

## RELAY SPECIFICATIONS

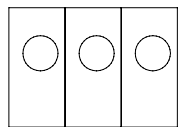
ALL DRY CONTACT RELAYS RATED AT 5 AMPS(RESISTIVE) AT 250 VAC OR 30 VDC

FAULT, CAUTION, WARNING, AND ALARM RELAYS HAVE FORM 'C' CONTACTS .  
CAUTION, WARNING, ALARM RELAYS ARE ENERGIZED UPON AN ALARM CONDITION.  
N/O, N/C REFER TO NON-ALARM(DE-ENERGIZED) STATE OF CONTACT.

FAULT RELAY IS ENERGIZED UNDER NORMAL OPERATING CONDITIONS.  
N/O, N/C REFER TO DE-ENERGIZED, POWER-OFF, OR FAULT CONDITION.

HORN RELAY HAS FORM 'A' CONTACTS (NORMALLY OPEN AND COMMON).

TYPICAL WIRING CONNECTION FOR  
FAULT, CAUTION, WARNING, ALARM.



N/O COM N/C  
N/O - NORMALLY OPEN  
COM - COMMON  
N/C - NORMALLY CLOSED

## POWER CONNECTIONS

AC-L = AC POWER LINE CONNECTION. DC+ = POSITIVE DC VOLTAGE TO MAIN PCB  
AC-N = AC POWER NEUTRAL CONNECTION. DC- = NEGATIVE DC VOLTAGE TO MAIN PCB  
AC-GND = AC POWER EARTH GROUND CONNECTION. BAT+, DC- = LEAD ACID BATTERY CONNECTIONS

AC INPUT VOLTAGE CAN BE 110 -240VAC, 50/60HZ. NO SWITCH SELECTION IS NECESSARY.  
AC POWER FEEDS A 40WATT POWER SUPPLY THAT PRODUCES DC POWER FOR DEVICE OPERATION.  
A POWER CORD OF AT LEAST 16AWG IS RECOMMENDED.

## SIGNAL OUTPUT WIRING

-----UNDER LINE POWER-----  
22AWG 9000 FEET 250 OHM MAX. LOAD  
22AWG 2500 FEET 500 OHM MAX. LOAD

-----UNDER BATTERY POWER-----  
22AWG 2750 FEET 250 OHM MAX. LOAD  
18AWG 7250 FEET 250 OHM MAX. LOAD

○ 4-20mA SOURCING OUTPUT  
○ SIGNAL RETURN(REFERENCE)

