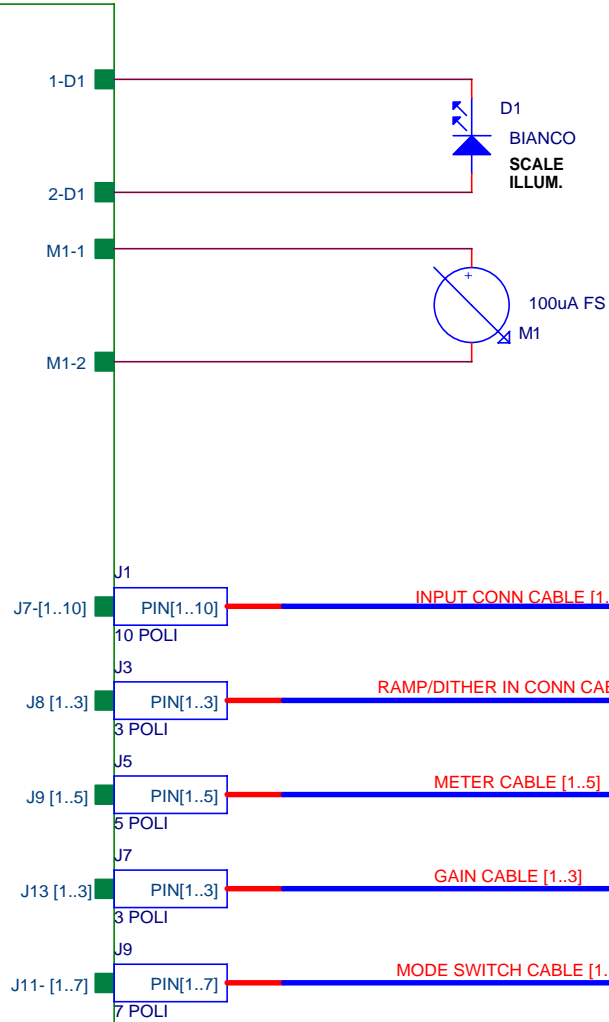
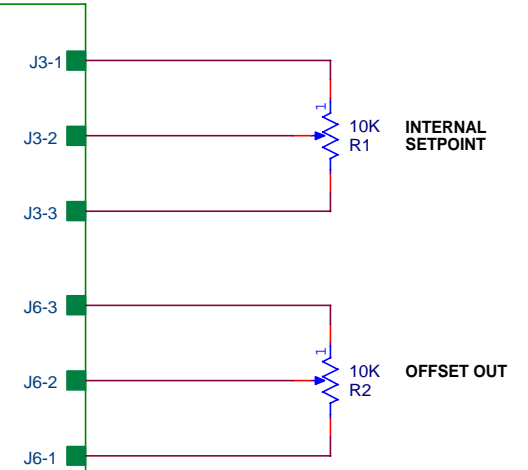


