

Interfaces of the Safety System															
Laser1	From		To	Type	Scale	Level	Node	Input Board	Slot	Input Pt.	Terminal Block	Connector	Connector Pin	Word #	S/W Bit
Laser1 Emission ON	Laser1	->	SS	Galvanic Relay	24VDC	Closed = Emission ON	AO	1746-IB32	3	0	TB-1- 0	Laser1	P1-A	Input0	0
Laser1 Safety Status	Laser1	->	SS	Galvanic Relay	24VDC	Opened = Faulted	AO	1746-IB32	3	1	TB-1- 1	Laser1	P1-B	Input0	1
Laser1 Output Shutter Closed	Laser1	->	SS	Galvanic Relay	24VDC	Closed = Shutter Closed	AO	1746-IB32	3	2	TB-1- 2	Laser1	P1-C	Input0	2
Laser1 Output Shutter Fault	Laser1	->	SS	Galvanic Relay	24VDC	Opened = Faulted	AO	1746-IB32	3	3	TB-1- 3	Laser1	P1-D	Input0	3
Laser1 Emergency Shutdown	SS	->	Laser1	Digital	24VDC	24VDC = Shutdown	AO	1746-OB32	6	0	TB-4- 0	Laser1	P1-E	Output0	0
Laser1 Output Shutter Command	SS	->	Laser1	Digital	24VDC	24VDC = Close Shutter	AO	1746-OB32	6	1	TB-4- 1	Laser1	P1-F	Output0	1
Laser2	From		To	Type	Scale	Level									
Laser2 Emission ON	Laser2	->	SS	Galvanic Relay	24VDC	Closed = Emission ON	AO	1746-IB32	3	4	TB-1- 4	Laser2	P2-A	Input0	4
Laser2 Safety Status	Laser2	->	SS	Galvanic Relay	24VDC	Opened = Faulted	AO	1746-IB32	3	5	TB-1- 5	Laser2	P2-B	Input0	5
Laser2 Output Shutter Closed	Laser2	->	SS	Galvanic Relay	24VDC	Closed = Shutter Closed	AO	1746-IB32	3	6	TB-1- 6	Laser2	P2-C	Input0	6
Laser2 Output Shutter Fault	Laser2	->	SS	Galvanic Relay	24VDC	Opened = Faulted	AO	1746-IB32	3	7	TB-1- 7	Laser2	P2-D	Input0	7
Laser2 Emergency Shutdown	SS	->	Laser2	Digital	24VDC	24VDC = Shutdown	AO	1746-OB32	6	2	TB-4- 2	Laser2	P2-E	Output0	2
Laser2 Output Shutter Command	SS	->	Laser2	Digital	24VDC	24VDC = Close Shutter	AO	1746-OB32	6	3	TB-4- 3	Laser2	P2-F	Output0	3
Laser3	From		To	Type	Scale	Level									
Laser3 Emission ON	Laser3	->	SS	Galvanic Relay	24VDC	Closed = Emission ON	AO	1746-IB32	3	8	TB-1- 8	Laser3	P3-A	Input0	8
Laser3 Safety Status	Laser3	->	SS	Galvanic Relay	24VDC	Opened = Faulted	AO	1746-IB32	3	9	TB-1- 9	Laser3	P3-B	Input0	9
Laser3 Output Shutter Closed	Laser3	->	SS	Galvanic Relay	24VDC	Closed = Shutter Closed	AO	1746-IB32	3	10	TB-1- 10	Laser3	P3-C	Input0	10
Laser3 Output Shutter Fault	Laser3	->	SS	Galvanic Relay	24VDC	Opened = Faulted	AO	1746-IB32	3	11	TB-1- 11	Laser3	P3-D	Input0	11
Laser3 Emergency Shutdown	SS	->	Laser3	Digital	24VDC	24VDC = Shutdown	AO	1746-OB32	6	4	TB-4- 4	Laser3	P3-E	Output0	4
Laser3 Output Shutter Command	SS	->	Laser3	Digital	24VDC	24VDC = Close Shutter	AO	1746-OB32	6	5	TB-4- 5	Laser3	P3-F	Output0	5
Laser4	From		To	Type	Scale	Level									
Laser4 Emission ON	Laser4	->	SS	Galvanic Relay	24VDC	Closed = Emission ON	AO	1746-IB32	3	12	TB-1- 12	Laser4	P4-A	Input0	12
Laser4 Safety Status	Laser4	->	SS	Galvanic Relay	24VDC	Opened = Faulted	AO	1746-IB32	3	13	TB-1- 13	Laser4	P4-B	Input0	13