SEE MANUAL FOR ISOLATED OUTPUT DETAILS

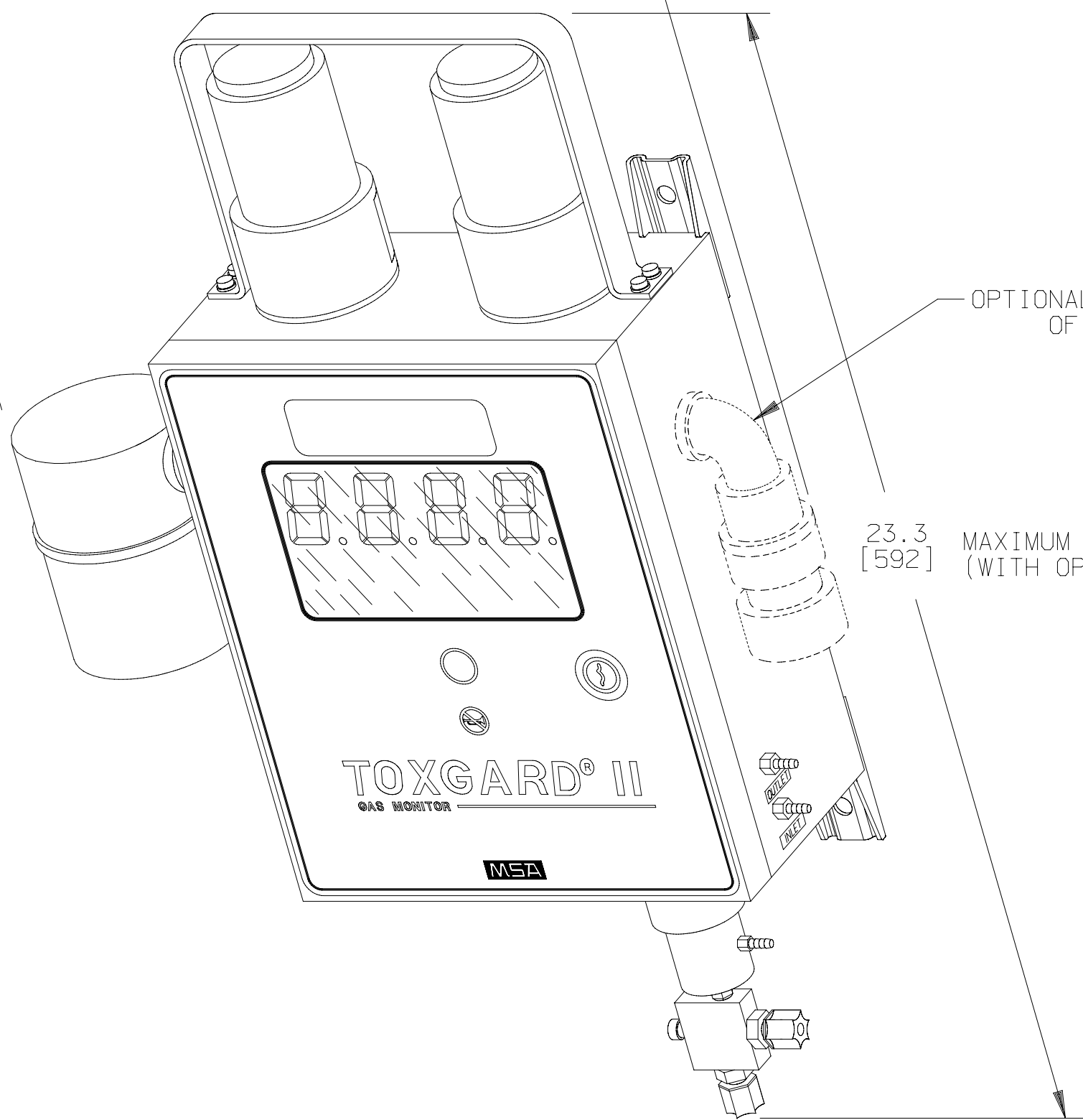
## GENERAL WIRING

ALL AC WIRING SHOULD BE LOCATED TO THE LEFT SIDE OF THE ENCLOSURE TO MINIMIZE THE INTRODUCTION OF NOISE TO THE INSTRUMENT. THIS INCLUDES INPUT POWER, RELAY CONNECTIONS.

ALL DC AND LOW POWER WIRING SHOULD BE KEPT AWAY FROM THE AC WIRING. THIS INCLUDES THE CURRENT OUTPUT SIGNAL WHICH SHOULD BE ROUTED OUT THE OPENING OF THE UNUSED SENSOR MOUNTING LOCATION ON EITHER THE RIGHT SIDE OR THE BOTTOM OF THE ENCLOSURE.

