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FLY Communication

Tecprecision

PROFESSIONAL AUDIO FITTINGS

Index

CABLES page 03

Power cables
Speaker cables
Signal cables
RCA extensions

HARNESS FITTINGS page 07

Fuse-holders
Thermal circuit breakers
Terminals
Battery clamps
RCA
Connectors

FEEDING page 13

Batteries
Capacitors
Feeder

CONSUMABLES page 16

Tin
Plaited sheath
Thermoshrinkable sheath
Clamps for harness
Glue
Gasket mousse
Soundproofing materials
Acoustic insulation

CARPETS page 20

Acoustic, self-sticking carpets
Protective carpets
Lining carpets
Acoustic cloths

FITTINGS page 23

Grids
Reflex
Connections for diffusers

PASSIVE COMPONENTS page 25

Condensers
Resistors
Inductors
Poliswitch
Printed circuits and Fastons
Classic crossovers
Modular crossovers

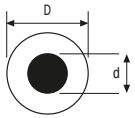
TECHNICAL INFORMATION page 33

CABLES

Whenever reliable and performing cables are needed, ***Tec Precision*** turns out to be the proper choice.
Reliable since the cables can resist up to 150°C/1h, in compliance with the strictest International Security Regulation.
Performing since they consist of oxygen-free copper filaments with a 0.12 mm diameter in order to grant the minimum energy dissipation as well as the highest flexibility. Their 90% insulating covering on the signal cables grants an excellent barrier against induced noise.

Power cables

Power cables with 7 different sections are available. The **Pro** version differs from the others for its higher number of strandes (i.e. the copper filaments), and for the **special structure of the outer "sock" in order to improve conductivity** (lower parasitic resistance per metre). Each version is made out of oxygen-free copper with a dielectric resistant to temperatures up to 150°C/1h.

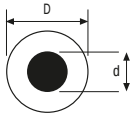


D = external diameter [mm]
D = internal diameter [mm]
S = section [mm²]

POWER CABLES

OXYGEN FREE - COPPER

CODE	COLOUR	AWG	STRANDES	D [mm]	d [mm]	s [mm]	Resistance [Ohm/Km]	Max power [A]	Spec. Weight [Kg/Km]
P14 R	RED	14	105	4,0	2	2	9,7	19	32
P14 B	BLACK	14	105	4,0	2	2	9,7	19	32
P10 R	RED	10	252	6,3	3	5	3,5	31	83
P10 B	BLACK	10	252	6,3	3	5	3,5	31	83
P8 R	RED	8	406	8,2	4	8	2,2	45	136
P8 B	BLACK	8	406	8,2	4	8	2,2	45	136
P6 R	RED	6	658	9,6	5	13	1,36	55	205
P6 B	BLACK	6	658	9,6	5	13	1,36	55	205
P4 R	RED	4	1050	11,4	7	21	0,85	75	299
P4 B	BLACK	4	1050	11,4	7	21	0,85	75	299



D = external diameter [mm]
D = internal diameter [mm]
S = section [mm²]

PRO POWER CABLES

OXYGEN FREE - COPPER

CODE	COLOUR	AWG	STRANDES	D [mm]	d [mm]	s [mm]	Resistance [Ohm/Km]	Max power [A]	Spec. Weight [Kg/Km]
P2 R-T	RED	2	2842	13,7	9	32	0,55	99	450
P2 B-T	BLACK	2	2842	13,7	9	32	0,55	99	450
P1/0 R/T	RED	1/0	4410	17	12	50	0,36	125	648
63-P1/0R-T 5M	RED	1/0	4410	17	12	50	0,36	125	648

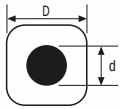
PLEASE NOTE! Your amplifier can wholly exploit its potential only if it is connected to a high-quality cable with the proper section. The choice of the proper section to be used depends on the quantity of energy required by the amplifier. Remember that the same sections must be used both for the positive and the negative cable. Please follow the table in order to calculate the section of the cable to use.

*total power of all the channels of the amplifying system

RMS* power	Cable Section [mm²]	Tec Precision Cable
Da 0 a 30	at least 2	P14 R/B
Da 30 a 60	at least 5	P10 R/B
Da 60 a 100	at least 8	P8 R/B
Da 100 a 180	at least 12	P6 R/B
Da 180 a 300	at least 20	P4 R/B
Da 300 a 590	at least 30	P2 R/B -T
Da 590 a 1200	at least 50	P1/0 R/B-T

Speaker cables

They are available at 2 or 4 wires with 5 different sections. The top version consists of a plait of tinned copper and red copper in a transparent dielectric. The copper used is oxygen free while the dielectric withstands up to 150°C/1h temperatures.

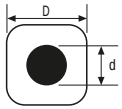


D = external diameter [mm]
D = internal diameter [mm]
S = section [mm²]

STANDARD SPEAKER CABLES

OXYGEN FREE - COPPER

CODE	COLOUR	AWG	STRANDES	D [mm]	d [mm]	s [mm]	Resistence [Ohm/Km]	Max power [A]	Spec. Weight [Kg/Km]
SPK eco	Transparent	2x20	42	2,2x4,4	2x0,8	0,5	35	6	19
SPK 18	Dull black	2x18	82	2,8x5,8	2x1,1	0,8	11	9,5	33
SPK 16	Transparent yellow	2x16	64	3,5x7,2	2x1,8	1,5	7	13,5	44
SPK 16/B	Transparent blue	2x16	64	3,5x7,2	2x1,8	1,5	7	13,5	44
SPK 16/R	Transparent red	2x16	64	3,5x7,2	2x1,8	1,5	7	13,5	44
SPK 16/V	Transparent green	2x16	64	3,5x7,2	2x1,8	1,5	7	13,5	44

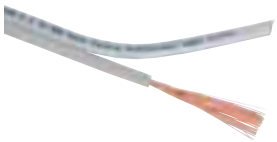


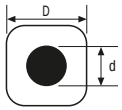
D = external diameter [mm]
D = internal diameter [mm]
S = section [mm²]

TOP SPEAKER CABLES

OXYGEN FREE - COPPER

CODE	COLOUR	AWG	STRANDES	D [mm]	d [mm]	s [mm]	Resistence [Ohm/Km]	Max power [A]	Spec. Weight [Kg/Km]
SPK 414 T	Transparent	4x14	182	3,2x14	4x2	2	4,4	19	116
SPK 14 T	Transparent	2x14	182	3,2x7	2x2	2	4,4	19	58
SPK 12 T	Transparent	2x12	287	4,3x9	2x2,5	3,5	5,5	23	93
SPK 10 T	Transparent	2x10	462	5x10	2x3	5,5	1,72	31	136





D = diametro esterno [mm]
d = diametro interno [mm]
s = sezione [mm²]

PRO SPEAKER CABLES

OXYGEN FREE - COPPER

These cables are aimed to be used at home in Home Theatre wiring harness, thanks to their flatness due to the net-type wire, which makes them perfect also in your car, when you don't wish to loose power although in narrow spaces.

CODICE	COLORE	AWG	STRANDES	D [mm]	d [mm]	s [mm]	Resistence [Ohm/Km]	Max power [A]	Spec. Weight [Kg/Km]
HTP 15	White	15	2,3x5,6	-	2x1,8	1,4	12,8	16	40

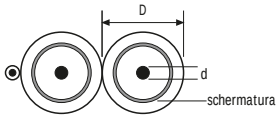
PLEASE NOTE! The cables of the loudspeakers are aimed to cover the longest and most difficult paths in order to connect the various transducers to the amplifier. Please follow the table in order to calculate the section of the cable to use.

RMS* power	Cable Section [mm²]	Tec Precision Cable
Da 0 a 60	at least 0,8	SPK 18
Da 60 a 140	at least 1,5	SPK 16/HTP 15
Da 140 a 220	at least 2,0	SPK 14-T
Da 220 a 310	at least 3,5	SPK 12-T
Da 310 a 520	at least 5,8	SPK 10-T

SIGNAL CABLES

OXYGEN FREE - COPPER

Coaxial cable to transfer the audio signal with a net shielding with 90% covering to have the least possibility of bringing in disturbances from outside, even in pretty hard circumstances.



D = diametro esterno [mm]
d = diametro interno [mm]
s = sezione [mm²]

CODE	COLOUR	AWG	STRANDES [mm]	D [mm]	d [mm]	s [Ohm/Km]	Resistence [A]	Max power [Kg/Km]	Spec. Weight
SGL 24	Transparent	2x24	19	5,5	0,6	0,22	42	2,8	72

RCA EXTENSION

In order to make easier the job both to the professional technicians and to the "beginners", ***Tec Precision*** offers a series of RCA extensions, that are already cabled with remote control of the connection. High-quality, gold-plated, Teflon-insulated RCA used together with ***Tec Precision*** cables can grant absolute quality. Moreover the excellent quality-price ratio of the PE range allows fair prices without losing reliability.

PE

PE/D

PE Y 1F2M

PE Y 1M2F

PS

CODE	DESCRIPTION
PE 05	RCA extension with double insulation + m. 0.5 remote
PE 1	RCA extension with double insulation + m. 1.0 remote
PE 2	RCA extension with double insulation + m. 2.0 remote
PE 3	RCA extension with double insulation + m. 3.0 remote
PE 4	RCA extension with double insulation + m. 4.0 remote
PE 5	RCA extension with double insulation + m. 5.0 remote
PE 5/D	4 RCA extension with double insulation + m. 5.0 remote
PEY 1F2M	RCA splitter, 1 female 2 males
PEY 1M2F	RCA splitter, 1 male 2 females
PS 1	RCA extension with SGL 24 cable + m. 1.0 remote
PS 2	RCA extension with SGL 24 cable + m. 2.0 remote
PS 3	RCA extension with SGL 24 cable + m. 3.0 remote
PS 4	RCA extension with SGL 24 cable + m. 4.0 remote
PS 5	RCA extension with SGL 24 cable + m. 5.0 remote

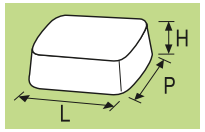
Harness FITTINGS

Tec Precision fittings, basic complements to carry out a reliable and highly-performing Hi-Fi Car system, arise from the over 30-year-long experience of **E.B. Acoustic** in the audio field as well as from the cooperation with professionals engaged in competitions at an international level. Optimizing the production cycle, ***Tec Precision*** offers high-quality items at affordable prices both for the professionals and the "beginners".

Fuse-holders and Shielding System

Security is extremely important in any car electric system; even more when high powers come into play. One of the basic rules of Hi-Fi Car is to protect the whole system through a proper fuse-holders installed on the primary feeding wire at about 10 cm from the battery.

PF-DC5



Fusibili non inclusi.

FUSE-HOLDERS

Manufactured from a single unit, followed by "CNC" processing, ***Tec Precision*** blocks can grant the highest conductivity using the AFC laminar fuses.

