

PSL Chassis		Left Rail							
Name	Color	Rail	Module	Number	Channel	Type	Adapter	Pin	
<b>Power</b>									
24V (routed through relay 1)	violet	L	EK1101	0	24V	P	R/11	12	
0V	gray	L	EK1101	0	0V	P	TBLOCK	-V	
24V (routed through relay 1)	violet	L	EK1101	0	+	P	R/11	12	
0V	gray	L	EK1101	0	-	P	TBLOCK	-V	
24V (routed through relay 2)	violet	L	EK1101	10	24V	P	R/11	22	
0V	gray	L	EK1101	10	0V	P	TBLOCK	-V	
24V (routed through relay 2)	violet	L	EK1101	10	+	P	R/11	22	
0V	gray	L	EK1101	10	-	P	TBLOCK	-V	
24V	violet	L	CU1521	20	24V	P	TBLOCK	+V	
0V	gray	L	CU1521	20	0V	P	TBLOCK	-V	
24V (routed through relay 1)	violet	R	EL2612	11	12	P	9	P7	
0V	gray		TBLOCK		0V	P	9	P8	
24V (routed through relay 2)	violet	R	EL2612	11	22	P	10	P7	
0V	gray		TBLOCK		0V	P	10	P8	
24V (routed through relay 2)	violet	R	EL2612	11	22	P	11	P7	
0V	gray		TBLOCK		0V	P	11	P8	
24V (routed through relay 1)	violet	R	EL2612	11	12	P	12	P7	
0V	gray		TBLOCK		0V	P	12	P8	
<b>Media Converter</b>									
Input	fiber/MM	L	CU1521	20	X1	Comm.	front	IN	
Output	CAT5	L	CU1521	20	X2	Comm.	R/0	X1	
<b>Coupler</b>									
Output	CAT5	L	EK1101	0					
<b>Rotation Stages IO/PSL</b>									
Encoder A: A (IO)	brown	L	EL7342	1	A/top	BI	12	P4	
Encoder A: B (IO)	brown	L	EL7342	1	B/top	BI	12	P5	
Encoder B: A (Spare)	brown	L	EL7342	1	A/below	BI	9	P4	
Encoder B: B (Spare)	brown	L	EL7342	1	B/below	BI	9	P5	
Input A (IO)	brown	L	EL7342	1	I1	BI	12	P3	
Input B (Spare)	brown	L	EL7342	1	I2	BI	9	P3	
Motor A1(*) (IO)	violet	L	EL7342	2	A1	P	12	PWR/S	
Motor A2(*) (IO)	gray	L	EL7342	2	A2	P	12	PWR/P	
Motor B1(*) (Spare)	violet	L	EL7342	2	B1	P	9	PWR/S	
Motor B2(*) (Spare)	gray	L	EL7342	2	B2	P	9	PWR/P	
24V(*)	violet	L	EL7342	2	+	P	L/12	+	
0V(*)	gray	L	EL7342	2	-	P	L/12	-	
Interlock Mon (IO)	brown	L	EL1094	3	I1	BI	12	P9	
Interlock Mon (Spare)	brown	L	EL1094	3	I2	BI	9	P9	
(empty)	brown	L	EL1094	3	I3	BI			
(empty)	brown	L	EL1094	3	I4	BI			
<b>Coupler</b>									
Output	CAT5	L	EK1101	10					
<b>Rotation Stages TCS</b>									
Encoder A: A (TCSX)	brown	L	EL7342	11	A/top	BI	10	P4	
Encoder A: B (TCSX)	brown	L	EL7342	11	B/top	BI	10	P5	
Encoder B: A (TCSY)	brown	L	EL7342	11	A/below	BI	11	P4	
Encoder B: B (TCSY)	brown	L	EL7342	11	B/below	BI	11	P5	
Input A (TCSX)	brown	L	EL7342	11	I1	BI	10	P3	
Input B (TCSY)	brown	L	EL7342	11	I2	BI	11	P3	
Motor A1(*) (TCSX)	violet	L	EL7342	12	A1	P	10	PWR/S	
