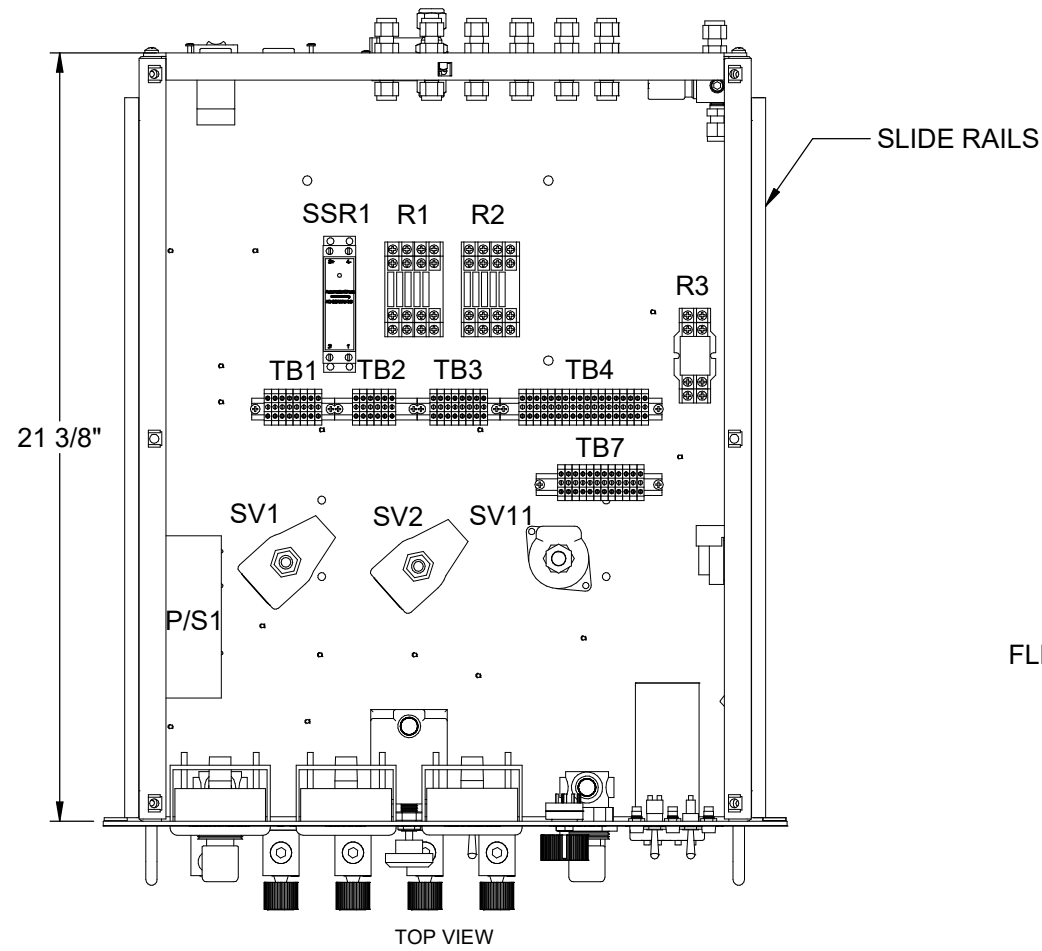


REF. DWG. M1271 P/N 5026-0201 FOR SINGLE FRONT PANEL  
 REF. DWG. M1271 P/N 5026-0209 FOR DUAL FRONT PANEL  
 REF. DWG. V0397 P/N 5001-0322 FOR OVERLAY.  
 REF. DWG. V0431 P/N 5006-1008 FOR REAR PANEL.



**728DCD-1S-6C-FLB-T/C K-T/C K-BBM(24)**

MODEL

NUMBER OF SAMPLES

- 1S = 1 SAMPLE + BYPASS
- 2S = 2 SAMPLE + BYPASS
- 3S = 3 SAMPLE + BYPASS
- 4S = 4 SAMPLE + BYPASS

NUMBER OF CAL GASES

- 2C = 2 CAL GASES
- 3C = 3 CAL GASES
- 4C = 4 CAL GASES
- 5C = 5 CAL GASES
- 6C = 6 CAL GASES

FAST LOOP CONTROL

- FLB = REGULATOR & GAUGE FOR FAST LOOP
- N = NO FAST LOOP CONTROL

BLOWBACK CONTROL

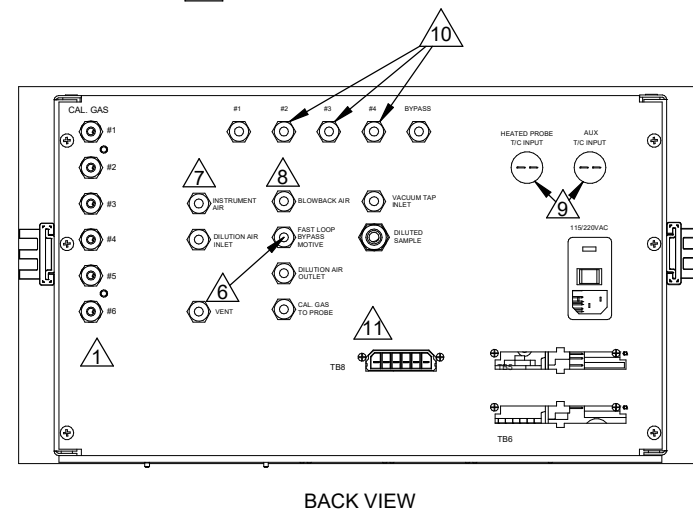
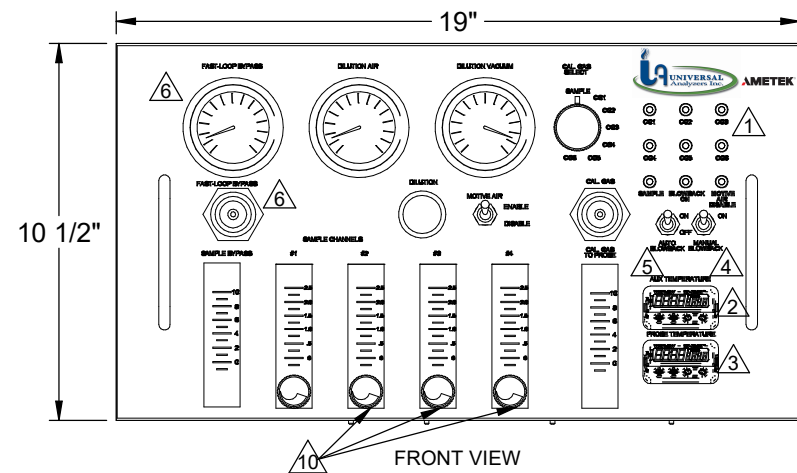
- BBT(115) = BLOWBACK TIMER CARD (115VAC)
- BBT(230) = BLOWBACK TIMER CARD (230VAC)
- BBM(24) = MANUAL BLOWBACK (24VAC)
- BBM(115) = MANUAL BLOWBACK (115VAC)
- BBM(230) = MANUAL BLOWBACK (230VAC)
- BBL = BLOWBACK BULKHEAD
- N = NO BLOWBACK PROVISIONS

AUX CONTROL

- T/C K = DIN CONTROLLER W/TYPE "K" INPUT
- T/C J = DIN CONTROLLER W/TYPE "J" INPUT
- PT100 = DIN CONTROLLER W/TYPE "PT100" INPUT
- N = NO AUX. CONTROL

