

Atmos Air Exzellenz

TECHNICAL DETAILS



inakustik

KABEL | LAUTSPRECHER | MUSIK

Our quality standards

REFERENZ

black&white reference - the in-akustik class for perfectionists. The benchmark for uncompromising sound experience. World leading value and price/performance ratio. Gets under your skin..

EXZELLEENZ

Excellence - the in-akustik class for discerning tastes. The finest materials, outstanding workmanship. With a passion for high end audio enjoyment

PREMIUM

Premium - the in-akustik class for state-of-the-art technology. Gets the most from your audio / video system. Built on a love of superior performance

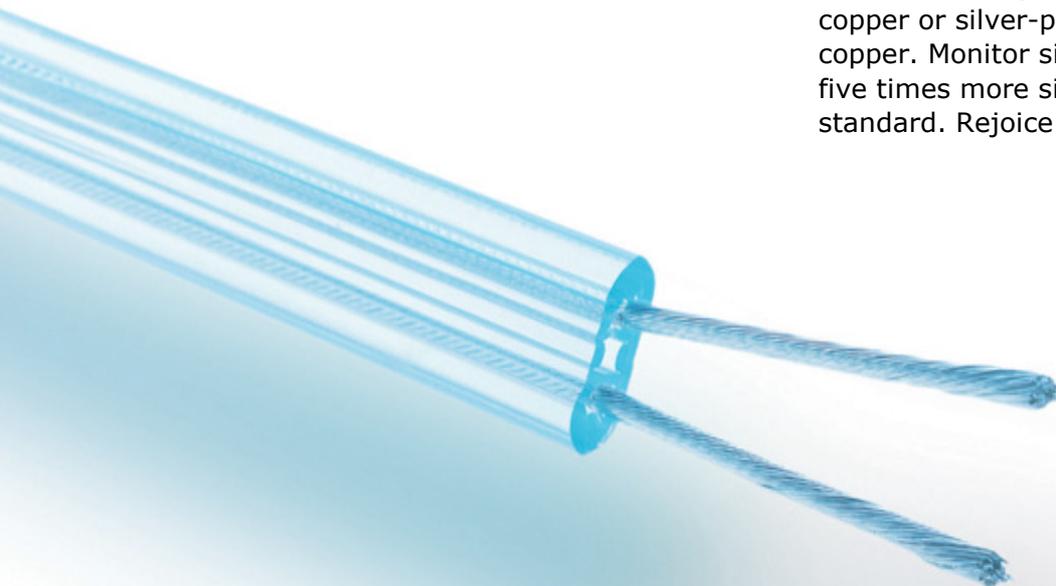
STAR

Star - the in-akustik class for beginners with ambition. Always the right choice. More performance at lower cost. Striving to be better

A passionate family

in-akustik is a quality brand and respected around the world.. For more than 25 years in-akustik has put its heart and soul into the business of audio and video enjoyment. Perfect images and perfect fidelity are our passion. Made in Germany and always leading the way in value and incredible performance. With our own brand of CD and DVD labels, Focal home and car hifi loudspeakers and of course our cables, our family of products make passionate statements

Crystal clear sound. Precise harmonies. Heavenly enjoyment. The purer the transfer, the better the experience. But only if the loudspeaker cable insulation does not swallow up the subtle nuances. Scientists know that air is the best form of insulation. For this reason in-akustik developed the first and only loudspeaker cable to be insulated with air. The conductors are made of high grade oxygen-free copper or silver-plated oxygen-free copper. Monitor silver plating contains five times more silver than the industry standard. Rejoice!



