.:	
CRITICAL Δ	DRAWN BY DATE	INSTALLATION OUTLINE, XS, XP SINGLE BOARD, MODEL 9010/9020	
MAJOR A Δ (NO MARK)	GT 1-14-05		
MAJOR B Δ	CHECKED BY W. BARBISH 11-9-06		
100% INSPECTION Δ	PROJ. ENGR. W. BARBISH 11-9-06		
TOLERANCES UNLESS OTHERWISE SPECIFIED	QUALITY ASSURANCE J. DANNHARDT 11-29-06	CADD REF: SK3015-1003	SCALE: 0.312
FRACTIONAL ± 1/64	MANUFACTURING H. TRACHSEL 12-5-06		
2 PL DEC. ± 0.01			
3 PL DEC. ± 0.005			
ANGULAR ± 1 deg.			
SEE MSA STANDARD SHOP PRACTICES FOR DRILLED HOLE TOLERANCES	D.	SK3015-1003	SHEET 1 OF 1

REVISIONS	
1	7-21-2005 INITIAL RELEASE REVISED MATRIX CODE 1 ALL OPTIONS, ADDED OPTIONS SS & SD BJP WLB
2	8-18-2006 INITIAL RELEASE REMOVED "TYPICAL SENSOR CONFIGURATIONS" TABLE GJT WLB
3	8-28-2006 INITIAL RELEASE REVISED MATRIX CODE 1, OPTION P: General Purpose Plastic WAS Nema 4X Plastic GJT WLB
4	9-28-2006 INITIAL RELEASE A. REVISED MATRIX CODE 1, ADDED OPTION 2 B. REVISED MATRIX CODE 7, ADDED OPTIONS 1 & 2 WJE WLB
5	11-2-2006 INITIAL RELEASE REVISED IF STATEMENTS TO ADD OPTIONS SS & SD AND ADD MATRIX CODES 4 & 5 WJE WLB
DEC 05 2006	