Laser4 Output Shutter Closed	Laser4	->	SS	Galvanic Relay	24VDC	Closed = Shutter Closed	AO	1746-IB32	3	14	TB-1- 14	Laser4	P4-C	Input0	14
Laser4 Output Shutter Fault	Laser4	->	SS	Galvanic Relay	24VDC	Opened = Faulted	AO	1746-IB32	3	15	TB-1- 15	Laser4	P4-D	Input0	15
Laser4 Emergency Shutdown	SS	->	Laser4	Digital	24VDC	24VDC = Shutdown	AO	1746-OB32	6	6	TB-4- 6	Laser4	P4-E	Output0	6
Laser4 Output Shutter Command	SS	->	Laser4	Digital	24VDC	24VDC = Close Shutter	AO	1746-OB32	6	7	TB-4- 7	Laser4	P4-F	Output0	7
Launch Facility															
Beam Position X	LF	->	SS	Analog	0-10VDC	Calibration for 5VDC center	AO	1746-IB32	3	16	TB-1- 16	LF	P5-A	Input1	0
Beam Position Y	LF	->	SS	Analog	0-10VDC	Calibration for 5VDC center	AO	1746-IB32	3	17	TB-1- 17	LF	P5-B	Input1	1
Beam Power	LF	->	SS	Analog	0-10VDC	Calibration; 10VDC max power	AO	1746-IB32	3	18	TB-1- 18	LF	P5-C	Input1	2
LF Cover Status	LF	->	SS	Switch	24VDC	Switch Closed = Cabinet Closed	AO	1746-IB32	3	19	TB-1- 19	LF	P5-D	Input1	3
LF E-Stop Activated	LF	->	SS	Switch	24VDC	Switch Closed = Not Activated	AO	1746-IB32	3	20	TB-1- 20	LF	P5-E	Input1	4
Humidity Alarm	LF	->	SS	Switch	24VDC	Switch Closed = No Alarm	AO	1746-IB32	3	21	TB-1- 21	LF	P5-F	Input1	5
Temperature Alarm	LF	->	SS	Switch	24VDC	Switch Closed = Not Activated	AO	1746-IB32	3	22	TB-1- 22	LF	P5-G	Input1	6
Launch Facility IN Position	LF	->	SS	Switch	24VDC	Switch Closed = In Position	AO	1746-IB32	3	23	TB-1- 23	LF	P5-H	Input1	7
Fast Shutter Closed	LF	->	SS	Switch	24VDC	Switch Closed = Shutter NOT Closed	AO	1746-IB32	3	24	TB-1- 24	LF	P5-J	Input1	8
Fast Shutter Opened	LF	->	SS	Switch	24VDC	Switch Closed = Shutter NOT Opened	AO	1746-IB32	3	25	TB-1- 25	LF	P5-K	Input1	9
LF Environmental System Status	LF	->	SS	Digital	24VDC	Switch Closed = Not Faulted	AO	1746-IB32	3	26	TB-1- 26	LF	P5-M	Input1	10
LF Request for Status	LF	->	SS	Momentary Switch	24VDC	Switch Closed = Request	AO	1746-IB32	3	27	TB-1- 27	LF	P5-N	Input1	11
LF Status Green	SS	->	LF	Digital	24VDC	24VDC = LED ON	AO	1746-OB32	6	8	TB-4- 8	LF	P5-P	Output0	8
LF Status Yellow	SS	->	LF	Digital	24VDC	24VDC = LED ON	AO	1746-OB32	6	9	TB-4- 9	LF	P5-R	Output0	9
LF Status Red	SS	->	LF	Digital	24VDC	24VDC = LED ON	AO	1746-OB32	6	10	TB-4- 10	LF	P5-S	Output0	10
Laser Service Enclosure 1															
LSE1 E-Stop Activated	LSE1	->	SS	Switch	24VDC	Switch Closed = Not Activated	AO	1746-IB32	4	0	TB-2- 0	LSE1	P6-A	Input2	
LSE1 SS Reset Activated	LSE1	->	SS	Momentary Switch	24VDC	Switch Closed = Reset	AO	1746-IB32	4	1	TB-2- 1	LSE1	P6-B	Input2	0
LSE1 Door Status	LSE1	->	SS	Switch	24VDC	Switch Closed = Door Closed	AO	1746-IB32	4	2	TB-2- 2	LSE1	P6-C	Input2	1