HEATED PROBE FILTER CONTROL

- T/C K = DIN CONTROLLER W/TYPE "K" INPUT
- N = NO PROBE HEATER CONTROL

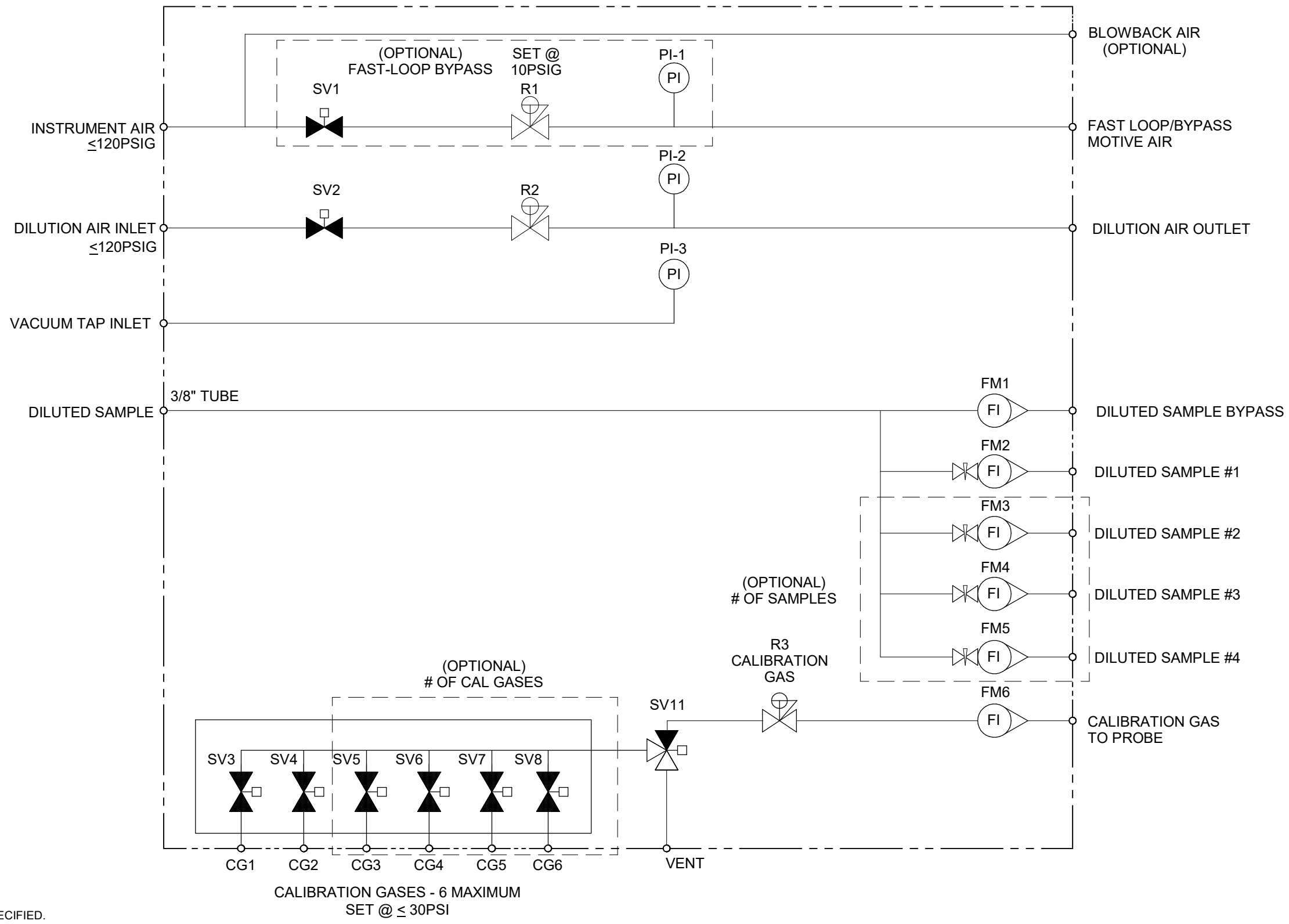


- 1 OPTIONAL NUMBER OF CAL GASES.
- 2 OPTIONAL HEATED PROBE FILTER CONTROL.
- 3 OPTIONAL AUX. CONTROL. INCLUDE IF T/C "K", T/C "J" OR PT100.
- 4 OPTIONAL MANUAL BLOWBACK CONTROL.
- 5 OPTIONAL AUTO BLOWBACK CONTROL.
- 6 OPTIONAL FAST-LOOP BYPASS.
- 7 OPTIONAL FAST-LOOP BYPASS, BLOWBACK CONTROL, BLOWBACK MANUAL OR BLOWBACK LINE.
- 8 OPTIONAL BLOWBACK CONTROL, BLOWBACK MANUAL OR BLOWBACK LINE.
- 9 OPTIONAL THERMOCOUPLE TYPE "K" OR "J".
- 10 OPTIONAL NUMBER OF DILUTED SAMPLES.
- 11 OPTIONAL AUX. TEMP CONTROL.

NOTES:

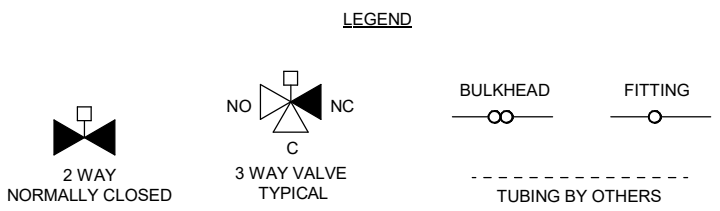
- 1). SEE SHEET 2 FOR P&ID.
- 2). SEE SHEETS 3 THRU 7 FOR WIRING SCHEMATICS.

5200 Convair Drive Carson City, NV 89706 PH(775)883-2500 FAX (775)883-6388		L	12/10/19	UPDATED TO MAX 6 CAL GASES	CS	DW
		REV	DATE	DESCRIPTION	DWN APVD	
		REVISIONS				
DILUTION CONTROLLER DRAWER		DATE	SCALE	SIZE	SHEET	
		01/18/2007	NONE	D	1 OF 7	
PART NO.	FOR	DRAWN BY	ECO#	DRAWING NO.		
NOT ISSUED	728 DCD	R. Wells	3305	P1144		
		APVD BY				
		G. Evans				



NOTES:  
 1). ALL CONNECTIONS ARE 1/4" TUBE UNLESS OTHERWISE SPECIFIED.

Item	Qty	Description	UAI Part No.
FM1, 6	2	Flowmeter W/ Out Needle Valve 0-10 l/m	4965-0020
FM2 - 5	4	Flowmeter W/Needle Valve 0-2.5 l/m	4965-0018
PI-1	1	Gauge - Pressure 0-30psig	3019-0019
PI-2	1	Gauge - Pressure 0-100psig	3019-0007
PI-3	1	Gauge - Vacuum 0-30"Hg	3019-0006
R2	1	Regulator - 0-100psig	8200-0020
R1, 3	2	Regulator - 0-30psig	8200-0019
SV1, 2	2	Valve - Solenoid 24Vdc 2 Way - Normally Closed	4955-0010
SV3 - 8	6	Valve - Solenoid 24Vdc 2 Way	4955-0247
SV11	1	Valve - Solenoid 24Vdc 3 Way	4955-0062

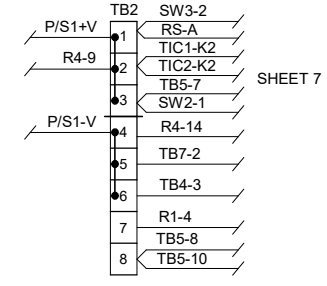
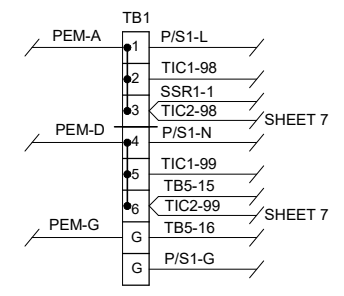
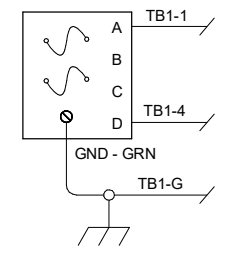


5200 Convair Drive Carson City, NV 89706 PH(775)883-2500 FAX (775)883-6388

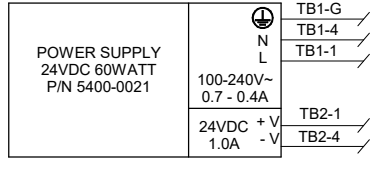
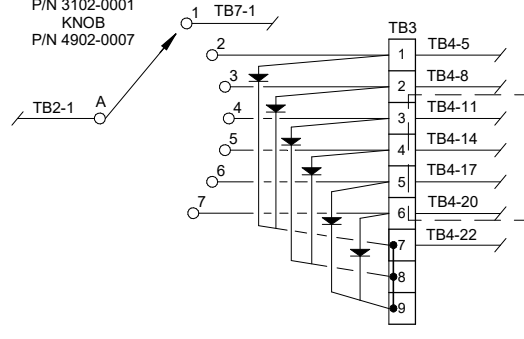
**UNIVERSAL** Analyzers Inc. **AMETEK**