PF105

PF105D

PF25

PF35

PF15

PF25D

PF45D

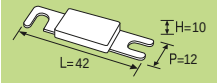
PF45

CODE	DESCRIPTION	L [mm]	H [mm]	P [mm]
PF-105	Hi-power fuse-holder for 1 ANL 2AWG IN/OUT fuse	108	71	40
PF-105 D	Hi-power fuse-holder with DIGIT for 1 ANL 2AWG IN/OUT fuse	108	71	40
PF-15	Fuse-holder for 1 AFC fuse, 8 AWG IN/OUT	84	50	27
PF-25	Fuse-holder for 2 AFC fuses 3x4AWG IN 2x8AWG OUT	102	57	32
PF-35	Fuse-holder for 3 AFC fuses 3x4AWG IN 3x8AWG OUT	102	72	32
PF-45	Fuse-holder for 4 AFC fuses 3x4AWG IN 4x8AWG OUT	102	88	32
PF-25 D	Fuse-holder for 2 AFC fuses with DIGIT 3x4AWG IN 2x8AWG OUT	160	90	45
PF-45 D	Fuse-holder for 4 AFC fuses with DIGIT 6x4AWG IN 4x8AWG OUT	160	100	45
PF-DC5	6-way distribution block, 8AWG at 1/0AWG	68	52	33

AFC FUSES

OXYGEN FREE - COPPER

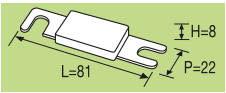
AFC fuses can grant perfect electric conductivity and prevent sparks to spread, should the fuses themselves be disconnected, without limiting the power capacity, which arrives up to 100 Ampere.



CODE	DESCRIPTION
AFC 30	30 Ampere laminar fuse
AFC 40	40 Ampere laminar fuse
AFC 60	60 Ampere laminar fuse
AFC 80	80 Ampere laminar fuse
AFC 100	100 Ampere laminar fuse

LAMINAR FUSES

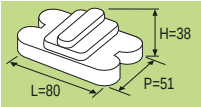
When protection for electric power higher than 80 Ampere is needed, professional fuse-holders with properly dimensioned blocks are required together with laminar fuses in order to reach up to 200 Ampere.



CODICE	DESCRIPTION
ANL 80	ANL 80 ampere laminar fuse
ANL 100	ANL 100 ampere laminar fuse
ANL 150	ANL 150 ampere laminar fuse
ANL 200	ANL 200 ampere laminar fuse

THERMAL CIRCUIT BREAKERS

The thermal circuit breakers are reversible and user friendly and can be used to protect the whole electric system since they can control electric power up to 200 Ampere. They are as effective as classic fuses, although they are not so quick. They are electronically set with ±2% tolerance.



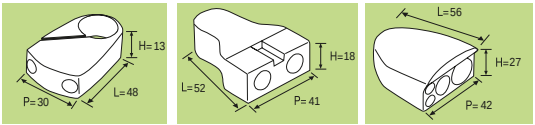
CODE	DESCRIPTION
HPCB-070	70 Ampere thermal circuit breaker + transparent cover
HPCB-100	100 Ampere thermal circuit breaker + transparent cover
HPCB-140	140 Ampere thermal circuit breaker + transparent cover
HPCB-200	200 Ampere thermal circuit breaker + transparent cover

Terminals

To connect cables to electronic parts, transducers, fuse-holders or to the shielding systems, the proper details are required. Such details are **needed** since the clamping systems often damage the wire itself. Sometimes they make contact on a narrow surface of the cable, therefore creating an unreliable, poorly performing connection. All the terminals by ***Tec Precision***, but the tube terminals because of tinning problems, are gold-plated, with tender, PVC protection resistant to withstanding high melting temperatures.

BATTERY CLAMPS

Battery clamps with surface anticorrosive treatment and transparent PVC cover withstanding high melting temperatures.

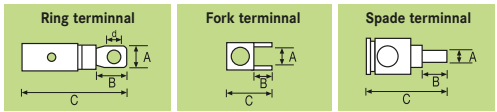


CODE	DESCRIPTION
MB-03P	Positive battery clamp for 2x8 AWG
MB-03N	Negative battery clamp for 2x8 AWG
MB-04P	Positive battery clamp for 2x8 AWG cables + cover
MB-04N	Negative battery clamp for 2x8 AWG cables + cover
MB-05P	Positive battery clamp 1x1/0+1x4+2x8 AWG + cover
MB-05N	Negative battery clamp 1x1/0+1x4+2x8 AWG + cover

CABLE TERMINALS

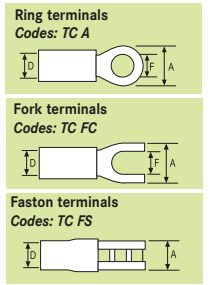
Gold-plated cable terminals with tender PVC cover withstanding high melting temperatures. The cable can be screwed or blocked.

SUPERIOR QUALITY



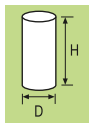
CODE	DESCRIPTION	A [mm]	B [mm]	C [mm]	d [mm]
TC-02	Fork terminal for cables from 18 to 10 AWG	8	12	20	-
TC-03	Spade terminal for cables from 8 to 1/0 AWG	8	14	47	-
TC-04	Ring terminal for cables from 4 to 1/0 AWG	18	22	60	8
TC-05	Ring terminal for cables from 8 to 4 AWG	15	22	57	8

CABLE TERMINALS



CODE	DESCRIPTION	D [mm]	A [mm]	F [mm]
TC A01	Ring terminal for cables from 16 to 14 AWG	2,3	8,5	4,3
TC A02	Ring terminal for cables from 12 to 10 AWG	3,5	9,5	5,3
TC A03	Ring terminal for cables from 12 to 10 AWG	3,5	12	6,4
TC A04	Ring terminal for cables from 12 to 10 AWG	3,5	15	8,4
TC A05	Ring terminal for cables from 12 to 10 AWG	3,5	15	10,5
TC A06	Ring terminal for 8 AWG cables	4,5	10	5,3
TC A07	Ring terminal for 8 AWG cables	4,5	12	6,4
TC A08	Ring terminal for 8 AWG cables	4,5	18	10,5
TC A09	Ring terminal for 4 AWG cables	7,5	16	8,4
TC A10	Ring terminal for 4 AWG cables	7,5	18	10,5
TC A11	Ring terminal for 4 AWG cables	7,5	16	6,5
TC FC01	Fork terminal for 8 AWG cables	4,5	8	3,7
TC FC02	Fork terminal for 8 AWG cables	4,5	12	6,7
TC FS01	Faston terminal for cables from 12 to 10 AWG	3,5	7,5	-

TUBE TERMINALS

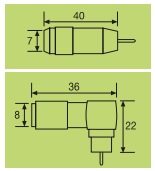


Tube terminals create a homogeneous contact basis for the insertion in the distribution clamp using little space. They are of tinned copper according to the DIN46228/1 regulation. They **are not gold-plated** in order to optimize the tinning to the wire.

CODE	DESCRIPTION	H [mm]	D [mm]
TT 01	Tube terminal of tinned copper for 1/0 AWG cables	25	10,3
TT 02	Tube terminal of tinned copper for 2 AWG cables	18	8,3
TT 03	Tube terminal of tinned copper for 3 AWG cables	15	7,3
TT 06	Tube terminal of tinned copper for 6 AWG cables	15	5,8
TT 07	Tube terminal of tinned copper for 7 AWG cables	15	4,5
TT 10	Tube terminal of tinned copper for 10 AWG cables	15	3,5
TT 14	Tube terminal of tinned copper for 14 AWG cables	10	2,2

RCA

The size of the **RCA** remains small enough to enable an easier use in special applications such as in Car Audio. The Teflon dielectric and their gold-plating enable a professional use.



CODE	COLOUR
RPS	Gold-plated, male RCA for welding with Teflon dielectric
RJS	Gold-plated, female RCA for welding with Teflon dielectric
RPS/A	Gold-plated, male, corner RCA for welding with Teflon dielectric

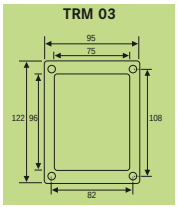
CONNECTORS

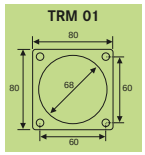
These **connectors** are indispensable when a safe and easy-to-disconnect connection is required. Speakon Neutrik in particular is considered as the **reference** connector by the manufacturers of loudspeakers all over the world, thanks to the perfect connection both from the mechanical and the electrical point of view.

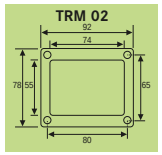
TRM 01

TRM 02

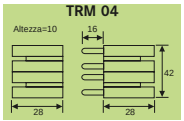
TRM 03







TRM 04

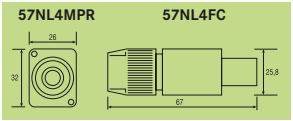


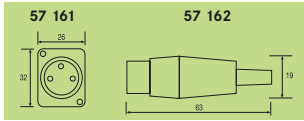
57NL4MPR

57NL4FC

57 161

57 162





CODE	DESCRIPTION
TRM 01	2-contact ROUND basin for console
TRM 02	2-contact RECTANGULAR basin for console
TRM 03	RECTANGULAR basin for console with 4 bi-wiring contacts
TRM 04	4-contact quick connector
57NL4FC	4-pole Speakon Neutrik connector
57NL4MPR	4-pole Speakon Neutrik connector
57 161	3-pole connector for console
57 162	3-pole connector for steering wheel

FEEDING

One of the most critical aspects, when you wish to set up a performing Hi-Fi Car system is surely feeding, which is often disregarded even if it is the basis of the whole audio system and highly affects the final result.
Tec Precision offers feeding systems especially aimed for heavy and professional uses such as happens in the Hi-Fi Car system. Batteries, capacitors and professional feeder have been designed and carried out with an advanced technology in order to grant the proper solution to the increasingly more demanding audio systems.

Intimidator

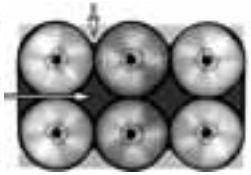
EXCELLENT INRUSH CURRENT

EXCELLENT CAPACITY RESERVE

INTIMIDATOR is an **AGM** (an acronym for "Absorbed Glass Mat") dual terminal battery (two positive and two negative poles) that is wholly airtight and leakproof.
The cyclical operation can better save the electronics of the car.
Airtight batteries are user friendly and offer the highest performances together with excellent reliability.

"CUBE" design
All the available space to grant the greatest power.

"SPIRAL" design
Note the voids or "dead areas".



Comparison between "CUBE" and "SPIRAL" design.

The capability of any battery depends on its weight, composition of the active materials by which it is made and on the surface available on the plates.
Considering batteries with the same external dimensions (same box), the "cube" design enables the use of larger reaction surfaces (plates, active material), which can also be better exploited. The "spiral" design has smaller reaction surfaces because of the void areas between each cylindrical cell.

FURTHER FEATURES OF INTIMIDATOR AGM BATTERY

- Since no maintenance is required, the fluid levels do not need to be checked.
- The electrolyte is absorbed on the separators (acting as blotting paper) avoiding the risk of leakage or pole corrosion.
- Its compactness and the plates made of "reinforced" calcium alloy can grant an excellent resistance to mechanical stress (shock, impact).
- Recharging is faster in comparison with conventional batteries, therefore enabling faster turnaround times.
- Its sealed construction offers the highest protection to sophisticated electronic devices.
- Thanks to its external dimensions it is particularly versatile and easy to install in most of the applications.
- Its technology makes it excellent both to start engines and for cyclic running.
- The constructive peculiarities both of the separators and of the plates grant the highest electrical performances.

