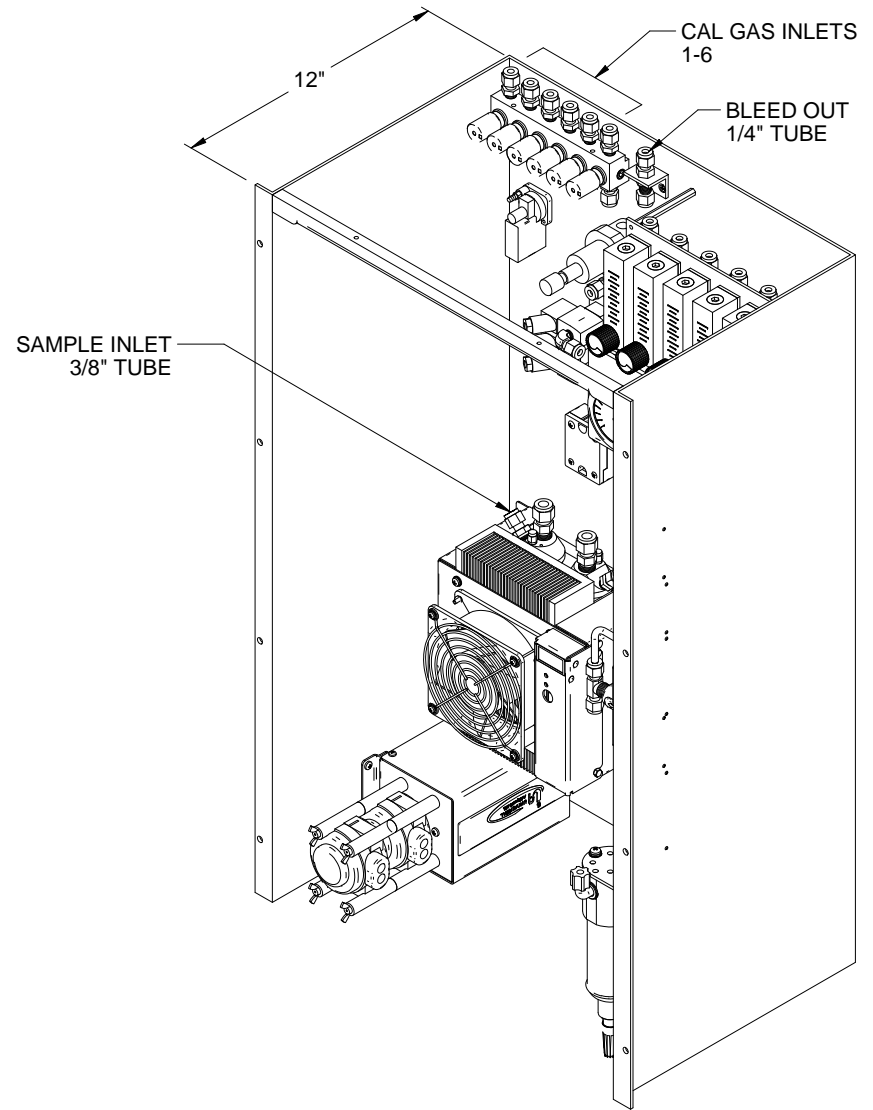




FRONT VIEW

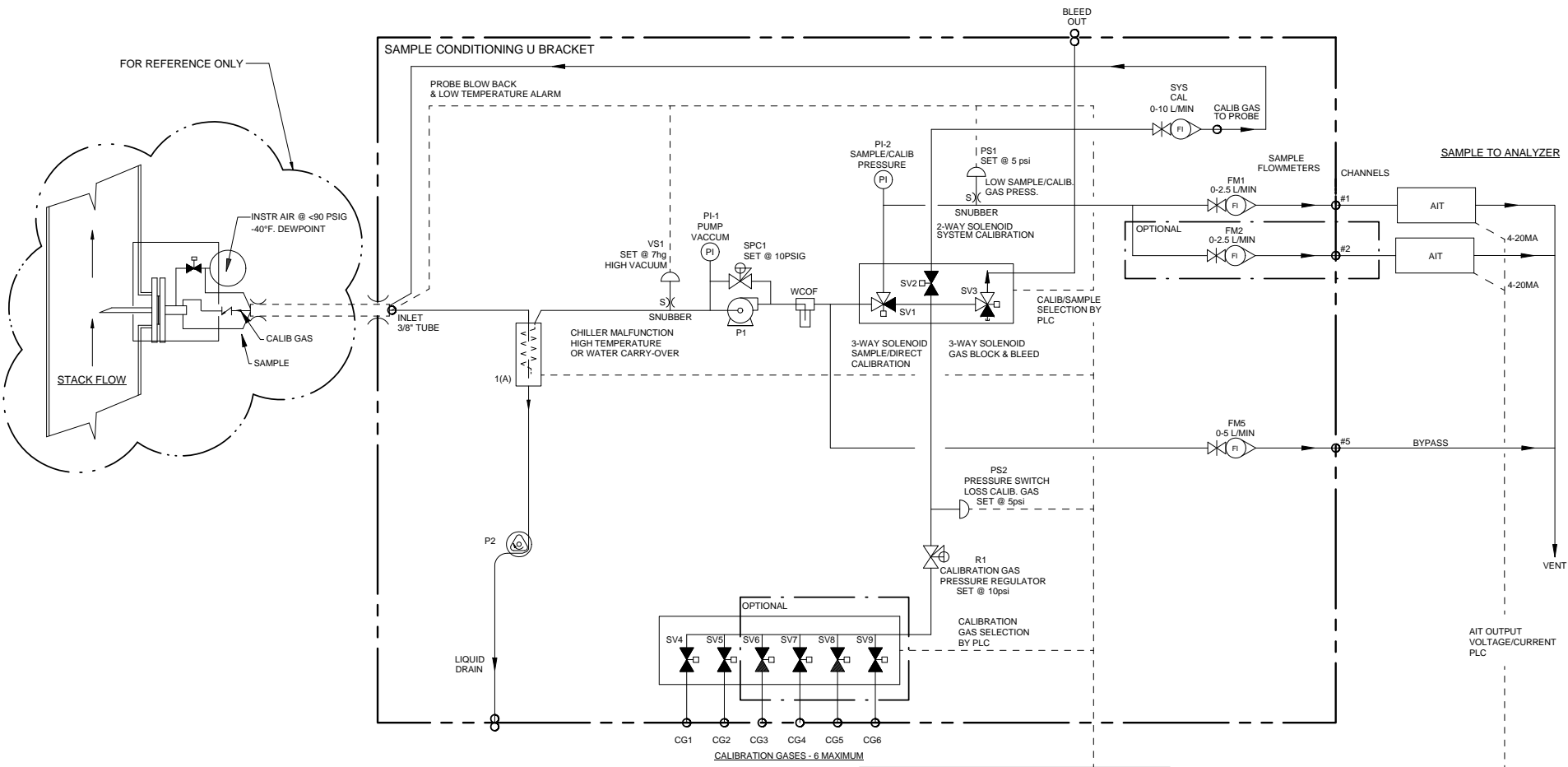
NOTES:

- 1). ARRANGEMENT MAY VARY ACCORDING TO BEST ENGINEERING PRACTICES.
- 2). SEE SHEET 2, 3, & 4 FOR P&ID.
- 3). SEE SHEET 5 FOR WIRING SCHEMATICS.