L	12/10/19	UPDATED TO MAX 6 CAL GASES	CS	DW
REV	DATE	DESCRIPTION	DWN	APVD
REVISIONS				
DATE		SCALE	SIZE	SHEET
01/18/2007		NONE	D	2 OF 7
PART NO.	FOR	DRAWN BY	ECO#	DRAWING NO.
NOT ISSUED	728 DCD	R. Wells	3305	P1144
		APVD BY		
		G. Evans		

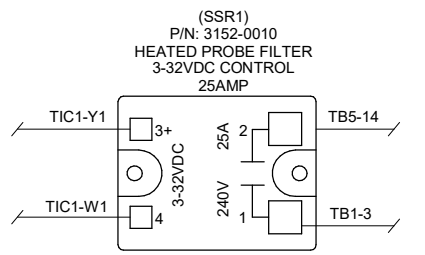
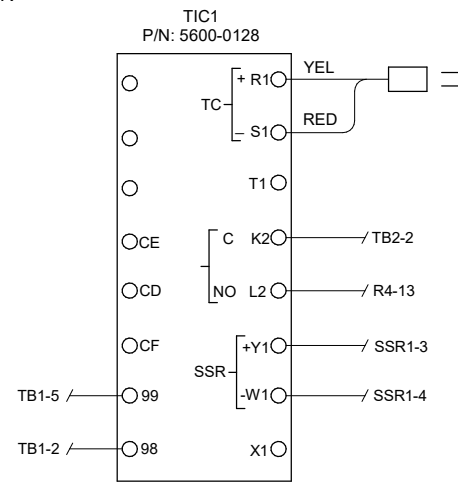
PEM POWER INPUT  
120/230 VAC 100 WATTS  
(2) 6-AMP S.B. FUSE  
FUSE P/N: 3010-0005



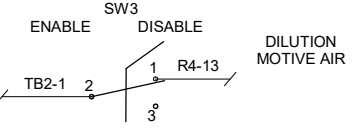
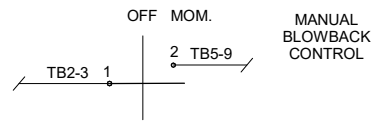
ROTARY SWITCH  
RS  
12 POSITION  
P/N 3102-0001  
KNOB  
P/N 4902-0007



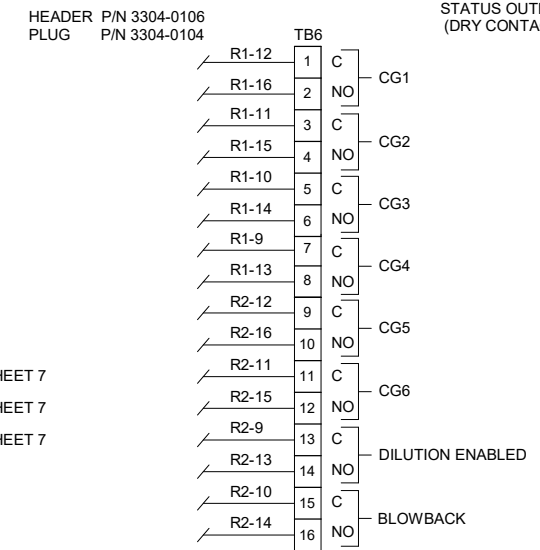
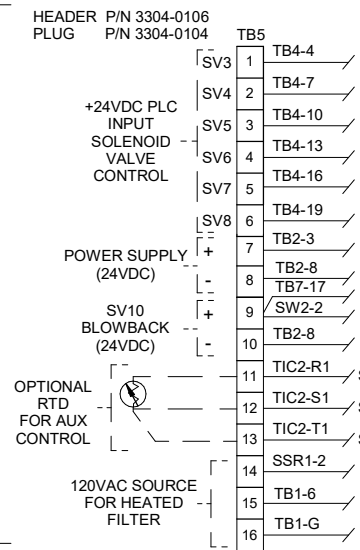
(OPTIONAL)  
HEATED FILTER  
CONTROL



MANUAL  
BLOWBACK  
SW2

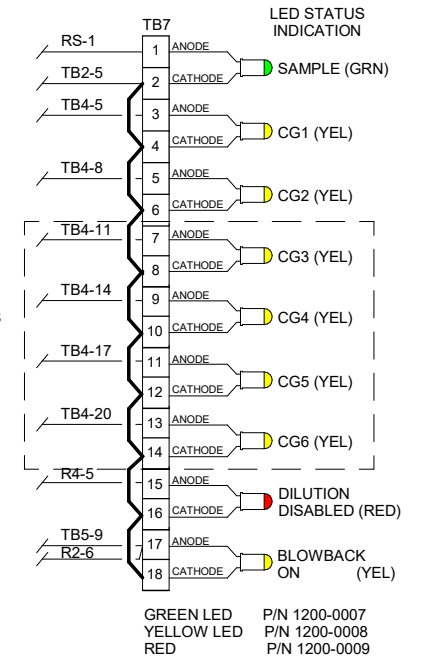


CUSTOMER  
CONNECTIONS



STATUS OUTPUTS  
(DRY CONTACTS)

(OPTIONAL)  
# OF CAL GASES

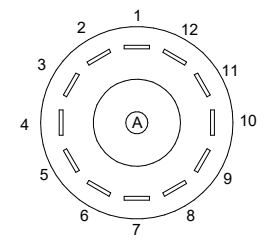
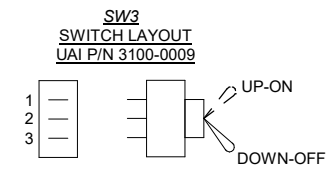
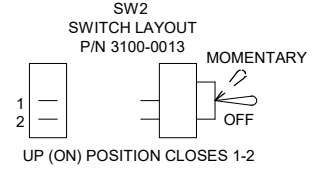


GREEN LED P/N 1200-0007  
YELLOW LED P/N 1200-0008  
RED P/N 1200-0009

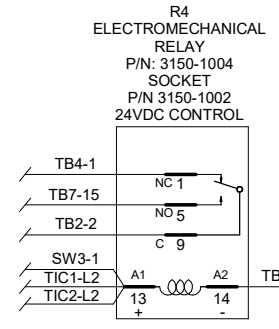
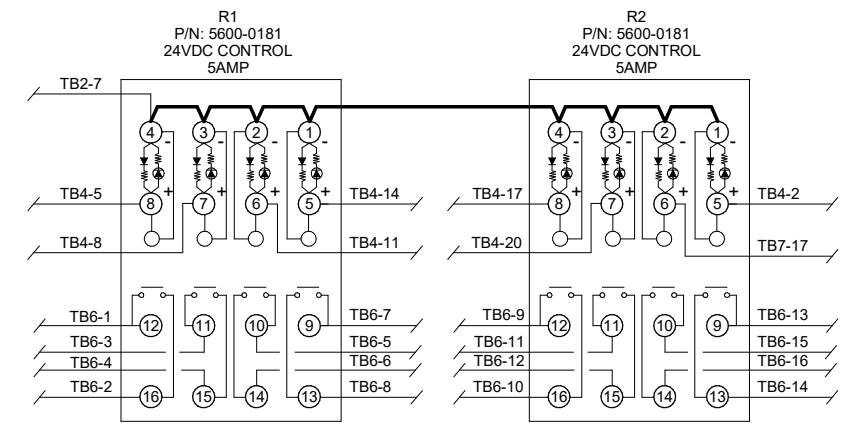
**CONDUIT AND WIRING NOTES**

- ELECTRICAL CLASSIFICATION : INSIDE - GENERAL PURPOSE SYSTEM IS CONFIGURED AT THE FACTORY FOR REQUIRED VOLTAGE. CONTACT FACTORY FOR VOLTAGE CHANGE REQUIREMENTS.
- AC WIRING SHALL BE INDIVIDUAL CONDUCTORS OF STRANDED TINNED COPPER WITH 300V, TYPE TFE INSULATION. MINIMUM WIRE SIZE SHALL BE 18 AWG UNLESS OTHERWISE SPECIFIED. COLOR CODE SHALL BE AS FOLLOWS:  
115VAC/230VAC  
HOT - BLACK  
NEUTRAL - WHITE
- CHASSIS GROUND MINIMUM WIRE SIZE IS 14AWG GREEN / YELLOW WIRE.
- DC WIRING SHALL BE INDIVIDUAL CONDUCTORS OF STRANDED TINNED COPPER WITH 300V, TYPE TFE INSULATION. MINIMUM WIRE SIZE SHALL BE 22 AWG UNLESS OTHERWISE SPECIFIED. COLOR CODE SHALL BE AS FOLLOWS:  
115VAC/230VAC  
+V - RED  
0V - BLUE

