

Designator	Footprint	LibRef	Value	Count	Conrad		Display		Farnell	
					Art.nr.	Price	Art.Nr.	Price	Art.Nr.	Price
Q5P, Q6P	TO92	BC327		2	154563 - 89	€ 0.18	01.40.BC327.25		1097285	€ 0.07
Q1D, Q1P, Q2P, Q2D	TO92	BC337		4	154598 - 89	€ 0.18	01.40.BC337.25		8734666	€ 0.11
C10P, C11P, C16P, C17P, C22P	CAPRAD-RM3.5	Cap Pol1	100uF	5	442055 - 89	€ 0.12	81.01.100U.35		1144627	€ 0.32
C3D	CAPAX-RM15	Cap Pol1	22uF	1	471658 - 89	€ 0.30	81.00.22U.35		9418890	€ 0.16
C12P, C13P, C14P, C15P, C18P, C19P, C20P, C21P	CAPRAD-RM5	Cap Pol1	470uF	8	446134 - 89	1.26	81.01.470U.35		1144629	€ 0.68
Or alternative:					441987 - 89	€ 0.15				
C5P	CAPRAD-RM2.5	CapCer	100nF	1	453099 - 89	€ 0.29	81.15.100N		1200403	€ 0.39
C1L, C1R, C2L, C2P, C2R, C4P, C7P, C9P	CAPRAD-RM2.5	CapCer	10nF	8	453064 - 89	€ 0.21	81.15.10N		1216435	€ 0.18
C1D, C1P, C2D, C3P, C6P, C8P, C23P, C123P, C24P, C124P, C25P, C125P, C26P, C126P, C28P, C128P, C40P, C140P	CAPRAD-RM2.5	CapCer	47nF	18	453080 - 89	€ 0.26	81.15.47N		1216437	€ 0.18
C30P, C33P, C35P, C37P	CAP-MKS-RM5	CapMKS	470pF	4	450534 - 89	€ 0.35	81.50.470P		1005988	€ 0.28
C29P, C31P, C32P, C34P, C36P, C38P	CAP-MKS-RM5	CapMKS	1uF	6	450481 - 89	€ 0.84	81.40.1U.63		1006040	€ 1.42
Or alternative:					450306 - 89	€ 1.23				
C39P	CAP-MKS-RM5	CapMKS	330nF	1	455423 - 89	€ 0.55	81.40.330N.63		1166040	€ 0.28
D9P, D10P, D1D, D2D, D3D, D4D	DIO-RM4	Diode 1N4148		6	162280 - 89	€ 0.05	1.60.1N4148		9843680	€ 0.01
D1P, D2P, D3P, D4P, D5P, D6P, D7P, D8P	DIO-RM4	Schottky rectifier MBR1100		8	163680 - 89	€ 0.15	01.60.STPS2H1		4897432	€ 0.08
L1D, L2D	DIL10	7-segment CA, 'c' at pin 7		2	156389 - 89	€ 1.15	71.50.4801RD		1241271	€ 1.38
		eg. KingBright SA39-11, Liteon LTS4801, Avago HDSP 315								
J3D	SIL2	Header 2, 0.1" pitch		1			05.58.202		1056394	€ 0.23
Or alternative:					744018 - 89	€ 0.81	05.88.1336		588398	€ 0.17
J1P, J2P	SIL4	Header 4, 0.1" pitch		2			05.58.204		588490	€ 0.57
Or alternative:									588416	€ 0.52
J1D, J2D	SIL5	Header 5, 0.1" pitch		2	741230 - 89	€ 1.54	05.58.205		588507	€ 0.75
Or alternative:									588428	€ 0.65
Q3P, Q4P	TO92	J310		2			01.40.J310		1017717	€ 0.43
Or alternative:		BF256C (rotated footprint!)		2	157210 - 89	€ 0.83				
L1P	RM2.5	LED1		1	184376 - 89	€ 0.11	71.54.2014RD			
U1L, U1R, U1P, U2P	DIP8	LM4562		4		NA	NA		1559275	
U6P	TO220-flat	L4940V5		1	156045 - 89	€ 1.67	01.00.4940.50		9756060	€ 0.80
U5P	TO220-flat	LM7812CT		1	179230 - 89	€ 0.58	01.00.7812.80		9666109	€ 0.53
U1D, U2D	DIP18	PIC16F819-I/P		2						

