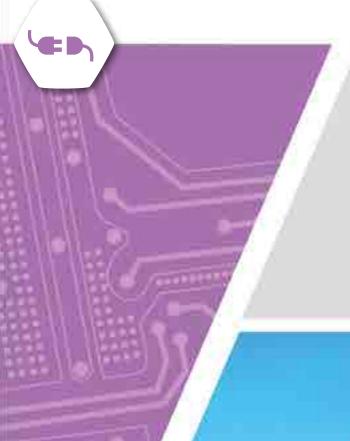


ELECTROMECHANICAL SOLUTIONS

Harness Production
Cables & Cable Processing Systems
Industrial Connectors
Control Products
Cases
Heatsinks
Board Level Connectors





Harness **Production**

- Harness with all typical connectors in half or full automatic process
- Harness with RAST connectors (Lear, Lumberg) or other IDC connectors in half automatic process
- Cutting and stripping from AWG32 (0.05mm2) up to AWG8 (8.00mm2)











- Measure and cut to length
- Full or partial strip both sides
- Crimp to crimp
- Twist and tin to crimp
- Special connectors hand soldering (D-Sub, industrial etc.)
- Lead free tin plating
- Pull-out force and crimp height measuring



Cable Processing System

Machines for:

- ✓ Benchtop crimping & stripping
- Cutting to length and stripping
- ✓ Cutting
- ✓ Full process crimping
- Marking
- MiniLabs for micrography of crimping quality
- Pulltester

















Applicators and Presses

- ▼ Fully mechanical applicators (with or without pneumatic support) for all standard contacts
- Applicators for RAST connectors and other special types
- Applicators for terminals packed in tubes
- ✓ Applicators with 30 and 40mm stroke, in European (standard) or Asian (special) coupling
- ▼ Two-post dies for big cross section loose contacts
- Mechanical presses with crimping force from 1.5 to 200 tons
- Pneumatic and hydraulic presses with dedicated dies



- Spiral cables (from 1 cable)
- Shrink tubing
- Insulation tubing
- Cable testing systems
- Cable protection systems

More than 10'000 circular connectors known for their durability. Miniature, metal or plastic shell cylindrical connectors with push-pull locking, sealed or not. Fischer Connectors also does cable assembly and can develop a custom made solution for your device.

Circular connectors

- ✓ Multipole Low & High Voltage connectors
- ✓ Coax Low & High Voltage connectors
- Triax connectors
- ✓ Fiber optic connectors
- Fluid / Gas connectors
- Hybrid connectors
- Tools and accessories





Serving all markets

From Medical to Defense
From Instrumentation to Food and more



FISCHER CORE SERIES:

ANY SIZE ANY CONFIGURATION ANY APPLICATION





FISCHER FIBEROPTIC SERIES:

ROBUST OPTICAL PERFORMANCE EASY CLEANING





FISCHER **ULTIMATE™**SERIES:

RUGGED COMPACT LIGHTWEIGHT





FISCHER MINIMAX™ SERIES:

HIGH DENSITY SIGNAL & POWER MINIATURIZATION





Cable Assembly

Rely on Fischer in-house expertise for cable assemblies, engineered to your needs.



Custom Solutions

From initial concept trough prototyping, testing and installation, Fischer finds solution that suits your specific needs.



Accessories

Explore Fischer full range of accessories for improved connector performance or protection.



Tools

Complete your in-house toolset with spanners, crimp and assembly tools, and more.



Cabling Solutions for Networks

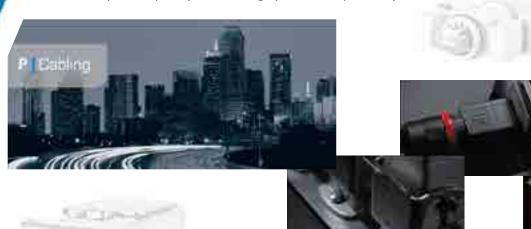


Intelligent networks – perfect connections

Cabling solutions in the copper and fiber optic techniques for building and industrial cabling applications

The growing demand for data transmission volumes requires an ever stronger performance and continuity of underlying data networks. Today, IT-technologies are used in a multitude of applications in buildings, data centers and industrial plants. Anticipatory and intelligent cabling systems that spanningly connect several segments must therefore match perfectly in order to guarantee a sustainable, safe and continuous form of communications.

All this is guaranteed by the Metz Connect range of P|Cabling products: highly specialized, internationally standardized and high-performance connection components in copper and fiber optic technology stand out by their quality and strong system compatibility.

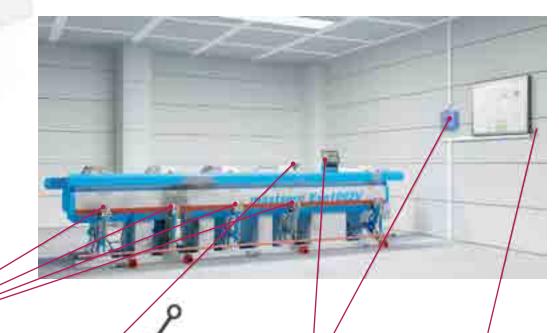


Building and industrial cabling, data communication

- Office fiber optic
- ✓ Office RJ45
- ✓ Industry fiber optic
- ✓ Industry RJ45
- ✓ Ethernet M12
- Industry unequipped housings
- Data center solutions
- Assembled cables
- Accessories