-----  
FIELD TO WIRE

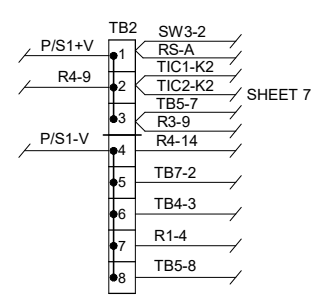
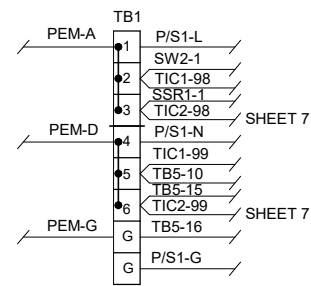
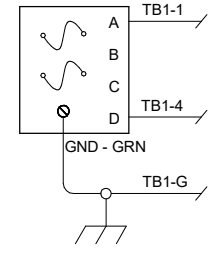


ROTARY SWITCH  
12 POSITION  
PIN CONFIGURATION  
(REAR VIEW)  
TYPICAL  
P/N 3102-0001  
KNOB P/N 4902-0007

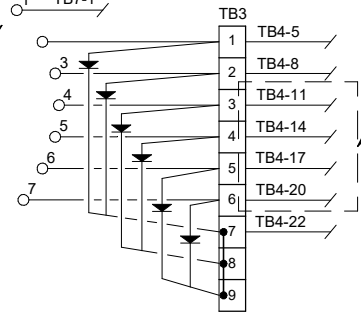


5200 Convoir Drive Carson City, NV 89706 PH(775)883-2500 FAX (775)883-6388		L	12/10/19	UPDATED TO MAX 6 CAL GASES	CS	DW
UNIVERSAL ANALYZERS INC. AMETEK		REV	DATE	DESCRIPTION	DWN	APVD
24VDC MANUAL BLOWBACK BBM(24) SCHEMATIC						
PART NO.		FOR		DATE	SCALE	SIZE
NOT ISSUED		728 DCD		01/18/2007	NONE	D
DRAWN BY		R. Wells		ECO#		SHEET 3 OF 7
APVD BY		G. Evans		3305		
				DRAWING NO.		P1144

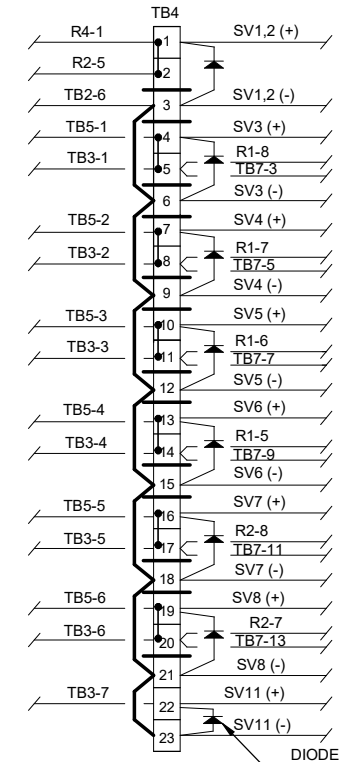
PEM POWER INPUT  
120/230 VAC 100 WATTS  
(2) 6-AMP S.B. FUSE  
FUSE P/N: 3010-0005



ROTARY SWITCH  
RS  
12 POSITION  
P/N 3102-0001  
KNOB  
P/N 4902-0007



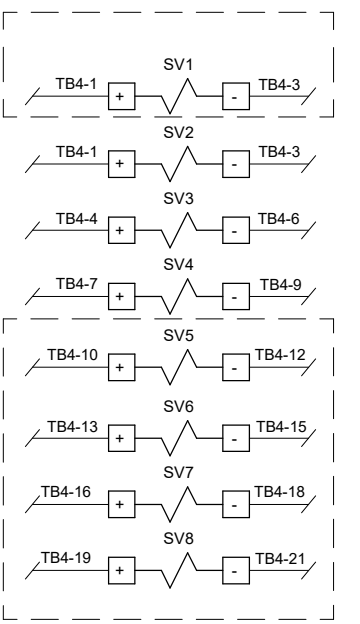
(OPTIONAL)  
# OF CAL GASES



DIODE RECTIFIERS  
#1N4004  
P/N 1000-0009  
TYP

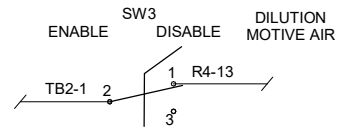
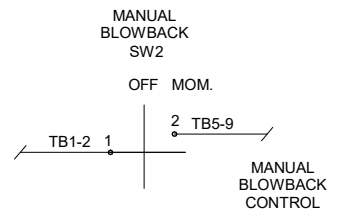
STATUS OUTPUTS  
(DRY CONTACTS)

(OPTIONAL)  
FAST-LOOP BYPASS

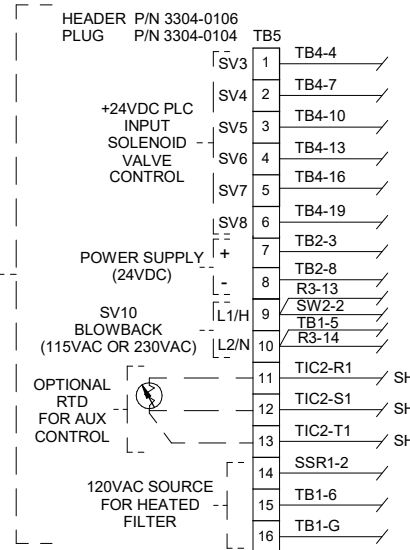
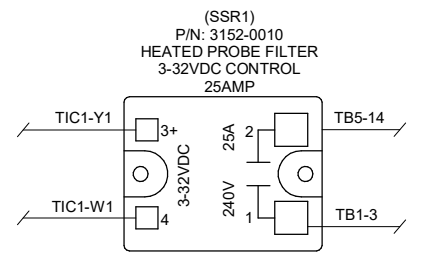
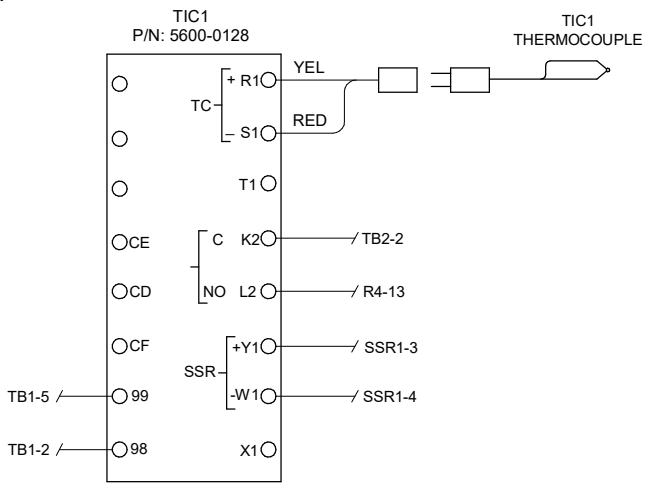


(OPTIONAL)  
# OF CAL GASES

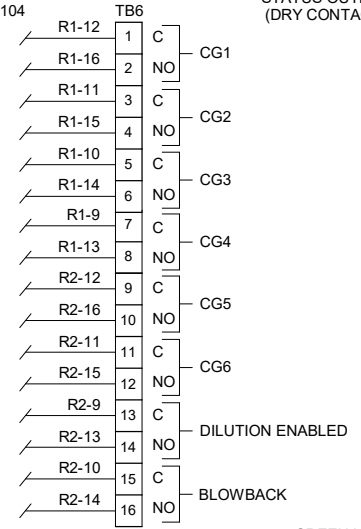
POWER SUPPLY 24VDC 60WATT P/N 5400-0021	N L	TB1-G
		TB1-4
		TB1-1
		TB2-1
		TB2-4



