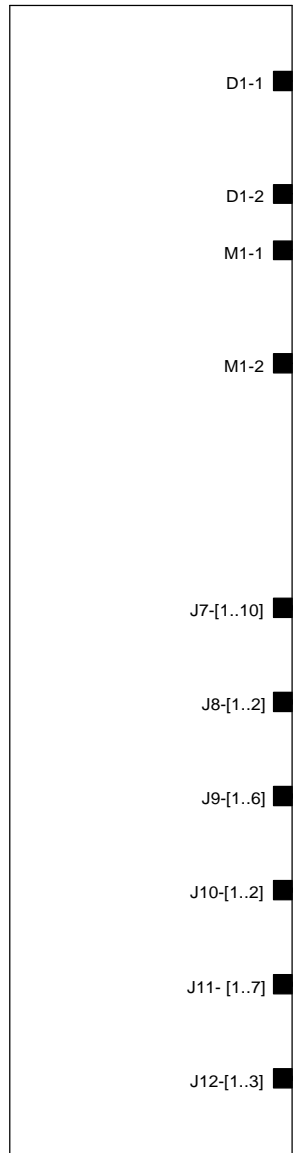
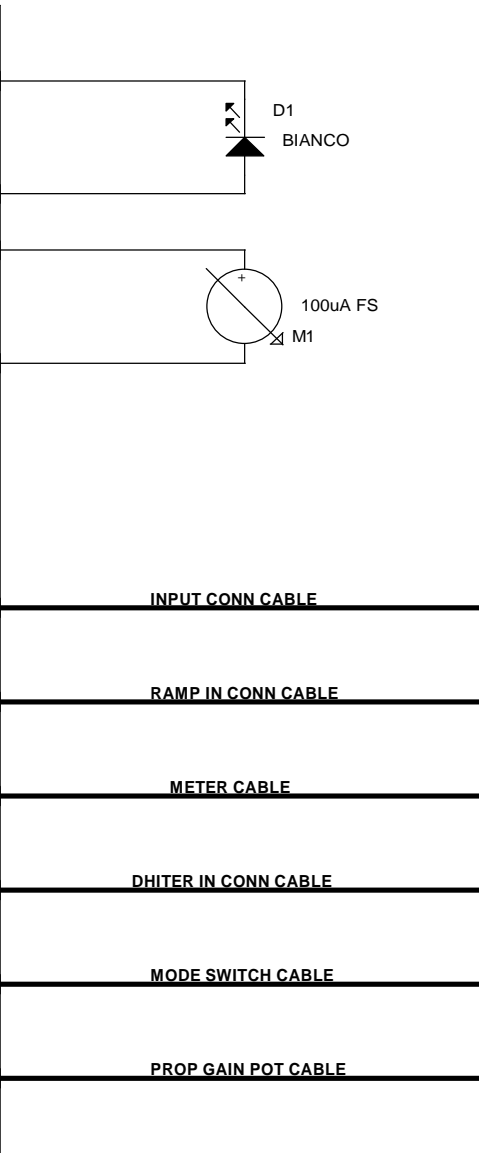