BRD1



PID10 Front Panel Rev.00

BRD2



PID Controller 10 Rev.1

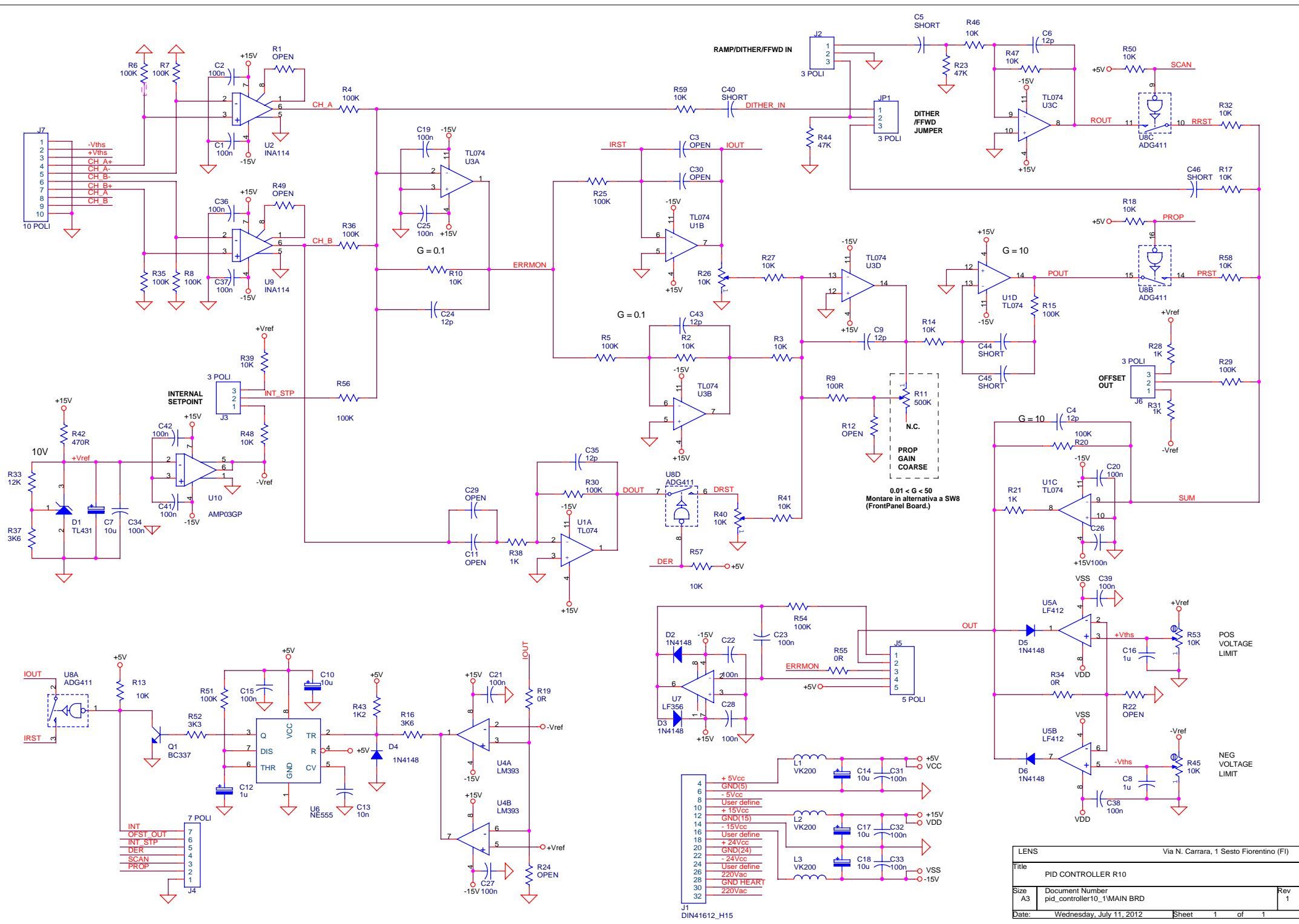
LENS		Via N. Carrara, 1 Sesto Fiorentino (FI)	
Title PID CONTROLLER R10			
Size A4	Document Number pid_controller_10_1/Assembly		Rev 00
Date:	Wednesday, July 11, 2012	Sheet	1 of 1

PID CONTROLLER R10 Revised: Wednesday, July 11, 2012
 pid_controller_10_1\Assembly Revision: 00

LENS
 Via N. Carrara, 1 Sesto Fiorentino (FI)

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Item	Q.ty	Reference	Description Value	Supplier	Ref
1	1	D1	Led Bianco Alta Lum. 5mm	BIANCO	Farnell 1855545
2	2	J2,J1	Conn. F da Cavo P.2.54 a crimpare	10 POLI	RS 543-7794
3	4	J3,J4,J7,J8	Conn. F da Cavo P.2.54 a crimpare	3 POLI	RS 543-7722
4	2	J6,J5	Conn. F da Cavo P.2.54 a crimpare	5 POLI	RS 543-7744
5	2	J10,J9	Conn. F da Cavo P.2.54 a crimpare	7 POLI	RS 543-7766
6	1	M1	Microamperometro a zero centrale	100uA FS	RS 259-549
7	2	R2,R1	Potenziom. a filo 10giri	10K	Farnell 1144786+1224957



LENS		Via N. Carrara, 1 Sesto Fiorentino (FI)	
Title			
PID CONTROLLER R10			
Size	A3	Document Number	pid_controller10_1MAIN BRD
Date:	Wednesday, July 11, 2012	Sheet	1 of 1
		Rev	1

PID CONTROLLER R10 Revised: Monday, February 13, 2012
pid_controller10_1\MAIN BRD Revision: 1

LENS

Via N. Carrara, 1 Sesto Fiorentino (FI)