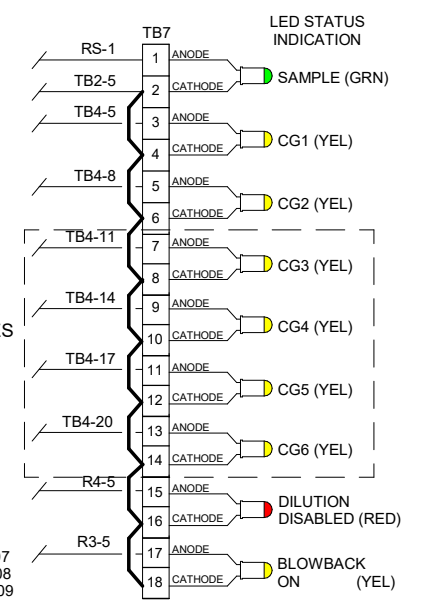
(OPTIONAL)  
HEATED FILTER  
CONTROL



HEADER P/N 3304-0106  
PLUG P/N 3304-0104

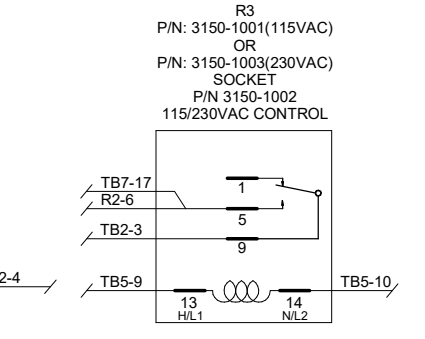
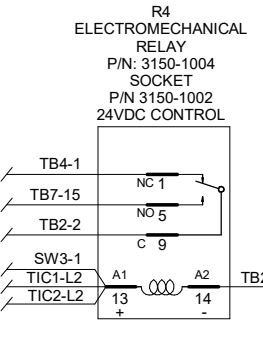
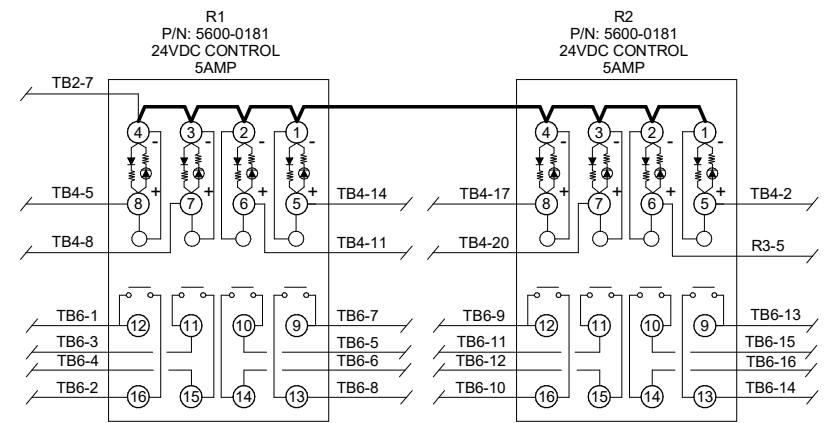
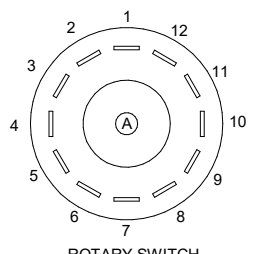
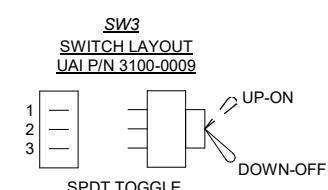
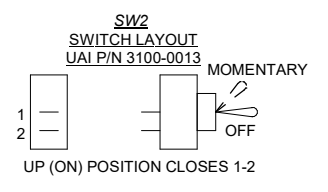


(OPTIONAL)  
# OF CAL GASES



**CONDUIT AND WIRING NOTES**

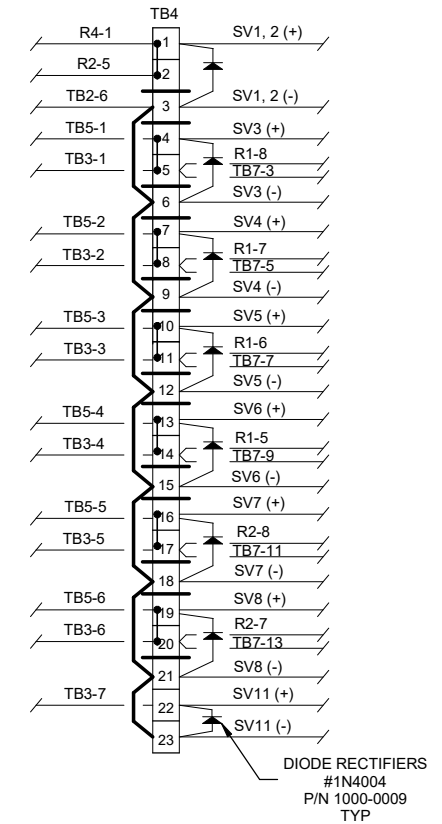
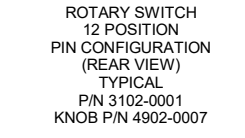
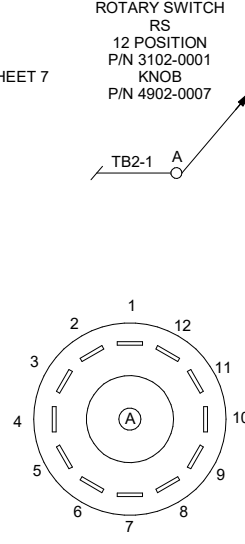
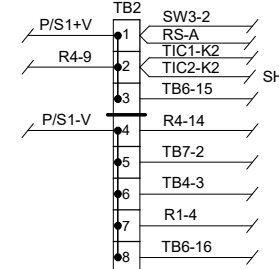
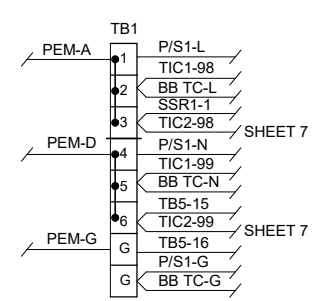
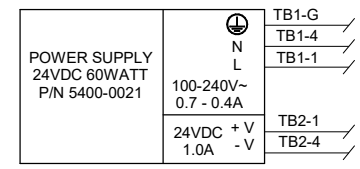
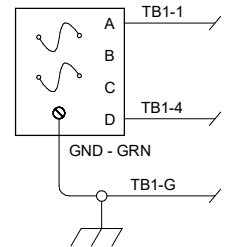
- ELECTRICAL CLASSIFICATION : INSIDE - GENERAL PURPOSE SYSTEM IS CONFIGURED AT THE FACTORY FOR REQUIRED VOLTAGE. CONTACT FACTORY FOR VOLTAGE CHANGE REQUIREMENTS.
- AC WIRING SHALL BE INDIVIDUAL CONDUCTORS OF STRANDED TINNED COPPER WITH 300V, TYPE TFE INSULATION. MINIMUM WIRE SIZE SHALL BE 18 AWG UNLESS OTHERWISE SPECIFIED. COLOR CODE SHALL BE AS FOLLOWS:  
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HOT - BLACK  
NEUTRAL - WHITE
- CHASSIS GROUND MINIMUM WIRE SIZE IS 14AWG GREEN / YELLOW WIRE.
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115VAC/230VAC  
+V - RED  
0V - BLUE



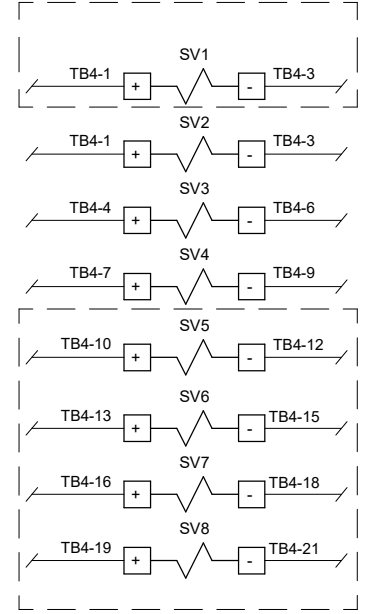
5200 Convoir Drive Carson City, NV 89706 PH(775)883-2500 FAX (775)883-6388		L	12/10/19	UPDATED TO MAX 6 CAL GASES	CS	DW							
		REV	DATE	DESCRIPTION	DWN/APVD								
		<p align="center"><b>REVISIONS</b></p> <table border="1"> <tr> <th>DATE</th> <th>SCALE</th> <th>SIZE</th> <th>SHEET</th> </tr> <tr> <td>01/18/2007</td> <td>NONE</td> <td>D</td> <td>4 OF 7</td> </tr> </table>						DATE	SCALE	SIZE	SHEET	01/18/2007	NONE
DATE	SCALE	SIZE	SHEET										
01/18/2007	NONE	D	4 OF 7										
115/230VAC MANUAL BLOWBACK BBM(115/230) SCHEMATIC		DRAWN BY R. Wells		ECO#	DRAWING NO.								
PART NO.	FOR	APVD BY	G. Evans	3305	P1144								
NOT ISSUED	728 DCD												