ISOMETRIC VIEW

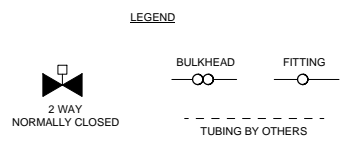
 		08/12/14		Initial Release		MV	MW
REV	DATE	DESCRIPTION		REVISIONS		DWN/APVD	
DATE		SCALE	SIZE	SHEET		1 OF 5	
08/12/2014		NTS	D	P2134			
DRAWN BY M. Walser		ECCO#		DRAWING NO.		P2134	
APVD BY M. Withrow		2089					
600-SCU-INT		600 Series					



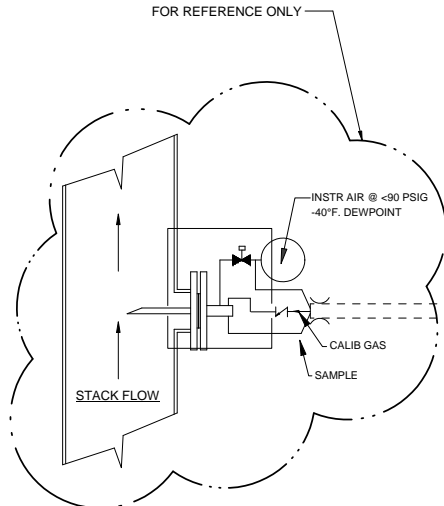
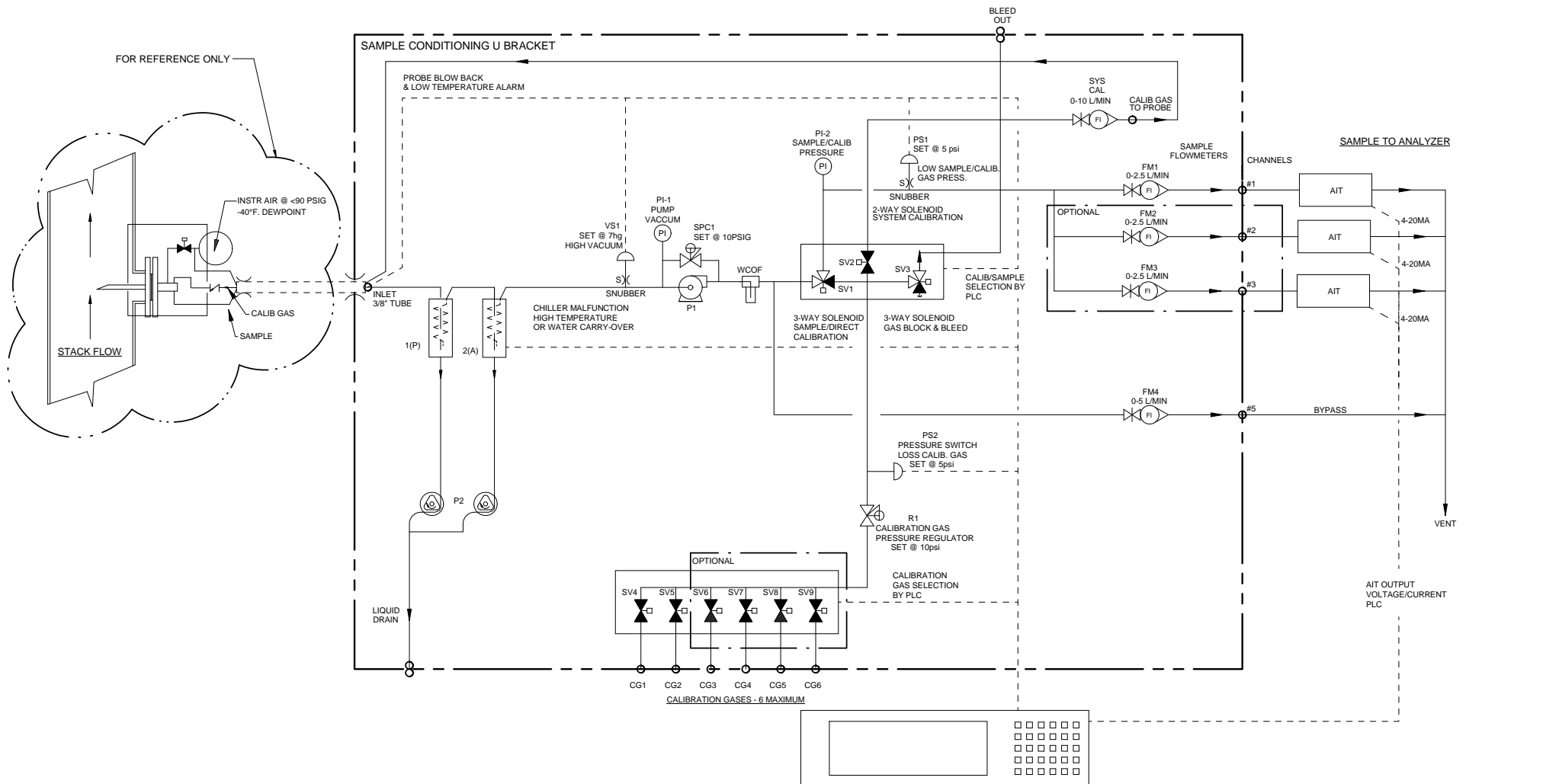
- PLC OR DATA LOGGER
- 1) CALIBRATION/SAMPLE SELECT
 - 2) CALIBRATION GAS SELECT
 - 3) SYSTEM/DIRECT CALIBRATION SELECT-SYSTEM BIAS CALCULATION
 - 4) PROBE BLOW BACK
 - 5) PROBE LOW TEMPERATURE ALARM
 - 6) CHILLER MALFUNCTION-HIGH TEMPERATURE OR WATER CARRY-OVER
 - 7) HIGH INLET VACUUM - PROBE FILTER INITIATE BLOWBACK OR MAINTENANCE
 - 8) SAMPLE/CALIB. GAS PRESS LOW-ALARM FOR MAINTENANCE