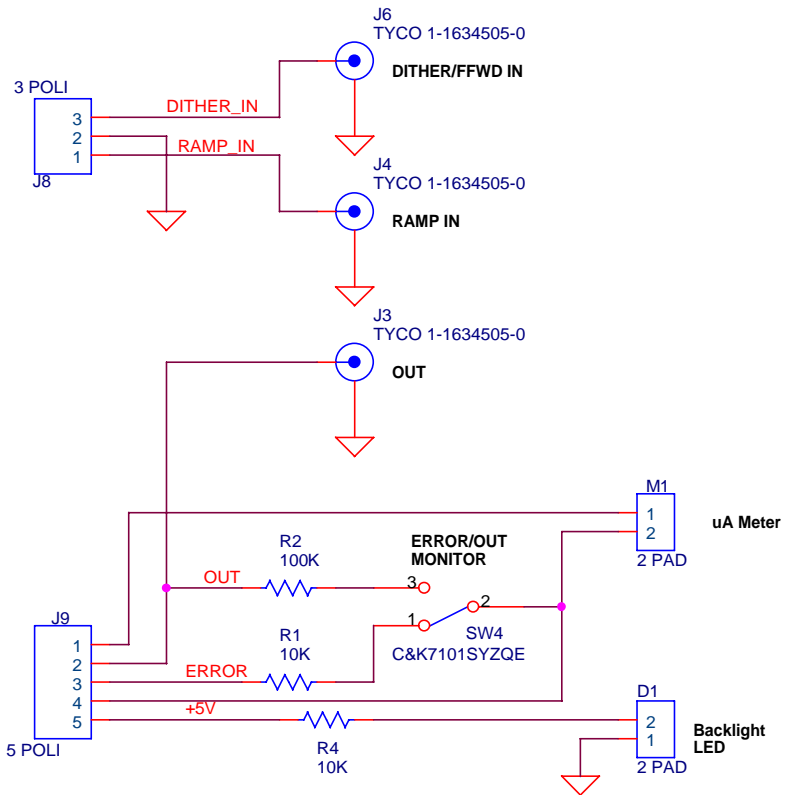
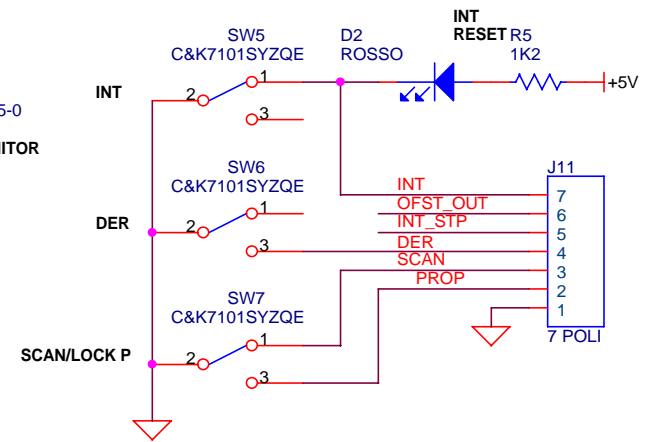
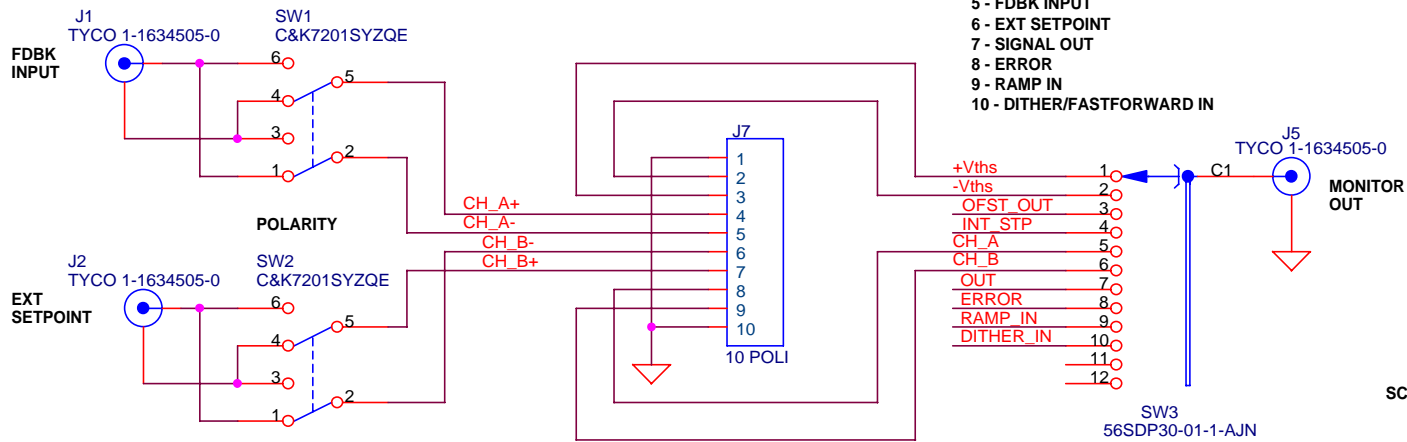
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Item	Q.ty	Reference	Description	Part	Supplier Ref
1	22	C1,C2,C15,C19,C20,C21, C22,C23,C25,C26,C27,C28, C31,C32,C33,C34,C36,C37, C38,C39,C41,C42	Cond. Cer. 50V P5.08	100n	
2	2	C11,C3	Cond. Poly. 50V P5.08	OPEN	
3	6	C4,C6,C9,C24,C35,C43	Cond. Cer. 50V P5.08	12p	
4	4	C5,C40,C44,C46	Cond. Cer. 50V P5.08	SHORT	
5	5	C7,C10,C14,C17,C18	Cond. Elettr. Tant. 25V P5.08	10u	
6	2	C8,C16	Cond. Cer. 50V P5.08	1u	
7	1	C12	Cond. Elettr. Tant. 25V P5.08	1u	
8	1	C13	Cond. Cer. 50V P5.08	10n	
9	2	C30,C29	Cond. Poly. 50V P12.7	OPEN	
10	1	C45	Cond. Poly. 50V P12.7	SHORT	
11	1	D1	Voltage Ref IC	TL431	
12	5	D2,D3,D4,D5,D6	Diode	1N4148	
13	4	JP1,J2,J3,J6	Conn. M Diritto P2.54	CON3	RS 132-0361
14	1	J1	Conn. 15P PCB 90°	DIN41612_H15	HARTING 0906-115-2911
15	1	J4	Conn. M Diritto P2.54	CON7	RS 132-0412
16	1	J5	Conn. M Diritto P2.54	CON5	RS 132-0383
17	1	J7	Conn. M Diritto P2.54	CON10	RS 132-0440
18	3	L1,L2,L3	Induttanza	VK200	
19	1	Q1	Transistor	BC337	
20	5	R1,R12,R22,R24,R49	Res. 0.25W 1%	OPEN	
21	18	R2,R3,R10,R13,R14,R17, R18,R27,R32,R39,R41,R46, R47,R48,R50,R57,R58, R59	Res. 0.25W 1%	10K	
22	15	R4,R5,R6,R7,R8,R15,R20, R25,R29,R30,R35,R36,R51, R54,R56	Res. 0.25W 1%	100K	
23	2	R9,R21	Res. 0.25W 1%	100R	
24	1	R11	Pot. Orizz. 1G.	500K	Farnell 8557632