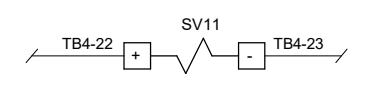
PEM POWER INPUT  
120/230 VAC 100 WATTS  
(2) 6-AMP S.B. FUSE  
FUSE P/N: 3010-0005



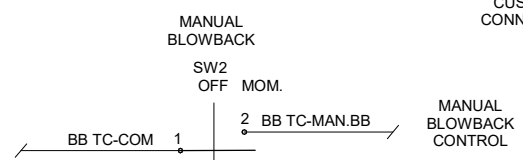
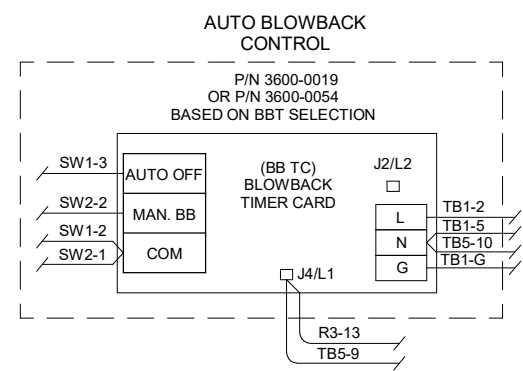
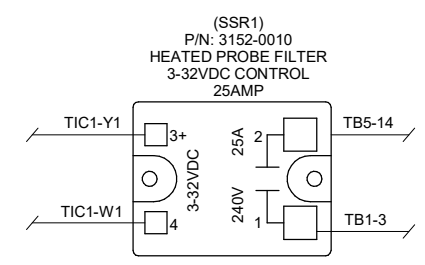
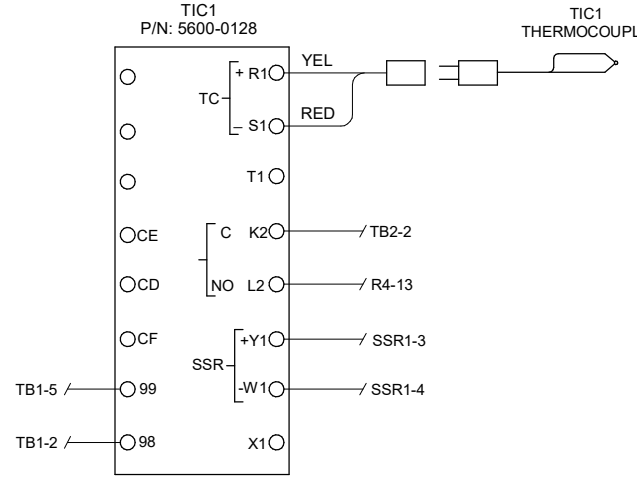
(OPTIONAL)  
FAST-LOOP BYPASS



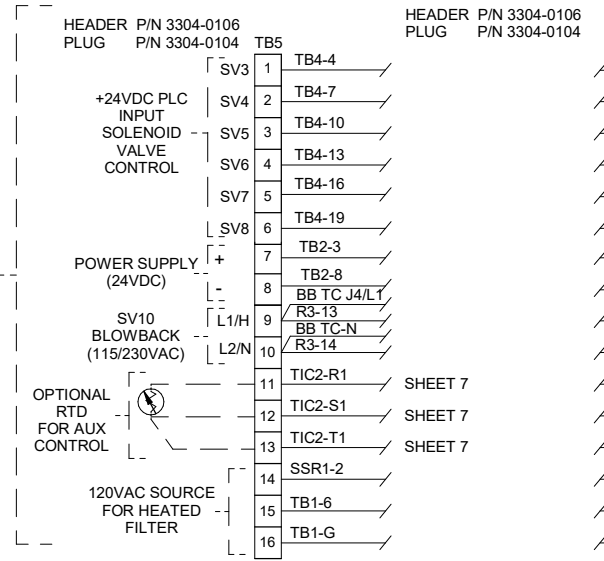
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# OF CAL GASES



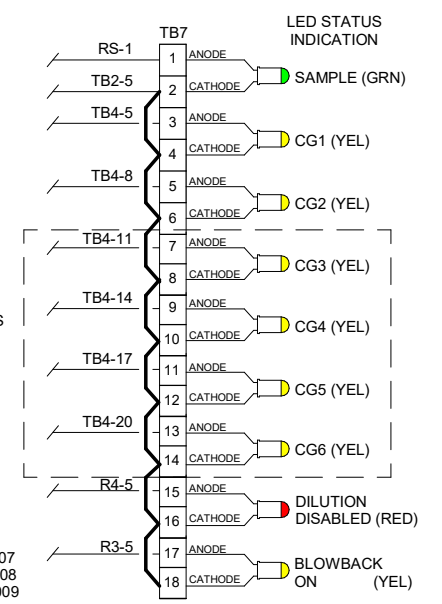
(OPTIONAL)  
HEATED FILTER  
CONTROL



CUSTOMER CONNECTIONS



STATUS OUTPUTS  
(DRY CONTACTS)

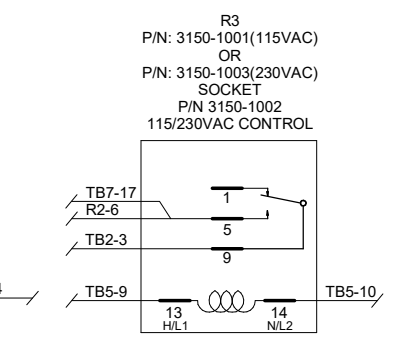
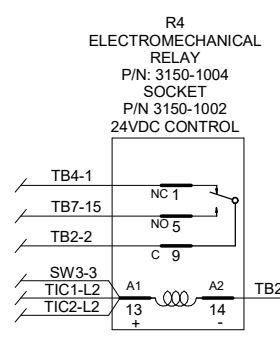
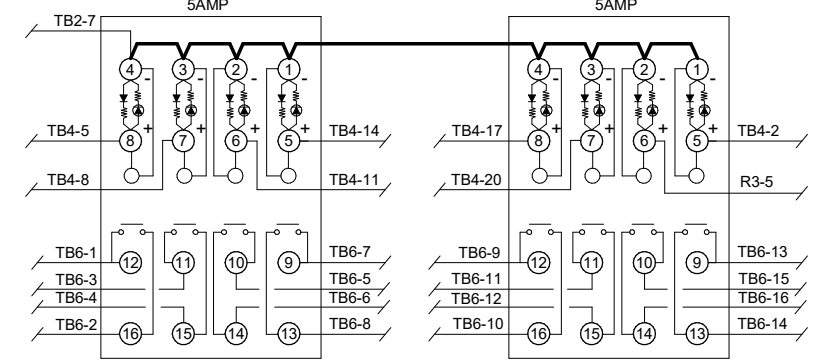
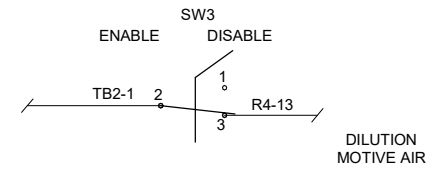
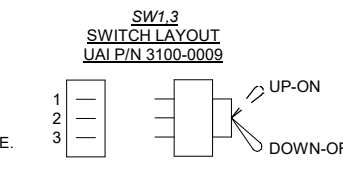
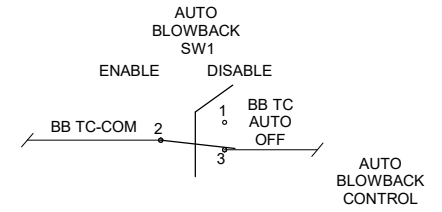
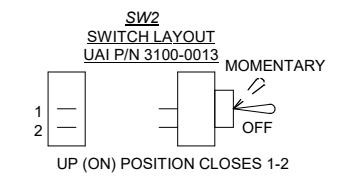