NOTES:
1. ALL FITTINGS 1/4" TUBE (UNLESS OTHERWISE NOTED).

Item	Qty	Description	UAI Part No.
VS1	1	Vacuum Switch Air-Logic 0-29"hg	3103-0017
WCOF	1	Water Carry Over Moisture Sensor	WCOF-4980-0007
PI-1	1	Gauge - Vacuum 0-30"Hg Liquid Filled S.S.	3019-0009
SPC1	1	Sample Pressure Controller	4955-0246
P1	1	Pump - Sample 115Vac Single Head	4958-0025
P1	1	Pump - Sample 230Vac Single Head	4958-0015
PS1,2	2	Pressure Switch Air-Logic F-5100-15 15psig	3103-0018
SV1,3	2	Solenoid Valve - Burkert 6012SER	4955-0041
SV2	1	Solenoid Valve - Burkert 6011SER 85psig	4955-0040
SV4-9	2-6	Solenoid Valve - 2 Way	4955-0247
PI-2	1	Gauge - Pressure 0-15psig Liquid Filled S.S.	3019-0008
SYS CAL	1	Flowmeter W/Needle Valve 0-10 l/m	4965-0007
FM1-2	2	Flowmeter W/Needle Valve 0-2.5 l/m	4965-0018
FM4	1	Flowmeter W/Needle Valve 0-5 l/m	4965-0008
CHILLER	1	Universal Analyzers Model 624	624
R1	1	Regulator - Porter Model #8268 0-30psig	8200-0008
S1	1	Snubber - #6-32	0000-0000
P2	1	Pump - Peristaltic Drain 115Vac	4958-0028
P2	1	Pump - Peristaltic Drain 230Vac	4958-0045



				08/12/14	Initial Release	MY	MW
624 SCU P&ID		FOR 600 Series		REV. DATE	DESCRIPTION	DWG/APVD	
PART NO. 600-SCU-INT		FOR 600 Series		REVISIONS			
DRAWN BY M. Walser		APVD BY M. Withrow		DATE 08/12/2014	SCALE NTS	SIZE D	SHEET 2 OF 5
ECCO# 2089		DRAWING NO. P2134					



SAMPLE CONDITIONING U BRACKET

PROBE BLOW BACK & LOW TEMPERATURE ALARM

CHILLER MALFUNCTION HIGH TEMPERATURE OR WATER CARRY-OVER

PI-2 SAMPLE/CALIB PRESSURE

PI-1 PUMP VACCUUM

PS1 SET @ 5 psi

LOW SAMPLE/CALIB. GAS PRESS.