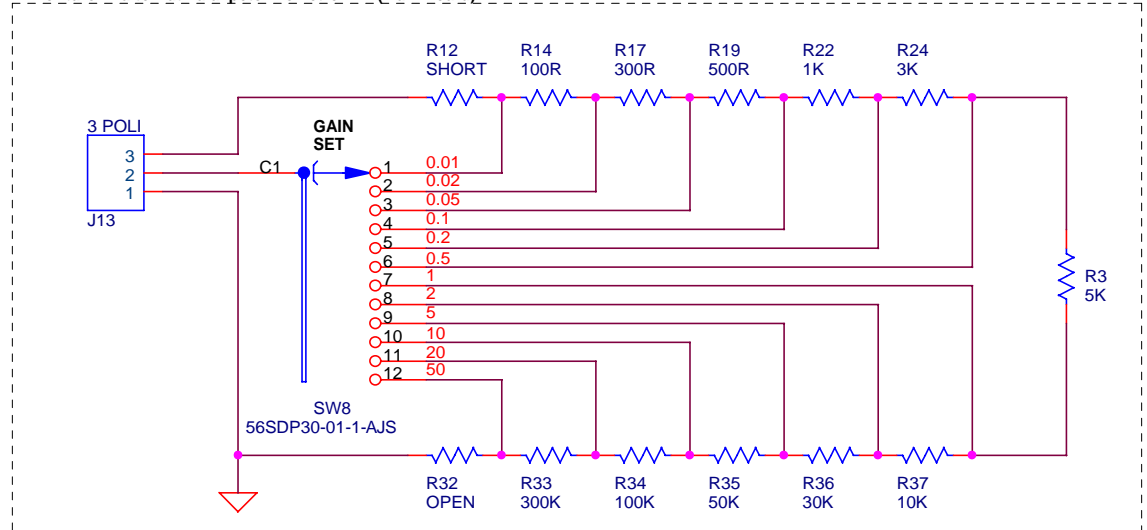
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25	2	R16,R37	Res. 0.25W 1%	3K6
26	3	R34,R19,R55	Res. 0.25W 1%	0R
27	2	R44,R23	Res. 0.25W 1%	47K
28	4	R26,R40,R45,R53	Trim. Orizz. 10G. 43P	10K
29	3	R31,R28,R38	Res. 0.25W 1%	1K
30	1	R33	Res. 0.25W 1%	12K
31	1	R42	Res. 0.25W 1%	470R
32	1	R43	Res. 0.25W 1%	1K2
33	1	R52	Res. 0.25W 1%	3K3
34	2	U3,U1	Circ. Integr.	TL074
35	2	U9,U2	Circ. Integr.	INA114
36	1	U4	Circ. Integr.	LM393
37	1	U5	Circ. Integr.	LF412
38	1	U6	Circ. Integr.	NE555
99	1	U7	Circ. Integr.	LF356
40	1	U8	Circ. Integr.	ADG411
41	1	U10	Circ. Integr.	AMP03GP

