INTERCONNECT SOLUTIONS
FOR HARSH ENVIRONMENTS

PRODUCT RANGE
The Interconnect Specialists

Filcon Electronic GmbH stands for the highest degree of quality and individuality with high-tech connector systems at fair prices. We can provide standard versions straight from stock as well as individually matched or specially manufactured interconnect solutions based on our comprehensive product range and many years of experience on the market.

We operate successfully for the technology sectors aerospace and aeronautics, defense systems, medical, motorsport, transportation, geophysics as well as test and measurement systems – where safety without compromise is required.

Our particular strengths are in comprehensive support: competent specialists support you during your design work and development with the necessary drawings or 3D models and will even undertake the construction on-site on request. And if you want, your connector can be individually modified or manufactured.

Last, but not least, our knowledge, our expertise and our motivation to develop new technologies with the latest trends is the key to our success.
## PRODUCT RANGE

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CIRCULAR CONNECTORS

From Standard to Miniature
In the comprehensive range of standard circular connectors with high contact density, the different sizes and contact layouts with different platings are available ex-stock. This both includes connectors approved for MIL, MS and other standards as well as manufacturer-specific product series. An example of this is the 8STA series which offers the smallest MIL-Grade Connector available on the market.

Filcon offers the maximum product quality for applications with the highest demands. This quality is made possible by our QPL approved assembly line.

Examples
• MIL-C 38999 Series III (8D)
• VG96912 (8ST/JN1003)
• 8STA
The best of both: diversity AND serial production

Modern industrial applications, for example in geophysics, measurement & control, transportation technology or medical markets, require high-performance connectors. Filcon offers various versions in circular and rectangular designs. These connectors perform according to the most widely used industrial standards and regulations.

Our know-how and our engineering competence facilitate even the most individualized and thus highly-specialized versions, such as various assembly and housing and individual contact options. And even diverse connectors for various applications.

Examples
- Trim Trio series
- UTS
- MIL-C 26482, Series I
- Modular rectangular connectors
EMI AND EMP PROTECTED CONNECTORS

Electromagnetic protection included
Connectors of various designs are also available with EMI filter (e.g. in planar filter technology) and/or EMP protection. The EMI filter is designed so that it does not change the connector interface because the filter is integrated into the housing. Our experience and our know-how facilitate even individually adapted and thus highly-specialized versions.

Examples
• Filtered circular connectors to MIL-C-38999, VG96912 or similar standards
• Rack and panel connectors
• D-Sub and other rectangular versions
Functional safety through all-round protection

Cable connectors are generally protected against ambient conditions with a backshell or a protective cap. Our range incorporates both the most diverse backshells, whereby the shielding of the cable is connected to the housing, as well as simple strain-reliefs or backshells accepting heat-shrinkable products. Filcon also designs and manufactures special housings suited exactly to your individual demands.

Furthermore, we offer complete mechanical strain reliefs or conduit systems and cable harnesses that use a special cable hull to protect from external influences such as hydraulic liquids, kerosene, oil or mechanical influences.

Examples
• Backshells for all commercially available circular and rectangular connectors
• Protective caps
• Conduit system solutions
Radio-frequency technology on board

High-frequency connectors are used as individual systems or as RF contacts in the various standard connector systems. The RF contacts can be adapted to individual cable requirements and are also available for the PCB connection. Furthermore, connectors can be grounded: The contact shielding is connected to the connector housing. Individual versions with special layouts or in hybrid contact combinations with different types of contacts (electrical and optical) can be implemented.

Examples

- Coax, Triax Twinax and Quadrax contacts for circular and rectangular connectors
- Coax connectors of the series BNC, TNC, SMP, SMD, N, SMA, NDL, etc.
- Grounded connectors
- Connectors loaded with RF contacts (Coax, Triax, Twinax or Quadrax) for PCB installation (PCB connection)
- Connectors with individual mixed layouts (Signal, RF, fiber optic), e.g. in ARINC housings
Multi-frequency and low interference

With the depth of our product range as well as our comprehensive know-how in terms of fiber optics, we provide suitable solutions for all kinds of optical signal transmissions: Complete manufactured solutions of different designs (can be individualized on request) as well as individual connectors for medical, MIL, railway and other applications. The program is supplemented by industrial standard products, for example, to facilitate the connection to control panels, etc.

Examples

- Lens contacts (expanded beam) down to size 12
- Butt joint contacts to MIL, railway technology and aerospace standards
- Hybrid complete solutions with the most varied contact types (fiber optic, RF and signal contacts as a package)
I CONNECTORS FOR PCB APPLICATIONS

Signals and power on board
Microelectronics requires rectangular connectors, used on PCBs, between PCBs or with cables. This includes serial, parallel and 90° PCB configurations, which are provided with all types of contact technologies: dip soldering, one and twin sided surface soldering, pressfit connection or solderless crimping.

Our delivery range is supplemented by cable glands and coding hardware, backshells and protective caps as well as by special hybrid designs with signal, power and coax contacts.

Examples
• 2 to 6 row connectors to MIL-C-55302 with high contact density
• 1 or 2 row pin and socket strips
• 1 to 4 row connectors to MIL-C-55302 for analog signals or high power transmissions
• ESA qualified connectors to SCC3401016/039/065
• 1 to 4 row connectors to MIL-DTL-83513 with high signal integrity
MICRO AND NANO CONNECTORS

Smallest size, maximum performance
Miniature microelectronic applications with a minimum amount of available space need miniaturized circular and rectangular connectors with the highest possible contact density on the PCBs, between the PCBs, with cables or as an I/O connector installed on housings. The connectors are qualified to MIL-DTL-83513 or MIL-DTL-32139 or manufactured accordingly.
Our delivery range is supplemented by cable glands and coding hardware, backshells and protective caps as well as by special hybrid designs with signal, power and coax contacts and bespoke designs.

Examples
• 1 to 4 row connectors to MIL-DTL-83513 with higher signal integrity, metal or plastic housing
• 1 or 2 row connector to MIL-DTL-32139, metal housing
• Nano circular contacts, metal housings, push-pull or screw locking
• Micro circular connectors, metal housings, push-pull locking
Maximum protection for extreme conditions
Hermetically sealed connectors are protected against dirt, dust, liquids and humidity as well as from pressure differences. They are available on circular and rectangular designs as well as individually adapted special versions.
The connectors are approved to MIL, ESC, EN and NAS. Special motorsports versions are available ex-stock.

Examples
• Circular connectors according to MIL C 38999, 26482, 83723, 81703, 25955, EN2997
• D-Sub according to MIL-C 24308/9
• Rack and panel according to MIL-C 28748
• Micro-D according to MIL-C 83513
CUSTOMIZED SOLUTIONS

Application specific versions
The in depth knowledge of our experts and the technical experience of our engineers make it possible for Filcon Electronic to develop and manufacture highly specialized interconnect products. Making sure that you receive the solution that meets your specific demands.
Contact us. We look forward to your challenge.

Examples
• Umbilical assemblies
• Connectors integrated into your front panel
• Short-circuit connectors
• Mechanical modifications to standard products
• Harnesses
• Magnetic connectors
ACCESSORIES

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Diverse accessories complete our comprehensive connector range.

Examples
• MIL cable and special cable
• Heat-shrinkable products
• Crimping pliers and tools
• Band clamp pliers
SERVICE

Engineering skills Service

• Engineering Consulting
• Customized drawings
• 3D modeling

Engineering
• Construction services, also on-site