SNUBBER

3-WAY SOLENOID SAMPLE/DIRECT CALIBRATION

3-WAY SOLENOID GAS BLOCK & BLEED

PS2 PRESSURE SWITCH LOSS CALIB. GAS SET @ 5psi

R1 CALIBRATION GAS PRESSURE REGULATOR SET @ 10psi

CALIBRATION GAS SELECTION BY PLC

OPTIONAL

SV4 SV5 SV6 SV7 SV8 SV9

CG1 CG2 CG3 CG4 CG5 CG6

CALIBRATION GASES - 6 MAXIMUM

PLC OR DATA LOGGER

1) CALIBRATION/SAMPLE SELECT

2) CALIBRATION GAS SELECT

3) SYSTEM/DIRECT CALIBRATION SELECT-SYSTEM BIAS CALCULATION

4) PROBE BLOW BACK

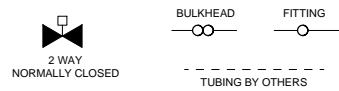
5) PROBE LOW TEMPERATURE ALARM

6) CHILLER MALFUNCTION-HIGH TEMPERATURE OR WATER CARRY-OVER

7) HIGH INLET VACUUM - PROBE FILTER INITIATE BLOWBACK OR MAINTENANCE

8) SAMPLE/CALIB. GAS PRESS LOW-ALARM FOR MAINTENANCE

LEGEND

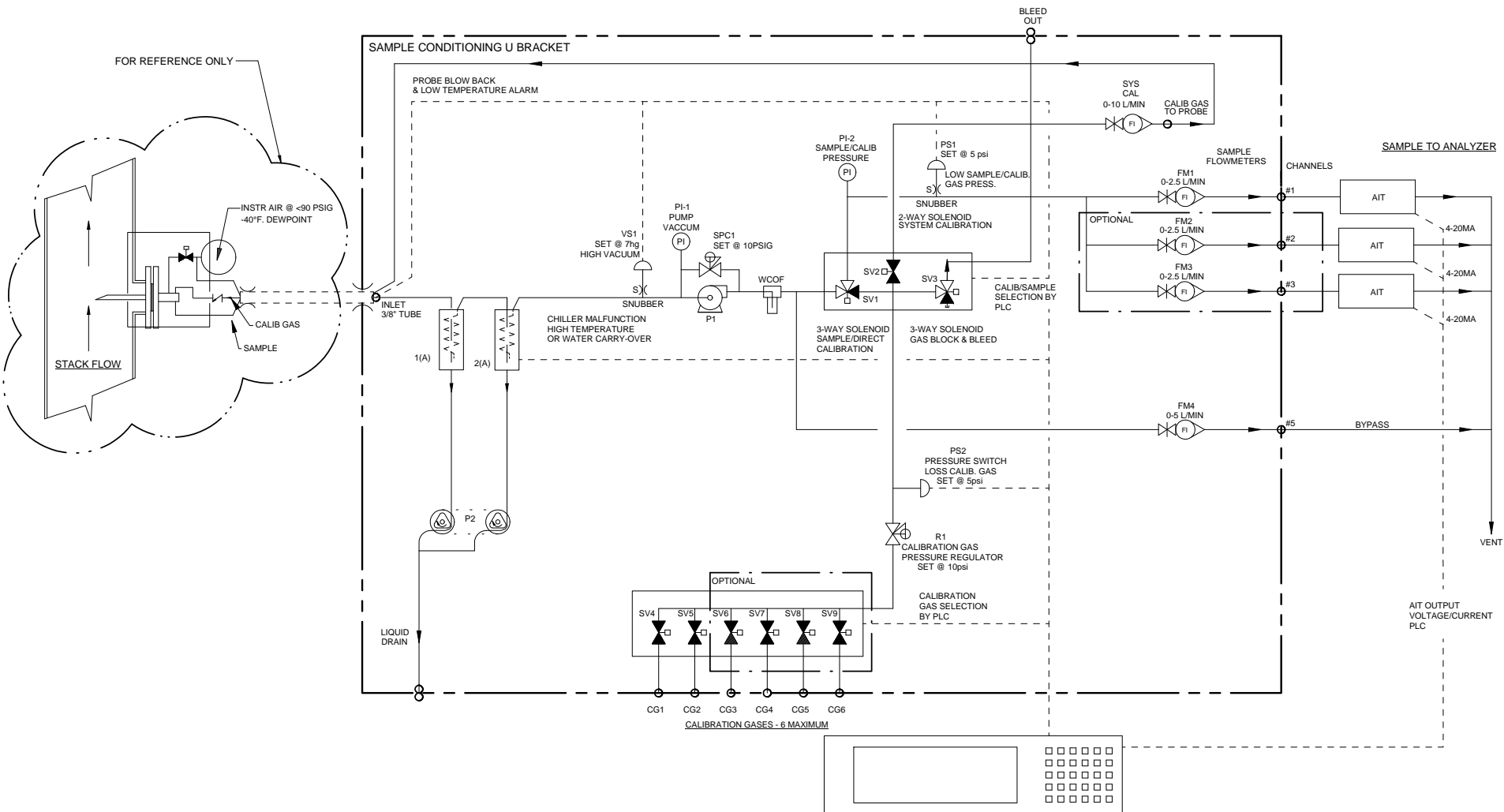


NOTES:

1. ALL FITTINGS 1/4" TUBE (UNLESS OTHERWISE NOTED).

Item	Qty	Description	UAI Part No.
VS1	1	Vacuum Switch Air-Logic 0-29"hg	3103-0017
WCOF	1	Water Carry Over Moisture Sensor	WCOF-4980-0007
PI-1	1	Gauge - Vacuum 0-30"Hg Liquid Filled S.S.	3019-0009
SPC1	1	Sample Pressure Controller	4955-0246