LSE1 Laser1 Cabinet Status	LSE1	->	SS	Switch	24VDC	Switch Closed = Cabinet Closed	AO	1746-IB32	4	3	TB-2- 3	LSE1	P6-D	Input2	2
LSE1 Laser2 Cabinet Status	LSE1	->	SS	Switch	24VDC	Switch Closed = Cabinet Closed	AO	1746-IB32	4	4	TB-2- 4	LSE1	P6-E	Input2	3
LSE1 Fire Alarm	LSE1	->	SS	Switch	24VDC	Switch Closed = No Alarm	AO	1746-IB32	4	5	TB-2- 5	LSE1	P6-F	Input2	4
LSE1 Humidity Alarm	LSE1	->	SS	Switch	24VDC	Switch Closed = No Alarm	AO	1746-IB32	4	6	TB-2- 6	LSE1	P6-G	Input2	5
LSE1 Room Temperature Alarm	LSE1	->	SS	Switch	24VDC	Switch Closed = No Alarm	AO	1746-IB32	4	7	TB-2- 7	LSE1	P6-H	Input2	6
LSE1 Glycol In Temperature Alarm	LSE1	->	SS	Switch	24VDC	Switch Closed = No Alarm	AO	1746-IB32	4	8	TB-2- 8	LSE1	P6-J	Input2	7
LSE1 Laser1 Glycol Flow Alarm	LSE1	->	SS	Switch	24VDC	Switch Closed = No Alarm	AO	1746-IB32	4	9	TB-2- 9	LSE1	P6-K	Input2	8
LSE1 Laser2 Glycol Flow Alarm	LSE1	->	SS	Switch	24VDC	Switch Closed = No Alarm	AO	1746-IB32	4	10	TB-2- 10	LSE1	P6-M	Input2	9
LSE1 Request for Status	LSE1	->	SS	Momentary Switch	24VDC	Switch Closed = Request	AO	1746-IB32	4	11	TB-2- 11	LSE1	P6-N	Input2	10
LSE1 Environmental System Status	LSE1	->	SS	Digital	24VDC	Switch Closed = Not Faulted	AO	1746-IB32	4	12	TB-2- 12	LSE1	P6-P	Input2	11
LSE1 Door Lock Command	SS	->	LSE1	Digital	24VDC	24VDC = Unlock	AO	1746-OB32	6	13	TB-4- 13	LSE1	P6-R	Output1	0
LSE1 Door Lock Status Blue	SS	->	LSE1	Digital	24VDC	24VDC = LED ON Unlocked	AO	1746-OB32	6	14	TB-4- 14	LSE1	P6-S	Output1	1
LSE1 Audible Alarm	SS	->	LSE1	Digital	24VDC	24VDC = Alarm	AO	1746-OB32	6	15	TB-4- 15	LSE1	P6-T	Output1	2
LSE1 Status Green	SS	->	LSE1	Digital	24VDC	24VDC = LED ON	AO	1746-OB32	6	16	TB-4- 16	LSE1	P6-U	Output1	3
LSE1 Status Yellow	SS	->	LSE1	Digital	24VDC	24VDC = LED ON	AO	1746-OB32	6	17	TB-4- 17	LSE1	P6-V	Output1	4
LSE1 Status Red	SS	->	LSE1	Digital	24VDC	24VDC = LED ON	AO	1746-OB32	6	18	TB-4- 18	LSE1	P6-W	Output1	5

LSE1 Shunt Trip	SS	->	LSE1	Digital	24VDC	24VDC = LED ON	AO	1746-OB32	6	19	TB-4- 19	LSE1	P6-X	Output1	6
Laser Service Enclosure 2															
LSE2 E-Stop Activated	LSE2	->	SS	Switch	24VDC	Switch Closed = Not Activated	AO								
LSE2 SS Reset Activated	LSE2	->	SS	Momentary Switch	24VDC	Switch Closed = Reset	AO	1746-IB32	4	16	TB-2- 16	LSE2	P7-A	Input3	1
LSE2 Door Status	LSE2	->	SS	Switch	24VDC	Switch Closed = Door Closed	AO	1746-IB32	4	17	TB-2- 17	LSE2	P7-B	Input3	2
LSE2 Laser3 Cabinet Status	LSE2	->	SS	Switch	24VDC	Switch Closed = Cabinet Closed	AO	1746-IB32	4	18	TB-2- 18	LSE2	P7-C	Input3	3
LSE2 Laser4 Cabinet Status (Spare)	LSE2	->	SS	Switch	24VDC	Switch Closed = Cabinet Closed	AO	1746-IB32	4	19	TB-2- 19	LSE2	P7-D	Input3	4
LSE2 Fire Alarm	LSE2	->	SS	Switch	24VDC	Switch Closed = No Alarm	AO	1746-IB32	4	20	TB-2- 20	LSE2	P7-E	Input3	5
