

Photodiode Amplifier Wiring Diagram										
Name	Color	Cable	Part	Module	Connector	Channel	Type	Module	Connector	Channel
Power										
24V	violet	C14	hook-up wire	D1102051	solder	24V	P	D1301021	P6	24V
0V	gray	C14	hook-up wire	D1102051	solder	GND	P	D1301021	P6	GND
24V	brown	C9	ZK2020-3200-0005	D1301021	P6	24V	P	EP2316-0008	supply in	1
0V	white	C9	ZK2020-3200-0005	D1301021	P6	24V	P	EP2316-0008	supply in	2
24V	blue	C9	ZK2020-3200-0005	D1301021	P6	GND	P	EP2316-0008	supply in	3
0V	black	C9	ZK2020-3200-0005	D1301021	P6	GND	P	EP2316-0008	supply in	4
24V supply	multi	C10	ZK2020-3132-1000	EP2316-0008	supply out	—	P	EP3174-0002	supply in	—
EtherCAT										
Network	multi	C11	ZK1090-3131-0001	EP2316-0008	EtherCAT out	—	CAT5	EP3174-0002	EtherCAT in	—
Network	multi	C12	ZK1090-3191-0004	rear panel	IN	—	CAT5	EP2316-0008	EtherCAT in	—
Network	multi	C13	ZK1090-3191-0004	EP3174-0002	EtherCAT out	—	CAT5	rear panel	OUT	—
Controls										
slow controls	ribbon	C3	H1CXH-5036G-ND	D1102051	P6	—	signal	D1301021	P7	—
								D1102042/U7	P2	—
slow controls	ribbon	C2	H1CXH-5036G-ND	D1102068	P2	—	signal	D1102042/U3	P2	—
Readbacks										
DAQ	special	C1	D1301017/pg 2	D1200543/U1	O1/O2	—	diff	front panel	PD Amp out	—
				D1200543/U6	O1/O2	—				
Sensors										
PD 3 monitor +	green	C5	hook-up wire	D1301021	P1	S1	AI	EP3174-0002	1	2
PD 3 monitor -	white	C5	hook-up wire	D1301021	P1	S20	AI	EP3174-0002	1	4
PD 4 monitor +	green	C6	hook-up wire	D1301021	P2	S2	AI	EP3174-0002	2	2
PD 4 monitor -	white	C6	hook-up wire	D1301021	P2	S21	AI	EP3174-0002	2	4
PD 1 monitor +	green	C7	hook-up wire	D1301021	P3	S5	AI	EP3174-0002	3	2
PD 1 monitor -	white	C7	hook-up wire	D1301021	P3	S24	AI	EP3174-0002	3	4
PD 2 monitor +	green	C8	hook-up wire	D1301021	P4	S6	AI	EP3174-0002	4	2
PD 2 monitor -	white	C8	hook-up wire	D1301021	P4	S25	AI	EP3174-0002	4	4
Gains										
PD gains/OK	ribbon	C4	H7PXH-2506G-ND	D1301021	P5	—	BI/O	EP2316-0008	D-sub	—

Photodiode Amplifier
Software Setup

Ifo	Chassis	Rail	#	Terminal	Channel	#	Name	PLC	Task	IO	Size	Struct	Parameter	Bit	Pos	Len
H1	PD Amp		1	EP2316-0008	Channel	1	Output	PLC2	Standard	Outputs	BOOL	PDamp3Out	Gain	0	0	1
H1	PD Amp		1	EP2316-0008	Channel	2	Output	PLC2	Standard	Outputs	BOOL	PDamp3Out	Gain	1	0	1
H1	PD Amp		1	EP2316-0008	Channel	3	Output	PLC2	Standard	Outputs	BOOL	PDamp4Out	Gain	0	0	1
H1	PD Amp		1	EP2316-0008	Channel	4	Output	PLC2	Standard	Outputs	BOOL	PDamp4Out	Gain	1	0	1
H1	PD Amp		1	EP2316-0008	Channel	5	Output	PLC2	Standard	Outputs	BOOL	PDamp1Out	Gain	0	0	1
H1	PD Amp		1	EP2316-0008	Channel	6	Output	PLC2	Standard	Outputs	BOOL	PDamp1Out	Gain	1	0	1
H1	PD Amp		1	EP2316-0008	Channel	7	Output	PLC2	Standard	Outputs	BOOL	PDamp2Out	Gain	0	0	1
H1	PD Amp		1	EP2316-0008	Channel	8	Output	PLC2	Standard	Outputs	BOOL	PDamp2Out	Gain	1	0	1
H1	PD Amp		1	EP2316-0008	Channel	1	Input	PLC2	Standard	Inputs	BOOL	PDamp1In	OK			
H1	PD Amp		2	EP3174-0002	AI Standard Channel	1	Value	PCL2	Standard	Inputs	WORD	PDamp3In	DCPower			
H1	PD Amp		2	EP3174-0002	AI Standard Channel	2	Value	PCL2	Standard	Inputs	WORD	PDamp4In	DCPower			
H1	PD Amp		2	EP3174-0002	AI Standard Channel	3	Value	PCL2	Standard	Inputs	WORD	PDamp1In	DCPower			
H1	PD Amp		2	EP3174-0002	AI Standard Channel	4	Value	PCL2	Standard	Inputs	WORD	PDamp2In	DCPower			