P1	1	Pump - Sample 115Vac Single Head	4958-0025
P1	1	Pump - Sample 230Vac Single Head	4958-0015
PS1,2	2	Pressure Switch Air-Logic F-5100-15 15psig	3103-0018
SV1,3	2	Solenoid Valve - Burkert 6012SER	4955-0041
SV2	1	Solenoid Valve - Burkert 6011SER 85psig	4955-0040
SV4-9	2-6	Solenoid Valve 2 Way	4955-0247
PI-2	1	Gauge - Pressure 0-15psig Liquid Filled S.S.	3019-0008
SYS.CAL	1	Flowmeter W/Needle Valve 0-10 l/m	4965-0007
FM1-3	3	Flowmeter W/Needle Valve 0-2.5 l/m	4965-0018
FM4	1	Flowmeter W/Needle Valve 0-5 l/m	4965-0008
CHILLER	1	Universal Analyzers Model 634	634
R1	1	Regulator - Porter Model #8268 0-30psig	8200-0008
S()	1	Snubber - #6-32	0000-0000
P2	1	Pump - Peristaltic Drain 115Vac	4958-0028
P2	1	Pump - Peristaltic Drain 230Vac	4958-0045

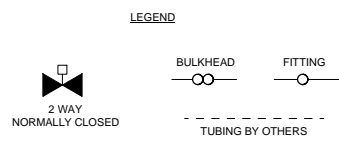
				08/12/14	Initial Release	MY	MW
634 SCU P&ID		FOR 600 Series		REV. DATE	DESCRIPTION	DWN/APVD	
PART NO. 600-SCU-INT		FOR 600 Series		REVISIONS			
				DATE	SCALE	SIZE	SHEET
				08/12/2014	NTS	D	3 OF 5
				DRAWN BY	ECCO#	DRAWING NO.	
				M. Walser	2089	P2134	
				APVD BY			
				M. Withrow			