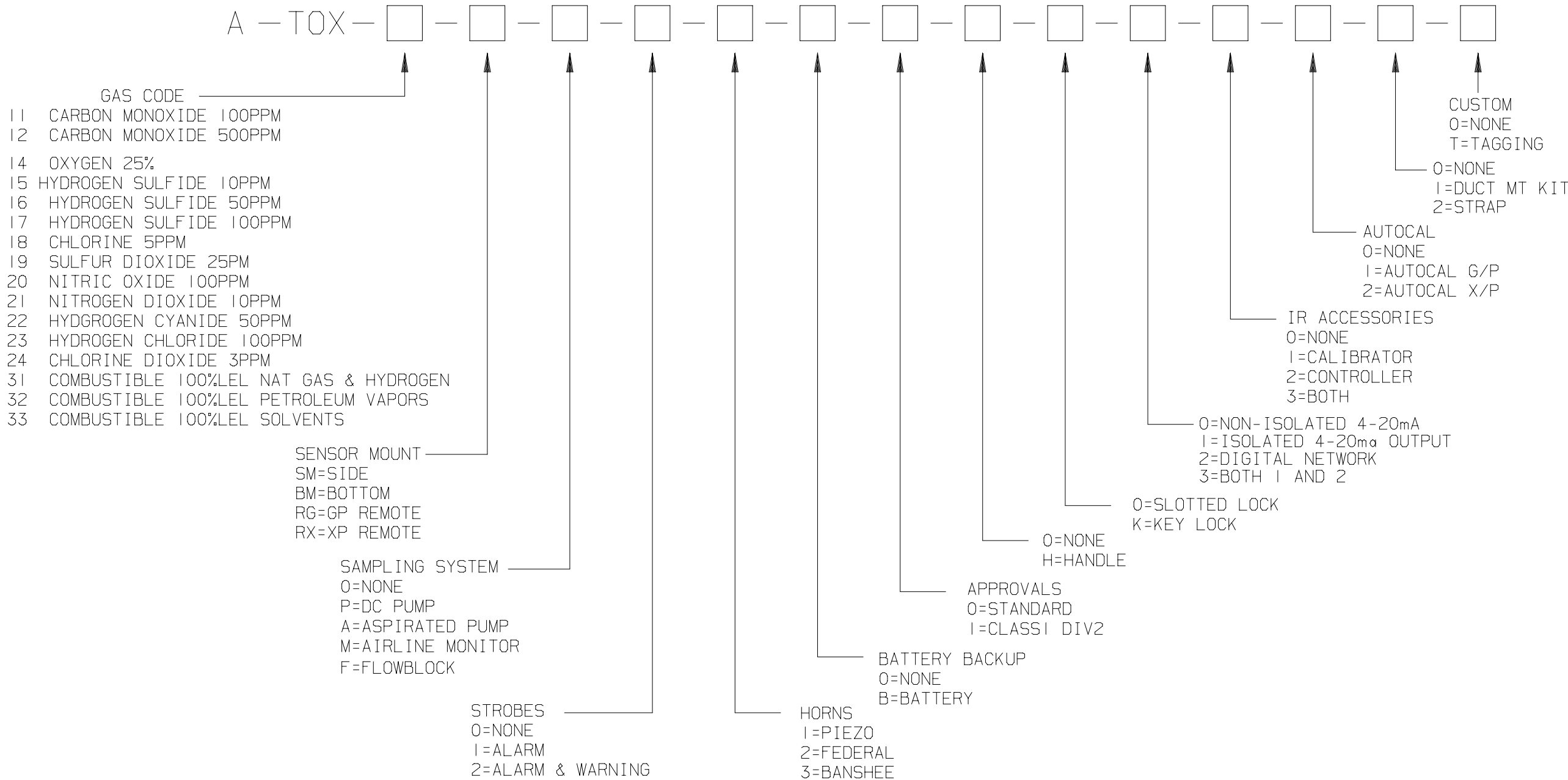
MAXIMUM WIDTH (WITH OPTIONS)

16  
[406]



OPTIONAL SIDE MOUNT  
OF SENSOR

23.3  
[592] MAXIMUM HEIGHT  
(WITH OPTIONS)



GAS CODE  
11 CARBON MONOXIDE 100PPM  
12 CARBON MONOXIDE 500PPM  
14 OXYGEN 25%  
15 HYDROGEN SULFIDE 10PPM  
16 HYDROGEN SULFIDE 50PPM  
17 HYDROGEN SULFIDE 100PPM  
18 CHLORINE 5PPM  
19 SULFUR DIOXIDE 25PPM  
20 NITRIC OXIDE 100PPM  
21 NITROGEN DIOXIDE 10PPM  
22 HYDROGEN CYANIDE 50PPM  
23 HYDROGEN CHLORIDE 100PPM  
24 CHLORINE DIOXIDE 3PPM  
31 COMBUSTIBLE 100%LEL NAT GAS & HYDROGEN  
32 COMBUSTIBLE 100%LEL PETROLEUM VAPORS  
33 COMBUSTIBLE 100%LEL SOLVENTS