R5D, R6D	SIL8	Bourns 4608X-102-221	220R	2			51.76.220E	9356584	€ 0.28
J1L, J1R, J2L, J2R, J3L, J3R	Cinch	Wire to chassis-connector		6					
R1D, R15P, R28P, R30P, R8P	AXIAL-0.4	Res1	100R	5	403920 - 89	€ 0.02	51.04.100E	9339043	€ 0.02
R1P, R20P, R24P, R9P	AXIAL-0.4	Res1	150R	4	403946 - 89	€ 0.02	51.04.150E	9339175	€ 0.02
R12P, R16P, R19P, R31P, R6P, R11P, R14P, R21P, R3P	AXIAL-0.4	Res1	1K (1%)	9	408166 - 89	€ 0.02	51.11.1K	9341102	€ 0.03
R10P, R17P, R23P, R26P, R2P	AXIAL-0.4	Res1	1K5	5	404063 - 89	€ 0.02	51.04.1K5	9339183	€ 0.02
R22P, R4P	AXIAL-0.4	Res1	330R	2	403989 - 89	€ 0.02	51.04.330E	9339418	
R18P, R25P, R29P, R5P	AXIAL-0.4	Res1	3R3	4	404560 - 89	€ 0.02	51.04.3E3	9339450	
R27P	AXIAL-0.4	Res1	47R	1	403881 - 89	€ 0.02	51.04.47E	9339523	€ 0.02
R13P, R2D, R3D, R4D, R7P	AXIAL-0.4	Res1	5K6 (1%)	5	408255 - 89	€ 0.02	51.11.5K6	9342060	€ 0.03
Note: audio-grade resistors below are in this table rounded to E12 series. For more accurate values see design document.									
R16L, R16R, R17L, R17R, R18L, R18R, R34L, R34R	AXIAL-0.7	Res2	4.7K	8	419648 - 89	€ 0.15	51.14.4K7	9340629	€ 0.04
R15L, R15R, R20L, R20R	AXIAL-0.7	Res2	100R	4	419443 - 89	€ 0.15	51.14.100E	9339760	€ 0.04
R1L, R1R, R19L, R19R	AXIAL-0.7	Res2	27K	4	419737 - 89	€ 0.15	51.14.27K	9340327	€ 0.04
R21L, R21R, R2L, R2R	AXIAL-0.7	Res2	82K	4	419796 - 89	€ 0.15	51.14.82K	9340955	€ 0.04
R22L, R22R, R3L, R3R, R29L, R29R, R10L, R10R, R12L, R12R, R31L, R31R	AXIAL-0.7	Res2	10K	12	419680 - 89	€ 0.15	51.14.10K	9339787	€ 0.04
R11L, R11R, R23L, R23R, R30L, R30R, R4L, R4R	AXIAL-0.7	Res2	47K	8	419761 - 89	€ 0.15	51.14.47K	9340637	€ 0.04
R24L, R24R, R5L, R5R	AXIAL-0.7	Res2	2K2	4	419605 - 89	€ 0.15	51.14.2K2	9340203	€ 0.04
R25L, R25R, R6L, R6R	AXIAL-0.7	Res2	27K	4	419737 - 89	€ 0.15	51.14.27K	9340327	€ 0.04
R26L, R26R, R7L, R7R	AXIAL-0.7	Res2	5.6K	4	419656 - 89	€ 0.15	51.14.5K6	9340734	€ 0.04
R27L, R27R, R8L, R8R, R28L, R28R, R9L, R9R	AXIAL-0.7	Res2	15K	8	419702 - 89	€ 0.15	51.14.15K	9340009	€ 0.04
R13L, R13R, R32L, R32R	AXIAL-0.7	Res2	330K	4	419869 - 89	€ 0.02	51.11.330K	9340432	€ 0.04
S1D	RotarySwitch	Alps STEC11B03		1	700697 - 89	€ 5.70	03.49.770	1367413	€ 1.29
	Or: Piher ci-11	Or: DDM Hopt-Schuler 427			705594 - 89	€ 7.15			
	HQ non-print-mount:	Alps RK097-10ELC07							
U3D	SFH	Vishay TSOP4838		1	156406 - 89	€ 1.36	01.00.5110.38	4913190	€ 1.15
U3P, U4P	TO92	TL431ACLP		2	155635 - 89	€ 0.15		9593543	€ 0.29
		TL431CLP			155641 - 89	€ 0.15	01.00.431.51		
K1, K2, K3, K4L, K4R, K5L, K5R, K6L, K6R, K7L, K7R, K8L, K8R, K9L, K9R, K10L, K10R, K11L, K11R, K12L, K12R, K13L, K13R	DIL10	TQ2-12VDC		23	505036 - 89	€ 3.11	03.20.512'	1200949	€ 4.01
U4D, U5D	DIP16	ULN2003A		2	177970 - 89	€ 1.25	01.00.2003.90	1077215	€ 0.80