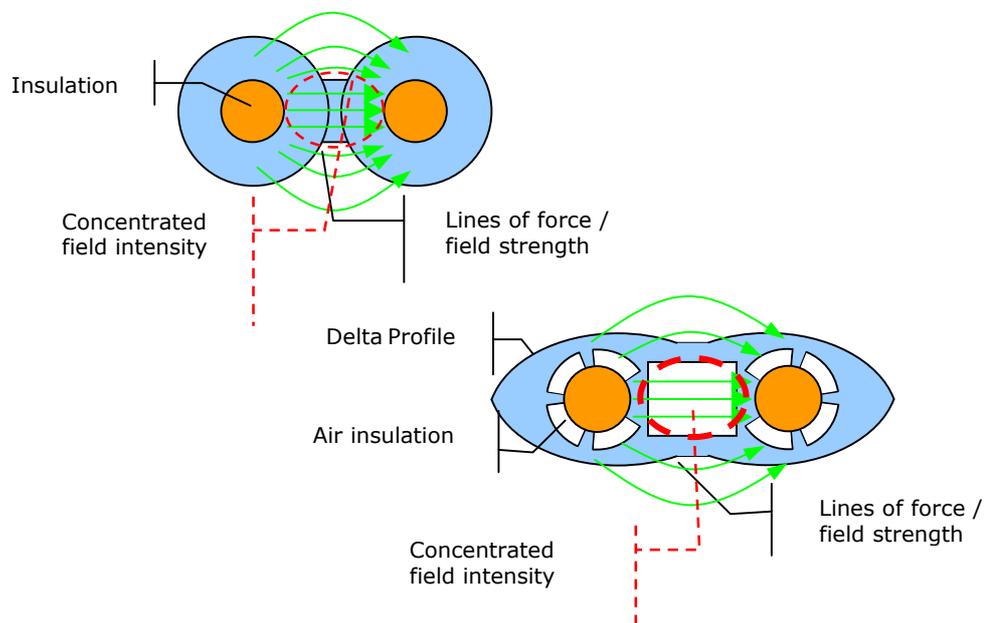
INTRO

AIR INSULATION	04
DELTA PROFILE	05
CONCENTRIC COPPER	06
EASY CONNECT; DIRECT BIWIRE	07
EASY PLUG	08
FITTING INSTRUCTIONS	09
PRODUCT OVERVIEW	09

Air insulation

As we know, air is the best insulating medium. However, until now it has been inconceivable to insulate a cable directly with air. Although there are already several models (for example, various antenna cables or expanded PE), these still fully enclose the wires with the insulating material. The wires are in direct contact with the insulating material over a large surface. This means the negative properties of the insulating material (dielectric constant (ϵ), loss tangent $\tan(\delta)$) have a major effect on the signal flow. Another fact is that the field strength E (electrical force) is highest between the conductors. Insulating materials in this area have the greatest effect on the signal transmission quality.

With Atmos Air loudspeaker cables, we have succeeded for the first time in using air to insulate a cable. Thin struts keep the copper wires of these cables from touching the sides. This means they are directly air-insulated. The wires have hardly any direct contact to the insulating coat, thus reducing the undesired affects of the insulating material. As the profile shows, the core between the conductors also mainly consists of air. This means that the field strength E concentrated here (i.e. the music signal) is not affected by the insulation material. This results in loudspeaker cables with a very low capacity and low electrical loss, which in turn benefits the resolution and richness of detail of the music.

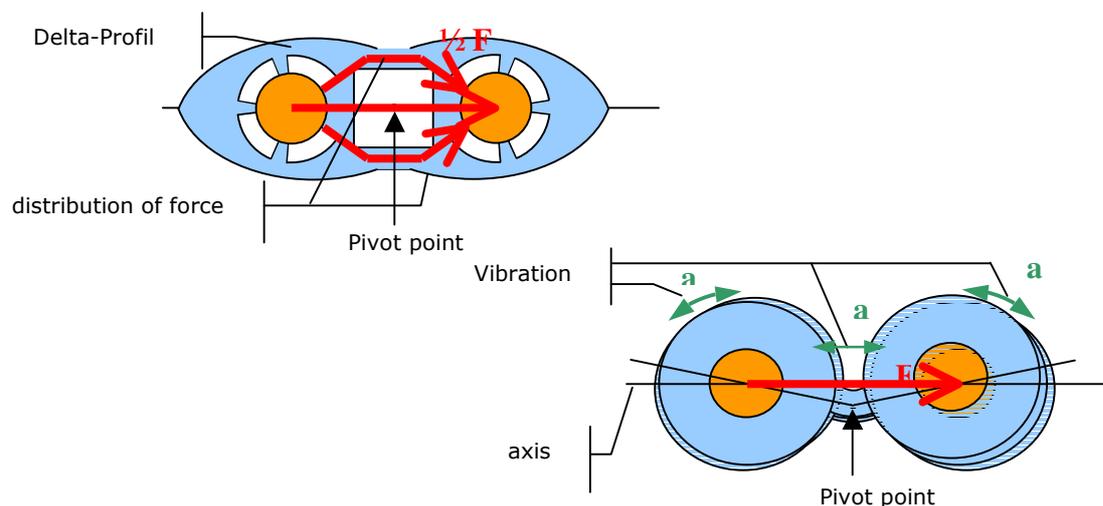


Delta Profile

The electrical flow in a loudspeaker cable creates a magnetic field around the conductors, which exerts a certain force (F) on the conductors. If this force is not diverted or the conductors are insufficiently fixed by the insulating material, the music signal causes them to start vibrating. This results in what are known as micro-vibrations. This means that some of the electrical energy of the amplifier does not reach the loudspeaker, but is converted into mechanical movement in the cable instead. This makes the acoustic pattern imprecise and blurred. In addition to this, the constant change in the geometry of the cable (the distance between the conductors) means that the electrical parameters (inductance and capacity) are subject to constant fluctuation and therefore the sensitive music signal is subject to constantly changing transmission conditions and becomes disturbed.