BRD1

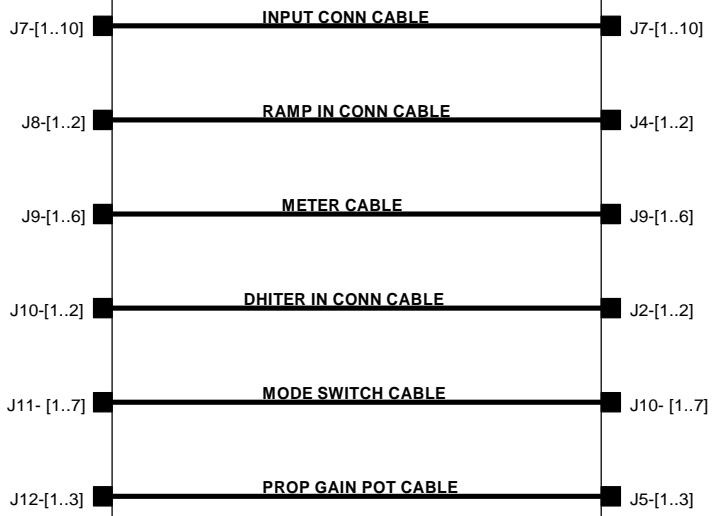
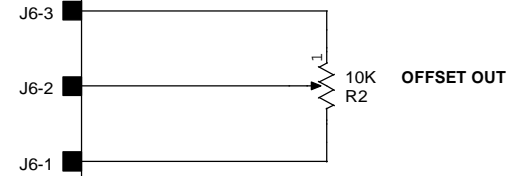
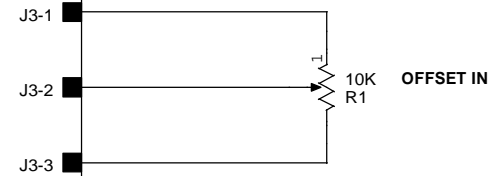
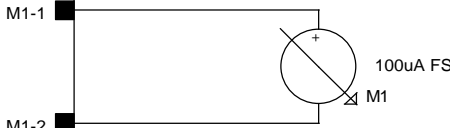
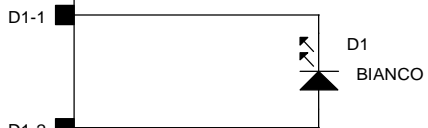
BRD2



FRONTPANEL BOARD



MAIN BOARD



LENS		Via N. Carrara, 1 Sesto Fiorentino (FI)	
Title PID CONTROLLER - ASSEMBLY			
Size A4	Document Number pid_controller_rev0812.dsnVASSY		Rev 00
Date:	Monday, July 12, 2010	Sheet	1 of 1

1: PID CONTROLLER - Assembly Revised: Friday, October 23, 2009

2: pid_controller_rev0812.dsn\Assy Revision: 00

3:

4: LENS

5: Via N. Carrara, 1 Sesto Fiorentino (FI)

6:

7:

8:

9:

10: Bill Of Materials October 23,2009 11:16:03 Page1

11:

12: Item	Quantity	Reference	Description	Value	Supplier Ref
----------	----------	-----------	-------------	-------	--------------