SENSOR MOUNT  
SM=SIDE  
BM=BOTTOM  
RG=GP REMOTE  
RX=XP REMOTE

SAMPLING SYSTEM  
O=NONE  
P=DC PUMP  
A=ASPIRATED PUMP  
M=AIRLINE MONITOR  
F=FLOWBLOCK

STROBES  
O=NONE  
1=ALARM  
2=ALARM & WARNING

HORNS  
1=PIEZO  
2=FEDERAL  
3=BANSHEE

BATTERY BACKUP  
O=NONE  
B=BATTERY

APPROVALS  
O=STANDARD  
1=CLASS1 DIV2

O=NONE  
H=HANDLE

O=NON-ISOLATED 4-20mA  
1=ISOLATED 4-20mA OUTPUT  
2=DIGITAL NETWORK  
3=BOTH 1 AND 2

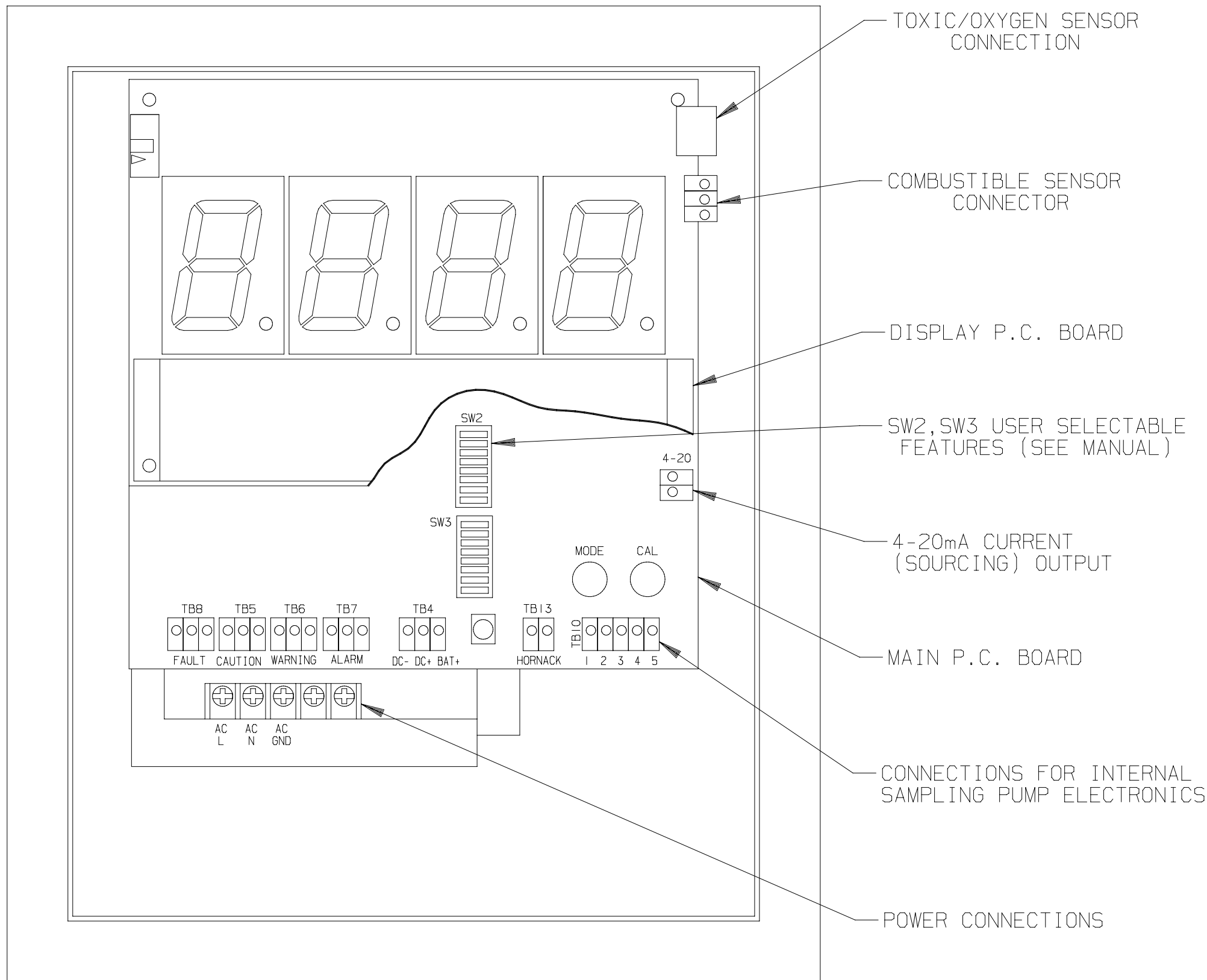
O=SLOTTED LOCK  
K=KEY LOCK

IR ACCESSORIES  
O=NONE  
1=CALIBRATOR  
2=CONTROLLER  
3=BOTH

AUTOCAL  
O=NONE  
1=AUTOCAL G/P  
2=AUTOCAL X/P

CUSTOM  
O=NONE  
T=TAGGING  
O=NONE  
1=DUCT MT KIT  
2=STRAP

REVISIONS  
FEB 06 1998  
1 2-23-99  
A. Ø.625 WAS Ø.40  
B. B.12 WAS B.6  
C.14.00 WAS 13.5  
E.12.00 WAS 11.5  
A. Ø.625 WAS Ø.40  
ECO-50000013299B  
KLN WLB  
MAR 25 1999  
2 4-5-2006  
A. REVISED LABELING  
ON FAULT RELAY FROM  
TBB TO TBB  
B. REVISED DRAWING  
TITLE  
ECO-70000000312A  
B.P. RR  
APR 6 2006



INSIDE OF TOXGARD II  
(SHOWN WITH DOOR AND MOUNTING LUGS REMOVED)

NOTE:

1. DIMENSIONS IN INCHES(MILLIMETERS).