Electric features		TP AGM
rated voltage		12V
rated capacity (20 hours)		55Ah
discharge	5s up to 7,2V	1400 A
	10s up to 7,2V	1270 A
	20s up to 7,2V	1050 A
CCA (SAE regulation at-18°C)		740 A
CA (as CCA but at 0°C)		940 A
HCA (as CCA but at 27°C)		1400 A
short circuit power		>4000 A
reserve capacity (at 25 A, Di steady discharge)		120 minuti
internal resistance		3,0 mOhm
Size	Width	175 mm
	Length	273 mm
	Height (poles included)	203 mm
Weight		19,3 Kg

CAPACITORS

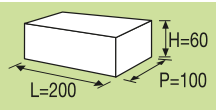
Since advanced Hi-Fi systems require high quantities of energy (pulses), that can not be wholly supplied even by the most sophisticated batteries, Performance Capacitor ***Tec Precision*** becomes absolutely needed.
The rated voltage at 20/24 VDC and its high capacity greatly increase the audio performances.
Its aggressive look and the digital remote control make of this product an indispensable component of your Hi-Fi Car system.

CODE	DESCRIPTION
CAP 0.5 D	0.5 farad capacitor
CAP 1 D	1 farad capacitor
CAP 2 D	2 farad capacitor
CAP 3.0 DPF	3 farad capacitor + distributor
CAP 10 DPF	10 farad capacitor + distributor

FEEDER

20 Ampere

This switching feeder with digital control of the charging and holding/working voltage is the proper interface with whatever kind of accumulator. Maximum delivered power 20 Ampere, electrical protection against short circuits and automatic decoupling of the battery, should the feeding at 220 volt fail. The fan for the forced cooling of the feeder is automatically switched on when the required power exceeds 5 Ampere. Pilot lights show the charge status and when it finishes.
It can be connected in parallel to get a total power of Max 40 Ampere.



CODE	DESCRIPTION
POWER 01	20 Ampere switching feeder with forced cooling

CONSUMABLES

Both the professional users and those who are simply fond of audio systems, shall be provided with the **most suitable devices** to perform their electro-acoustical wishes. ***Tec Precision*** has therefore thought to let you save a lot of time and money simply enlarging its own range of products with consumables, that although indispensable to carry out **reliable systems**, are usually hard to be found on the market.

TIN

Basically consisting of pure tin, it is offered with 1mm diameter. Two different alloys are available: tin-lead-copper and tin-silver-lead to grant the highest conductivity and reliability to the tinning carried out.

CODE	DESCRIPTION
ST-E	Alloy of tinning tin Ø 1mm, 60% Sn, 38% Pb, 2% Cu – 250 g roll
ST-T	Alloy of tinning tin Ø 1mm, 62% Sn, 34% Pb, 4% Ag – WITH SILVER – 250 g roll

PLAITED SHEATH

This plaited sheath, which has been designed to protect wires, is extremely user friendly to wear and lets the group of wires comfortably underrun, as well as one or more wires out, simply enlarging the stitches of the sheath in whatever point of the connection. The sock can be cut using a welder in order to avoid fraying. Good resistance to overloads, thermal ageing, mechanical resistance and chemical agents.

CODE	DESCRIPTION	SIZE
GR-12	Plaited sheath – 100 m.	ø max 12 mm./ø min. 8 mm.
GR-15	Plaited sheath – 100 m.	ø max 15 mm./ø min. 10 mm.
GR-20	Plaited sheath – 50 m.	ø max 20 mm./ø min. 12 mm.

POLYETHYLENE SPIRAL

Easy to install even on already existing connections, versatile and cheap, this spiral lets you make deviations as well as fit in wires in whatever point of the harness.

CODE	DESCRIPTION	SIZE
SP-9N	Black polyethylene spiral – 25 m.	ø max 50 mm./ø min 12 mm.

THERMOSHRINKABLE SHEATH

This flexible sheath of polyolefin is aimed for general usages and especially to electrically insulate. This ***Tec Precision*** thermoshrinkable sheath, with a high shrinkage ratio, has a fair price and is provided in sticks.

CODE	DESCRIPTION	SIZE
TR-2,4/C	Thermoshrinkable sheath	expanded ø 2,4 mm./shrunk ø 1,2 mm.
TR-4,8/C	Thermoshrinkable sheath	expanded ø 4,8 mm./shrunk ø 12,4 mm.
TR-6,4/C	Thermoshrinkable sheath	expanded ø 6,4 mm./shrunk ø 13,2 mm.
TR-9,5/C	Thermoshrinkable sheath	expanded ø 9,5 mm./shrunk ø 14,7 mm.
TR-12,7/C	Thermoshrinkable sheath	expanded ø 12,7 mm./shrunk ø 16,4 mm.
TR-19,1/C	Thermoshrinkable sheath	expanded ø 19,1 mm./shrunk ø 19,5 mm.
TR-25,4/C	Thermoshrinkable sheath	expanded ø 25,4 mm./shrunk ø 112,7 mm.

CLAMPS FOR HARNESS

Quick to apply thanks to their sloping end, that can be easily introduced in the head; safer, rounded corners and quick sliding due to the low friction coefficient of the polyamide 6.6 used to make them. They are self-extinguishing according to the UL94V2 regulation.

CODE	DESCRIPTION	SIZE
FC-98	Self-extinguishing, polyamide clamp – 98 mm, black	98x2,5 mm.
FC-160	Self-extinguishing, polyamide clamp – 160 mm, black	160x2,6 mm.
FC-290	Self-extinguishing, polyamide clamp – 290 mm, black	290x3,6 mm.

GLUE

ADHESIVE SPRAY: user friendly spray glue, that do not nebulize, nor drip, especially suitable to glue carpets. Fast hardening.

CODE	DESCRIPTION
07.10	1/2 litre adhesive spray

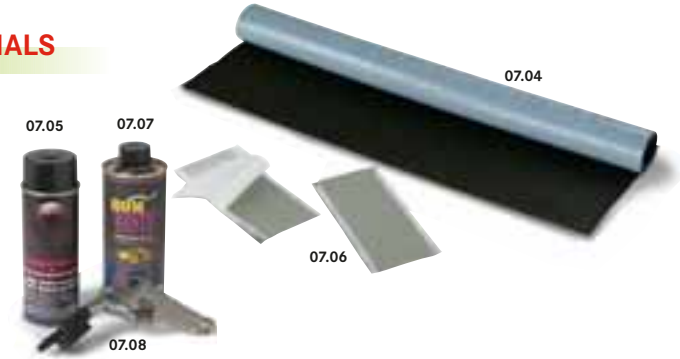
GASKET MOUSSE

Adhesive EPDM mousse in rolls, suitable to seal the fissures between loudspeaker and installation surface, even if it is uneven. It can be used on sheets, wood, plastics and many more materials. It is waterproof.

CODICE	COLORE	SIZE
GM-12	Adhesive gasket mousse in rolls	ø 4 mm. x 90 mt.

SOUNDPROOFING MATERIALS

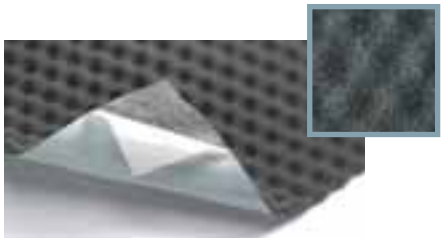
Perfect to treat car sheets, through an internal, chemical process, they turn the kinetic energy (vibrations of the sheet) into heat, greatly improving acoustics inside the passenger compartment. ***Tec Precision*** offers solid soundproofing materials to be directly applied on the sheet without tools as well as soundproofing liquids requiring a certain care for the application but enabling to reach even the least accessible parts.



CODE	DESCRIPTION	SIZE
07.04	Dampit with bituminous basis up to 3 mm thickness	80x120 cm.
07.05	Dampit liquid spray up to 2.5 mm thickness	1/2 litro
07.06	Metal plates up to 3 mm thickness	11x25 cm.
07.07	Liquid Bom Bastic up to 3 mm thickness	1 litro
07.08	Application kit for Bom Bastic dampening liquid	-

Acoustic Insulation

When soundproofing is required, ***Tec Precision*** is the best choice. Different materials are available in order to meet the various requirements of dampening and soundproofing. In a critical environment, such as cars are from a soundproofing point of view, using effective solutions to dampen undesired noise becomes a must.
On the other side, the materials required in boxes are aimed to slow up the sound waves and to prevent the stationary waves from internally spreading.



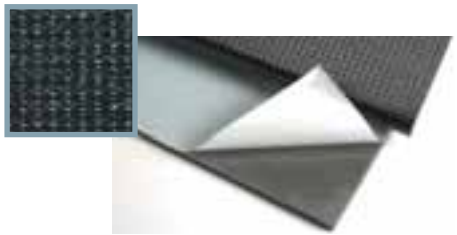
PIT RUBBER

Pit rubber is suitable for the interior of boxes in order to slow up the sound waves and dampen the stationary waves. It has a professional look and is easy to apply thanks to a self-sticking film.

CODE	DESCRIPTION	SIZE
GA-329	Self-extinguishing and self-sticking pit rubber	50x100x2,2 cm.

DEADENING RUBBER

Deadening rubber dampens or totally eliminates the creaking due to the plastic parts of the car and it is excellent if applied between the door panelling and the sheet. A nylon surface film closes the cells of this material making it insensible to humidity that otherwise could irreparably spoil the car sheets. It is totally compressible and can be applied thanks to a self-sticking film.



CODE	DESCRIPTION	SIZE
GF-332	Self-extinguishing and self-sticking deadening rubber with closed cells	50x140x1 cm.

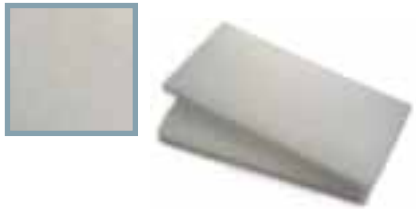
FIBER GLASS

Fiber glass is still the best material for the interior of boxes, thanks to its deadening characteristics. Since this material is easily pulverized, it is recommended only in totally closed boxes with air-spring suspension.

CODE	DESCRIPTION	SIZE
07.01	Fiber glass for totally closed boxes	60x100x3 cm.

SINTHETIC FIBER

The synthetic fibre made of polyester has good deadening characteristics to dampen stationary waves. Since it is waterproof but holds humidity it is recommended in boxes (either close or reflex) but it shall not be put in touch with the car sheets.



CODE	DESCRIPTION	SIZE
07.02	Deadening synthetic fibre for boxes	150x100x2,5 cm.

CARPETS

The difference between a second-rate, although performing product, and a professional one are details and finishing. That's why ***Tec Precision*** has chosen the best soundproofing **materials plus** others in order to let anybody get **excellent results**, not to be spoilt by time.

ACOUSTIC CARPETS

Materials especially designed to grant the best acoustic transparency are suggested in various colours. These acoustic carpets are made out of fire-retardant materials with registered certification and perfectly fit whatever frame, thus ensuring excellent results.
The items designed to line the subwoofers or the extra parts of the car are thicker without loosing fitting capacity.