13: _____

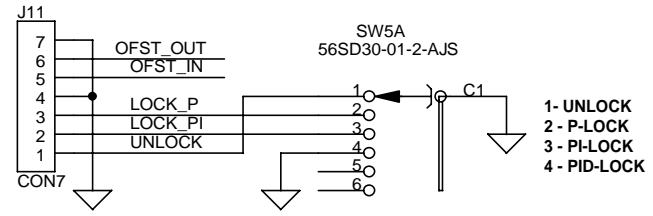
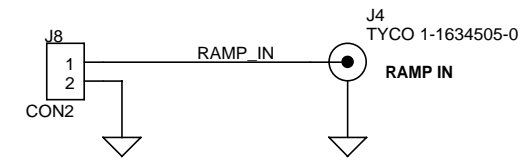
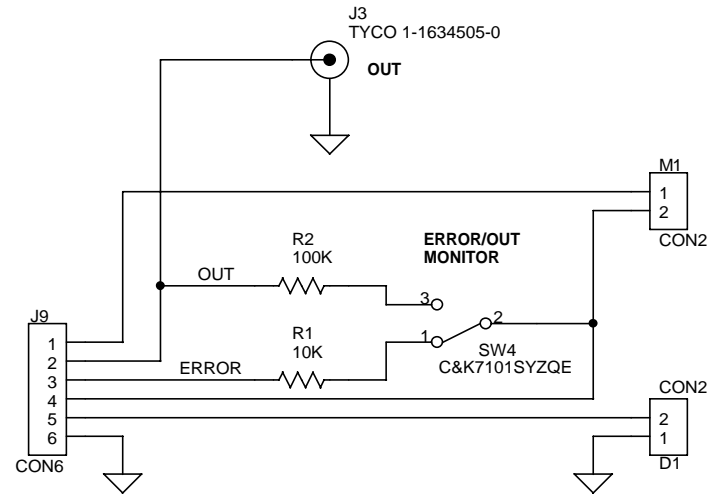
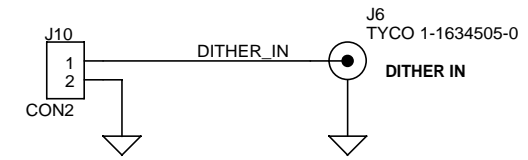
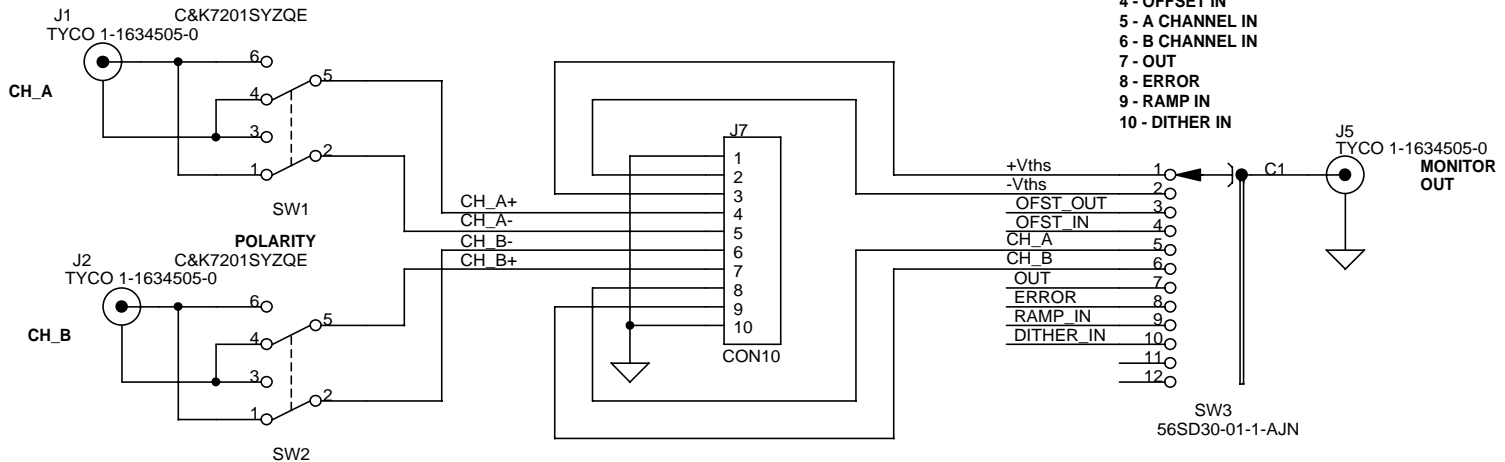
14:

15: 1	1	D1	LED Bianco 3mm Alta Lum.	LW3333-S1T2-5K8L	RS 664-8267
-------	---	----	--------------------------	------------------	-------------

16: 2	1	M1	Microamperometro Pannello	100-0-100 uAFS	RS 259-549
-------	---	----	---------------------------	----------------	------------

17: 3	2	R1,R2	Potenziom. a filo multigi	10K	
-------	---	-------	---------------------------	-----	--

18: 4	2		Manopole per pot. multigi		
-------	---	--	---------------------------	--	--