LSE2 Humidity Alarm	LSE2	->	SS	Switch	24VDC	Switch Closed = No Alarm	AO	1746-IB32	4	21	TB-2- 21	LSE2	P7-F	Input3	6
LSE2 Room Temperature Alarm	LSE2	->	SS	Switch	24VDC	Switch Closed = No Alarm	AO	1746-IB32	4	22	TB-2- 22	LSE2	P7-G	Input3	7
LSE2 Glycol In Temperature Alarm	LSE2	->	SS	Switch	24VDC	Switch Closed = No Alarm	AO	1746-IB32	4	23	TB-2- 23	LSE2	P7-H	Input3	8
LSE2 Laser3 Glycol Flow Alarm	LSE2	->	SS	Switch	24VDC	Switch Closed = No Alarm	AO	1746-IB32	4	24	TB-2- 24	LSE2	P7-I	Input3	9
LSE2 Laser4 Glycol Flow Alarm (Spare)	LSE2	->	SS	Switch	24VDC	Switch Closed = No Alarm	AO	1746-IB32	4	25	TB-2- 25	LSE2	P7-K	Input3	10
LSE2 Request for Status	LSE2	->	SS	Momentary Switch	24VDC	Switch Closed = Request	AO	1746-IB32	4	26	TB-2- 26	LSE2	P7-M	Input3	11
LSE2 Environmental System Status	LSE2	->	SS	Digital	24VDC	Switch Closed = Not Faulted	AO	1746-IB32	4	27	TB-2- 27	LSE2	P7-N	Input3	12
LSE2 Door Lock Command	SS	->	LSE2	Digital	24VDC	24VDC = Unlock	AO	1746-IB32	4	28	TB-2- 28	LSE2	P7-P	Input3	13
LSE2 Door Lock Status Blue	SS	->	LSE2	Digital	24VDC	24VDC = LED ON Unlocked	AO	1746-OB32	6	20	TB-4- 20	LSE2	P7-R	Output1	8
LSE2 Audible Alarm	SS	->	LSE2	Digital	24VDC	24VDC = Alarm	AO	1746-OB32	6	21	TB-4- 21	LSE2	P7-S	Output1	9
LSE2 Status Green	SS	->	LSE2	Digital	24VDC	24VDC = LED ON	AO	1746-OB32	6	22	TB-4- 22	LSE2	P7-T	Output1	10
LSE2 Status Yellow	SS	->	LSE2	Digital	24VDC	24VDC = LED ON	AO	1746-OB32	6	23	TB-4- 23	LSE2	P7-U	Output1	11
LSE2 Status Red	SS	->	LSE2	Digital	24VDC	24VDC = LED ON	AO	1746-OB32	6	24	TB-4- 24	LSE2	P7-V	Output1	12
LSE2 Shunt Trip	SS	->	LSE2	Digital	24VDC	24VDC = LED ON	AO	1746-OB32	6	25	TB-4- 25	LSE2	P7-W	Output1	13
								1746-OB32	6	26	TB-4- 26	LSE2	P7-X	Output1	14
Adaptive Optics Facility															
AOF Temperature Alarm	AOF	->	SS	Digital	24VDC	Switch Closed = No Alarm	AO	1746-IB32	5	0	TB-3- 0	Local	-	Input4	0
AOF Glycol Temperature Alarm	AOF	->	SS	Digital	24VDC	Switch Closed = No Alarm	AO	1746-IB32	5	1	TB-3- 1	Local	-	Input4	1
AOF Glycol Flow Alarm	AOF	->	SS	Digital	24VDC	Switch Closed = No Alarm	AO	1746-IB32	5	2	TB-3- 2	Local	-	Input4	2
AOF Shunt Trip	SS	->	SS	Digital	24VDC	Switch Closed = Activation	AO	1746-OB32	6	27	TB-4- 27	Local	-	Output1	15
Facility															
Facility E-Stop Activated	LF	->	SS	Analog	110VAC	110VAC = Not Activated	CR	1746-IB32	3	0	TB-1- 0	Local	-	CR1	0
Dome Status Green	SS	->	LF	Digital	24VDC	24VDC = LED ON	CR	1746-IB32	3	1	TB-1- 1	Facility	P1-A	CR1	1
Dome Status Yellow	SS	->	LF	Digital	24VDC	24VDC = LED ON	CR	1746-IB32	3	2	TB-1- 2	Facility	P1-B	CR1	2
Dome Status Red	SS	->	LF	Digital	24VDC	24VDC = LED ON	CR	1746-IB32	3	3	TB-1- 3	Facility	P1-C	CR1	3
Aircraft Detection															