Motor A2(*) (TCSX)	gray	L	EL7342	12	A2	P	10	PWR/P	
Motor B1(*) (TCSY)	violet	L	EL7342	12	B1	P	11	PWR/S	
Motor B2(*) (TCSY)	gray	L	EL7342	12	B2	P	11	PWR/P	
24V(*)(**)	violet	L	EL7342	12	+	P	TBLOCK		
0V(*)(**)	gray	L	EL7342	12	-	P	TBLOCK		
Interlock Mon (TCSX)	brown	L	EL1094	13	I1	BI	10	P9	
Interlock Mon (TCSY)	brown	L	EL1094	13	I2	BI	11	P9	
(empty)	brown	L	EL1094	13	I3	BI			
(empty)	brown	L	EL1094	13	I4	BI			

(\*) AWG16, twist pairs

(\*\*) Wrap twisted pair through a common mode choke, 10 turns, then connect to terminal block

PSL Chassis		Middle Rail						
Name	Color	Rail	Module	Number	Channel	Type	Adapter	Pin
<b>Power</b>								
24V Input	violet	M	EK1100	0	24V	P	TBLOCK	+V
0V Input	gray	M	EK1100	0	0V	P	TBLOCK	-V
		M	EK1100	0	+	P		
Return		M	EK1100	0	-	P	7	13
<b>Coupler</b>								
Output	CAT5	M	EK1100	0	X2	Comm.	front	OUT
<b>P-SAMS</b>								
Voltage DC Mon 1 +	green	M	EL3104	1	+1	AI	7	1
Voltage DC Mon 1 -	white	M	EL3104	1	-1	AI	7	14
Voltage AC Mon 1 +	green	M	EL3104	1	+2	AI	7	2
Voltage AC Mon 1 -	white	M	EL3104	1	-2	AI	7	15
Voltage DC Mon 2 +	green	M	EL3104	1	+3	AI	7	4
Voltage DC Mon 2 -	white	M	EL3104	1	-3	AI	7	17
Voltage AC Mon 2 +	green	M	EL3104	1	+4	AI	7	5
Voltage AC Mon 2 -	white	M	EL3104	1	-4	AI	7	18
Voltage DC Mon 3 +	green	M	EL3104	2	+1	AI	7	7
Voltage DC Mon 3 -	white	M	EL3104	2	-1	AI	7	20
Voltage AC Mon 3 +	green	M	EL3104	2	+2	AI	7	8
Voltage AC Mon 3 -	white	M	EL3104	2	-2	AI	7	21
Voltage DC Mon 4 +	green	M	EL3104	2	+3	AI	7	10
Voltage DC Mon 4 -	white	M	EL3104	2	-3	AI	7	23
Voltage AC Mon 4 +	green	M	EL3104	2	+4	AI	7	11
Voltage AC Mon 4 -	white	M	EL3104	2	-4	AI	7	24
Voltage DC Ofs 1 +	blue	M	EL4134	3	O1	AO	7	3
Voltage DC Ofs 1 -	yellow	M	EL4134	3	COM	AO	7	16
Voltage DC Ofs 2 +	blue	M	EL4134	3	O2	AO	7	6
Voltage DC Ofs 2 -	yellow	M	EL4134	3	COM	AO	7	19
Voltage DC Ofs 3 +	blue	M	EL4134	3	O3	AO	7	9
Voltage DC Ofs 3 -	yellow	M	EL4134	3	COM	AO	7	22
Voltage DC Ofs 4 +	blue	M	EL4134	3	O4	AO	7	12
Voltage DC Ofs 4 -	yellow	M	EL4134	3	COM	AO	7	25
Return	black	R	EL9190	4	-	P	8	13
Voltage DC Mon 1 +	green	M	EL3104	5	+1	AI	8	1
Voltage DC Mon 1 -	white	M	EL3104	5	-1	AI	8	14
Voltage AC Mon 1 +	green	M	EL3104	5	+2	AI	8	2
Voltage AC Mon 1 -	white	M	EL3104	5	-2	AI	8	15
Voltage DC Mon 2 +	green	M	EL3104	5	+3	AI	8	4
Voltage DC Mon 2 -	white	M	EL3104	5	-3	AI	8	17
Voltage AC Mon 2 +	green	M	EL3104	5	+4	AI	8	5