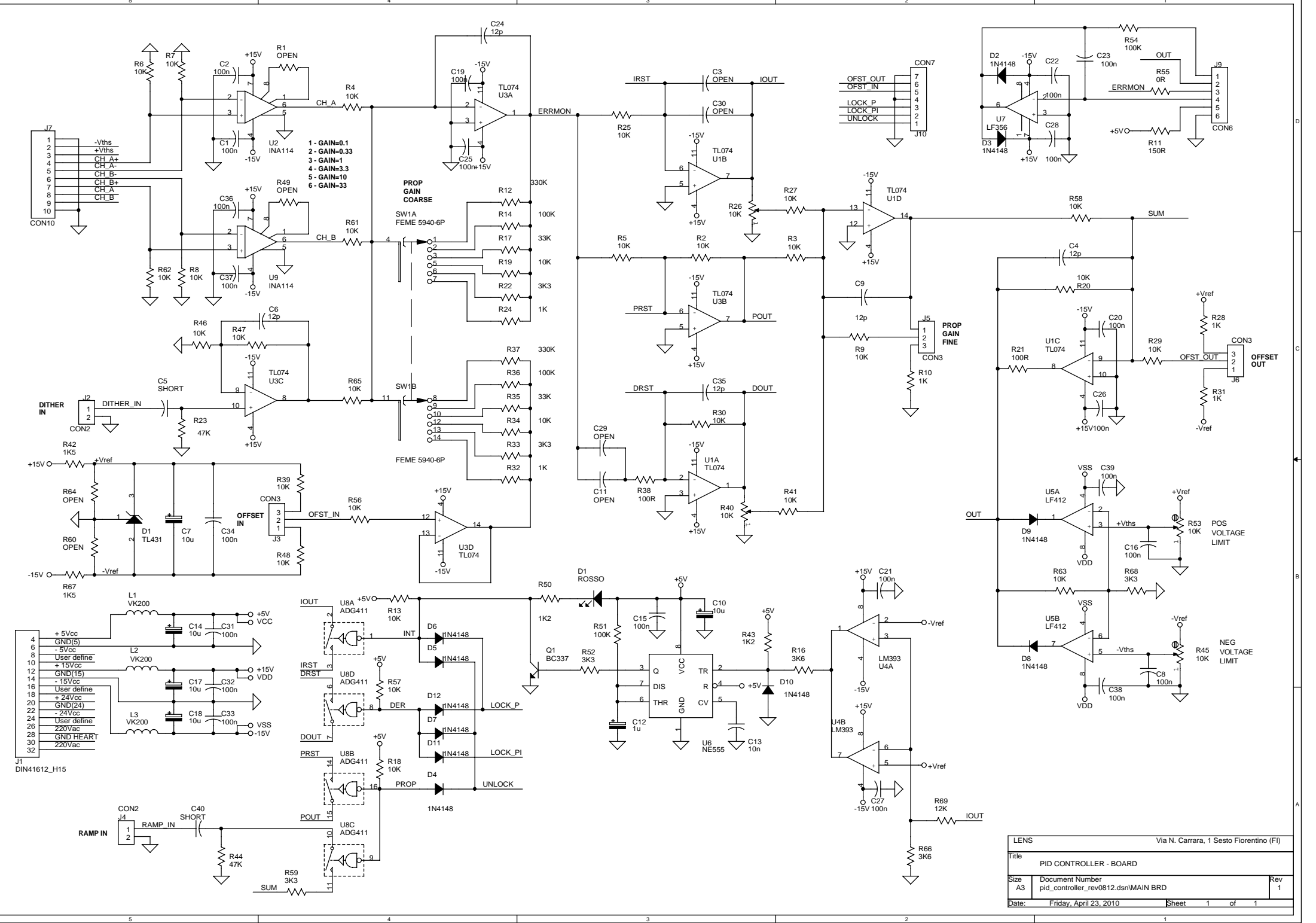


LENS		Via N. Carrara, 1 Sesto Fiorentino (FI)	
Title PID CONTROLLER - FRONT PANEL			
Size A4	Document Number pid_controller_rev0812.dsn\FRONTP	Rev 00	
Date:	Friday, October 23, 2009	Sheet	1 of 1