(OPTIONAL)  
# OF CAL GASES

GREEN LED P/N 1200-0007  
YELLOW LED P/N 1200-0008  
RED P/N 1200-0009

**CONDUIT AND WIRING NOTES**

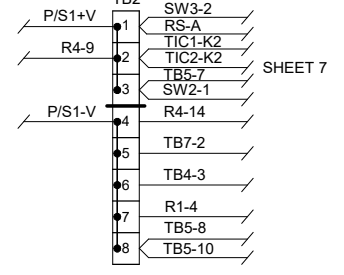
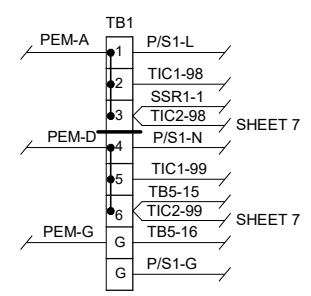
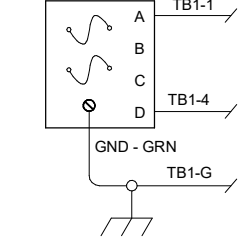
- ELECTRICAL CLASSIFICATION : INSIDE - GENERAL PURPOSE SYSTEM IS CONFIGURED AT THE FACTORY FOR REQUIRED VOLTAGE. CONTACT FACTORY FOR VOLTAGE CHANGE REQUIREMENTS.
- AC WIRING SHALL BE INDIVIDUAL CONDUCTORS OF STRANDED TINNED COPPER WITH 300V, TYPE TFE INSULATION. MINIMUM WIRE SIZE SHALL BE 18 AWG UNLESS OTHERWISE SPECIFIED. COLOR CODE SHALL BE AS FOLLOWS:  
115VAC/230VAC  
HOT - BLACK  
NEUTRAL - WHITE
- CHASSIS GROUND MINIMUM WIRE SIZE IS 14AWG GREEN / YELLOW WIRE.
- DC WIRING SHALL BE INDIVIDUAL CONDUCTORS OF STRANDED TINNED COPPER WITH 300V, TYPE TFE INSULATION. MINIMUM WIRE SIZE SHALL BE 22 AWG UNLESS OTHERWISE SPECIFIED. COLOR CODE SHALL BE AS FOLLOWS:  
115VAC/230VAC  
+V - RED  
0V - BLUE



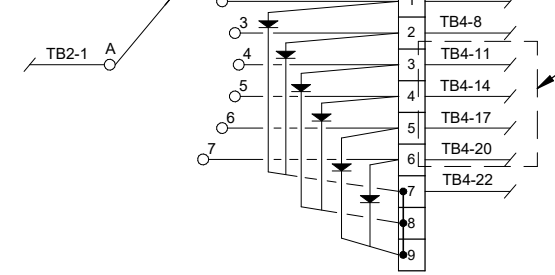
5200 Convoir Drive Carson City, NV 89706 PH:(775)883-2500 FAX (775)883-6388		L	12/10/19	UPDATED TO MAX 6 CAL GASES	CS	DW	
UNIVERSAL Analyzers Inc. AMETEK		REV	DATE	DESCRIPTION	DWN	APVD	
115/230VAC BLOWBACK TIMER BBT(115/230) SCHEMATIC		REVISIONS					
PART NO.	FOR	DATE	SCALE	SIZE	SHEET		
NOT ISSUED	728 DCD	01/18/2007	NONE	D	5 OF 7		
		DRAWN BY	R. Wells	ECO#	DRAWING NO.		
		APVD BY	G. Evans	3305	P1144		

FIELD TO WIRE

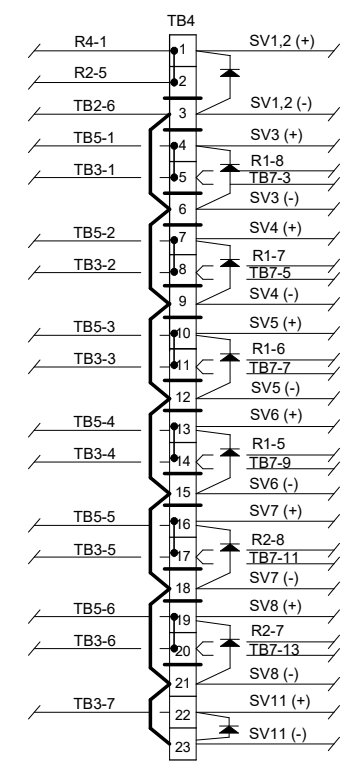
PEM POWER INPUT  
120/230 VAC 100 WATTS  
(2) 6-AMP S.B. FUSE  
FUSE P/N: 3010-0005



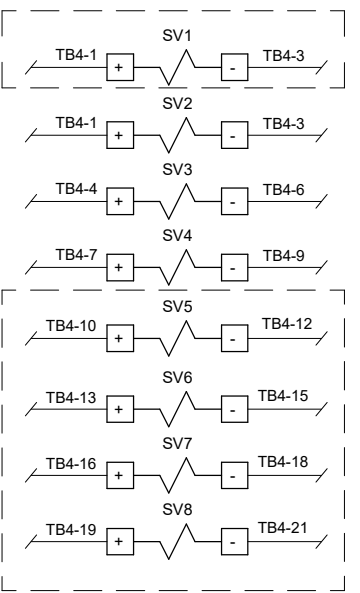
ROTARY SWITCH  
RS  
12 POSITION  
P/N 3102-0001  
KNOB  
P/N 4902-0007



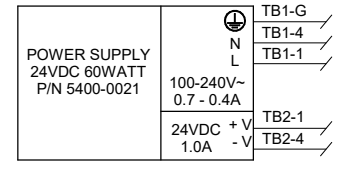
(OPTIONAL)  
# OF CAL GASES



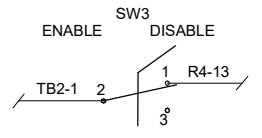
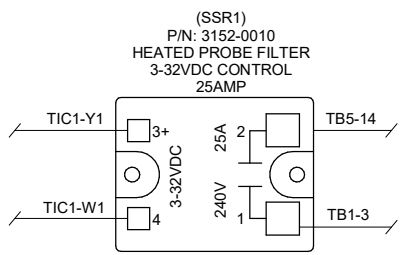
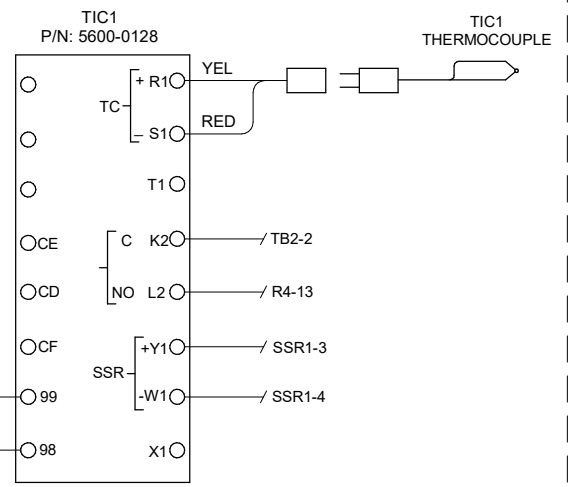
(OPTIONAL)  
FAST-LOOP BYPASS