J4L, J4R, J5L, J5R, J6L, J6R Or alternative:	XLR Female	Neutrik NC3FAH1	6			05.03.383'	724518	€ 1.28
		Neutrik NC3FAAH-0					1310009	€ 0.56
J7L, J7R Or alternative:	XLR Male	Neutrik NC3MAH	2			05.03.483'	724543	€ 1.04
		Neutrik NC3MAAV-1					1310056	€ 0.63
Optional IC socket	8-pin DIL		4	189600 - 89	€ 0.29		1103844	€ 0.43
Optional IC socket	16-pin DIL		2	189626 - 89	€ 0.46		1103846	€ 0.72
Optional IC socket	18-pin DIL		2	189634 - 89	€ 0.52		1103847	€ 0.77
Sum PCB components:			236		€ 130.89			€ 141.74
					Inc. btw			ex.btw

Miscellaneous options, not on PCB:

Trafo 2x18V	(for an over-powered transformer, choose 2x15V)			506443 - 89	€ 5.45	02.04.15.15	9531610	€ 9.60
Trafo 2x7V	(for an over-powered transformer, choose 2x6V)			506419 - 89	€ 5.45	02.04.15.6	9531572	€ 12.86
Neutrik Cableplug Male Gold		Neutrik NC3MXXB		736989 - 89	€ 3.58	05.03.203G	9991816	€ 3.17
Neutrik Cableplug Female Gold		Neutrik NC3FXXB		736951 - 8A	€ 4.09	05.03.103G	9991786	€ 3.55
XLR microphone cable				302791 - 8A	€ 1.57	05.22.C208ZW	3855570	€ 3.39
				603774 - 89	€ 15.34	05.22.C208RD		
Cinch connector chassis Red				731085 - 8A	€ 1.32	05.06.515RD.G	5008529	€ 0.84
Cinch connector chassis Black				731071 - 8A	€ 1.32	05.06.515ZW.G	5008517	€ 0.84
Power switch relay (250V, 12A)		Coil 12Vdc		504742 - 89	€ 5.62	03.02.5012'	9659234	€ 2.15
Red plexiglass window				530700 - 89	€ 0.76			

Conrad is found at <http://conrad.com> and a set of per-country websites through Europe. Unfortunately, it seems that some country-sites show only a reduced set of articles.

Farnell is found at <http://www.farnell.com/>, also with a whole set of country-specific sites. Their website seems to discourage direct sales to private end-users, although in my experience they still support that for a properly sized order under advance payment.

Display is found at <http://www.display.nl>, and allows to order components through different shops in the Netherlands. I did not list prices, since the prices on the website are shop buying price and not end-user price.

Please regard this table only as helping guide for choosing your own components. I cannot take responsibility for the correctness of the shop component article numbers. The mentioned prices are to be considered as rough indication only, as these will change over time.

Note that the component selection in different shops results in different types. A direct shop price-level comparison from this table is not fair because of my personal preference to always choose the best quality components. Also, some (low cost) components might be only available at larger quantities, which is not accounted for in above table.

The PIC 16F819 microcontrollers need to be programmed with the firmware for this preamp design. Upon request I can send pre-programmed parts. I do not intend to make their firmware available.

Success,

Jos van Eijndhoven

Apr 30, 2008