

STAGE SIGNAL CABLE

ELECTRONICS RACK

STAGE

PIN	FROM:	TO:	SIGNAL NAME	FUNCTION	STAGE	
					LIMITS	ENCODERS I/O
A	AMP DB15 X-14	J2-14	HALL SENSOR C	-		X
B	AMP DB15 X-2	J2-2	B+	MAIN ENCODER B+		X
C	AMP DB15 X-3	J2-3	A+	MAIN ENCODER A+		X
D	-	J4-2	nnn_REV_PRIMARY	STAGE REVERSE LIMIT	X	
E	-	J4-4	nnn_HOME	STAGE HOME POSITION	X	
F	LOGIC POWER	-	+5V	+5V	X	
G	LOGIC POWER	-	GND	GND		
H	LOGIC POWER	-	+5V	+5V		
J	AMP DB15 X-9	J2-9	nnn_AUX_CHANNEL_A-	AUXILIARY ENCODER A-		X
K	AMP DB15 X-12	J2-12	nnn_AUX_CHANNEL_B-	AUXILIARY ENCODER B-		X
L	AMP DB15 X-6	J2-6	AI-	AUX ENCODER I-		X
M	LOGIC POWER	-	GND	GND		
N	AMP DB15 X-10	J2-10	HALL SENSOR A	-		X
P	AMP DB15 X-13	J2-13	HALL SENSOR B	-		X
R	IOM PIN-n	J3-6	MOTOR_ENCD_CONN	I/O BIT n		X
S	AMP DB15 X-8	J2-8	A-	MAIN ENCODER A-		X
T	LOGIC POWER	-	GND	GND		
U	-	J4-3	nnn_FWD_PRIMARY	STAGE FORWARD LIMIT	X	
V	IOM PIN-n	J3-7	STAGE_LIMITS_CONN	I/O BIT n		X
W	-	-	-	-		
X	AMP DB15 X-11	J2-11	nnn_AUX_CHANNEL_A+	AUXILIARY ENCODER A+		X
Y	AMP DB15 X-4	J2-4	nnn_AUX_CHANNEL_B+	AUXILIARY ENCODER B+		X
Z	AMP DB15 X-1	J2-1	AI+	AUX ENCODER I+		X
a	IOM PIN-n	J3-9	LOAD_ENCD_CONN	I/O BIT n		X
b	LOGIC POWER	-	+5V	+5V		
c	AMP DB15 X-7	J2-7	B-	MAIN ENCODER B-		X
d	-	-	-	-		
e	-	-	-	-		
f	LOGIC POWER	-	GND	GND		
g	-	-	-	-		
h	-	-	-	-		
j	IOM PIN-n	J3-8	STAGE_CABLE_CONN	I/O BIT n		X

PIN	TO: J ?	SIGNAL NAME	FUNCTION	I/O	AMP	AUX.
B	J2-10	B+	MAIN ENCODER B+		X	
C	J2-4	A+	MAIN ENCODER A+		X	
D	J3-6	nnn_REV_PRIMARY	STAGE REVERSE LIMIT		X	
E	J3-8	nnn_HOME	STAGE HOME POSITION		X	
F	J3-5	+5V	+5V			
G	J4-1	GND	GND			
H	J4-9	+5V	+5V			
J	J4-11	nnn_AUX_CHANNEL_A-	AUXILIARY ENCODER A-			X
K	J4-13	nnn_AUX_CHANNEL_B-	AUXILIARY ENCODER B-			X
L	J4-15	AI-	AUX ENCODER I-		X	
M	J2-2	GND	GND			
N	J2-11	HALL SENSOR A	-		X	
P	J2-12	HALL SENSOR B	-		X	
R	J2-14	MOTOR_ENCD_CONN	I/O BIT n	X		
S	J2-5	A-	MAIN ENCODER A-		X	
T	J3-1	GND	GND			
U	J3-7	nnn_FWD_PRIMARY	STAGE FORWARD LIMIT		X	
V	J3-9	STAGE_LIMITS_CONN	I/O BIT n	X		
W	-	-	-			
X	J4-10	nnn_AUX_CHANNEL_A+	AUXILIARY ENCODER A+			X
Y	J4-12	nnn_AUX_CHANNEL_B+	AUXILIARY ENCODER B+			X
Z	J4-14	AI+	AUX ENCODER I+		X	
a	J4-8	LOAD_ENCD_CONN	I/O BIT n	X		
b	J2-1	+5V	+5V			
c	J2-15	B-	MAIN ENCODER B-		X	
d	-	-	-			
e	-	-	-			
f	-	GND	GND			
g	-	-	-			
h	-	-	-			
j	J3-8	STAGE_CABLE_CONN	I/O BIT n	X		

BOX MOUNT: MS3112E22-32S
STRAIGHT PLUG: MS3126F22-32P

http://loel.ucolick.org/manual/APF/schematics/APF_stage_cable_sh_1.pdf

REVISIONS

- 02-21-06 UPDATED PIN NUMBERS ON SHEETS 2 AND 3
- 05-15-06 ADDED SHEET 4 TO SHOW WIRING TO THE MOTOR BREAKOUT BOARDS
- 02-15-06 INSERTED NEW SHEET 2. THIS SHEET REFLECTS THE USE OF THE DUAL ENCODER EL-1399 BOARD INSTEAD OD THE EL-1378
- 02-26-07 ADDED SHEET 2 FOR MOTOR CABLE SIGNALS
- 04-9-08 INSERTED SHEET 7 "A.C. WIRING GUIDE". UPDATED AND MOVED SHEETS 7-9 TO SHEETS 8-10.
- 04-22-10 REMOVED REFERENCES TO HALL EFFECT SENSORS A, B, AND C
- 05-06-10 RENAMED VARIOUS SIGNALS FOR UNIFORMITY ON ALL SCHEMATICS
- 05-06-10 REMOVED SHEET 4 AND REORDERED REMAINING SHEETS

UNIVERSITY OF CALIFORNIA LICK OBSERVATORY		APF STAGE CABLES	
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