ACOUSTIC	CODE	DESCRIPTION	SIZE
	MQ-302	BLACK carpet	75x130 cm.
	MQ-302/A	BLACK carpet with self-sticking film	75x130 cm.
	MQ-304	ANTHRACITE GREY carpet	75x130 cm.
	MQ-304/A	ANTHRACITE GREY carpet with self-sticking film	75x130 cm.
	MQ-307	GREY carpet	75x130 cm.
	MQ-307/A	GREY carpet with self-sticking film	75x130 cm.
	MQ-324	LIGHT GREY carpet	75x130 cm.
	MQ-200	LEMMON YELLOW carpet	75x130 cm.
	MQ-201	YELLOW carpet	75x130 cm.
	MQ-202	RED carpet	75x130 cm.
	MQ-210	PURPLE carpet	75x130 cm.
	MQ-207	GREEN carpet	75x130 cm.
	MQ-206	BLUE carpet	75x130 cm.
	MQ-205	ELECTRIC BLUE carpet	75x130 cm.
	MQ-211	VIOLET carpet	75x130 cm.

PROTECTIVE	CODE	DESCRIPTION	SIZE
	RP-390	Anti-crashing net	33x90 cm.

LINING	CODE	DESCRIPTION	SIZE
	MR-312	BLACK carpet	100x150 cm.
	MR-313	ANTHRACITE GREY carpet	100x150 cm.
	MR-314	GREY carpet	100x150 cm.

ACOUSTIC CLOTHS

With very high acoustic transparency, these cloths are of the same kind used by the manufacturers of sound (acoustic) diffusers to line the protection panels. They can be perfectly shaped and glued on wood frames or even on plastic or ferrous materials. Thanks to the wide range of colours available, they can easily match with the parts to line.

ACOUSTIC	CODE	DESCRIPTION	SIZE
	03.01	GREY cloth	70x150cm.
	03.02	BLACK cloth	70x150cm.
	03.03	BROWN cloth	70x150cm.
	03.05	BEIGE cloth	70x150cm.
	03.06	WHITE cloth	70x150cm.
	03.09	BORDEAUX cloth	70x150cm.
	03.11	SMOKE GREY cloth	70x150cm.
	03.13	ROYAL BLUE cloth	70x150cm.
	03.15	SILVER cloth	70x150cm.

FITTINGS

The fittings to work out Hi-Fi Car systems are as important as the primary audio components themselves, since in a so problematic environment as cars are, the final result is very often given by the details and fittings.
In order to make the installing job easier for the professionals but also for the "beginners", ***Tec Precision*** offers user-friendly components with excellent mechanical quality. Thanks to its own years-long experience as manufacturer, **E.B. Acoustic** offers to the public the same ***Tec Precision*** fittings used in the industrial applications.

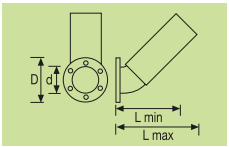
GRIDS

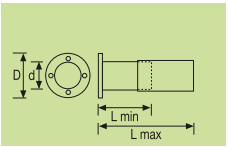
Wholly made out of sheets with corrosion proofing coating, these grids benefit from an effective and totally disappearing fastening system granting a final nice appearance both to the diffuser and to the subwoofer box. The drilling in the sheet is covered in order to avoid the turbulences caused by loudspeakers without losing the stiffness of the structure. Diameters from 20 to 38 cm. are available.

CODE	DESCRIPTION	SIZE
11-200	Fixed sheet grid	20 cm
11-250	Fixed sheet grid	25 cm
11-320	Fixed sheet grid	32 cm
11-380	Fixed sheet grid	38 cm

REFLEX

Tec Precision Reflex are made out of a special PVC, whose thickness makes them totally indifferent to the strong pressures caused by the subwoofer systems to which they are mechanically connected. This enables the part to be tuned according to a given resonance frequency avoiding the giving in of the reflex structure under the stress which would negatively affect the reproduced acoustics.
Thanks to the telescopic system you can easily find the proper resonance frequency without having to change the reflex.
There are empirical rules in order to dimension the reflex diameter according to the used woofers, anyhow, since there are too many variables coming into play, we will simply give a few indications.





CODE	DESCRIPTION	d [mm]	D [mm]	L min [mm]	L max [mm]
RFX-50	Telescopic reflex, with adjustable length for 165 mm-long woofers	50	80	152	292
RFX-66	Telescopic reflex, with adjustable length for 200 mm-long woofers	66	95,5	130	260
RFX-110	Telescopic reflex, with adjustable length for 320 mm-long woofers	110	145	152	290
RFX-85/45	Telescopic reflex, corner with adjustable length for 250 mm-long woofers	85	120	210	380
RFX-80/E	Exponential reflex for 250 mm-long woofers	80	125	170	-
RFX-95/E	Exponential reflex for 300 mm-long woofers	95	134	140	-
RFX-RACCORD	Extension for RFX-95/E each piece adds 52 mm	95	100	60	-

CONNECTION COMPONENTS

These devices to fix the protection panels to the loudspeakers enable you to quickly remove the panels themselves. They are made of high-quality PVC in order to prevent the stakes from breaking while being used.

CODE	DESCRIPTION
15.01	Diffuser connection 1 male + 1 female
15.02	Diffuser connection 1 male + 2 females
15.03	Diffuser connection 1 male + 1 female

PASSIVE COMPONENTS

In order to set up a good car-audio system, beyond high-quality loudspeakers and amplifiers that can deliver the proper powers to the transducers, and installation of the system with technical expertise, a cross-over filter is needed (consisting of condensers, inductors, resistors and poliswitch and made using reliable, high-quality components). Three are the basic functions of this device:

1 It shifts the audio signal from the amplifier to the various transducers of the system itself, which means to divide the range of the frequencies building up the audio signal (20Hz-20Hz) in different sub-bands that are sent to those transducers, that are more suitable to reproduce them.

2 It partly protects the transducers from overheating the mobile coil and in case it should break.

3 It adjusts the levels of the sound pressure of the most efficient transducers according to the weakest inside the system, in order to deliver each frequency with the same intensity (sound pressure).

NONPOLARIZED ELECTROLYTIC CONDENSERS

100 Volt - toLERANCE ± 20%

They have an excellent quality/price ratio and enable to reach high capacities (up to 470 uF), maximum voltage rating 100Vdc, excellent resistance to the electric flow, very limited internal resistance and therefore low dissipation. Being highly reliable, they can be used in any kind of crossover nets; they are ideal for filters with order higher than I, in parallel to the transducers.

There are condensers of different kinds, each one with different technical features.

CODE	DESCRIPTION	D [mm]	H [mm]
52-NP1,5	Electrolytic condenser 1,5uF/100volt	13	27
52-NP2,2	Electrolytic condenser 2,2uF/100volt	13	27
52-NP3,3	Electrolytic condenser 3,3uF/100volt	13	27
52-NP4,7	Electrolytic condenser 4,7uF/100volt	13	27
52-NP5,6	Electrolytic condenser 5,6uF/100volt	13	27
52-NP6,8	Electrolytic condenser 6,8uF/100volt	13	27
52-NP8,2	Electrolytic condenser 8,2uF/100volt	13	27
52-NP10	Electrolytic condenser 10uF/100volt	13	27
52-NP15	Electrolytic condenser 15uF/100volt	13	27
52-NP22	Electrolytic condenser 22uF/100volt	16	34
52-NP33	Electrolytic condenser 33uF/100volt	16	34
52-NP47	Electrolytic condenser 47uF/100volt	16	34
52-NP56	Electrolytic condenser 56uF/100volt	16	34
52-NP68	Electrolytic condenser 68uF/100volt	16	34
52-NP82	Electrolytic condenser 82uF/100volt	18	40
52-NP100	Electrolytic condenser 100uF/100volt	18	40
52-NP220	Electrolytic condenser 220uF/100volt	22	41
52-NP330	Electrolytic condenser 330uF/100volt	22	41
52-NP470	Electrolytic condenser 470uF/100volt	25	41

POLYESTER CONDENSERS

100 Volt - tolerance ± 5%

These polyester condensers with equivalent electric circuit and good parasite inductance enable an excellent performance at the high frequencies, while thanks to their minimum internal resistance and to the maximum rating voltage 100Vdc, they are among the best components to manufacture any kind of crossover filters. The minimum tolerance ± 20% grants an output which is almost identical to the one theoretically assumed.

CODE	DESCRIPTION	D [mm]	H [mm]
52-PE1,0	Polyester condenser 1,0uF/100volt	8,5	19
52-PE1,5	Polyester condenser 1,5uF/100volt	8,5	27
52-PE2,2	Polyester condenser 2,2uF/100volt	10	27
52-PE3,3	Polyester condenser 3,3uF/100volt	11	27
52-PE4,7	Polyester condenser 4,7uF/100volt	11	32
52-PE5,6	Polyester condenser 5,6uF/100volt	11,5	32
52-PE6,8	Polyester condenser 6,8uF/100volt	13,5	32
52-PE8,2	Polyester condenser 8,2uF/100volt	13,5	32
52-PE10	Polyester condenser 10uF/100volt	16	32
52-PE15	Polyester condenser 15uF/100volt	19,5	32
52-PE22	Polyester condenser 22uF/100volt	20	44

POLYPROPYLENE CONDENSERS

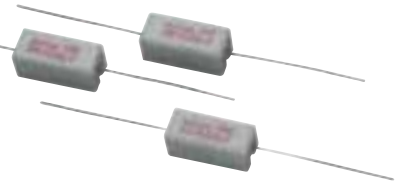
160 Volt - tolerance ± 5%

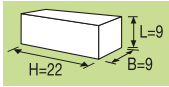
These polypropylene condensers with high-level technical features are the best on the market. The double metal-coating of their plate enables to stand the maximum rating voltage 160 Vdc; the parasite inductance in the equivalent electric circuit of these condensers is really low and they are ideal to manufacture high-quality high-pass crossovers.

CODE	DESCRIPTION	D [mm]	H [mm]
52-PP1,0	Polypropylene condenser 1,0uF/160volt	9	27
52-PP1,5	Polypropylene condenser 1,5uF/160volt	11	27
52-PP2,2	Polypropylene condenser 2,2uF/160volt	11,5	32
52-PP3,3	Polypropylene condenser 3,3uF/160volt	14	32
52-PP4,7	Polypropylene condenser 4,7uF/160volt	16	32
52-PP5,6	Polypropylene condenser 5,6uF/160volt	18	32
52-PP6,8	Polypropylene condenser 6,8uF/160volt	16	44
52-PP8,2	Polypropylene condenser 8,2uF/160volt	18	44
52-PP10	Polypropylene condenser 10uF/160volt	20	44

AXIAL RESISTORS IN CERAMIC TANK

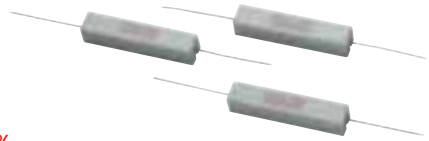
In an electric circuit, resistors are required in order to reduce the electric power; that's why they must stand power well and have a good heat dissipation capacity. The best material is therefore ceramics.
Tec Precision resistors are offered in two different sizes (5 and 10 watt) and, since in both cases the ceramic tank enables to quickly eliminate heat, they turn out to be particularly effective in the audio field.
The equivalent electric circuit shows a moderate parasite inductance.