In this respect, standard shaped cables are especially mechanically unstable, since they tend to bend when they are laid. This results in a pivot point outside the (force) axis, which means the magnetic force which arises exerts a lever effect. The cable begins to vibrate (a).

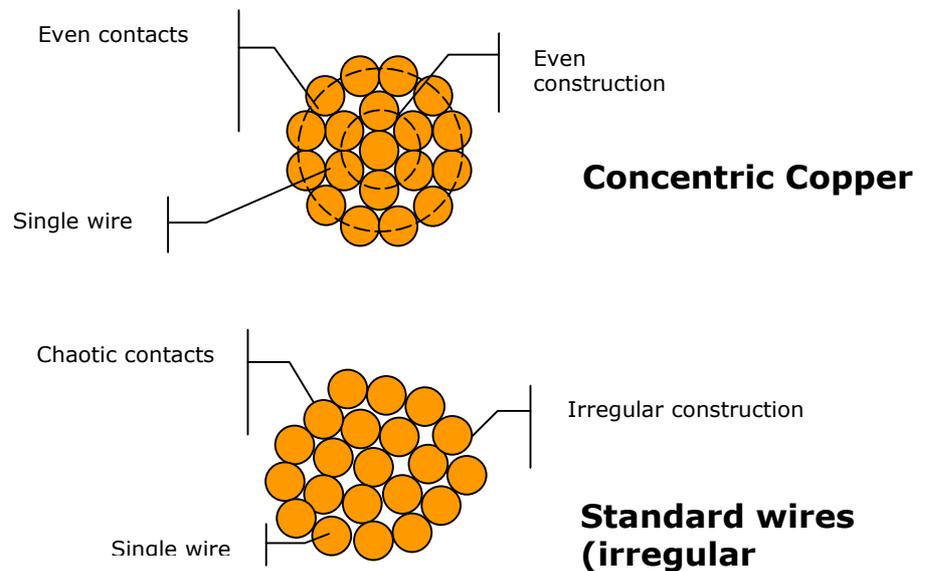
The Delta profile of the Atmos Air loudspeaker cables stabilizes the two wires along their axes and also provides a distribution of force. This means the magnetic force generated by the current cannot move the conductors. In this way, the architecture effectively reduces the micro-vibrations and attenuates them to a minimum. The geometry of the cable remains unchanged along the entire length of the cable. This makes the acoustic pattern tighter and more stable, even at high volume levels



Concentric Copper / Concentric Silver

In conventional copper braid wires (bunched conductors) there is no fixed position for each individual strand. The arrangement is chaotic, and is not constant along the length of the cable. This gives rise to undefined transitions and contact points between the wires, as well as an uneven overall surface. These conditions make it difficult to attain a homogeneous signal flow. Wires of this type have a negative effect on the acoustic pattern when used in audio cables.

All Atmos Air loudspeaker cables use Concentric Copper or Concentric Silver wires. This technology provides an absolutely regular structure, in other words, each wire strand has an exactly defined position in the braid, which remains the same along the entire length of the cable. This results in uniform transitions and contact points situation between the strands and an even, smooth surface. This gives a homogeneous signal flow which benefits the sound. The Concentric Silver wires are coated with 5 times more silver than conventional silver-plated cable types, which means they support much higher-quality high frequency reproduction.



Easy Connect

We all know how difficult it is to connect the stripped wires of a "normal" loudspeaker cable into the clamp terminals of an amplifier or a loudspeaker. The individual wire strands become frayed and it is hard to establish a clean contact. As well as this, protruding strands can cause shorting, thus leading to malfunctions and defects, not to mention the loss of sound quality.