Boresight Camera/Processor Detection	AD	->	SS	Relay	24VDC	24VDC = No Detection	CR	1746-IB32	3	4	TB-1- 4	Local	-	CR1	4
Boresight Camera/Processor Operating	AD	->	SS	Relay	24VDC	24VDC = Operating	CR	1746-IB32	3	5	TB-1- 5	Local	-	CR1	5
East Spotter Connected	AD	->	SS	Switch	24VDC	24VDC = Connected	CR	1746-IB32	3	6	TB-1- 6	Local	-	CR1	6
East Spotter Activated	AD	->	SS	Switch	24VDC	24VDC = No Detection	CR	1746-IB32	3	7	TB-1- 7	Local	-	CR1	7
West Spotter Connected	AD	->	SS	Switch	24VDC	24VDC = Connected	CR	1746-IB32	3	8	TB-1- 8	Local	-	CR1	8
West Spotter Activated	AD	->	SS	Switch	24VDC	24VDC = No Detection	CR	1746-IB32	3	9	TB-1- 9	Local	-	CR1	9
Laser Interface System															
Communications	LIS	<->	SS	Serial RS232											
LIS Heartbeat	LIS	->	SS	Software	16-bit word	1-300								In0	
SS Heartbeat	SS	->	LIS	Software	16-bit word	1-300								In1	
Drive and Control Permissive	LIS	->	SS	Software	Level	1=Permissive								In2	0
Observing Assistant Permissive	LIS	->	SS	Software	Level	1=Permissive								In2	1
Laser Traffic Control System Permissive	LIS	->	SS	Software	Level	1=Permissive								In2	2
Laser Clearinghouse Permissive	LIS	->	SS	Software	Level	1=Permissive								In2	3
ASCAM Permissive	LIS	->	SS	Software	Level	1=Permissive								In2	4
Laser E-Stop Command	LIS	->	SS	Software	Level	1=Activate E-STOP								In2	5
Open Laser Shutter Command	LIS	->	SS	Software	Edge	Rising Edge = Open; 0 =Close								In2	6
Open Fast Shutter Command	LIS	->	SS	Software	Edge	Rising Edge = Open; 0 =Close								In2	7
Reset SS Fault Status	LIS	->	SS	Software	Edge	Rising Edge = Clear								In2	8
SS Heartbeat Interface Fault Latch	LIS	->	SS	Software	Level	1= Latched								In2	9
Facility E-Stop Activated Latch	SS	->	LIS	Software	Level	1= Latched								Out0	0
Laser E-Stop Activated Latch	SS	->	LIS	Software	Level	1= Latched								Out0	1
Programmable Logic Controller Fault	SS	->	LIS	Software	Level	1= Latched								Out0	2
LSE1 Smoke Alarm Activated Latch	SS	->	LIS	Software	Level	1= Latched								Out1	0
LSE1 Laser1 Glycol Flow Low Latch	SS	->	LIS	Software	Level	1= Latched								Out1	1
LSE1 Laser2 Glycol Flow Low Latch	SS	->	LIS	Software	Level	1= Latched								Out1	2
LSE1 Glycol In Temp Alarm Latch	SS	->	LIS	Software	Level	1= Latched								Out1	3
LSE1 Room Temp Alarm Latch	SS	->	LIS	Software	Level	1= Latched								Out1	4
LSE1 Humidity Alarm Latch	SS	->	LIS	Software	Level	1= Latched								Out1	5

LSE1 Beam Interlock Fault Latch	SS	->	LIS	Software	Level	1= Latched											Out1	6
LSE2 Smoke Alarm Activated Latch	SS	->	LIS	Software	Level	1= Latched											Out1	7
LSE2 Laser3 Glycol Flow Low Latch	SS	->	LIS	Software	Level	1= Latched											Out1	8
LSE2 Laser4 Glycol Flow Low Latch	SS	->	LIS	Software	Level	1= Latched											Out1	9