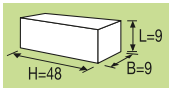




5 Watt power - tollerance ± 5%

CODE	DESCRIPTION
53-5W0,22	Resistor in ceramic tank, 5 watt 0,22 ohm
53-5W0,44	Resistor in ceramic tank, 5 watt 0,44 ohm
53-5W0,68	Resistor in ceramic tank, 5 watt 0,68 ohm
53-5W0,82	Resistor in ceramic tank, 5 watt 0,82 ohm
53-5W1,0	Resistor in ceramic tank, 5 watt 1,0 ohm
53-5W1,5	Resistor in ceramic tank, 5 watt 1,5 ohm
53-5W1,8	Resistor in ceramic tank, 5 watt 1,8 ohm
53-5W2,2	Resistor in ceramic tank, 5 watt 2,2 ohm
53-5W2,7	Resistor in ceramic tank, 5 watt 2,7 ohm
53-5W3,3	Resistor in ceramic tank, 5 watt 3,3 ohm
53-5W3,9	Resistor in ceramic tank, 5 watt 3,9 ohm
53-5W4,7	Resistor in ceramic tank, 5 watt 4,7 ohm
53-5W5,6	Resistor in ceramic tank, 5 watt 5,6 ohm
53-5W6,8	Resistor in ceramic tank, 5 watt 6,8 ohm
53-5W8,2	Resistor in ceramic tank, 5 watt 8,2 ohm
53-5W10	Resistor in ceramic tank, 5 watt 10 ohm
53-5W12	Resistor in ceramic tank, 5 watt 12 ohm
53-5W15	Resistor in ceramic tank, 5 watt 15 ohm
53-5W22	Resistor in ceramic tank, 5 watt 22 ohm
53-5W33	Resistor in ceramic tank, 5 watt 33 ohm
53-5W47	Resistor in ceramic tank, 5 watt 47 ohm





10 Watt power - tolerance ± 5%

CODE	DESCRIPTION
53-10W0,47	Resistor in ceramic tank, 10 watt 0,47 ohm
53-10W0,68	Resistor in ceramic tank, 10 watt 0,68 ohm
53-10W0,82	Resistor in ceramic tank, 10 watt 0,82 ohm
53-10W1,0	Resistor in ceramic tank, 10 watt 1,0 ohm
53-10W1,5	Resistor in ceramic tank, 10 watt 1,5 ohm
53-10W1,8	Resistor in ceramic tank, 10 watt 1,8 ohm
53-10W2,2	Resistor in ceramic tank, 10 watt 2,2 ohm
53-10W2,7	Resistor in ceramic tank, 10 watt 2,7 ohm
53-10W3,3	Resistor in ceramic tank, 10 watt 3,3 ohm
53-10W3,9	Resistor in ceramic tank,10 watt 3,9 ohm
53-10W4,7	Resistor in ceramic tank, 10 watt 4,7 ohm
53-10W5,6	Resistor in ceramic tank, 10 watt 5,6 ohm
53-10W6,8	Resistor in ceramic tank, 10 watt 6,8 ohm
53-10W8,2	Resistor in ceramic tank, 10 watt 8,2 ohm
53-10W10	Resistor in ceramic tank, 10 watt 10 ohm
53-10W15	Resistor in ceramic tank, 10 watt 15 ohm
53-10W18	Resistor in ceramic tank, 10 watt 18 ohm
53-10W22	Resistor in ceramic tank, 10 watt 22 ohm
53-10W33	Resistor in ceramic tank, 10 watt 33 ohm
53-10W47	Resistor in ceramic tank, 10 watt 47 ohm
53-10W68	Resistor in ceramic tank, 10 watt 68 ohm

INDUCTORS

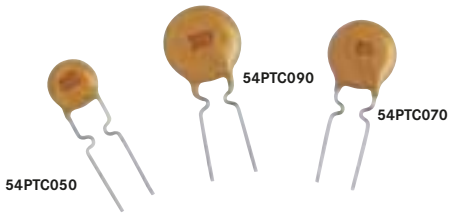
Tec Precision inductors are hand made using high-quality copper and have diameters with the proper size to work with high electric power. The cores, that are made of pressed ferrite powder with surface chemical treatment, saturate beyond 1500 continuous Watt. We have chosen an extended shape for the base made of self-extinguishing PVC in order to grant a high inductive efficiency (less copper inductance being equal), and an easier placing inside the circuit of the cross-over. Each batch of inductors is carefully set during the assembling in order to grant to the declared values to be absolutely precise. The high quality/price ratio makes the ***Tec Precision*** inductors be the more widely used both by the professionals and by the people fond of car-audio.

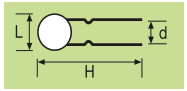
CODE	DESCRIPTION	TURNS to be removed	RESISTANCE
	0,05 mH inductor without core copper 0,63 mm.	-55 turns 51-0.15	
	0,06 mH inductor without core copper 0,63 mm.	-47 turns 51-0.15	
	0,07 mH inductor without core copper 0,63 mm.	-39 turns 51-0.15	
	0,08 mH inductor without core copper 0,63 mm.	-32 turns 51-0.15	
	0,09 mH inductor without core copper 0,63 mm.	-26 turns 51-0.15	
	0,10 mH inductor without core copper 0,63 mm.	-23 turns 51-0.15	
	0,11 mH inductor without core copper 0,63 mm.	-19 turns 51-0.15	
	0,12 mH inductor without core copper 0,63 mm.	-15 turns 51-0.15	
	0,13 mH inductor without core copper 0,63 mm.	-11 turns 51-0.15	
	0,14 mH inductor without core copper 0,63 mm.	- 5 turns 51-0.15	
51-0.15	0,15 mH inductor without core copper 0,63 mm.		0,40 ohm
	0,16 mH inductor without core copper 0,63 mm.	-21 turns 51-0.22	
	0,17 mH inductor without core copper 0,63 mm.	-17 turns 51-0.22	
	0,18 mH inductor without core copper 0,63 mm.	-14 turns 51-0.22	
	0,19 mH inductor without core copper 0,63 mm.	-11 turns 51-0.22	
	0,20 mH inductor without core copper 0,63 mm.	- 8 turns 51-0.22	
	0,21 mH inductor without core copper 0,63 mm.	- 4 turns 51-0.22	
51-0.22	0,2 mH inductor without core copper 0,63 mm.		0,50 ohm
	0,23 mH inductor on copper core 0,63 mm.	-20 turns 51-0.33	
	0,24 mH inductor on copper core 0,63 mm.	-18 turns 51-0.33	
	0,25 mH inductor on copper core 0,63 mm.	-16 turns 51-0.33	
	0,26 mH inductor on copper core 0,63 mm.	-14 turns 51-0.33	
	0,27 mH inductor on copper core 0,63 mm.	-12 turns 51-0.33	
	0,28 mH inductor on copper core 0,63 mm.	-10 turns 51-0.33	
	0,29 mH inductor on copper core 0,63 mm.	- 8 turns 51-0.33	
	0,30 mH inductor on copper core 0,63 mm.	- 6 sturns 51-0.33	
	0,31 mH inductor on copper core 0,63 mm.	- 4 turns 51-0.33	
	0,32 mH inductor on copper core 0,63 mm.	- 2 turns 51-0.33	
51-0.33	0,33 mH inductor on copper core 0,63 mm.		0,30 ohm
	0,35 mH inductor on copper core 0,63 mm.	-18 turns 51-0.47	
	0,37 mH inductor on copper core 0,63 mm.	-15 turns 51-0.47	
	0,39 mH inductor on copper core 0,63 mm.	-12 turns 51-0.47	
	0,41 mH inductor on copper core 0,63 mm.	- 8 turns 51-0.47	
	0,43 mH inductor on copper core 0,63 mm.	- 5 turns 51-0.47	
	0,45 mH inductor on copper core 0,63 mm.	- 2 turns 51-0.47	
51-0.47	0,47 mH inductor on copper core 0,63 mm.		0,35 ohm
	0,49 mH inductor on copper core 0,63 mm.	-22 turns 51-0.68	
	0,50 mH inductor on copper core 0,63 mm.	-20 turns 51-0.68	
	0,55 mH inductor on copper core 0,63 mm.	-13 turns 51-0.68	
	0,60 mH inductor on copper core 0,63 mm.	- 6 turns 51-0.68	
51-0.68	0,68 mH inductor on copper core 0,63 mm.		0,40 ohm
	0,70 mH inductor on copper core 0,63 mm.	-14 turns 51-0.82	
	0,75 mH inductor on copper core 0,63 mm.	- 8 turns 51-0.82	
51-0.82	0,82 mH inductor on copper core 0,63 mm.		0,50 ohm
	0,05 mH inductor without core copper 1 mm.	-64 turns 71-0.15	
	0,06 mH inductor without core copper 1 mm.	-55 turns 71-0.15	
	0,07 mH inductor without core copper 1 mm.	-47 turns 71-0.15	
	0,08 mH inductor without core copper 1 mm.	-39 turns 71-0.15	
	0,09 mH inductor without core copper 1 mm.	-32 turns 71-0.15	
	0,10 mH inductor without core copper 1 mm.	-25 turns 71-0.15	
	0,11 mH inductor without core copper 1 mm.	-19 turns 71-0.15	
	0,12 mH inductor without core copper 1 mm.	-13 turns 71-0.15	
	0,13 mH inductor without core copper 1 mm.	- 7 turns 71-0.15	
	0,1 mH inductor without core copper 1 mm.	- 2 turns 71-0.15	
71-0.15	0,15 mH inductor without core copper 1 mm.		0,25 ohm
	0,16 mH inductor without core copper 1 mm.	- 27 turns 71-0.22	
	0,17 mH inductor without core copper 1 mm.	- 23 turns 71-0.22	
	0,18 mH inductor without core copper 1 mm.	- 18 turns 71-0.22	
	0,19 mH inductor without core copper 1 mm.	- 13 turns 71-0.22	
	0,20 mH inductor without core copper 1 mm.	- 9 turns 71-0.22	
	0,21 mH inductor without core copper 1 mm.	- 5 turns 71-0.22	
71-0.22	0,22 mH inductor without core copper 1 mm.		0,28 ohm