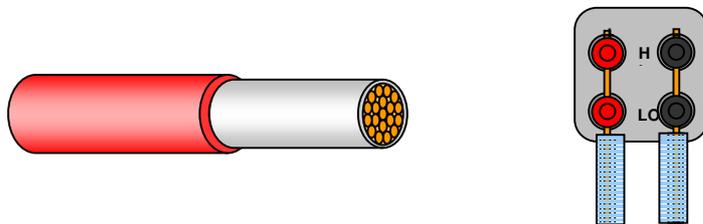
The Concentric Copper wires used in Atmos Air loudspeaker cables consist of thick individual strands with an extremely stable form, thanks to their defined arrangement in the wire. When stripped, they look almost like a connector pin. They can be easily connected to all conventional device terminals, and never become frayed. You are also less likely to accidentally cut through or nick the thick individual strands when stripping them. This is a real help, since the total cross-section remains the same after the wires are cut to length, thus guaranteeing 100% contact.

Direct Bi- Wire

You can use Atmos Air to directly replace the original connections supplied with loudspeakers with Bi-Wiring terminals, since these are generally made of poorly conductive cheap metal. Strip the wires until they are long enough to be put into both of the positive (high and low) and negative (high and low) terminals. This makes for a smooth connection between the treble and bass ranges. This example application reduces the transitional resistance and the music signal is transferred evenly to all connection terminals. The stable structure of the Concentric Copper conductors allows this configuration with no problems, and much improves the audio quality.

Easy Plug

The ready-made Atmos Air cable sets are equipped with Easy Plug terminals, which fit perfectly to various amplifier and loudspeaker terminals (clip and screw versions etc.). This makes connection as quick, safe and easy as possible.

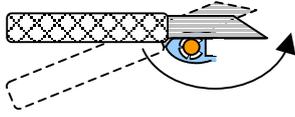


TIP

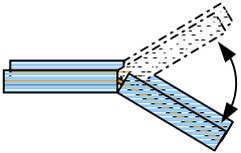
USING THE ATMOS AIR TERMINAL SET (ITEM NO. 007 2980) YOU CAN ALSO CUT LENGTHS FROM A ROLL TO PROFESSIONAL PRE-CUT CABELS WITH EASY PLUG CONNECTIONS.

Easy Plug Version

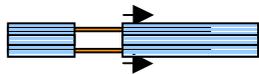
(with terminal set 007 2980)



- 1.) Using a sharp knife, cut through the entire insulation (over both wires) approximately 12 cm from the ends, all the way around down to the Concentric Copper / Silver conductors.



- 2.) Bend the cable back and forth once at the cut to separate the cut insulation material from the rest.



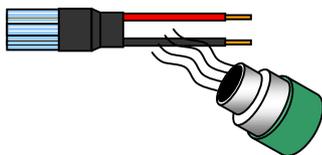
- 3.) Pull off the cut insulation material from the Concentric Copper / Silver conductors.



- 4.) Slip the thin shrink sleeves on the stripped conductors. Observe the labeling for + and - (red and black) on the loudspeakers, to prevent reverse polarity. The printing on the cable helps you recognize The + / - polarity both ends of the cable.



- 5.) Now slip the thick shrink sleeve half way over the cable insulation to make a clear transition.



- 6.) Shrink the sleeves using a suitable hot air blower until they tightly enclose the wires / insulation. Note that the cable insulation can only withstand a certain temperature!

- 7.) Slip the end sleeves on to the wires and press them firmly together using a suitable crimping tool.

The finished cable can now be connected. In order to prevent or reduce corrosion of end sleeves made of silver-plated copper, it is a good idea to clean them with a soft cloth (or silver polishing cloth) before connecting the cable to the amplifier and loudspeaker. In order to permanently maintain the best possible contact, clean the end sleeves in the same way every six months..

Product overview

SPEAKER CABEL ATMOS AIR						
ITEM NO.	DESIGNATION	COLOUR	AIR INSULATION	DELTA PROFILE	CONCENTRIC COPPER	CONCENTRIC COPPER
007 215	Atmos Air 123 Cu 100m	transparent		X	X	
007 225	Atmos Air 195 Cu 80m	transparent	X	X	X	
007 230	Atmos Air 309 Cu 70m	transparent	X	X	X	
007 216	Atmos Air 123 Silber 100m	transparent		X		X
007 226	Atmos Air 195 Silber 80m	transparent	X	X		X
007 236	Atmos Air 309 Silber 70m	transparent	X	X		X
007 2980	Atmos Air terminal set					

Press

Atmos Air 309 Cu



06/2002

Atmos Air 309 Silber



06/2002

Atmos Air 195 Silber



06/2002

„A MINOR SENSATION“

(VIDEO 04/2002)