LSE2 Glycol In Temp Alarm Latch	SS	->	LIS	Software	Level	1= Latched											Out1	10
LSE2 Room Temp Alarm Latch	SS	->	LIS	Software	Level	1= Latched											Out1	11
LSE2 Humidity Alarm Latch	SS	->	LIS	Software	Level	1= Latched											Out1	12
LSE2 Beam Interlock Fault Latch	SS	->	LIS	Software	Level	1= Latched											Out1	13
East Spotter Activated Latch	SS	->	LIS	Software	Level	1= Latched											Out2	0
West Spotter Activated Latch	SS	->	LIS	Software	Level	1= Latched											Out2	1
East Spotter Disconnected Latch	SS	->	LIS	Software	Level	1= Latched											Out2	2
West Spotter Disconnected Latch	SS	->	LIS	Software	Level	1= Latched											Out2	3
DCS Permissive Dropped while Propagating Latch	SS	->	LIS	Software	Level	1= Latched											Out2	4
LTCS Permissive Dropped while Propagating Latch	SS	->	LIS	Software	Level	1= Latched											Out2	5
OA Permissive Dropped while Propagating Latch	SS	->	LIS	Software	Level	1= Latched											Out2	6
LCH Permissive Dropped while Propagating Latch	SS	->	LIS	Software	Level	1= Latched											Out2	7
ASCAM Permissive Dropped while Propagating Latch	SS	->	LIS	Software	Level	1= Latched											Out2	8
Laser1 Safety Status Failed Latch	SS	->	LIS	Software	Level	1= Latched											Out3	0
Laser1 Output Shutter Fault Latch	SS	->	LIS	Software	Level	1= Latched											Out3	1
Laser2 Safety Status Failed Latch	SS	->	LIS	Software	Level	1= Latched											Out3	2
Laser2 Output Shutter Fault Latch	SS	->	LIS	Software	Level	1= Latched											Out3	3
Laser3 Safety Status Failed Latch	SS	->	LIS	Software	Level	1= Latched											Out3	4
Laser3 Output Shutter Fault Latch	SS	->	LIS	Software	Level	1= Latched											Out3	5
Laser4 Safety Status Failed Latch	SS	->	LIS	Software	Level	1= Latched											Out3	6
Laser4 Output Shutter Fault Latch	SS	->	LIS	Software	Level	1= Latched											Out3	7
LF Fast Shutter Faulted Latch	SS	->	LIS	Software	Level	1= Latched											Out4	0
LF Beam Misalignment Fault Latch	SS	->	LIS	Software	Level	1= Latched											Out4	1
LF Beam Power Low Fault Latch	SS	->	LIS	Software	Level	1= Latched											Out4	2
LF Beam Interlock Fault Latch	SS	->	LIS	Software	Level	1= Latched											Out4	3
LF Humidity Alarm Latch	SS	->	LIS	Software	Level	1= Latched											Out4	4
LF Temperature Alarm Latch	SS	->	LIS	Software	Level	1= Latched											Out4	5
LF Final Shutter Permissive	SS	->	LIS	Software	Level	1=Permissive											Out4	6
LF Fast Shutter Status	SS	->	LIS	Software	Level	1=Open											Out4	7
Propagating On Sky	SS	->	LIS	Software	Level	1=On Sky Propagatin											Out4	8
AOF Temperature Alarm Latch	SS	->	LIS	Software	Level	1= Latched											Out5	0