Voltage AC Mon 2 -	white	M	EL3104	5	-4	AI	8	18
Voltage DC Mon 3 +	green	M	EL3104	6	+1	AI	8	7
Voltage DC Mon 3 -	white	M	EL3104	6	-1	AI	8	20
Voltage AC Mon 3 +	green	M	EL3104	6	+2	AI	8	8
Voltage AC Mon 3 -	white	M	EL3104	6	-2	AI	8	21
Voltage DC Mon 4 +	green	M	EL3104	6	+3	AI	8	10
Voltage DC Mon 4 -	white	M	EL3104	6	-3	AI	8	23
Voltage AC Mon 4 +	green	M	EL3104	6	+4	AI	8	11
Voltage AC Mon 4 -	white	M	EL3104	6	-4	AI	8	24
Voltage DC Ofs 1 +	blue	M	EL4134	7	O1	AO	8	3
Voltage DC Ofs 1 -	yellow	M	EL4134	7	COM	AO	8	16
Voltage DC Ofs 2 +	blue	M	EL4134	7	O2	AO	8	6
Voltage DC Ofs 2 -	yellow	M	EL4134	7	COM	AO	8	19
Voltage DC Ofs 3 +	blue	M	EL4134	7	O3	AO	8	9
Voltage DC Ofs 3 -	yellow	M	EL4134	7	COM	AO	8	22
Voltage DC Ofs 4 +	blue	M	EL4134	7	O4	AO	8	12
Voltage DC Ofs 4 -	yellow	M	EL4134	7	COM	AO	8	25

PSL Chassis		Right Rail						
Name	Color	Rail	Module	Number	Channel	Type	Adapter	Pin
<b>Power</b>								
24VInput	violet	R	EK1101	0	24V	P	TBLOCK	+V
0VInput	gray	R	EK1101	0	0V	P	TBLOCK	-V
24VInput	violet	R	EK1101	0	+	P	TBLOCK	+V
0VInput	gray	R	EK1101	0	-	P	TBLOCK	-V
24V	violet	R	EL9410	12	24V	P	TBLOCK	+V
0V	gray	R	EL9410	12	0V	P	TBLOCK	-V
24V	violet	R	EL9410	12	+	P	TBLOCK	+V
0V	gray	R	EL9410	12	-	P	TBLOCK	-V
24V	violet	R	EL9410	17	24V	P	TBLOCK	+V
0V	gray	R	EL9410	17	0V	P	TBLOCK	-V
		R	EL9410	17	+	P		
		R	EL9410	17	-	P	6A & 6B	13
<b>Coupler</b>								
Output	CAT5	R	EK1101	0	X2	Comm.	M/0	X1
<b>Environmental</b>								
H1:PSL-ENV_LASERRM_ACSTEMP(+V)out	violet	R	EL3154	1	24V	P	1	1
H1:PSL-ENV_LASERRM_ACSTEMP(current)in	green	R	EL3154	1	I1	AI	1	14
H1:PSL-ENV_LASERRM_ACNTEMP(+V)out	violet	R	EL3154	1	24V	P	1	2
H1:PSL-ENV_LASERRM_ACNTEMP(current)in	green	R	EL3154	1	I2	AI	1	15
H1:PSL-ENV_LASERRM_TBLNTEMP(+V)out	violet	R	EL3154	1	24V	P	1	3
H1:PSL-ENV_LASERRM_TBLNTEMP(current)in	green	R	EL3154	1	I3	AI	1	16
H1:PSL-ENV_LASERRM_RH(current)in	green	R	EL3154	1	I4	AI	1	4
H1:PSL-ENV_LASERRM_TBLSTEMP(+V)out	violet	R	EL3154	2	24V	P	1	5
H1:PSL-ENV_LASERRM_TBLSTEMP(current)in	green	R	EL3154	2	I1	AI	1	18
H1:PSL-ENV_ANTERM_TEMP(+V)out	violet	R	EL3154	2	24V	P	1	6
H1:PSL-ENV_ANTERM_TEMP(current)in	green	R	EL3154	2	I2	AI	1	19
H1:PSL-ENV_ANTERM_RH(current)in	green	R	EL3154	2	I3	AI	1	7
H1:PSL-ENV_LVEA_TEMP(+V)out	violet	R	EL3154	2	24V	P	1	8
H1:PSL-ENV_LVEA_TEMP(current)in	green	R	EL3154	2	I4	AI	1	21
H1:PSL-ENV_LASERRMTOANTERM_DPRES(+V)out	violet	R	EL3154	3	24v	P	1	9