2. FOR MORE INFORMATION REFER TO MANUAL #711266
3. ENCLOSURE 14 GAUGE STEEL, DESIGNED FOR NEMA 4X.
4. WEIGHT (NO OPTIONS) 13 LBS. (5.9KG).

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INTERCHANGEABLE-PART		WINE SAFETY APPLIANCES COMPANY PITTSBURGH, PA.		
AUTHORIZED COUNTRY		MSA STANDARD SHOP PRACTICES APPLY		
AUER	M. EAST	CODE SYMBOLS CRITICAL MAJOR A MINOR B	DRAWN BY GJT	DATE 1-13-98
AUSTRALIA	MSA EUROPE	TOLERANCES UNLESS OTHERWISE SPECIFIED	CHECKED BY C.STARTA	2-2-98
BRAZIL	NETHERLANDS	FRACTIONAL ± 1/64"	PROJECT ENGINEER C.STARTA	2-2-98
CANADA	PERU	2 PL.DEC. ± .01	QUALITY ASSURANCE K.McKEIGUE	2-4-98
CHILE	S.E. ASIA	3 PL.DEC. ± .005	MANUFACTURING G.SEIGH	2-4-98
CHINA	SPAIN	ANGULAR ± 1/2°		
FRANCE	SWEDEN	SEE MSA STANDARD SHOP PRACTICES FOR DRILLED HOLE TOLERANCES.		
INDIA	MSA BRITAIN			
ITALY				
JAPAN				
MEXICO				

COLOR	CODE	COLOR	CODE
BLACK = K	GREEN = G	BLACK = K	GREEN = G
BROWN = N	BLUE = B	BROWN = N	BLUE = B
RED = R	VIOLET = V	RED = R	VIOLET = V
ORANGE = O	GRAY = A	ORANGE = O	GRAY = A
YELLOW = Y	WHITE = W	YELLOW = Y	WHITE = W
PINK = P	TAN = T	PINK = P	TAN = T