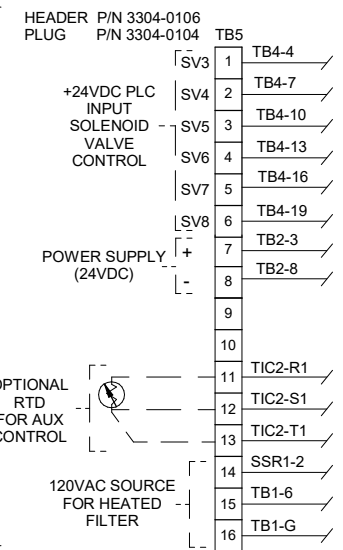
(OPTIONAL)  
# OF CAL GASES



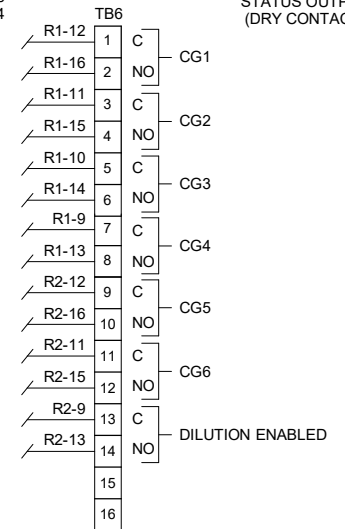
(OPTIONAL)  
HEATED FILTER  
CONTROL



CUSTOMER CONNECTIONS

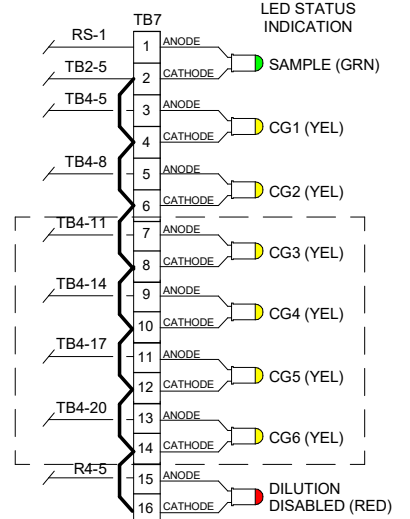


HEADER P/N 3304-0106  
PLUG P/N 3304-0104



STATUS OUTPUTS  
(DRY CONTACTS)

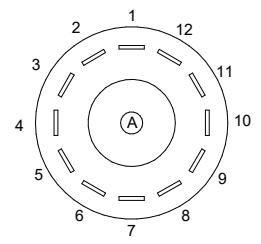
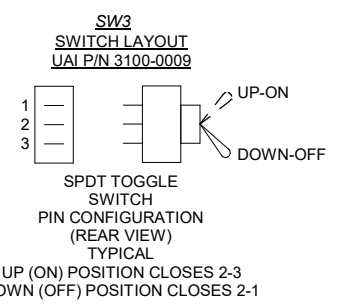
(OPTIONAL)  
# OF CAL GASES



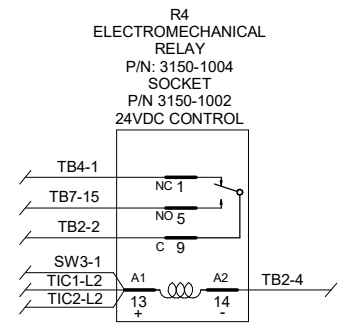
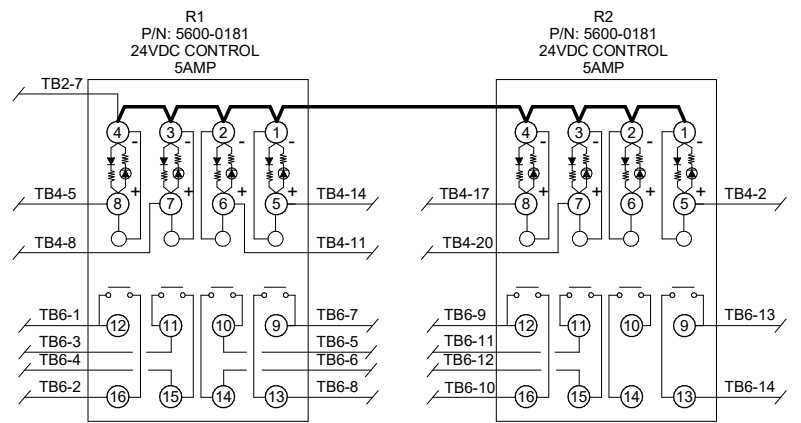
GREEN LED P/N 1200-0007  
YELLOW LED P/N 1200-0008  
RED P/N 1200-0009

**CONDUIT AND WIRING NOTES**

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115VAC/230VAC  
+V - RED  
0V - BLUE



ROTARY SWITCH  
12 POSITION  
PIN CONFIGURATION  
(REAR VIEW)  
TYPICAL  
P/N 3102-0001  
KNOB P/N 4902-0007

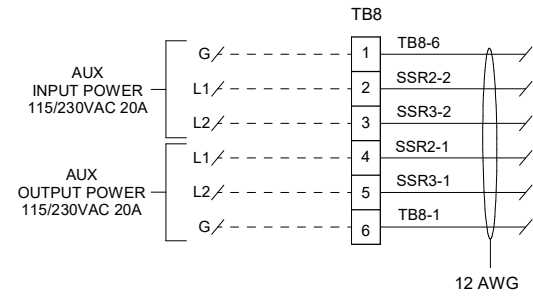


5200 Convoir Drive Carson City, NV 89706 PH(775)883-2500 FAX (775)883-6388		L	12/10/19	UPDATED TO MAX 6 CAL GASES	CS	DW
UNIVERSAL Analyzers Inc. AMETEK		REV	DATE	DESCRIPTION	DWN/APVD	
BLOWBACK BULKHEAD OR NO BLOWBACK (BBL/NONE) SCHEMATIC						
PART NO.	FOR	DATE	SCALE	SIZE	SHEET	
NOT ISSUED	728 DCD	01/18/2007	NONE	D	6 OF 7	
DRAWN BY R. Wells		ECO#		DRAWING NO.		
APVD BY G. Evans		3305		P1144		

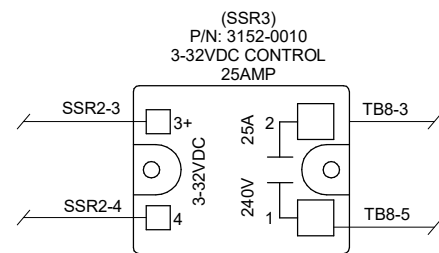
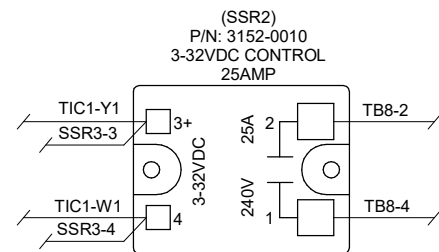
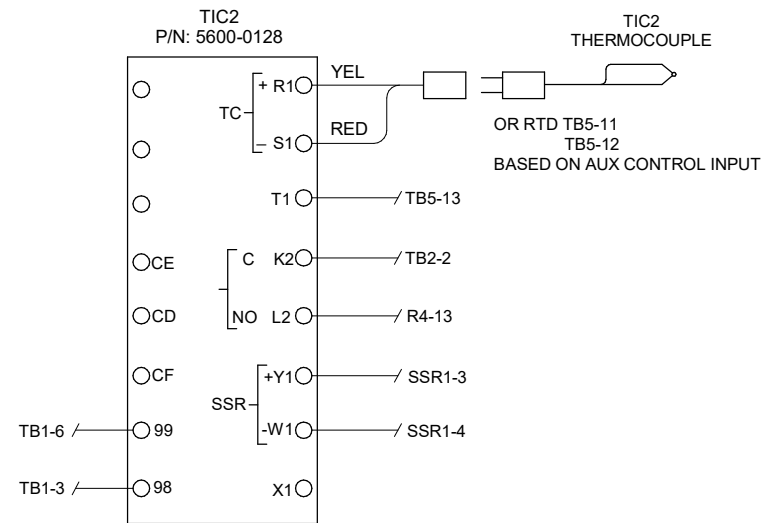
FIELD TO WIRE



# 115/230 VAC

HEADER: P/N 3304-1005  
 PLUG: P/N 3304-1006



(OPTIONAL)  
 AUX.  
 CONTROL



5200 Convair Drive Carson City, NV 89706 PH(775)883-2500 FAX (775)883-6388		L	12/10/19	UPDATED TO MAX 6 CAL GASES	CS	DW
 		REV	DATE	DESCRIPTION	DWN	APVD
REVISIONS						
DILUTION CONTROLLER DRAWER SCHEMATIC		DATE	SCALE	SIZE	SHEET	
		01/18/2007	NONE	D	7 OF 7	
PART NO.	FOR	DRAWN BY		ECO#	DRAWING NO.	
NOT ISSUED	728 DCD	R. Wells		3305	P1144	
		APVD BY				
		G. Evans				