CODE	DESCRIPTION	TURNS to be removed	RESISTANCE
	0,23 mH inductor without core copper 1 mm.	-132 turns 71-0.33	
	0,24 mH inductor without core copper 1 mm.	-128 turns 71-0.33	
	0,25 mH inductor without core copper 1 mm.	- 25 turns 71-0.33	
	0,26 mH inductor without core copper 1 mm.	- 21 turns 71-0.33	
	0,27 mH inductor without core copper 1 mm.	- 18 turns 71-0.33	
	0,28 mH inductor without core copper 1 mm.	- 14 turns 71-0.33	
	0,29 mH inductor without core copper 1 mm.	- 11 turns 71-0.33	
	0,30 mH inductor without core copper 1 mm.	- 8 turns 71-0.33	
	0,31 mH inductor without core copper 1 mm.	- 4 turns 71-0.33	
	0,32 mH inductor without core copper 1 mm.	- 2 turns 71-0.33	
71-0.33	0,33 mH inductor without core copper 1 mm.		0,36 ohm
	0,35 mH inductor without core copper 1 mm.	- 33 turns 71-0.47	
	0,37 mH inductor without core copper 1 mm.	- 27 turns 71-0.47	
	0,39 mH inductor without core copper 1 mm.	- 21 turns 71-0.47	
	0,41 mH inductor without core copper 1 mm.	- 15 turns 71-0.47	
	0,43 mH inductor without core copper 1 mm.	- 11 turns 71-0.47	
	0,45 mH inductor without core copper 1 mm.	- 5 turns 71-0.47	
71-0.47	0,47 mH inductor without core copper 1 mm.		0,42 ohm
	0,49 mH inductor on copper core 1 mm.	- 24 turns 71-0.68	
	0,50 mH inductor on copper core 1 mm.	- 22 turns 71-0.68	
	0,55 mH inductor on copper core 1 mm.	- 15 turns 71-0.68	
	0,60 mH inductor on copper core 1 mm.	- 9 turns 71-0.68	
71-0.68	0,68 mH inductor on copper core 1 mm.		0,22 ohm
	0,70 mH inductor on copper core 1 mm.	- 13 turns 71-0.82	
	0,75 mH inductor on copper core 1 mm.	- 7 turns 71-0.82	
71-0.82	0,82 mH inductor on copper core 1 mm.		0,24 ohm
	0,85 mH inductor on copper core 1 mm.	- 27 turns 71-1.2	
	0,90 mH inductor on copper core 1 mm.	- 22 turns 71-1.2	
	0,95 mH inductor on copper core 1 mm.	- 17 turns 71-1.2	
	1,00 mH inductor on copper core 1 mm.	- 12 turns 71-1.2	
	1,05 mH inductor on copper core 1 mm.	- 8 turns 71-1.2	
	1,10 mH inductor on copper core 1 mm.	- 5 turns 71-1.2	
71-1.2	1,20 mH inductor on copper core 1 mm.		0,28 ohm
	1,25 mH inductor on copper core 1 mm.	- 45 turns 71-1.8	
	1,30 mH inductor on copper core 1 mm.	- 39 turns 71-1.8	
	1,35 mH inductor on copper core 1 mm.	- 32 turns 71-1.8	
	1,40 mH inductor on copper core 1 mm.	- 28 turns 71-1.8	
	1,45 mH inductor on copper core 1 mm.	- 24 turns 71-1.8	
	1,50 mH inductor on copper core 1 mm.	- 20 turns 71-1.8	
	1,55 mH inductor on copper core 1 mm.	- 16 turns 71-1.8	
	1,60 mH inductor on copper core 1 mm.	- 12 turns 71-1.8	
	1,65 mH inductor on copper core 1 mm.	- 10 turns 71-1.8	
	1,70 mH inductor on copper core 1 mm.	- 7 turns 71-1.8	
	1,75 mH inductor on copper core 1 mm.	- 4 turns 71-1.8	
71-1.8	1,80 mH inductor on copper core 1 mm.		0,38 ohm
	1,85 mH inductor on copper core 1 mm.	- 35 turns 71-2.5	
	1,90 mH inductor on copper core 1 mm.	- 32 turns 71-2.5	
	1,95 mH inductor on copper core 1 mm.	- 29 turns 71-2.5	
	2,00 mH inductor on copper core 1 mm.	- 26 turns 71-2.5	
	2,10 mH inductor on copper core 1 mm.	- 20 turns 71-2.5	
	2,20 mH inductor on copper core 1 mm.	- 9 turns 71-2.5	
	2,30 mH inductor on copper core 1 mm.	- 7 turns 71-2.5	
	2,40 mH inductor on copper core 1 mm.	- 4 turns 71-2.5	
71-2.5	2,50 mH inductor on copper core 1 mm.		0,40 ohm
	2,60 mH inductor on copper core 1 mm.	- 54 turns 71-3.7	
	2,70 mH inductor on copper core 1 mm.	- 48 turns 71-3.7	
	2,80 mH inductor on copper core 1 mm.	- 43 turns 71-3.7	
	2,90 mH inductor on copper core 1 mm.	- 38 turns 71-3.7	
	3,00 mH inductor on copper core 1 mm.	- 33 turns 71-3.7	
	3,30 mH inductor on copper core 1 mm.	- 19 turns 71-3.7	
71-3.7	3,70 mH inductor on copper core 1 mm.		0,60 ohm
	4,00 mH inductor on copper core 1 mm.	- 44 turns 71-5	
	4,30 mH inductor on copper core 1 mm.	- 32 turns 71-5	
	4,70 mH inductor on copper core 1 mm.	- 15 turns 71-5	
71-5	5,00 mH inductor on copper core 1 mm.		0,88 ohm
	5,50 mH inductor on copper core 1 mm.	-129 turns 71-10	
	6,00 mH inductor on copper core 1 mm.	-113 turns 71-10	
	6,50 mH inductor on copper core 1 mm.	- 97 turns 71-10	
	7,00 mH inductor on copper core 1 mm.	- 84 turns 71-10	
	7,50 mH inductor on copper core 1 mm.	- 70 turns 71-10	
	8,00 mH inductor on copper core 1 mm.	- 56 turns 71-10	
	8,50 mH inductor on copper core 1 mm.	- 45 turns 71-10	
	9,00 mH inductor on copper core 1 mm.	- 37 turns 71-10	
	9,50 mH inductor on copper core 1 mm.	- 23 turns 71-10	
71-10	10,00 mH inductor on copper core 1 mm.		2,2 ohm

POLISWITCH

The poliswitce or P.T.C are variable resistors according to temperature. At room temperature they behave as a closed circuit (minimum resistance) while when the P.T.C. reaches its operating temperature, resistance quickly increases up to a very high value and the poliswitch behaves as in an open circuit.
The P.T.C. is a reversible component which means that it goes back to the original value resistance as soon as the temperature goes back to normal values.
Thanks to this feature, P.T.C. are used to protect the transducers from overloads.

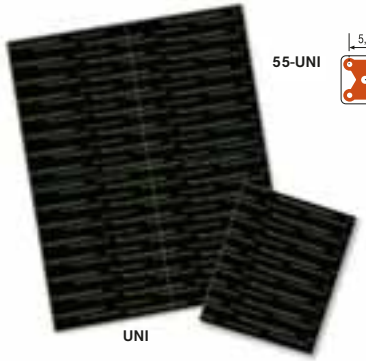




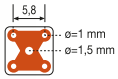
CODE	DESCRIPTION	d [mm]	L [mm]	H [mm]
54PTC050	0.50 Ampere (25 watt) poliswitch	5	7	21
54PTC070	0.70 Ampere (50 watt) poliswitch	5	9	24
54PTC090	0.90 Ampere (75 watt) poliswitch	5	10	24

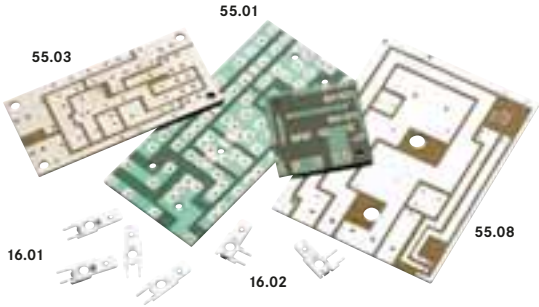
PRINTED CIRCUITS AND FASTONS

They are made of FRA 1.6 cu 35/1000 and enable a lot of different circuit solutions. The copper-plated tracks have the proper size in order to manage high currents; the universal models (standard size: 164x205, pre-milled to be subdivided into 4 parts) can be wholly custom-made and enable rheophores with diameter up to 1.5 mm.
To make the connection of the cable to the tracks or the printed circuit easier, fastons are available that can be welded either straight or at 90°.



55-UNI





CODE	DESCRIPTION	SIZE
55-00	Vetronite, PRINTED CIRCUIT 190x280 mm.	190x280 mm.
55-01	PRINTED CIRCUIT 105x50 mm.	105x50 mm.
55-02	PRINTED CIRCUIT 140x70 mm.	140x70 mm.
55-03	PRINTED CIRCUIT 85x42	85x42 mm.
55-06	PRINTED CIRCUIT 53x27	53x27 mm.
55-08	PRINTED CIRCUIT 100x76	100x76 mm.
55-UNI	Vetronite, divisible by 4,	190x165 mm.
	UNIVERSAL PRINTED CIRCUIT	
16.01	Faston to be straight welded	
16.02	Faston to be welded at 90°	

Crossovers

Tec Precision crossovers are handmade using only high-quality components and are available in two different kinds, both II order.
The classic crossovers have PCBs of FR4 1.6 cu 35 / 1000 and cover of transparent PVC. The modules are highly versatile and user friendly and all the crossovers can be customized without risk of making whatever kind of error.
They are available as low-pass, high-pass and band-pass crossovers.

CLASSIC CROSSOVERS 12 dB/oct

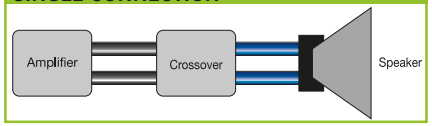
Classic crossovers, designed in order to meet the various requirements of the loudspeakers on the market.
The frequencies of the most widely used crossovers are available.
Each crossover is mono and it is offered either in the normal version or with corrected power factor (this version includes a system to compensate the inductive component of the woofers and consists of one module for each loudspeaker. In the normal version, the crossover can be used for the loudspeakers of any make (with features compatible with the frequencies of the crossovers).

CODICE	DESCRIZIONE	WOOFER	MIDRANGE	TWEETER
50-2000	2 ways	From 200 mm.	-	Fs ≤ 1000Hz
50-2000/R	2 ways, corrected power factor	From 200 mm.	-	Fs ≤ 1000Hz
50-2500	2 ways	From 165 mm.	-	Fs ≤ 1250Hz
50-2500/R	2 ways, corrected power factor	From 165 mm.	-	Fs ≤ 1250Hz
50-3000	2 ways	From 130/165 mm.	-	Fs ≤ 1500Hz
50-3000/R	2 ways, corrected power factor	From 130/165 mm.	-	Fs ≤ 1500Hz
50-300-2500	3 ways	From 165/200 mm.	Fs ≤ 150Hz	Fs ≤ 1250Hz
50-500-3000	3 ways	From 165/200 mm.	Fs ≤ 250Hz	Fs ≤ 1500Hz
50-500-3000/R	3 ways, corrected power factor	From 165/200 mm.	Fs ≤ 250Hz	Fs ≤ 1500Hz
50-700-3000	3 ways	From 130/165 mm.	Fs ≤ 350Hz	Fs ≤ 1500Hz
50-700-3000/R	3 ways, corrected power factor	From 130/165 mm.	Fs ≤ 350Hz	Fs ≤ 1500Hz
50-2000/TW	1 way, tweeter	-	-	Fs ≤ 1000Hz
50-2500/TW	1 way, tweeter	-	-	Fs ≤ 1250Hz
50-3000/TW	1 way, tweeter	-	-	Fs ≤ 1500Hz
50-80/SUB	1 way, subwoofer	big subwoofers	-	-
50-120/SUB	1 way, subwoofer	medium subwoofers	-	-
50-240/SUB	1 way, subwoofer	small subwoofers	-	-
50-1dB/4	1 dB attenuator at constant impedance for 4 ohm	-	-	-
50-2dB/4	2 dB attenuator at constant impedance for 4 ohm	-	-	-
50-3dB/4	3 dB attenuator at constant impedance for 4 ohm	-	-	-
50-4dB/4	4 dB attenuator at constant impedance for 4 ohm	-	-	-
50-5dB/4	5 dB attenuator at constant impedance for 4 ohm	-	-	-
50-7dB/4	7 dB attenuator at constant impedance for 4 ohm	-	-	-
50-1dB/6	1 dB attenuator at constant impedance for 6 ohm	-	-	-
50-2dB/6	2 dB attenuator at constant impedance for 6 ohm	-	-	-
50-3dB/6	3 dB attenuator at constant impedance for 6 ohm	-	-	-
50-4dB/6	4 dB attenuator at constant impedance for 6 ohm	-	-	-
50-5dB/6	5 dB attenuator at constant impedance for 6 ohm	-	-	-
50-7dB/6	7 dB attenuator at constant impedance for 6 ohm	-	-	-
50-1dB/8	1 dB attenuator at constant impedance for 8 ohm	-	-	-
50-2dB/8	2 dB attenuator at constant impedance for 8 ohm	-	-	-
50-3dB/8	3 dB attenuator at constant impedance for 8 ohm	-	-	-
50-4dB/8	4 dB attenuator at constant impedance for 8 ohm	-	-	-
50-5dB/8	5 dB attenuator at constant impedance for 8 ohm	-	-	-
50-7dB/8	7 dB attenuator at constant impedance for 8 ohm	-	-	-