1: PID CONTROLLER - FRONT PANEL Revised: Friday, October 23, 2009
 2: pid_controller_rev0812.dsn\FRONTTP Revision: 00
 3:
 4: LENS
 5: Via N. Carrara, 1 Sesto Fiorentino (FI)
 6:
 7:
 8:
 9:

10: Bill Of Materials October 23,2009 11:16:03 Page1

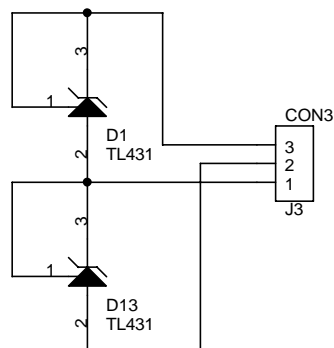
11:	12: Item	Quantity	Reference	Description	Value	Supplier Ref
13:	<hr/>					
14:						
15:	1	4	M1,D1,J8,J10	Conn. M Diritto p.2.54	CON2	
16:	2	6	J1,J2,J3,J4,J5,J6	Conn. BNC da Pannello Vert.	TYCO 1-1634505-0	Farnell 1020960
17:	3	1	J7	Conn. M. Vert. p.2.54	CON10	
18:	4	1	J9	Conn. M. Vert. p.2.54	CON6	
19:	5	1	J11	Conn. M. Vert. p.2.54	CON7	
20:	6	1	J12	Conn. M. Vert. p.2.54	CON3	
21:	7	1	R1	Res. 0.25W 1%	10K	
22:	8	1	R2	Res. 0.25W 1%	100K	
23:	9	1	R3	Potenziom. cermet 1giro	10K	RS 484-9102
24:	10	2	SW2,SW1	Deviatore a levetta 2V2P	C&K7201SYCQE	RS 401-680
25:	11	1	SW3	Comm. Rotativo 1V12P	56SD30-01-1-AJN	RS 690-6721
26:	12	1	SW4	Deviatore a levetta 1V2P	C&K7101SYCQE	RS 401-703
27:	13	1	SW5	Comm. Rotativo 2V6P	56SD30-01-2-AJS	RS 690-6737
28:	14	4		Manopola per albero 3,2mm	Multicomp KB00010	Farnell 1440976



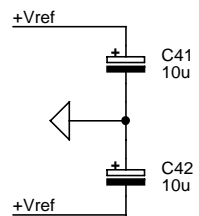
LENS		Via N. Carrara, 1 Sesto Fiorentino (FI)	
Title PID CONTROLLER - BOARD			
Size A3	Document Number pid_controller_rev0812.dsn/MAIN BRD	Rev 1	
Date:	Friday, April 23, 2010	Sheet	1 of 1

MODIFICHE AL PCB:

1) SOSTITUIRE D1 CON IL CIRCUITO ILLUSTRATO NELLO SCHEMA SEGUENTE:



1) SOSTITUIRE R64 E R60 CON DUE CONDENSATORI ELETTROLITICI TENTALIO DA 10uF 25V



ATTENZIONE!

LA SERIGRAFICA DI Q1 E' SBAGLIATA: RUOTARE IL COMPONENTE DI 180 GRADI.

ATTENZIONE!

