

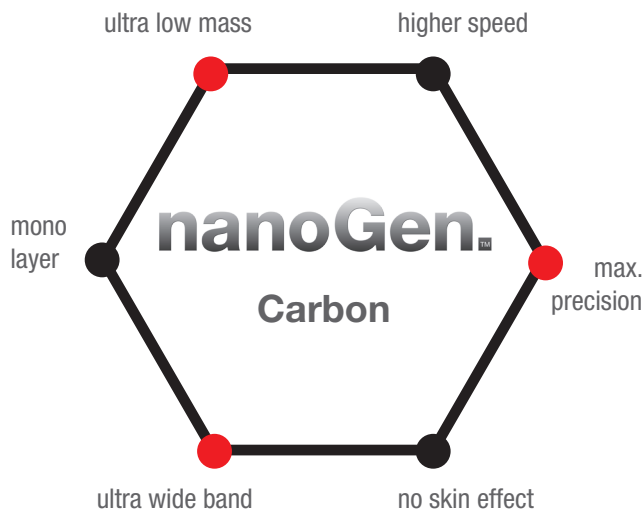


## nanoGen™ – The first organic connector series of the world

With WBT-nanoGen™, WBT establishes an entirely new quality class in plug connector technology.

Since 1985, WBT has been working intensively on optimizing signal conductors in plug connectors to bring them as close to the ideal of a perfect electrical conductor as possible. After their modern and internationally renowned WBT-nextgen™ connectors, they have made a further technological breakthrough.

**WBT presents the first connectors to use nanotechnology: WBT-nanoGen™.**



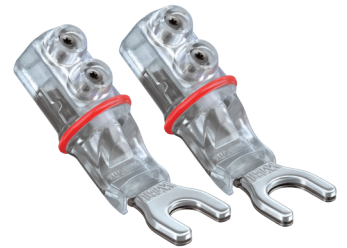
It is the first industrially mass-produced application of "crystalline carbon" as a signal conductor. Crystalline carbon opens up unprecedented possibilities and is far superior to conventional conductors such as metals in terms of transmission speed, bandwidth and signal fidelity.

WBT-nanoGen™ connectors are closer to the "ideally" conductive graphene than any other signal conductors before them.

Based on the WBT-nextgen™ series, we have developed\* an innovative procedure which enables to shoot pure carbon onto an electrically neutralized substrate (anodized aluminium) using the PVD method (physical vapour deposition). In this way, we can create a practically massless surface conductor in thin-film technology with all its unique advantages.



WBT-0610 C



WBT-0661/-0681 C



WBT-0708 C



WBT-0703 C

**WBT-nanoGen™ – that is high-end nanotechnology.**

- Advantage:** Carbon in its two-dimensional form is superior to all other materials in terms of phase fidelity and speed of the signal transmission. The hexagonal crystal structure of the carbon molecules means signals can only be carried in two dimensions. That leaves no chance for eddy currents/skin effects, or the resulting phase problems or mass storage effects to arise in the first place.
- Power:** Low-level and high-level signal connectors with a bandwidth in the high gigahertz range attain unrivalled signal fidelity. Heavy-duty – 10 amp continuous load, 120 amp peak load (high-level signal connectors)
- Special features:** The carbon surface is extremely smooth and yet elastic. Melting temperature is 1,500 degrees Celsius. That means carbon contacts cannot be soldered. Instead, they are perfectly suited for crimping.
- Appearance:** A contact is typically gold or silver in colour. Carbon has an anthracite grey appearance, similar to titanium.

As of now, high-level signal connectors are available in the form of banana plugs, sandwich spade and pole terminals. Various low-level signal connectors will follow starting September 2014.



**WBT-nanoGen™ – “Best Product of 2014”\*\*** distinguished with four Plus X awards in the categories: Innovation, High Quality, Design and Functionality

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\*\* Special award of the Plus X Award Jury

**WBT - Industrie GmbH**



WBT has been manufacturing highest quality electromechanical plug connectors exclusively in Germany since 1985. From the very beginning, these connectors have been optimized to maximum contacting through intelligent design. With the nextgen™ series, WBT is the first company to offer high-tech connectors of hybrid construction. Simple plug connectors have now become precisely defined interfaces – wideband, eddy-current and mass storage optimized, and simultaneously resource-saving. The new nanoGen™ carbon connectors, as the first plug connectors made using nanotechnology, are the way forward – practically massless thanks to modern thin-film technology. They underscore WBT’s claim to technological leadership.