H1:PSL-ENV_LASERRMTOANTERM_DPRES(current)in	green	R	EL3154	3	I1	AI	1	22
H1:PSL-ENV_ANTERMTOLVEA_DPRES(+V)out	violet	R	EL3154	3	24V	P	1	10
H1:PSL-ENV_ANTERMTOLVEA_DPRES(current)in	green	R	EL3154	3	I2	AI	1	23
H1:PSL-ENV_DIODERM_TEMP(+V)out	violet	R	EL3154	3	24V	P	2	1
H1:PSL-ENV_DIODERM_TEMP(current)in	green	R	EL3154	3	I3	AI	2	14
H1:PSL-ENV_DIODERM_RH(current)in	green	R	EL3154	3	I4	AI	2	2
H1:PSL-ENV_CHILLERRM_TEMP(+V)out	violet	R	EL3154	4	24V	P	2	3
H1:PSL-ENV_CHILLERRM_TEMP(current)in	green	R	EL3154	4	I1	AI	2	16
H1:PSL-ENV_CHILLERRM_RH(current)in	green	R	EL3154	4	I2	AI	2	4
H1:PSL-ENV_DIODERMTOCHILLERRM_DPRES(+V)out	violet	R	EL3154	4	24V	P	2	5
H1:PSL-ENV_DIODERMTOCHILLERRM_DPRES(current)in	green	R	EL3154	4	I3	AI	2	18
(Empty)	violet	R	EL3154	4	24V	P	2	6
(Empty)	green	R	EL3154	4	I4	AI	2	19
<b>IO PZTs</b>								
Return	black	R	EL9190	5	-	P	3	1/8
V-Mon 1 +	green	R	EL3104	6	+1	AI	3	1/3
V-Mon 1 -	white	R	EL3104	6	-1	AI	R/5	Return
V-Mon 2 +	green	R	EL3104	6	+12	AI	3	1/4
V-Mon 2 -	white	R	EL3104	6	-12	AI	R/5	Return
SGS-Mon X +	green	R	EL3104	6	+13	AI	3	1/9
SGS-Mon X -	white	R	EL3104	6	-13	AI	R/5	Return
SGS-Mon Y +	green	R	EL3104	6	+14	AI	3	1/10
SGS-Mon Y -	white	R	EL3104	6	-14	AI	R/5	Return
Return	black	R	EL9190	7	-	P	3	2/8
V-Mon 1 +	green	R	EL3104	8	+11	AI	3	2/3
V-Mon 1 -	white	R	EL3104	8	-11	AI	R/7	Return
V-Mon 2 +	green	R	EL3104	8	+12	AI	3	2/4
V-Mon 2 -	white	R	EL3104	8	-12	AI	R/7	Return
SGS-Mon X +	green	R	EL3104	8	+13	AI	3	2/9
SGS-Mon X -	white	R	EL3104	8	-13	AI	R/7	Return
SGS-Mon Y +	green	R	EL3104	8	+14	AI	3	2/10
SGS-Mon Y -	white	R	EL3104	8	-14	AI	R/7	Return
<b>Rotation Stage Feed</b>								
Output	CAT5	R	EK2211	9	X1	Comm.	L/0	IN
Output	CAT5	R	EK2211	9	X2	Comm.	L/10	IN
Relay 11	violet	R	EL2612	11	11	Contact	TBLOCK	+V

Relay 12 (see page 1)	violet	R	EL2612	11	12	Contact	L/0	24V
Relay 14 (empty)		R	EL2612	11	14	Contact		
Relay 21	violet	R	EL2612	11	21	Contact	TBLOCK	+V
Relay 22 (see page 1)	violet	R	EL2612	11	22	Contact	L/10	24V
Relay 24 (empty)		R	EL2612	11	24	Contact		
<b>Picomotor Controller A (**)</b>								
0V	gray	R	EL3102	13	COM	P	TBLOCK	
Temperature Monitor 1 +	green	R	EL3102	13	+I1	AI	4	6
Temperature Monitor 1 –	white	R	EL3102	13	-I1	AI	4	5
Temperature Monitor 2 +	green	R	EL3102	13	+I2	AI	4	4
Temperature Monitor 2 –	white	R	EL3102	13	-I2	AI	4	3
Driver Fault 1	brown	R	EL1014	14	I1	BI	4	10