LA SERIGRAFICA DEL PANNELLO FRONTALE, ACCANTO AL SELETTORE "MONITOR", RIPORTA LE INDICAZIONI "+V OUT LIM" e "-V OUT LIM". IN REALTA' LA TENSIONE CHE SI MISURA SULL'USCITA "MONITOR OUT" E' 1/4 DI "+V OUT LIM" e "-V OUT LIM"

LENS		Via N. Carrara, 1 Sesto Fiorentino (FI)	
Title			
PID CONTROLLER - MAIN			
Size	Document Number	Rev	
A4	pid_controller_rev0812.dsn\ERRATA		
Date:	Friday, October 23, 2009	Sheet	1 of 1

PID CONTROLLER - BOARD Revised: Monday, September 21, 2009
 PID08_REV1.SCH Revision: 1

Bill Of Materials October 6,2009 9:21:12 Page1

Item	Quantity	Reference	Description	Value	Supplier Ref
1	22	C1, C2, C8, C15, C16, C19, C20, C21, C22, C23, C25, C26, C27, C28, C31, C32, C33, C34, C36, C37, C38, C39	Cond. Cer. 50V P5.08	100n	
2	2	C11, C3	Cond. Poly. 50V P5.08	OPEN	
3	5	C4, C6, C9, C24, C35	Cond. Cer. 50V P5.08	12p	
4	2	C5, C40	Cond. Cer. 50V P5.08	SHORT	
5	7	C7, C10, C14, C17, C18, C41, C42	Cond. Tant. 25V P5.08	10u	
6	1	C12	Cond. Tant. 25V P5.08	1u	
7	1	C13	Cond. Cer. 50V P5.08	10n	
8	2	C30, C29	Cond. Poly. 50V P10.16	OPEN	
9	2	D1, D13	Voltage Ref IC	TL431	
10	11	D2, D3, D4, D5, D6, D7, D8, D9, D10, D11, D12	Diodo	1N4148	
11	1	J1	Conn. 15P PCB 90°	DIN41612_H15	
12	3	J2, J4, J8	Conn. M. Vert P2.54	CON2	
13	3	J3, J5, J6	Conn. M. Vert P2.54	CON3	
14	1	J7	Conn. M. Vert P2.54	CON10	
15	1	J9	Conn. M. Vert P2.54	CON6	
16	1	J10	Conn. M. Vert P2.54	CON7	
17	3	L1, L2, L3	Induttanza	VK200	
18	1	Q1	Transistor	BC337	
19	2	R49, R1	Res. 0.25W 1%	OPEN	
20	28	R2, R3, R4, R5, R6, R7, R8, R9, R13, R17, R18, R20, R25, R27, R29, R30, R35, R39, R41, R46, R47, R48, R56, R57, R58, R61, R62, R63, R65	Res. 0.25W 1%	10K	
21	5	R10, R12, R28, R31, R37	Res. 0.25W 1%	1K	
22	1	R11	Res. 0.25W 1%	150R	
23	5	R14, R36, R52, R59, R68	Res. 0.25W 1%	3K3	
24	2	R16, R66	Res. 0.25W 1%	3K6	
25	2	R19, R34	Res. 0.25W 1%	33K	
26	2	R21, R38	Res. 0.25W 1%	100R	
27	5	R22, R33, R51, R54	Res. 0.25W 1%	100K	
28	2	R44, R23	Res. 0.25W 1%	47K	

29	2	R32,R24	Res. 0.25W 1%	330K	
30	4	R26,R40,R45,R53	Trim. Orizz. 10G.	10K	
31	2	R42,R67	Res. 0.25W 1%	1K5	
32	2	R43,R50	Res. 0.25W 1%	1K2	
33	1	R55	Res. 0.25W 1%	0R	
34	2	R60,R64,	Res. 0.25W 1%	OPEN	
35	1	R69	Res. 0.25W 1%	12K	
36	1	SW1	Comm. Rot 2vie 6pos.	FEME 5940-6P	FEME 5940-6P
37	2	U1,U3	Circ. Integr.	TL074	
38	2	U9,U2	Circ. Integr.	INA114	
39	1	U4	Circ. Integr.	LM393	
40	1	U5	Circ. Integr.	LF412	
41	1	U6	Circ. Integr.	NE555	
42	1	U7	Circ. Integr.	LF356	
43	1	U8	Circ. Integr.	ADG411	