REFERENCE MICRO AIR

HANDMADE CABLES

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REFERENCE MICRO AIR
MADE IN GERMANY

The cables in the REFERENCE AIR series have already caused a sensation in the world of high-end connections: "It is the best cable ever placed between amp and speakers." (AUDIO 02-2020 | LS-2404 AIR PURE SILVER)

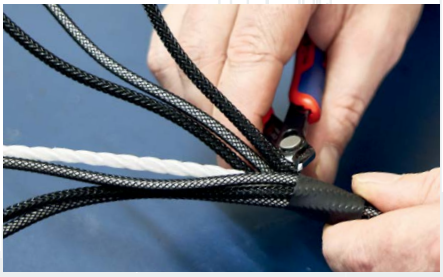
We have developed the REFERENCE MICRO AIR series based on the same approach to physics. As the name suggests, insulating air also plays a central role in the new REFERENCE MICRO AIR series due to its excellent dielectric properties.

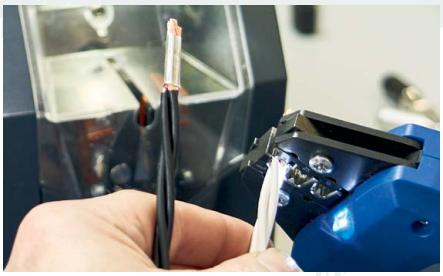
Cables as such produce no sound, but have a filter effect and interact with the components. In our opinion, audio connections should be as inconspicuous as possible and should not produce any sound colouration. Because these may be astonishing when heard for the first time, but in the end they distort the original sound and over the course of time they become highly irritating. The trick is therefore to adapt the unavoidable physical filter effect of the cables by means of the architecture and choice of materials in such a way that losses and interactions are reduced to a minimum. We have also pursued this goal in the development of the REFERENCE MICRO AIR series and – in our opinion – we have achieved it again.

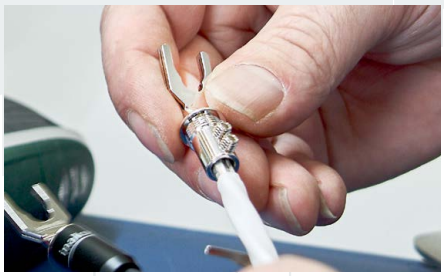
MADE IN
GERMANY

CABLE MANUFACTURE

Like the AIR HELIX cables, the REFERENCE cables with MICRO AIR technology are manufactured in our own factory in Germany. In addition to the complex manual assembly of the cables, this naturally also includes corresponding quality control. After production, each cable is put through its paces. Functional tests as well as mechanical tests are performed. And of course we also monitor live performance as part of product development for the greatest possible precision and low-loss signal transmission.

