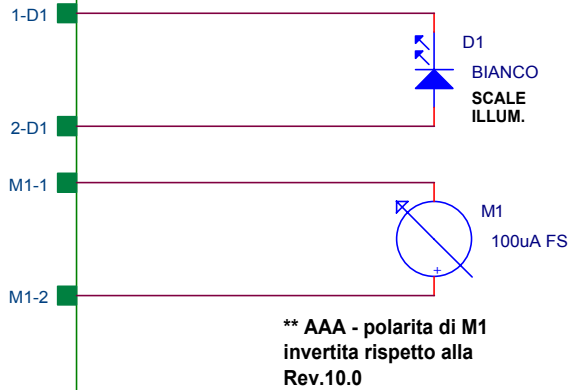
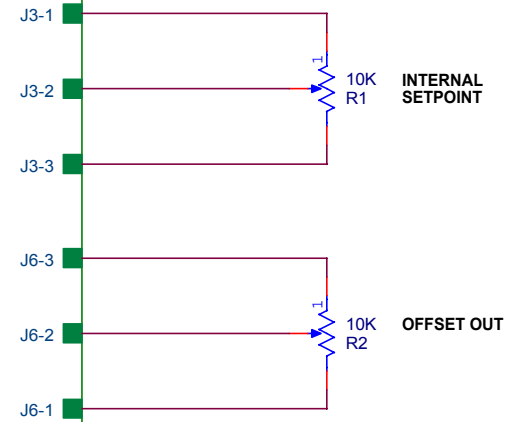


BRD1

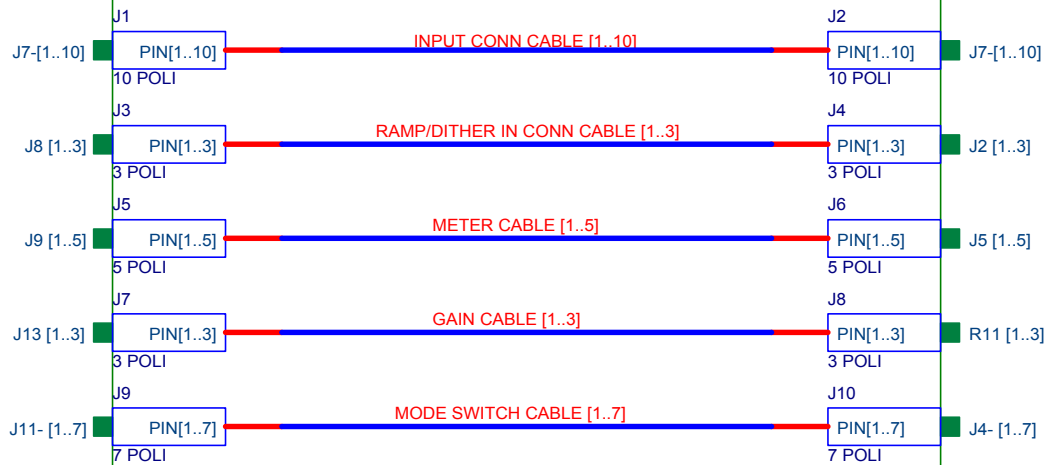


PID10 Front Panel Rev.00

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_1Assembly	Rev 1	
Date:	Sunday, February 13, 2022	Sheet	1 of 1

1: PID CONTROLLER R10 Revised: Wednesday, July 11, 2012

2: pid_controller_10_1\Assembly Revision: 00

3:

4: LENS

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

6:

7:

8:

9:

10: Bill Of Materials July 11,2012 13:23:41 Page1

11:

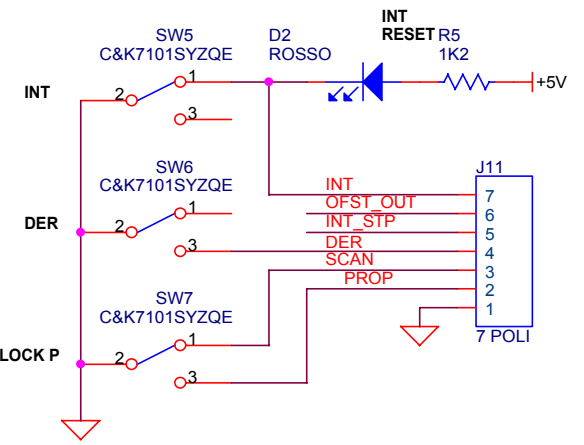
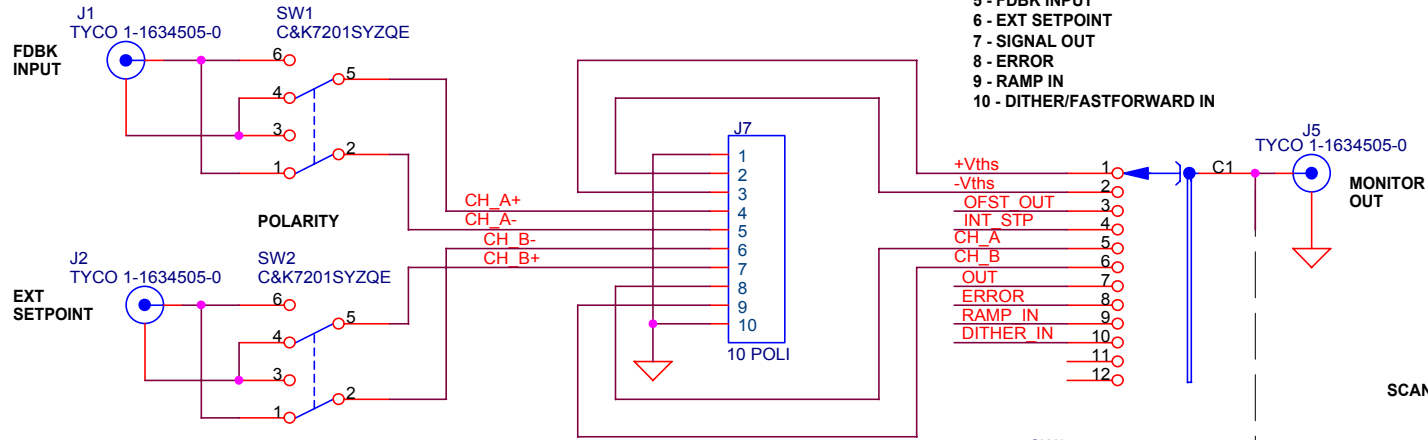
12: Item Q.ty Reference Description Value Supplier Ref

13: _____

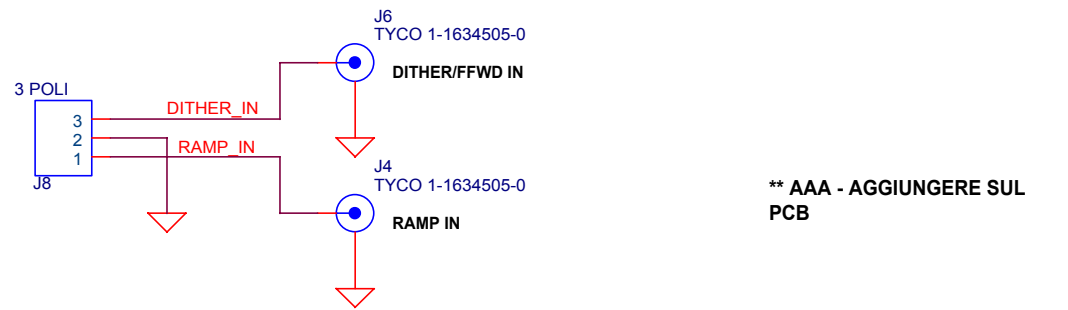
14:

15: 1	1	D1	Led Bianco Alta Lum. 5mm		BIANCO	Farnell 1855545
16: 2	2	J2,J1	Conn. F da Cavo P.2.54 a crimpare		10 POLI	RS 543-7794
17: 3	4	J3,J4,J7,J8	Conn. F da Cavo P.2.54 a crimpare		3 POLI	RS 543-7722
18: 4	2	J6,J5	Conn. F da Cavo P.2.54 a crimpare		5 POLI	RS 543-7744
19: 5	2	J10,J9	Conn. F da Cavo P.2.54 a crimpare		7 POLI	RS 543-7766
20: 6	1	M1	Microamperometro a zero centrale		100uA FS	RS 259-549
21: 7	2	R2,R1	Potenziom. a filo 10giri		10K	Farnell 1144786+1224957
22:						

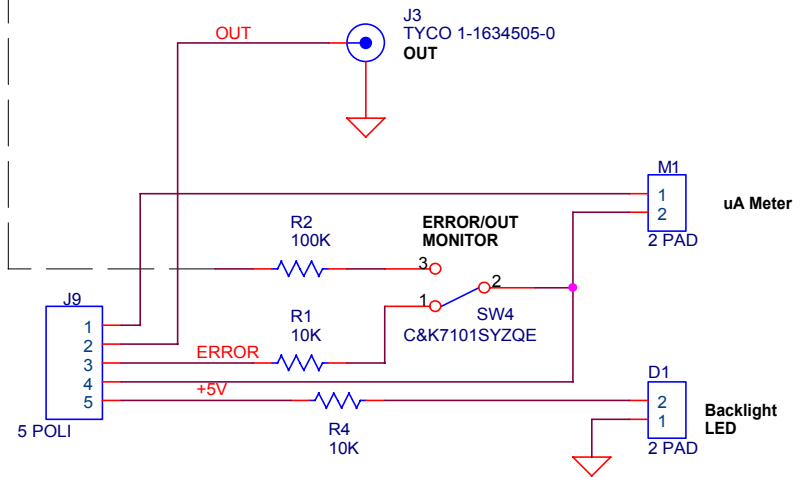
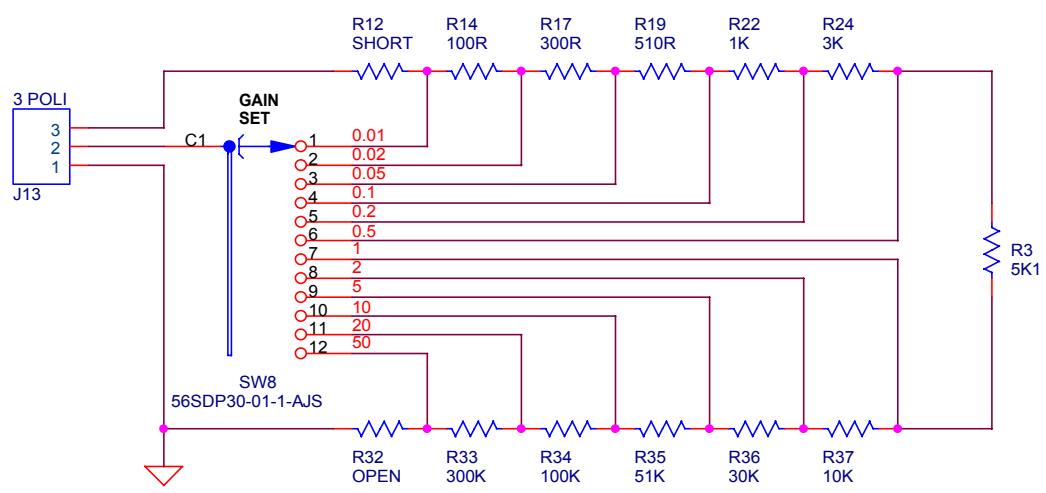
- 1 - POS VOUT LIMIT
- 2 - NEG VOUT LIMIT
- 3 - OFFSET OUT
- 4 - INT SETPOINT
- 5 - FDBK INPUT
- 6 - EXT SETPOINT
- 7 - SIGNAL OUT
- 8 - ERROR
- 9 - RAMP IN
- 10 - DITHER/FASTFORWARD IN