Driver Fault 2	brown	R	EL1014	14	I2	BI	4	9
Remote ON	brown	R	EL1014	14	I3	BI	4	8
Power ON	brown	R	EL1014	14	I4	BI	4	7
Readbacks	IDC	R	EL1872	15	X1	BI	4	P12
24V	violet	R	EL1872	15	1	P	TBLOCK	
0V	gray	R	EL1872	15	2	P	TBLOCK	
Controls	IDC	R	EL2872	16	X1	BO	4	P11
24V	violet	R	EL2872	16	1	P	TBLOCK	
0V	gray	R	EL2872	16	2	P	TBLOCK	
<b>T-SAMS</b>								
Voltage Mon 1A +	green	R	EL3104	18	+I1	AI	6A	4
Voltage Mon 1A –	white	R	EL3104	18	-I1	AI	6A	17
Current Mon 1A +	green	R	EL3104	18	+I2	AI	6A	3
Current Mon 1A –	white	R	EL3104	18	-I2	AI	6A	16
Voltage Mon 2A +	green	R	EL3104	18	+I3	AI	6A	2
Voltage Mon 2A –	white	R	EL3104	18	-I3	AI	6A	15
Current Mon 2A +	green	R	EL3104	18	+I4	AI	6A	1
Current Mon 2A –	white	R	EL3104	18	-I4	AI	6A	14
Voltage Mon 1B +	green	R	EL3104	19	+I1	AI	6B	4
Voltage Mon 1B –	white	R	EL3104	19	-I1	AI	6B	17
Current Mon 1B +	green	R	EL3104	19	+I2	AI	6B	3
Current Mon 1B –	white	R	EL3104	19	-I2	AI	6B	16
Voltage Mon 2B +	green	R	EL3104	19	+I3	AI	6B	2
Voltage Mon 2B –	white	R	EL3104	19	-I3	AI	6B	15
Current Mon 2B +	green	R	EL3104	19	+I4	AI	6B	1
Current Mon 2B –	white	R	EL3104	19	-I4	AI	6B	14
Temperature Supply 1A +	red	R	EL3692	20	+R1	AI	6A	10
Temperature Supply 1A –	black	R	EL3692	20	-R1	AI	6A	23
Temperature Readback 1A +	green	R	EL3692	20	+RL1	AI	6A	12
Temperature Readback 1A –	white	R	EL3692	20	-RL1	AI	6A	25
Temperature Supply 2A +	red	R	EL3692	20	+R2	AI	6A	9
Temperature Supply 2A –	black	R	EL3692	20	-R2	AI	6A	22
Temperature Readback 2A +	green	R	EL3692	20	+RL2	AI	6A	11
Temperature Readback 2A –	white	R	EL3692	20	-RL2	AI	6A	24
Temperature Supply 1B +	red	R	EL3692	21	+R1	AI	6B	10
Temperature Supply 1B –	black	R	EL3692	21	-R1	AI	6B	23
Temperature Readback 1B +	green	R	EL3692	21	+RL1	AI	6B	12
Temperature Readback 1B –	white	R	EL3692	21	-RL1	AI	6B	25
Temperature Supply 2B +	red	R	EL3692	21	+R2	AI	6B	9
Temperature Supply 2B –	black	R	EL3692	21	-R2	AI	6B	22
Temperature Readback 2B +	green	R	EL3692	21	+RL2	AI	6B	11
Temperature Readback 2B –	white	R	EL3692	21	-RL2	AI	6B	24
Set current/voltage 1A +	blue	R	EL4132	22	O1	AO	6A	6
Set current/voltage 1A –	yellow	R	EL4132	22	COM	AO	6A	19
Set current/voltage 1B +	blue	R	EL4132	22	O2	AO	6B	6
Set current/voltage 1B –	yellow	R	EL4132	22	COM	AO	6B	19

\*\* Terminal order is out-of sequence between the two picomotor controllers (EL1872 and EL2872 are clustered at the end)