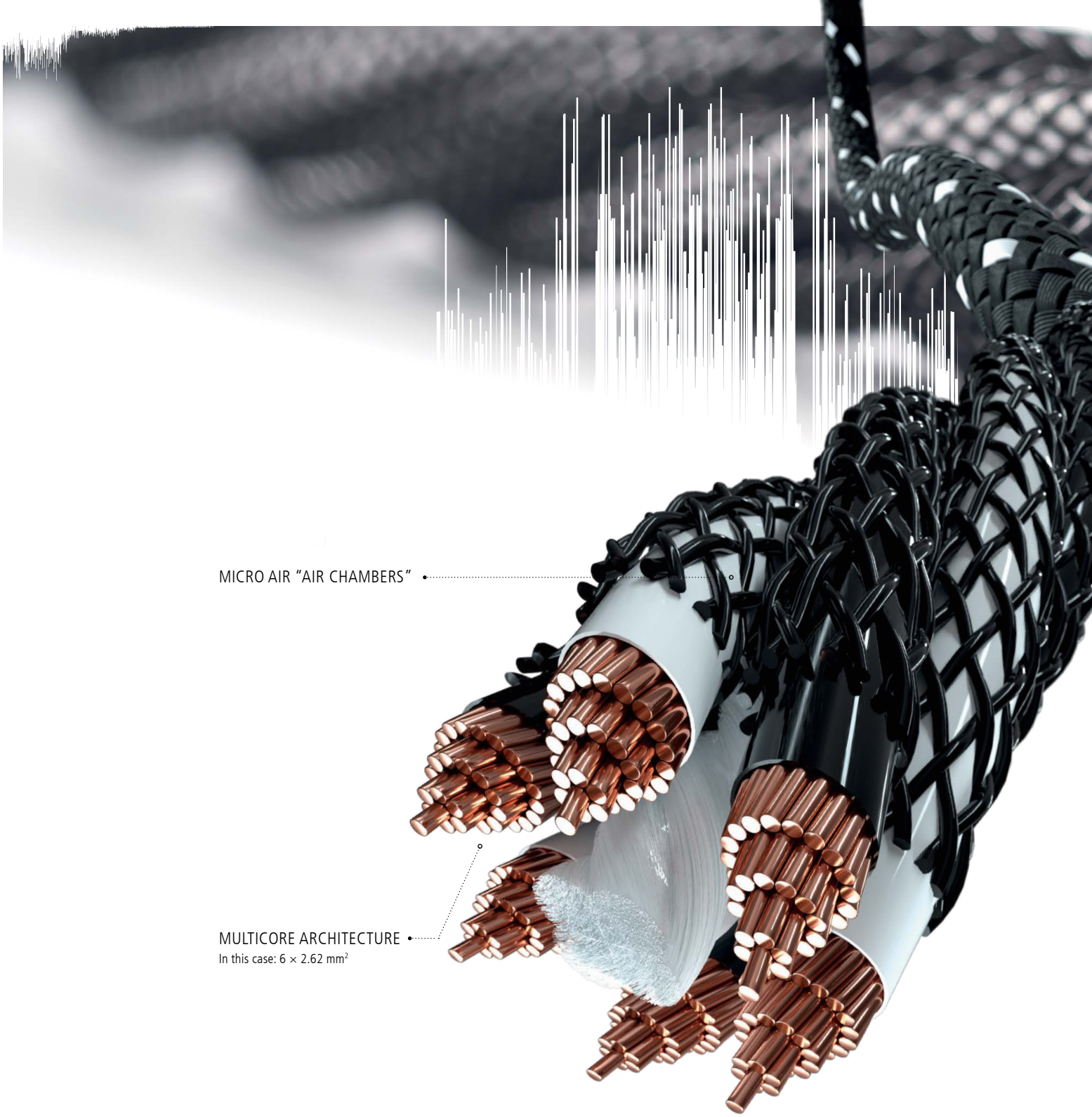






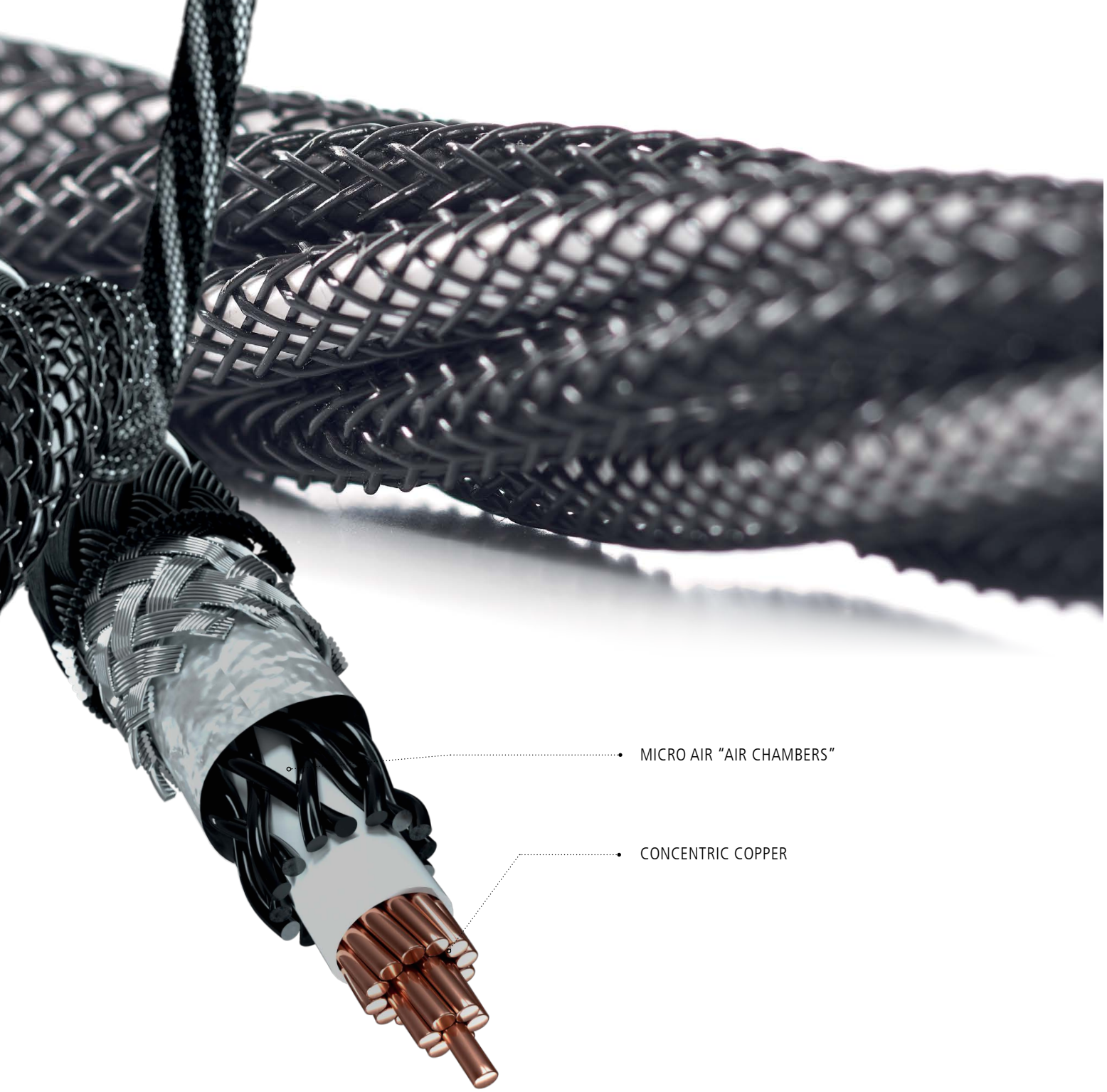
There are many, often difficult and complicated procedures required for the manufacture of Micro AIR cables.

We will be happy to help you find the right cable for your components. Our experts are available for this from Monday to Friday from 9–12 a.m. and from 1–5 p.m. by calling +49 (0) 7634 5610-70. Of course, our service also includes the assembly of your desired cable in the length and configuration you require.



MICRO AIR TECHNOLOGY

The laws of nature cannot be switched off. They need to be used skilfully. Every cable has so-called parasitic effects due to these laws of nature. Among other things, this includes the capacitance – i.e. the fact that a cable, like a battery, stores energy temporarily and releases it again with a delay. This effect strongly influences the transmission of audio signals and is undesirable. Cable capacitance is a physical phenomenon and its size depends on various factors. One essential factor is the insulation material, the so-called dielectric, which can increase the capacity many times over. Air on the other hand does not do this and is therefore the ideal insulator. Part of the insulation of the MICRO AIR technology is its complex, diamond-shaped structure. The chambers created by this design increase the distance between the conductors and increase the air content in the insulation. In this way, irritating capacities are reduced and the transmission characteristics for the sensitive audio signals are optimised.



CONCENTRIC COPPER

By contrast to conventional conductor structures, in which the arrangement of the individual wires in a cable is chaotic, the wires in the concentric copper wires are arranged in accordance with an exactly defined scheme in which they are precisely ordered in several layers. This design reduces irregular contact points between the wires, which harmonises the signal flow and minimises transit time differences. Impulses can be played back exactly while retaining the spatial information of the music. A thin layer of polyethylene protects the highly pure copper from oxygen and therefore against oxidation.

