Data sheet

DUALCONNECT
PRECIOUS METAL AUDIO CABLES

DC-DIYspk200/400 DIY Speaker Wires

Dual Connect DC-DIYspk200 and DC-DIYspk400 DIY Speaker Wires are precious metal conductor speaker wires that combine gold plated solid silver wires in a dual configuration ("Dual Connect") within a thin tubing of PTFE (Teflon®) insulation to optimize linearity for audio frequency signals.

This design provides superior sonic performance and preserves the valuable quality unchanged for years due to very high resistance to moisture, heat, UV-light, air pollution and aggressive chemicals.

The capacitance between adjacent wires is very low.

These unique features make Dual Connect DC-DIYspk200 and DC-DIYspk400 DIY Speaker Wires an excellent choice for the most demanding speaker applications for domestic and professional power audio signal distribution.

Dual Connect DIY Speaker Wires are supplied in fixed lengths of 2 meters (DC-DIYspk200) and 4 meters (DC-DIYspk400) without connectors (stripped ends).

Dual Connect Speaker Wires are available in finished cable versions with spade terminals as DC-S200 (2 meters) and DC-S400 (4 meters).

Features

- ★ "Dual-Connect" design with gold plated solid silver conductors in dual configuration
- ★ High power transfer capacity: 5000 Watts into 4 ohms
- ★ Low conductor resistance with only 0.0033 ohm/meter
- ★ Low audio frequency attenuation of 0.03 dB/meter
- ★ Materials selected to ensure very high durability
- ★ All non-magnetic materials with very linear performance
- ★ PTFE insulation with low dissipation factor of 0.0002
- ★ Gold plated conductors and spade terminals avoid performance degradation over time

Typical applications

- ★ Superior-sonic-performance speaker cable
- ★ Excellent for upgrading hi-fi cabinet speakers
- ★ Ideal for upgrading hi-fi car speaker systems
- ★ Power distribution for audio power supplies
- ★ Very high quality professional sound systems
- ★ Demanding automotive and marine applications
- ★ Cables resistant to heat, UV-light and chemicals
- ★ Reference speaker cable with very high durability

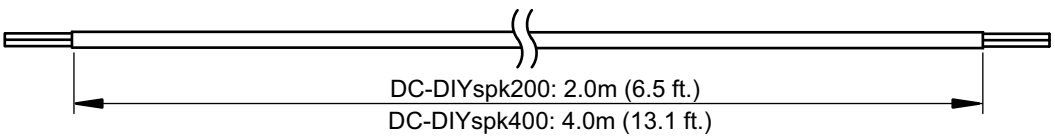

Fig. 1. Outline drawing and dimensions for DC-DIYspk200 / DC-DIYspk400 speaker wires.

Fig. 2. Electrical circuit diagram for DIY speaker wires (part no. DC-DIYspk200 and DC-DIYspk400).

CAUTION

Do not connect any Dual Connect cables or wires to the mains or other high voltage sources that may cause electrical chock.

*Legal notice: **Teflon**® is a registered trade mark of DuPont Dow Elastomers*

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MAXIMUM RATINGS

Notes	Symbol	Parameter	Comment	Value	Unit
1, 2	V	Voltage	AC peak voltage or DC	150	V
1, 2	I	Current	AC RMS or DC	35	A
1, 2	P_L	Power transfer capacity	R_L = 4 ohm	5,000	W
1	T_A	Ambient temperature range		-55 to +125 -67 to 257	Deg. C F

ELECTRICAL DATA

Notes	Symbol	Parameter	Comment	Value	Unit
	R	Resistance	Conductor, DC	0.0033	ohm/m
3	C_W	Capacitance	Between adjacent wires	30	pF/m
	L	Inductance	Single straight wire	1.3	uH/m
4	A	Attenuation	R_L = 4 ohm, DC to 20kHz	0.03	dB/m
	tan(d)	Dissipation factor	Insulation, f = 1MHz	0.0002	-
	E	Dielectric constant	Insulation, DC to 1MHz	2.1	-
	E_d	Dielectric strength	Insulation, f = 50Hz	Min. 20	kV/mm

MECHANICAL DATA

Notes	Symbol	Parameter	Comment	Value	Unit
	m	Weight		62	g/m
5	r_a	Bending radius	> 10 x D (D: wire outer diameter)	Min. 44 Min. 1.75	mm inch.
6	T	Conductor diameter	Stripped ends	3.6	mm

MATERIAL DATA

Part	Material	Comment	Properties	Value	Unit
Conductor	Silver, Ag	Dual solid wire	Purity Ag	99.99	%
			Conductor area	5	mm²
			(wire gauge)	10	AWG
	Gold, Au	Wire plating	Plating thickness	0.5	um
Insulation	PTFE (Teflon®)	Clear tube	Purity PFTE	100	%
	*Legal notice: **Teflon®** is a registered trade mark of DuPont DowElastomers*		Nominal wall thickness	0.38 0.015	mm inch.

Notes

1 Operating ratings indicate conditions for which other specifications may not apply

2 Values for AC must be derated in order to compensate for cable power loss as a function of frequency, temperature, etc.

3 Measuring instrument: Capacitance meter Model 938, Data Precision

4 Measuring instrument: Audio Analyzer VP-7722P, Panasonic

5 Avoid sharp bending as this may affect cable reliability

6 The conductor is not circular - dual wire side-by-side

WARNING: Do not use Dual Connect Speaker Wires as a power cable or part of designs that can make electrical contact to mains supply or dangerous voltages.

WARNING: Do not use Dual Connect Speaker Wires in any way that will be In conflict with legislation and/or safety requirements.

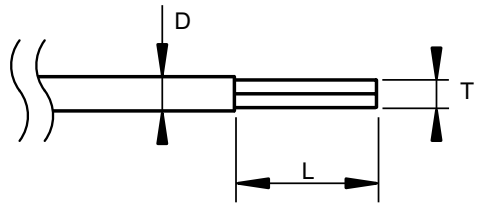
IMPORTANT

Dual Connect Speaker Wires can easily be soft soldered at temperatures below 450 deg.C. Most types of solder will work well if normal procedures are followed.

1. The solder iron must have sufficient power capacity to quickly heat up the items to be joined together to ensure a relatively short soldering time.
2. The solder must contain a non-corrosive weakly active flux, so existing oxide layers can be removed to improve the solderability.
3. The solder gauge and solder melting point must be chosen, so all the solder applied becomes fully liquid during a relatively short soldering time.
4. Do not expose the solder joint to vibrations when the solder is liquid. This may cause a brittle joint of low strength and poor electrical coductivity.
5. After soldering, the flux must be removed to prevent corrosion. Consult the flux manufacturer for information about cleaning and safety precautions.

WARNING: Solder fumes and gases are toxic and must therefore be extracted in an effective manner to avoid health risks.

DC-DIYspk200/400 DIY Speaker Wires



Dimension	Value, mm	Value, inch.
L	15 ± 5mm	0.6 ± 0.2”
D	Ø4.4mm	Ø 0.17”
T	3.6mm	0.14”

Fig. 3. Stripped ends on DC-DIYspk200 / DC-DIYspk400 DIY speaker wires

As a safety precaution against electrical shock, no Dual Connect cables or wires may be connected to the mains or other dangerous voltage sources.
Avoid shap bending of Dual Connect cables and wires as this may deteriorate the reliability and performance.