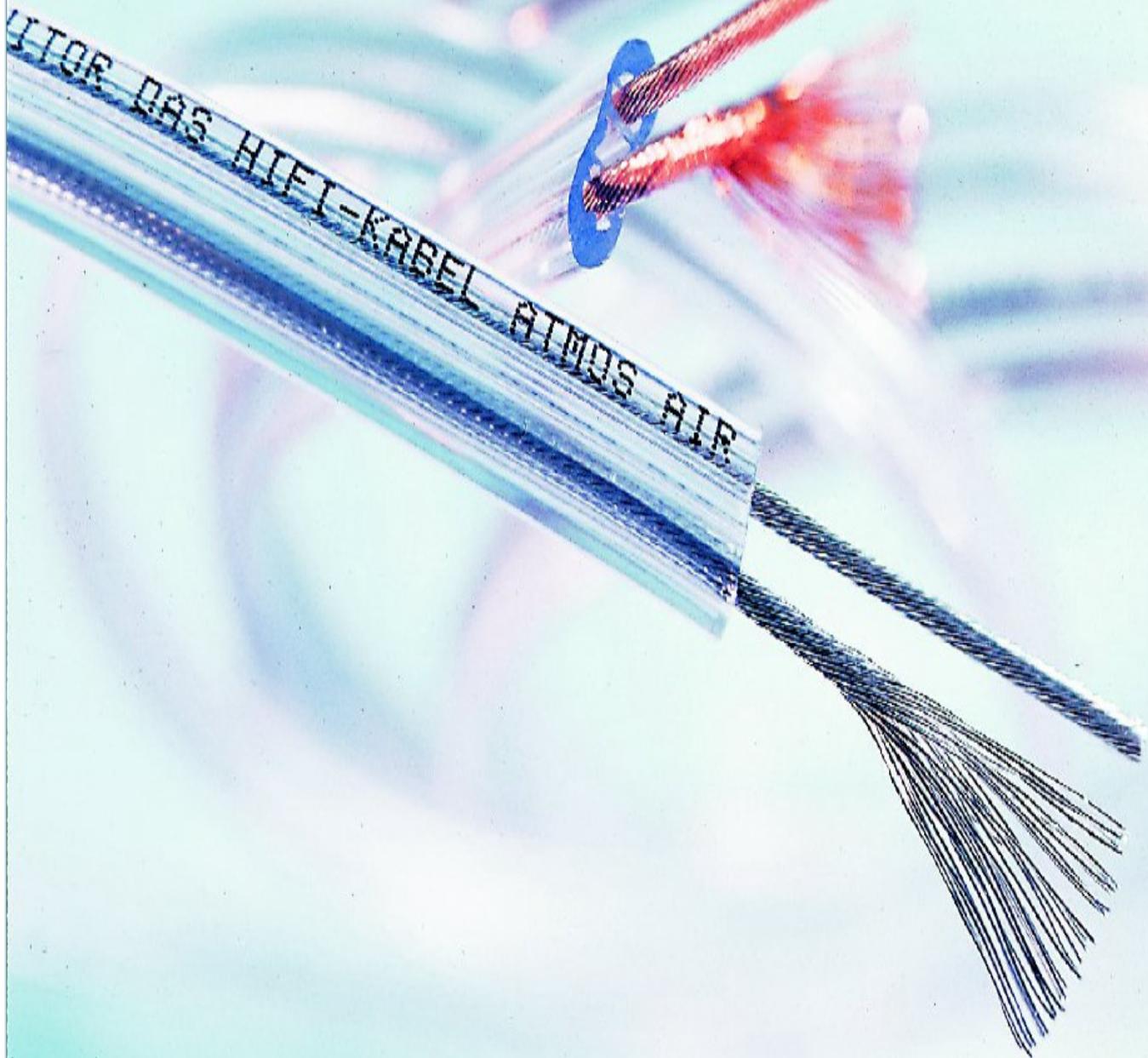
„HIGH-TECH CONNECTIONS AT AN UNBELIEVABLE PRICE“

(HEIMKINO 04/2002)



AUDIO 05/2002





in-akustik GmbH & Co. KG
Untermatten 12-14
D-79282 Ballrechten-Dottingen

Tel.: +49 (0) 7634-5610-0
Fax.: +49 (0) 7634-5610-80
E-Mail: mailto@in-akustik.com
Web: www.in-akustik.com

Note: All product illustrations are approximate. Specifications subject to change