"MOODY" BEASTS

A loudspeaker cable must transport energy and information in equal measure. Loudspeakers can also be moody little beasts, with a very dynamic electrical life of their own. They behave differently for every tone and volume and have to be constantly kept in check by the amplifier. This means the signal on a loudspeaker cable is a jumble of tiny to huge levels, alternating current and voltage of different frequencies and phase lengths. To faithfully transmit the extremely fine details that define sound and space and lend emotion to the music, the cable has to metaphorically keep the speaker on as tight a leash as possible to the amplifier. These beasts can be tamed by applying physical laws, using the right materials, and an appropriate cable architecture.

LS-204 XL
MICRO AIR

We are continuing the story of AIR technology with the new REFERENCE MICRO AIR series: As with the already legendary AIR Helix cables, air is a central component of the insulation concept in the new REFERENCE MICRO AIR technology. However, due to the low loudspeaker impedances low line resistances and low inductance are also very important for loudspeaker cables. For this reason, a total of 6 concentric copper conductors are used in the REFERENCE LS-204 XL MICRO AIR in addition to the air dielectric. Thanks to this multicore architecture, the magnetic fields of the positive and negative conductors overlap and neutralise each other. This reduces the inductance of the cable considerably, thereby guaranteeing unadulterated transmission of the audio signal over a broad frequency range. The LS-204 XL follows this approach and has a well-balanced sound character with precise timing with a well-controlled foundation. This cable is therefore primarily designed for fully-sized floor-standing loudspeakers. Of course, sound always is evaluated subjectively and ultimately depends on the overall constellation of the hi-fi system. In the end the decisive factor is your very personal auditory impression.

The REFERENCE LS-204 XL MICRO AIR is available with BFA Bananas or with cable lugs or as Easy-Plug version. The surfaces of the BFA Bananas and the cable lugs are finished with a rhodium coating and are therefore extremely durable. The contact surfaces and the screw connection of the cable lugs are manufactured from a single piece, thereby avoiding contact resistance. The contact surface, which has slits on the side, changes to a concave shape when the device terminal connections are tightened, thus preventing the cable lugs from sliding out.

KEY FEATURES

- MICRO AIR TECHNOLOGY
- AIR DIELECTRIC
- CONCENTRIC COPPER WIRE CONSTRUCTION
- 6-FOLD MULTICORE ARCHITECTURE
- SINGLE WIRE
- MADE IN GERMANY
- STANDARD LENGTH: 2 × 3.0 M
- AVAILABLE AS BFA, CABLE LUG OR EASY-PLUG VARIANT
- FROM 675 RRP

LS-204 MICRO AIR

Like the flagship model, the LS-204 is also based on MICRO AIR technology. The difference lies in the multicore architecture. Compared to the XL version, the LS-204 has four instead of six concentric copper wires. This impressively agile cable was primarily developed for slim floor-standing speakers with smaller bass drivers. The REFERENCE LS-204 MICRO AIR is available as Single-Wire and Single-BiWire version with BFA Bananas or cable lugs or as Easy-Plug version.

KEY FEATURES

- MICRO AIR TECHNOLOGY
- AIR DIELECTRIC
- CONCENTRIC COPPER WIRE CONSTRUCTION
- 4-FOLD MULTICORE ARCHITECTURE
- MADE IN GERMANY
- SINGLE WIRE & SINGLE BIWIRE
- STANDARD LENGTH: 2 × 3.0 M
- AVAILABLE AS BFA, CABLE LUG OR EASY-PLUG VARIANT
- FROM 550 RRP

LS-104 MICRO AIR

The LS-104 is an excellent entry-level model to the MICRO AIR series. It already clearly stands out from standard cables and demonstrates the acoustic potential of this technology. Especially sensitive amplifiers harmonise perfectly with this cable. The REFERENCE LS-104 MICRO AIR provides an open and more relaxed sound. It is also available with BFA Bananas or cable lugs and as an Easy-Plug variant.