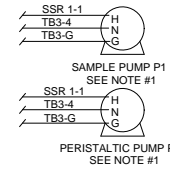
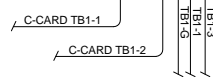
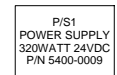
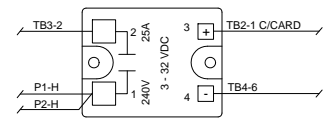
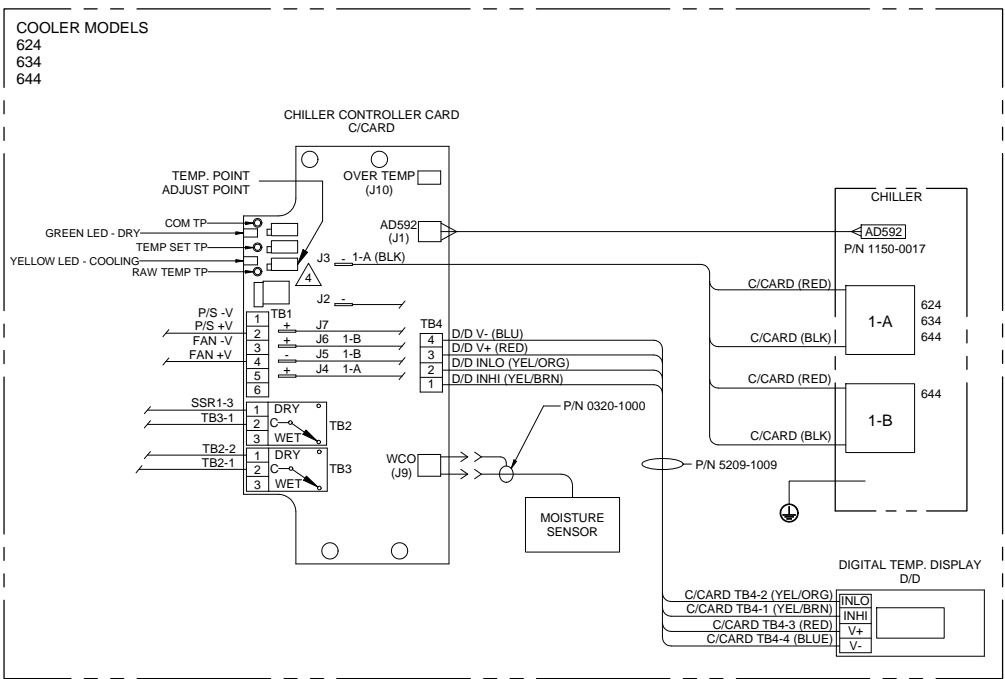
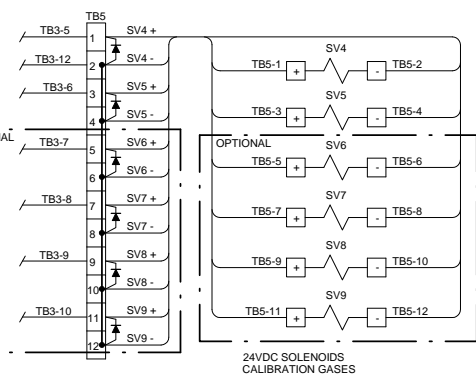
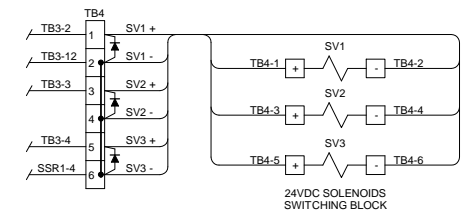
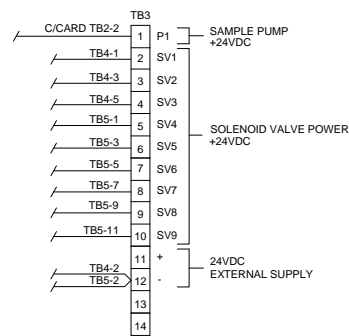
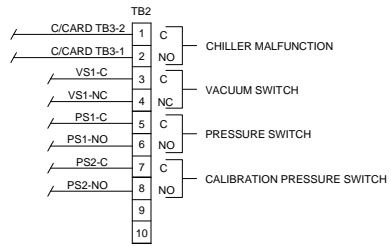
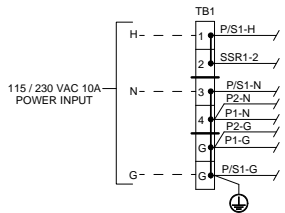
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NOTES:
1. ALL FITTINGS 1/4" TUBE (UNLESS OTHERWISE NOTED).