****AAA - Disconnettere R2 dalla linea OUT e connetterla al MONITOR OUT**



**** AAA - AGGIUNGERE SUL PCB**

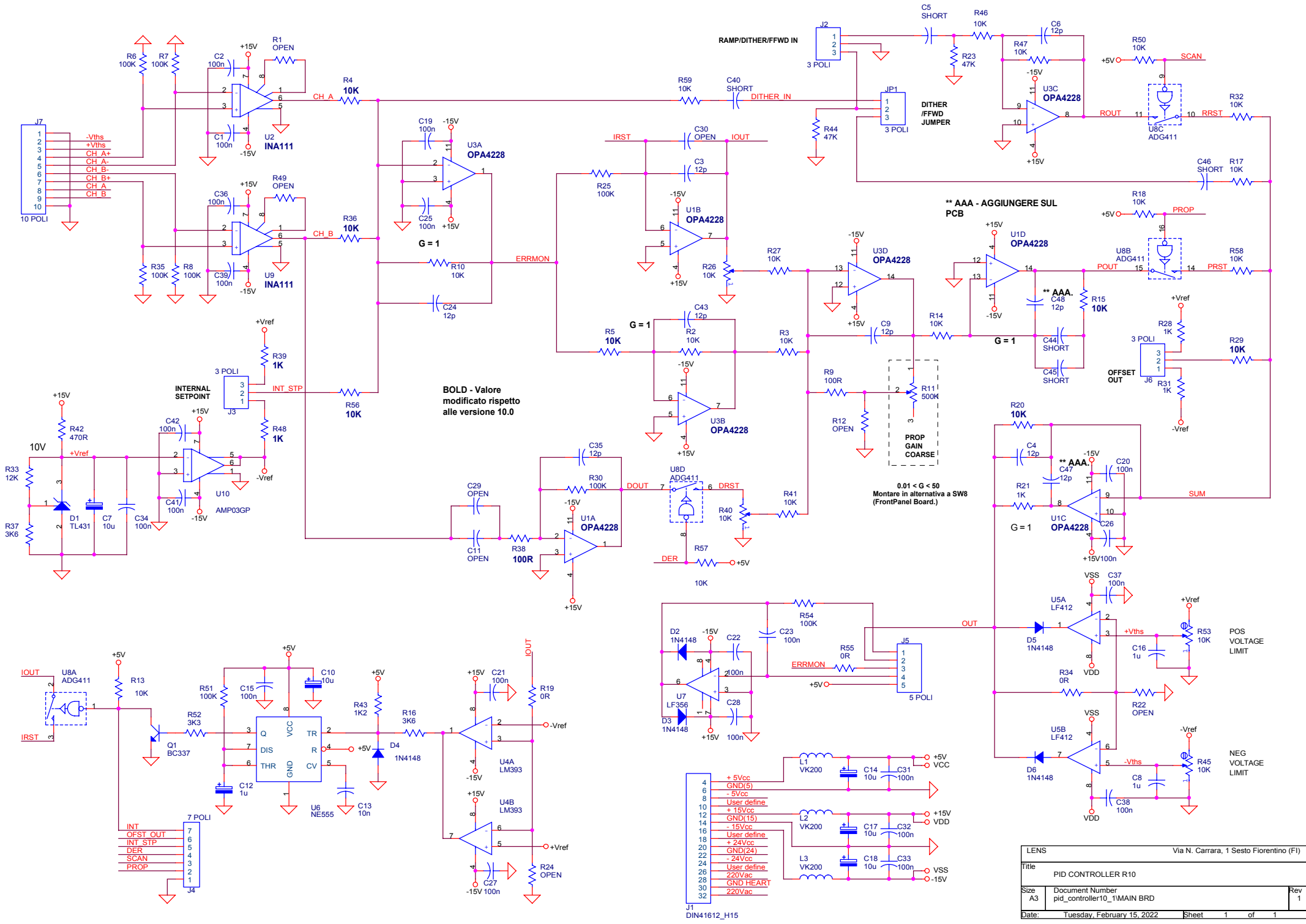


Title		
PID CONTROLLER - FRONT PANEL		
Size	Document Number	Rev
A4	FRONTP_PID10.SCH	1
Date:	Sunday, February 13, 2022	Sheet 1 of 1