KEY FEATURES

- MICRO AIR TECHNOLOGY
- AIR DIELECTRIC
- CONCENTRIC COPPER WIRE CONSTRUCTION
- MADE IN GERMANY
- SINGLE WIRE
- STANDARD LENGTH: 2 × 3.0 M
- AVAILABLE AS BFA, CABLE LUG OR EASY-PLUG VARIANT
- FROM 400 RRP

ELECTROSTATICS AND CAPACITY

We all know what it's like when you take off a sweater with lots of synthetic fibre and it crackles and sparks. This is because the synthetic material builds up an electric charge which is then discharged suddenly. The same happens in the dielectric, the material that insulates a cable. It absorbs electrical energy like a sponge and releases it later. However, in the case of an audio cable, these are components of the music signal. One measure of this is the cable capacitance, i.e. the unwelcome storage capacity of the cable. While capacitors are supposed to store energy and have a correspondingly high capacity, the capacitance of an audio cable should be as low as possible. This significantly affects the transmission quality and also causes interference with any electronic components connected. Air insulation – as realized with the MICRO AIR technology – is therefore ideal because it reduces the capacitance to a minimum.

NF-204
MICRO AIR

Since the outputs of hi-fi devices only provide very weak signals and react sensitively to high cable capacitance, the cable capacitance plays a significant role when connecting up hifi components. What is known as a low-pass filter is produced that cuts off high frequencies and also causes phase shifts. For this reason, RCA and XLR audio cables are predestined for the air-based insulation of MICRO AIR technology. Another special feature of the NF-204 MICRO AIR is its symmetrical architecture that guarantees a high level of immunity to electromagnetic emissions. We have also developed a completely new RCA connector that is completely solder-free for the MICRO AIR series. It consists of several parts, which are only joined together over the course of manufacturing. The cable ends are prepared with a great deal of passion and a delicate touch in our cable manufacturing plant, into which contact pins made of tellurium copper are inserted and pressed with a pressure of 1.5 tons. The NF-204 MICRO AIR is also available in an XLR version for those devices with balanced inputs and outputs.

Alone or in combination with the LS-204 / LS-204-XL, the NF-204 MICRO AIR opens up the potential of the device connections and lets your components hit top form.

KEY FEATURES

- MICRO AIR TECHNOLOGY
- AIR DIELECTRIC
- CONCENTRIC COPPER WIRE CONSTRUCTION
- SYMMETRICAL ARCHITECTURE
- SIGNAL-FREE, DOUBLE SHIELDING
- DIRECT PRESSURE INJECTED RCA CONNECTOR (1.5 TONS OF PRESSURE)
- PLUG WITH TELLURIUM COPPER WITH RHODIUM-COATED CONTACTS
- PE NETWORK JACKET
- MADE IN GERMANY
- STANDARD LENGTHS: 0.75 M, 1.0 M, 1.5 M
- AVAILABLE AS RCA OR XLR VERSION
- FROM 280 RRP

NF-104 MICRO AIR

Compared to the NF-204 MICRO AIR, the NF-104 MICRO AIR has a conventional, coaxial architecture. In addition to the MICRO AIR technology, the newly developed RCA connector, which is completely solder-free, is another special feature of the NF-104. By omitting the solder, transition resistances and element formation are significantly reduced. As the name suggests, the NF-104 harmonises particularly well with the LS-104 speaker cable. The two cables are perfect entry-level models for MICRO AIR technology.

KEY FEATURES

- MICRO AIR TECHNOLOGY
- AIR DIELECTRIC
- CONCENTRIC COPPER WIRE CONSTRUCTION
- COAXIAL ARCHITECTURE
- DOUBLE SHIELDING
- DIRECT PRESSED CONNECTOR (1.5 TONS OF PRESSURE)
- PLUG WITH TELLURIUM COPPER WITH RHODIUM-COATED CONTACTS
- PE NETWORK JACKET
- MADE IN GERMANY
- STANDARD LENGTHS: 0.75 M, 1.0 M, 1.5 M
- FROM 225 RRP


DIGITAL IN
D6
D7
D8
D9
D10
D11
ANALOG IN
PUSH
inakustik
inakustik
A3
A4
A5

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HIGH END SOCIETY

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