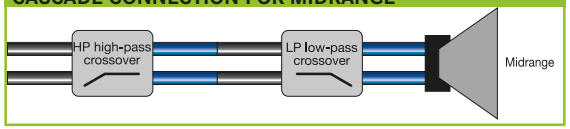
MODULAR CROSSOVERS 12 dB/oct

Modular crossovers have been designed in order to make installation easier and to be able to wholly customize the crossover frequencies. 12 cut-off frequencies are therefore available, both as low-pass and as high-pass plus 3 band-pass modules. Should it be required to create a band-pass filter for midrange using frequencies that are different from those available, a HP high-pass crossover and a LP low-pass crossover can be cascade connected with the desired cut-off frequencies. They are provided with 30cm-long, 18 AWG, speaker cables that are blue (output) and black (input) and enclosed in a thermo-shrinkable sheath.

SINGLE CONNECTION



CASCADE CONNECTION FOR MIDRANGE



CODE	DESCRIPTION
50-LP-300	low-pass mono crossover 300 HZ.
50-LP-500	low-pass mono crossover 500 HZ.
50-LP-700	low-pass mono crossover 700 HZ.
50-LP-1000	low-pass mono crossover 1000 HZ.
50-LP-1500	low-pass mono crossover 1500 HZ.
50-LP-2000	low-pass mono crossover 2000 HZ.
50-LP-2500	low-pass mono crossover 2500 HZ.
50-LP-3000	low-pass mono crossover 3000 HZ.
50-LP-4000	low-pass mono crossover 4000 HZ.
50-LP-5000	low-pass mono crossover 5000 HZ.
50-LP-7000	low-pass mono crossover 7000 HZ.
50-LP-10000	low-pass mono crossover 10000 HZ.
50-HP-300	high-pass mono crossover 300 HZ.
50-HP-500	high-pass mono crossover 500 HZ.
50-HP-700	high-pass mono crossover 700 HZ.
50-HP1000	high-pass mono crossover 1000 HZ.
50-HP1500	high-pass mono crossover 1500 HZ.
50-HP-2000	high-pass mono crossover 2000 HZ.
50-HP-2500	high-pass mono crossover 2500 HZ.
50-HP-3000	high-pass mono crossover 3000 HZ.
50-HP-4000	high-pass mono crossover 4000 HZ.
50-HP-5000	high-pass mono crossover 5000 HZ.
50-HP-7000	high-pass mono crossover 7000 HZ.
50-HP-10000	high-pass mono crossover 10000 HZ.
50-BP-05/3K	band-pass mono crossover 500-3000 HZ.
50-BP-07/4K	band-pass mono crossover 700-4000 HZ.
50-BP-1/5K	band-pass mono crossover 1000-5000 HZ.

PLEASE NOTE! The black cable is the input, the blue one, the output. Remember that filters of the same kind (such as two LPs or two HPs) shall never be cascade connected, and that the following order: >HP – LP – Speaker shall be followed. The frequencies chosen to prepare the BP crossover should have two octaves as minimum gap, for example: HP=300 Hz and LP=1,200 Hz.

In simpler words, given the frequency of the HPs (high-pass), the frequency of LP (low-pass) is HP frequency times 4. HP=300 Hz means Minimum LP = 4x300 = 1,200 Hz.

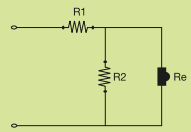
TECHNICAL INFORMATION

REFERENCE TABLES VOLTAGE DIVIDERS AT CONSTANT IMPEDANCE

Resistive divider

Impedance attenuator steady attenuation	4ohm		6ohm		8ohm	
dB	R1 [ohm]	R2 [ohm]	R1[ohm]	R2 [ohm]	R1 [ohm]	R2 [ohm]
1	0,43	32,78	0,65	49,17	0,87	65,56
2	0,82	15,45	1,23	23,17	1,65	30,90
3	1,17	9,70	1,75	14,54	2,34	19,39
4	1,48	6,84	2,21	10,26	2,95	13,68
5	1,75	5,14	2,63	7,71	3,50	10,28
6	2,00	4,02	2,99	6,03	3,99	8,04
7	2,21	3,23	3,32	4,84	4,43	6,46
8	2,41	2,65	3,61	3,97	4,82	5,29
9	2,58	2,20	3,87	3,30	5,16	4,40
10	2,74	1,85	4,10	2,77	5,47	3,70
11	2,87	1,57	4,31	2,35	5,75	3,14
12	3,00	1,34	4,49	2,01	5,99	2,68
13	3,10	1,15	4,66	1,73	6,21	2,31
14	3,20	1,00	4,80	1,50	6,40	1,99
15	3,29	0,87	4,93	1,30	6,58	1,73
16	3,37	0,75	5,05	1,13	6,73	1,51
17	3,43	0,66	5,15	0,99	6,87	1,32
18	3,50	0,58	5,24	0,86	6,99	1,15
19	3,55	0,51	5,33	0,76	7,10	1,01
20	3,60	0,44	5,40	0,67	7,20	0,89
21	3,64	0,39	5,47	0,59	7,29	0,78
22	3,68	0,35	5,52	0,52	7,36	0,69
23	3,72	0,30	5,58	0,46	7,43	0,61
24	3,75	0,27	5,62	0,40	7,50	0,54
25	3,78	0,24	5,66	0,36	7,55	0,48

Voltage dividers at constant impedance are needed to decrease the voltage at the ends of the loudspeaker keeping the same inlet impedance. So you will attenuate the component without changing the cut-off frequency.



$R2 = -Re/(1-10^{(a/20)})$

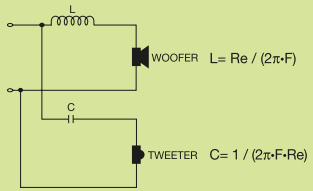
$R1 = Re-((R2 \cdot Re)/(R2+Re))$

CAPTION:
R1= series resistance voltage dividers
R2= parallel resistance voltage dividers
R1= electric resistance of the loudspeaker (in ohm)
a = attenuation in dB

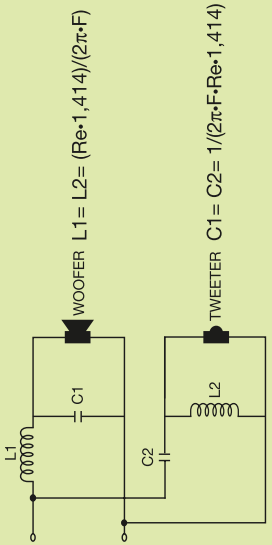
REFERENCE TABLES FOR I, II, III BUTTERWORTH ORDER

I Butterworth order

I Butterworth Order Cut-off frequency	4ohm		6ohm		8ohm	
	L [mH]	C [uF]	L [mH]	C [uF]	L [mH]	C [uF]
50	12,74	796,18	19,11	530,79	25,48	398,09
100	6,37	398,09	9,55	265,39	12,74	199,04
150	4,25	265,39	6,37	176,93	8,49	132,70
200	3,18	199,04	4,78	132,70	6,37	99,52
250	2,55	159,24	3,82	106,16	5,10	79,62
300	2,12	132,70	3,18	88,46	4,25	66,35
350	1,82	113,74	2,73	75,83	3,64	56,87
400	1,59	99,52	2,39	66,35	3,18	49,76
450	1,42	88,46	2,12	58,98	2,83	44,23
500	1,27	79,62	1,91	53,08	2,55	39,81
550	1,16	72,38	1,74	48,25	2,32	36,19
600	1,06	66,35	1,59	44,23	2,12	33,17
650	0,98	61,24	1,47	40,83	1,96	30,62
700	0,91	56,87	1,36	37,91	1,82	28,43
750	0,85	53,08	1,27	35,39	1,70	26,54
800	0,80	49,76	1,19	33,17	1,59	24,88
850	0,75	46,83	1,12	31,22	1,50	23,42
900	0,71	44,23	1,06	29,49	1,42	22,12
1000	0,64	39,81	0,96	26,54	1,27	19,90
1200	0,53	33,17	0,80	22,12	1,06	16,59
1500	0,42	26,54	0,64	17,69	0,85	13,27
1750	0,36	22,75	0,55	15,17	0,73	11,37
2000	0,32	19,90	0,48	13,27	0,64	9,95
2250	0,28	17,69	0,42	11,80	0,57	8,85
2500	0,25	15,92	0,38	10,62	0,51	7,96
2750	0,23	14,48	0,35	9,65	0,46	7,24
3000	0,21	13,27	0,32	8,85	0,42	6,63
3250	0,20	12,25	0,29	8,17	0,39	6,12
3500	0,18	11,37	0,27	7,58	0,36	5,69
3750	0,17	10,62	0,25	7,08	0,34	5,31
4000	0,16	9,95	0,24	6,63	0,32	4,98
4500	0,14	8,85	0,21	5,90	0,28	4,42
5000	0,13	7,96	0,19	5,31	0,25	3,98
6000	0,11	6,63	0,16	4,42	0,21	3,32
7000	0,09	5,69	0,14	3,79	0,18	2,84
8000	0,08	4,98	0,12	3,32	0,16	2,49
9000	0,07	4,42	0,11	2,95	0,14	2,21
10000	0,06	3,98	0,10	2,65	0,13	1,99
12000	0,05	3,32	0,08	2,21	0,11	1,66
15000	0,04	2,65	0,06	1,77	0,08	1,33
20000	0,03	1,99	0,05	1,33	0,06	1,00



CAPTION:
F= Cut-off frequency
L= iCoil inductance in Henry
1H= 1.000 mH
C= Condenser capacity in Farad
1F= 1.000.000 µF
Re= loudspeaker electric resistance in ohm
π= constant at 3.14