AOF Glycol Temperature Alarm Latch	SS	->	LIS	Software	Level	1= Latched											Out5	1
AOF Glycol Flow Alarm Latch	SS	->	LIS	Software	Level	1= Latched											Out5	2
SS Internal I/O																		
Computer Room Node																		
CR Laser E-Stop Activation	CR	->	CR PLC	Switch	24VDC	Switch Closed = Not Activated	CR	1746-IB32	3	16	TB-1- 16	Local	-			CR12	0	
CR SS Fault Reset	CR	->	CR PLC	Momentary Switch	24VDC	Switch Closed = Reset	CR	1746-IB32	3	17	TB-1- 17	Local	-			CR12	1	
User Mode 1	CR	->	CR PLC	Switch	24VDC	Switch Closed =	CR	1746-IB32	3	18	TB-1- 18	Local	-			CR12	2	
User Mode 2	CR	->	CR PLC	Switch	24VDC	Switch Closed =	CR	1746-IB32	3	19	TB-1- 19	Local	-			CR12	3	
User Mode 3	CR	->	CR PLC	Switch	24VDC	Switch Closed =	CR	1746-IB32	3	20	TB-1- 20	Local	-			CR12	4	
User Mode 4	CR	->	CR PLC	Switch	24VDC	Switch Closed =	CR	1746-IB32	3	21	TB-1- 21	Local	-			CR12	5	
User Mode 5	CR	->	CR PLC	Switch	24VDC	Switch Closed =	CR	1746-IB32	3	22	TB-1- 22	Local	-			CR12	6	
User Mode 6	CR	->	CR PLC	Switch	24VDC	Switch Closed =	CR	1746-IB32	3	23	TB-1- 23	Local	-			CR12	7	
User Mode 7	CR	->	CR PLC	Switch	24VDC	Switch Closed =	CR	1746-IB32	3	24	TB-1- 24	Local	-			CR12	8	
User Mode 8	CR	->	CR PLC	Switch	24VDC	Switch Closed =	CR	1746-IB32	3	25	TB-1- 25	Local	-			CR12	9	
LED Status 1	CR PLC	->	CR	LED	24VDC	24VDC = ON	CR	1746-OB32	4	0	TB-2- 0	Local	-			CR01	0	
LED Status 2	CR PLC	->	CR	LED	24VDC	24VDC = ON	CR	1746-OB32	4	1	TB-2- 1	Local	-			CR01	1	
LED Status 3	CR PLC	->	CR	LED	24VDC	24VDC = ON	CR	1746-OB32	4	2	TB-2- 2	Local	-			CR01	2	
LED Status 4	CR PLC	->	CR	LED	24VDC	24VDC = ON	CR	1746-OB32	4	3	TB-2- 3	Local	-			CR01	3	
LED Status 5	CR PLC	->	CR	LED	24VDC	24VDC = ON	CR	1746-OB32	4	4	TB-2- 4	Local	-			CR01	4	
LED Status 6	CR PLC	->	CR	LED	24VDC	24VDC = ON	CR	1746-OB32	4	5	TB-2- 5	Local	-			CR01	5	
LED Status 7	CR PLC	->	CR	LED	24VDC	24VDC = ON	CR	1746-OB32	4	6	TB-2- 6	Local	-			CR01	6	
LED Status 8	CR PLC	->	CR	LED	24VDC	24VDC = ON	CR	1746-OB32	4	7	TB-2- 7	Local	-			CR01	7	
Adaptive Optics Node																		
AO Laser E-Stop Activation	AO	->	AO Remote	Switch	24VDC	Switch Closed = Not Activated	AO	1746-IB32	5	8	TB-3- 8	Local	-			Input4	8	
AO SS Fault Reset	AO	->	AO Remote	Momentary Switch	24VDC	Switch Closed = Reset	AO	1746-IB32	5	9	TB-3- 9	Local	-			Input4	9	
LED Status 1	AO Remote	->	AO	LED	24VDC	24VDC = ON	AO	1746-OB32	6	28	TB-4- 28	Local	-			Output2	0	
LED Status 2	AO Remote	->	AO	LED	24VDC	24VDC = ON	AO	1746-OB32	6	29	TB-4- 29	Local	-			Output2	1	
LED Status 3	AO Remote	->	AO	LED	24VDC	24VDC = ON	AO	1746-OB32	6	30	TB-4- 30	Local	-			Output2	2	
LED Status 4	AO Remote	->	AO	LED	24VDC	24VDC = ON	AO	1746-OB32	6	31	TB-4- 31	Local	-			Output2	3	