- 1 - POS VOUT LIMIT
- 2 - NEG VOUT LIMIT
- 3 - OFFSET OUT
- 4 - INT SETPOINT
- 5 - FDBK INPUT
- 6 - EXT SETPOINT
- 7 - SIGNAL OUT
- 8 - ERROR
- 9 - RAMP IN
- 10 - DITHER/FASTFORWARD IN



Montare in alternativa al potenziometro R11 (Main Board).



Title		
PID CONTROLLER - FRONT PANEL		
Size	Document Number	Rev
A4	FRONTP_PID10.SCH	1
Date:	Wednesday, July 11, 2012	Sheet 1 of 1

PID CONTROLLER - FRONT PANEL Revised: Monday, February 06, 2012
FRONTP_PID10.SCH Revision: 1

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Item	Q.ty	Reference	Description	Value	Supplier Ref
1	2	M1,D1	Conn. M Diritto p.2.54	2 PAD	
2	1	D2	Diode Led 3mm	ROSSO	Farnell 1057118
3	6	J1,J2,J3,J4,J5,J6	Conn. BNC da Pannello Vert.	TYCO 1-1634505-0	Farnell 1020960
4	1	J7	Conn. M Diritto p.2.54	10 POLI	RS 132-0440
5	2	J13,J8	Conn. M Diritto p.2.54	3 POLI	RS 132-0361
6	1	J9	Conn. M Diritto p.2.54	5 POLI	RS 132-0383
7	1	J11	Conn. M Diritto p.2.54	7 POLI	RS 132-0412
8	2	R1,R4	Res. 0.25W 1%	10K	
9	1	R2	Res. 0.25W 1%	100K	
10	1	R3	Res. 0.25W 1% SMT 0805	5K	
11	1	R5	Res. 0.25W 1%	1K2	
12	1	R12	Res. 0.25W 1% SMT 0805	SHORT	
13	1	R14	Res. 0.25W 1% SMT 0805	100R	
14	1	R17	Res. 0.25W 1% SMT 0805	300R	
15	1	R19	Res. 0.25W 1% SMT 0805	500R	
16	1	R22	Res. 0.25W 1% SMT 0805	1K	
17	1	R24	Res. 0.25W 1% SMT 0805	3K	
18	1	R32	Res. 0.25W 1% SMT 0805	OPEN	
19	1	R33	Res. 0.25W 1% SMT 0805	300K	
20	1	R34	Res. 0.25W 1% SMT 0805	100K	
21	1	R35	Res. 0.25W 1% SMT 0805	50K	
22	1	R36	Res. 0.25W 1% SMT 0805	30K	
23	1	R37	Res. 0.25W 1% SMT 0805	10K	
24	2	SW2,SW1	Deviatore a levetta 2V2P	C&K7201SYZQE	RS 401-680
25	1	SW3	Comm. Rotativo 1V12P NonShorted	56SDP30-01-1-AJN	Farnell 1190377
26	1	SW8	Comm. Rotativo 1V12P Shorted	56SDP30-01-1-AJS	Farnell 1190385
27	4	SW4,SW5,SW6,SW7	Deviatore a levetta 1V2P	C&K7101SYZQE	RS 401-703