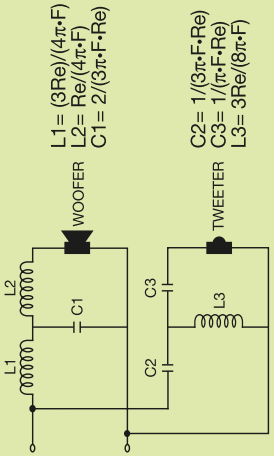


II Butterworth order

II Butterworth Order Cut-off frequency	4ohm L [mH]	4ohm C [uF]	6ohm L [mH]	6ohm C [uF]	8ohm L [mH]	8ohm C [uF]
50	18,02	562,98	27,02	375,32	36,03	281,49
100	9,01	281,49	13,51	187,66	18,02	140,75
150	6,01	187,66	9,01	125,11	12,01	93,83
200	4,50	140,75	6,76	93,83	9,01	70,37
250	3,60	112,60	5,40	75,06	7,21	56,30
300	3,00	93,83	4,50	62,55	6,01	46,92
350	2,57	80,43	3,86	53,62	5,15	40,21
400	2,25	70,37	3,38	46,92	4,50	35,19
450	2,00	62,55	3,00	41,70	4,00	31,28
500	1,80	56,30	2,70	37,53	3,60	28,15
550	1,64	51,18	2,46	34,12	3,28	25,59
600	1,50	46,92	2,25	31,28	3,00	23,46
650	1,39	43,31	2,08	28,87	2,77	21,65
700	1,29	40,21	1,93	26,81	2,57	20,11
750	1,20	37,53	1,80	25,02	2,40	18,77
800	1,13	35,19	1,69	23,46	2,25	17,59
850	1,06	33,12	1,59	22,08	2,12	16,56
900	1,00	31,28	1,50	20,85	2,00	15,64
1000	0,90	28,15	1,35	18,77	1,80	14,07
1200	0,75	23,46	1,13	15,64	1,50	11,73
1500	0,60	18,77	0,90	12,51	1,20	9,38
1750	0,51	16,09	0,77	10,72	1,03	8,04
2000	0,45	14,07	0,68	9,38	0,90	7,04
2250	0,40	12,51	0,60	8,34	0,80	6,26
2500	0,36	11,26	0,54	7,51	0,72	5,63
2750	0,33	10,24	0,49	6,82	0,66	5,12
3000	0,30	9,38	0,45	6,26	0,60	4,69
3250	0,28	8,66	0,42	5,77	0,55	4,33
3500	0,26	8,04	0,39	5,36	0,51	4,02
3750	0,24	7,51	0,36	5,00	0,48	3,75
4000	0,23	7,04	0,34	4,69	0,45	3,52
4500	0,20	6,26	0,30	4,17	0,40	3,13
5000	0,18	5,63	0,27	3,75	0,36	2,81
6000	0,15	4,69	0,23	3,13	0,30	2,35
7000	0,13	4,02	0,19	2,68	0,26	2,01
8000	0,11	3,52	0,17	2,35	0,23	1,76
9000	0,10	3,13	0,15	2,09	0,20	1,56
10000	0,09	2,81	0,14	1,88	0,18	1,41
12000	0,08	2,35	0,11	1,56	0,15	1,17
15000	0,06	1,88	0,09	1,25	0,12	0,94
20000	0,05	1,41	0,07	0,94	0,09	0,70

III Butterworth order - 6 ohm

II Butterworth order Cut-off frequency	4ohm L1 [mH]	4ohm L2 [mH]	6ohm L3 [mH]	6ohm C1 [uF]	8ohm C2 [uF]	8ohm C3 [uF]
50	28,66	9,55	14,33	707,71	353,86	1061,57
100	14,33	4,78	7,17	353,86	176,93	530,79
150	9,55	3,18	4,78	235,90	117,95	353,86
200	7,17	2,39	3,58	176,93	88,46	265,39
250	5,73	1,91	2,87	141,54	70,77	212,31
300	4,78	1,59	2,39	117,95	58,98	176,93
350	4,09	1,36	2,05	101,10	50,55	151,65
400	3,58	1,19	1,79	88,46	44,23	132,70
450	3,18	1,06	1,59	78,63	39,32	117,95
500	2,87	0,96	1,43	70,77	35,39	106,16
550	2,61	0,87	1,30	64,34	32,17	96,51
600	2,39	0,80	1,19	58,98	29,49	88,46
650	2,20	0,73	1,10	54,44	27,22	81,66
700	2,05	0,68	1,02	50,55	25,28	75,83
750	1,91	0,64	0,96	47,18	23,59	70,77
800	1,79	0,60	0,90	44,23	22,12	66,35
850	1,69	0,56	0,84	41,63	20,82	62,45
900	1,59	0,53	0,80	39,32	19,66	58,98
1000	1,43	0,48	0,72	35,39	17,69	53,08
1200	1,19	0,40	0,60	29,49	14,74	44,23
1500	0,96	0,32	0,48	23,59	11,80	35,39
1750	0,82	0,27	0,41	20,22	10,11	30,33
2000	0,72	0,24	0,36	17,69	8,85	26,54
2250	0,64	0,21	0,32	15,73	7,86	23,59
2500	0,57	0,19	0,29	14,15	7,08	21,23
2750	0,52	0,17	0,26	12,87	6,43	19,30
3000	0,48	0,16	0,24	11,80	5,90	17,69
3250	0,44	0,15	0,22	10,89	5,44	16,33
3500	0,41	0,14	0,20	10,11	5,06	15,17
3750	0,38	0,13	0,19	9,44	4,72	14,15
4000	0,36	0,12	0,18	8,85	4,42	13,27
4500	0,32	0,11	0,16	7,86	3,93	11,80
5000	0,29	0,10	0,14	7,08	3,54	10,62
6000	0,24	0,08	0,12	5,90	2,95	8,85
7000	0,20	0,07	0,10	5,06	2,53	7,58
8000	0,18	0,06	0,09	4,42	2,21	6,63
9000	0,16	0,05	0,08	3,93	1,97	5,90
10000	0,14	0,05	0,07	3,54	1,77	5,31
12000	0,12	0,04	0,06	2,95	1,47	4,42
15000	0,10	0,03	0,05	2,36	1,18	3,54
20000	0,07	0,02	0,04	1,77	0,88	2,65



III Butterworth order - 4 ohm

III Butterworth order Cut-off frequency	4 ohm L1 [mH]	4 ohm L2 [mH]	4 ohm L3 [mH]	4 ohm C1 [uF]	4 ohm C2 [uF]	4 ohm C3 [uF]
50	19,11	6,37	9,55	1061,57	530,79	1592,36
100	9,55	3,18	4,78	530,79	265,39	796,18
150	6,37	2,12	3,18	353,86	176,93	530,79
200	4,78	1,59	2,39	265,39	132,70	398,09
250	3,82	1,27	1,91	212,31	106,16	318,47
300	3,18	1,06	1,59	176,93	88,46	265,39
350	2,73	0,91	1,36	151,65	75,83	227,48
400	2,39	0,80	1,19	132,70	66,35	199,04
450	2,12	0,71	1,06	117,95	58,98	176,93
500	1,91	0,64	0,96	106,16	53,08	159,24
550	1,74	0,58	0,87	96,51	48,25	144,76
600	1,59	0,53	0,80	88,46	44,23	132,70
650	1,47	0,49	0,73	81,66	40,83	122,49
700	1,36	0,45	0,68	75,83	37,91	113,74
750	1,27	0,42	0,64	70,77	35,39	106,16
800	1,19	0,40	0,60	66,35	33,17	99,52
850	1,12	0,37	0,56	62,45	31,22	93,67
900	1,06	0,35	0,53	58,98	29,49	88,46
1000	0,96	0,32	0,48	53,08	26,54	79,62
1200	0,80	0,27	0,40	44,23	22,12	66,35
1500	0,64	0,21	0,32	35,39	17,69	53,08
1750	0,55	0,18	0,27	30,33	15,17	45,50
2000	0,48	0,16	0,24	26,54	13,27	39,81
2250	0,42	0,14	0,21	23,59	11,80	35,39
2500	0,38	0,13	0,19	21,23	10,62	31,85
2750	0,35	0,12	0,17	19,30	9,65	28,95
3000	0,32	0,11	0,16	17,69	8,85	26,54
3250	0,29	0,10	0,15	16,33	8,17	24,50
3500	0,27	0,09	0,14	15,17	7,58	22,75
3750	0,25	0,08	0,13	14,15	7,08	21,23
4000	0,24	0,08	0,12	13,27	6,63	19,90
4500	0,21	0,07	0,11	11,80	5,90	17,69
5000	0,19	0,06	0,10	10,62	5,31	15,92
6000	0,16	0,05	0,08	8,85	4,42	13,27
7000	0,14	0,05	0,07	7,58	3,79	11,37
8000	0,12	0,04	0,06	6,63	3,32	9,95
9000	0,11	0,04	0,05	5,90	2,95	8,85
10000	0,10	0,03	0,05	5,31	2,65	7,96
12000	0,08	0,03	0,04	4,42	2,21	6,63
15000	0,06	0,02	0,03	3,54	1,77	5,31
20000	0,05	0,02	0,02	2,65	1,33	3,98

III Butterworth order - 8 ohm

III Butterworth order Cut-off frequency	8 ohm L1 [mH]	8 ohm L2 [mH]	8 ohm L3 [mH]	8 ohm C1 [uF]	8 ohm C2 [uF]	8 ohm C3 [uF]
50	38,22	12,74	19,11	530,79	265,39	796,18
100	19,11	6,37	9,55	265,39	132,70	398,09
150	12,74	4,25	6,37	176,93	88,46	265,39
200	9,55	3,18	4,78	132,70	66,35	199,04
250	7,64	2,55	3,82	106,16	53,08	159,24
300	6,37	2,12	3,18	88,46	44,23	132,70
350	5,46	1,82	2,73	75,83	37,91	113,74
400	4,78	1,59	2,39	66,35	33,17	99,52
450	4,25	1,42	2,12	58,98	29,49	88,46
500	3,82	1,27	1,91	53,08	26,54	79,62
550	3,47	1,16	1,74	48,25	24,13	72,38
600	3,18	1,06	1,59	44,23	22,12	66,35
650	2,94	0,98	1,47	40,83	20,41	61,24
700	2,73	0,91	1,36	37,91	18,96	56,87
750	2,55	0,85	1,27	35,39	17,69	53,08
800	2,39	0,80	1,19	33,17	16,59	49,76
850	2,25	0,75	1,12	31,22	15,61	46,83
900	2,12	0,71	1,06	29,49	14,74	44,23
1000	1,91	0,64	0,96	26,54	13,27	39,81
1200	1,59	0,53	0,80	22,12	11,06	33,17
1500	1,27	0,42	0,64	17,69	8,85	26,54
1750	1,09	0,36	0,55	15,17	7,58	22,75
2000	0,96	0,32	0,48	13,27	6,63	19,90
2250	0,85	0,28	0,42	11,80	5,90	17,69
2500	0,76	0,25	0,38	10,62	5,31	15,92
2750	0,69	0,23	0,35	9,65	4,83	14,48
3000	0,64	0,21	0,32	8,85	4,42	13,27
3250	0,59	0,20	0,29	8,17	4,08	12,25
3500	0,55	0,18	0,27	7,58	3,79	11,37
3750	0,51	0,17	0,25	7,08	3,54	10,62
4000	0,48	0,16	0,24	6,63	3,32	9,95
4500	0,42	0,14	0,21	5,90	2,95	8,85
5000	0,38	0,13	0,19	5,31	2,65	7,96
6000	0,32	0,11	0,16	4,42	2,21	6,63
7000	0,27	0,09	0,14	3,79	1,90	5,69
8000	0,24	0,08	0,12	3,32	1,66	4,98
9000	0,21	0,07	0,11	2,95	1,47	4,42
10000	0,19	0,06	0,10	2,65	1,33	3,98
12000	0,16	0,05	0,08	2,21	1,11	3,32
15000	0,13	0,04	0,06	1,77	0,88	2,65
20000	0,10	0,03	0,05	1,33	0,66	1,99