1: PID CONTROLLER - FRONT PANEL Revised: Sunday, February 13, 2022
 2: FRONTPID10.SCH Revision: 1
 3:
 4:
 5:
 6:
 7:
 8:
 9:

10: Bill Of Materials February 13,2022 13:36:15 Page1

11:	12: Item	Q.ty	Reference	Description	Value	Supplier Ref
13:						
14:						
15:	1	2	M1,D1	Conn. M Diritto p.2.54	2 PAD	
16:	2	1	D2	Diode Led 3mm	ROSSO	Farnell 1057118
17:	3	6	J1,J2,J3,J4,J5,J6	Conn. BNC da Pannello Vert.	TYCO 1-1634505-0	Farnell 1020960
18:	4	1	J7	Conn. M Diritto p.2.54	10 POLI	RS 132-0440
19:	5	2	J13,J8	Conn. M Diritto p.2.54	3 POLI	RS 132-0361
20:	6	1	J9	Conn. M Diritto p.2.54	5 POLI	RS 132-0383
21:	7	1	J11	Conn. M Diritto p.2.54	7 POLI	RS 132-0412
22:	8	2	R1,R4	Res. 0.25W 1%	10K	
23:	9	1	R2	Res. 0.25W 1%	100K	
24:	10	1	R3	Res. 0.25W 1% SMT 0805	5K1	
25:	11	1	R5	Res. 0.25W 1%	1K2	
26:	12	1	R12	Res. 0.25W 1% SMT 0805	SHORT	
27:	13	1	R14	Res. 0.25W 1% SMT 0805	100R	
28:	14	1	R17	Res. 0.25W 1% SMT 0805	300R	
29:	15	1	R19	Res. 0.25W 1% SMT 0805	510R	
30:	16	1	R22	Res. 0.25W 1% SMT 0805	1K	
31:	17	1	R24	Res. 0.25W 1% SMT 0805	3K	
32:	18	1	R32	Res. 0.25W 1% SMT 0805	OPEN	
33:	19	1	R33	Res. 0.25W 1% SMT 0805	300K	
34:	20	1	R34	Res. 0.25W 1% SMT 0805	100K	
35:	21	1	R35	Res. 0.25W 1% SMT 0805	51K	
36:	22	1	R36	Res. 0.25W 1% SMT 0805	30K	
37:	23	1	R37	Res. 0.25W 1% SMT 0805	10K	
38:	24	2	SW1,SW2	Deviatore a levetta 2V2P	C&K7201SYZQE	RS 401-680
39:	25	1	SW3	Comm. Rot. 1V12P NonShrt	56SDP30-01-1-AJN	Farnell 1190377
40:	26	4	SW4,SW5,SW6,SW7	Deviatore a levetta 1V2P	C&K7101SYZQE	RS 401-703
41:	27	1	SW8	Comm. Rot. 1V12P Shorted	56SDP30-01-1-AJS	Farnell 1190385
42:						



BOLD - Valore modificato rispetto alle versione 10.0

**** AAA - AGGIUNGERE SUL PCB**

0.01 < G < 50
Montare in alternativa a SW8 (FrontPanel Board.)

4	+ 5Vcc	Vk200	C14	10u	C31	100n	+5V
6	GND(5)						VCC
8	-5Vcc						
10	User define						
12	+ 15Vcc	Vk200	C17	10u	C32	100n	+15V
14	GND(15)						VDD
16	-15Vcc						
18	User define						
20	+ 24Vcc	Vk200	C18	10u	C33	100n	+24V
22	GND(24)						VDD
24	- 24Vcc						
26	User define						
28	220Vac						
30	GND HEART						
32	220Vac						

LENS		Via N. Carrara, 1 Sesto Fiorentino (FI)	
Title PID CONTROLLER R10			
Size A3	Document Number pid_controller10_1MAIN BRD	Rev 1	
Date: Tuesday, February 15, 2022	Sheet 1	of 1	

J1 DIN41612_H15

1: PID CONTROLLER R10 Revised: Monday, February 14, 2022
 2: pid_controller10_1\MAIN BRD Revision: 1
 3:
 4: LENS
 5: Via N. Carrara, 1 Sesto Fiorentino (FI)
 6:
 7:
 8:
 9:

10: Bill Of Materials February 14,2022 11:49:16 Page1

11:	12: Item	Q.ty	Reference	Description	Value	Supplier Ref
13:						
14:						
15:	1	22	C1,C2,C15,C19,C20,C21,	Cond. Cer. 50V P5.08	100n	
16:			C22,C23,C25,C26,C27,C28,			
17:			C31,C32,C33,C34,C36,C37,			
18:			C38,C39,C41,C42			
19:	2	8	C3,C4,C6,C9,C24,C35,C43,	Cond. Cer. 50V P5.08	12p	
20:			C47,C48			
21:	3	4	C5,C40,C44,C46	Cond. Cer. 50V P5.08	SHORT	
22:	4	5	C7,C10,C14,C17,C18	Cond. Tant. 25V P5.08	10u	
23:	5	2	C16,C8	Cond. Cer. 50V P5.08	1u	
24:	6	2	C30,C11	Cond. Poly. 50V P5.08	OPEN	
25:	7	1	C12	Cond. Tant. 25V P5.08	1u	
26:	8	1	C13	Cond. Cer. 50V P5.08	10n	
27:	9	1	C29	Cond. Poly. 50V P12.7	OPEN	
28:	10	1	C45	Cond. Poly. 50V P12.7	SHORT	
29:	11	1	D1	Voltage Ref IC	TL431	
30:	12	5	D2,D3,D4,D5,D6	Diode	1N4148	
31:	13	4	JP1,J2,J3,J6	Conn. M Diritto P2.54	3 POLI RS 132-0361	
32:	14	1	J1	Conn. 15P PCB 90°	DIN41612_H15	HARTING 0906-115-2911
33:	15	1	J4	Conn. M Diritto P2.54	7 POLI RS 132-0412	
34:	16	1	J5	Conn. M Diritto P2.54	5 POLI RS 132-0383	
35:	17	1	J7	Conn. M Diritto P2.54	10 POLI RS 132-0440	
36:	18	3	L1,L2,L3	Induttanza	VK200	
37:	29	1	Q1	Transistor	BC337	
38:	20	5	R1,R12,R22,R24,R49	Res. 0.25W 1%	OPEN	
39:	21	23	R2,R3,R4,R5,R10,R13,R14,	Res. 0.25W 1%	10K	
40:			R15,R17,R18,R20,R27,R29,			
41:			R32,R36,R41,R46,R47,R50,			
42:			R56,R57,R58,R59			
43:	22	8	R6,R7,R8,R25,R30,R35,R51,	Res. 0.25W 1%	100K	
44:			R54			
45:	23	2	R9,R38	Res. 0.25W 1%	100R	
46:	24	1	R11	Pot. Orizz. 1G.	500K	Farnell 8557632

Y:\PID_CONTROLLER_REV10\PID10_1_MAINBOARD.BOM

47: 25	2	R16,R37	Res. 0.25W 1%	3K6
48: 26	3	R19,R34,R55	Res. 0.25W 1%	0R
49: 27	5	R21,R28,R31,R39,R48	Res. 0.25W 1%	1K
50: 28	2	R23,R44	Res. 0.25W 1%	47K
51: 29	4	R26,R40,R45,R53	Trim. Orizz. 10G.	10K
52: 30	1	R33	Res. 0.25W 1%	12K
53: 31	1	R42	Res. 0.25W 1%	470R
54: 32	1	R43	Res. 0.25W 1%	1K2
55: 33	1	R52	Res. 0.25W 1%	3K3
56: 34	2	U1,U3	Circ. Integr.	OPA4228
57: 35	2	U2,U9	Circ. Integr.	INA111
58: 36	1	U4	Circ. Integr.	LM393
59: 37	1	U5	Circ. Integr.	LF412
60: 38	1	U6	Circ. Integr.	NE555
61: 49	1	U7	Circ. Integr.	LF356
62: 40	1	U8	Circ. Integr.	ADG411
63: 41	1	U10	Circ. Integr.	AMP03GP
64:				