Item	Qty	Description	UAI Part No.
VS1	1	Vacuum Switch Air-Logic 0-29"hg	3103-0017
WCOF	1	Water Carry Over Moisture Sensor	WCOF-4980-0007
PI-1	1	Gauge - Vacuum 0-30"Hg Liquid Filled S.S.	3019-0009
SPC1	1	Sample Pressure Controller	4955-0246
P1	1	Pump - Sample 115Vac Single Head	4958-0025
P1	1	Pump - Sample 230Vac Single Head	4958-0015
PS1,2	2	Pressure Switch Air-Logic F-5100-15 15psig	3103-0018
SV1,3	2	Solenoid Valve - Burkert 6012SER	4955-0041
SV2	1	Solenoid Valve - Burkert 6011SER 85psig	4955-0040
SV4-9	2-6	Solenoid Valve - 2 Way	4955-0247
PI-2	1	Gauge - Pressure 0-15psig Liquid Filled S.S.	3019-0008
SYS CAL	1	Flowmeter W/Needle Valve 0-10 l/m	4965-0007
FM1-3	3	Flowmeter W/Needle Valve 0-2.5 l/m	4965-0018
FM4	1	Flowmeter W/Needle Valve 0-5 l/m	4965-0008
CHILLER	1	Universal Analyzers Model 644	644
R1	1	Regulator - Porter Model #8268 0-30psig	8200-0008
S1	1	Snubber - #8-32	0000-0000
P2	1	Pump - Peristaltic Drain 115Vac	4958-0028
P2	1	Pump - Peristaltic Drain 230Vac	4958-0045



		08/12/14	Initial Release	MY	MW
644 SCU P&ID		REV. DATE	DESCRIPTION	DWN/APVD	
PART NO. 600-SCU-INT		REVISIONS		SHEET 4 OF 5	
FOR 600 Series		DATE 08/12/2014	SCALE NTS	SIZE D	DRAWING NO. P2134
DRAWN BY M. Walser		APVD BY M. Withrow	ECCO# 2089		



PELTIER WIRING	
6 X 4 (24Vdc)	
PELTIER 1 (+) - J4	PELTIER 2 (+) - J6
PELTIER 1 (-) - J3	PELTIER 2 (-) - J5

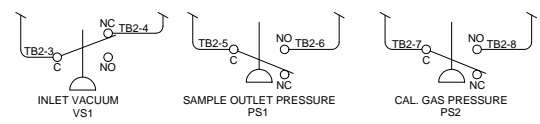
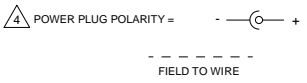
CONDUIT AND WIRING NOTES

- 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	L1	- BROWN
NEUTRAL	- WHITE	L2	- BLUE
GROUND	- GREEN	G	- GREEN

- 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.

115VAC		230VAC	
COLOR CODE SHALL BE AS FOLLOWS: +V	- RED	+VDC	- RED
0V	- BLUE	-VDC	- BLACK



5000 Corvair Drive Carson City, NV 89706 PH(775)883-2500 FAX (775)883-6888		- 08/12/14 Initial Release		MY	MW
UNIVERSAL AMETEK		REV. DATE		DESCRIPTION	
600 SERIES WIRING SCHEMATIC		REVISIONS			
PART NO.		DATE	SCALE	SIZE	SHEET
600-SCU-INT	FOR	08/12/2014	NTS	D	5 OF 5
DRAWN BY M. Walser		ECCO#		DRAWING NO.	
APVD BY M. Withrow		2089		P2134	