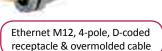


E-DAT Industry RJ45 field insert





E-DAT Industry RJ45 housing



Terminal Block Connectors



Innovate product systems continuous connections

Spring clamp terminal blocks

- ✓ Solderable
- ✓ Pluggable
- ✓ Compression-mount
- Suitable for solid wires and multi-stranded wires
- ✓ Nominal cross section of 0.08 2.5mm²
- ✓ Centerline 2.5 10mm

Screw-type terminal blocks

- ✓ Solderable
- ✓ Pluggable
- Single poles
- Suitable for solid wires and multi-stranded wires
- ✓ Centerline 3.5 10.16mm

IDC type terminal blocks

- ✓ Solderable
- ✓ Centerline 3.5 10.16mm







- Complete range for different installation requirements
- A variety of connecting technologies
- Additional product designs (operating options, mounting flanges etc.)
 Solutions for different connection cross-sections
- Color variants at customer request Varying number of poles Codeability

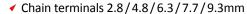
- Customer-specific adaptations possible

Automotive Connectors









- ✓ Ring tongue and other solderless terminals and splices
- Automotive connectors
- **RAST** connectors

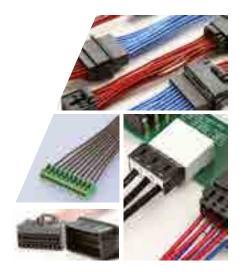








- ✓ Wire to PCB connectors
- ✓ PCB to PCB connectors
- ✓ Wire to wire connectors
- Solderless terminals and splices
- ▼ Flat ribbon cables
- ✓ Control cables
- ✓ Stranded wires











Control Products

True freedom expressed in operating feel

Alps Electric has been producing input devices ever since its founding. Company adapts to the times, developing ever smaller, thinner products and responding to needs for greater integration and multifunctionality.



Maintaining elevated standards for operating feel, Alps Electric constantly pursues creation of the "right" products.







Performance Engineered Control Products

- 22mm Control Switches
 - · Metal and plastic bodied
 - 600V, 10A max AC
 - 10mln operations
- Heavy Duty Footswitch
 - Single or double pole contacts
 - Snap action and slow action contact blocks
 - Normally open and normally closed blocks
 - Positive opening operation
 - Silver contacts
 - Anti Slip foot pedal
 - Non-slip rubber feet
 - Supplied with cable gland
 - IP65 sealed
- Populated Control Stations
 - Robust ABS populated control stations
 - Rated 600V, 10A max AC
 - Different size options
- Piezoelectric Switches and Keypads
 - No moving parts
 - Operating life of 50 million operations
 - Resistant to environmental factors (IP68)
 - Robust and resistant to vandalism

















Cases

Performance Engineered Enclosures



CamdenBoss has over 440 designs, sizes and styles of enclosures to satisfy today's competitive market, where functionality, price, aesthetics and ergonomics are all driving demands. In addition to extensive range of standard injection moulded, die-cast and sheet-metal enclosures, Camdenboss has manufacturing and assembly facilities enabling offering bespoke designed Tool-Free Custom-Design enclosures from flat-sheet plastic, full customisation of standard ranges and complete turnkey enclosure and assembly solutions.

Products:

- Universal Enclosures
- Heavy Duty Enclosures
- ✓ Interface Supports
- ✓ Diecast & Metal Boxes
- Potting Boxes
- ✓ 19" Subracks
- Hand Held cases
- Din Rail Boxes
- Control Stations
- Desktop & Instrument Cases
- 19" Enclosures





CUSTOM DESIGNED ENCLOSURES

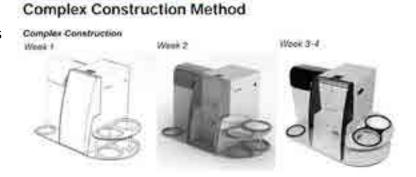
Custom Enclosures with Flat-Sheet Plastic Technology - No Tooling!

CamdenBoss develops and manufactures enclosures to your specifications using Flat Sheet Plastic Technology. Combining years of engineering expertise, precision machining & innovative assembly techniques; any concept can be manufactured to your exact size and specification. CamdenBoss unique is ideally suited for low to medium batch quantities – from the most simple to the most complex of enclosures.

Advantages:

- Rapid Lead Times
 - 1 3 weeks prototyping
 - 3 4 weeks volume productions
- Creative industrial designers, technical sales
 & CAD/CAM engineers at your disposal
- ✓ Inexpensive No Tooling Charge
 - Low design and set-up costs
 - Competitive unit pricing
- Any Quantities
 - From low batch runs of 5 to high volume
 - 5000+ production runs
- ✓ Flexible make changes to the design quickly & easily after prototyping or after production

Basic Construction Basic Construction Day 1 Week 7 Week 2-3



Cases & Heatsinks



Thermal management

- Machined extruded heatsinks
- Extruded heatsinks with solder pin
- Heatsinks and fan coolers for processors
- Lamella heatsinks
- Finger shaped and small heatsinks
- Cooling aggregates
- Thermal interface materials



- Miniature aluminium cases
- Design cases

Cases

- Combination cases and tube cases
- Desk consoles and shell cases
- ✓ 19" System cases
- ✓ 19" Subracks
- ✓ 19" Plug-in boxes
- ✓ 19" Insert modules









Services

Precision Machining

Fischer Elektronik offers a wide range of processing options, especially for decorative applications. All standard cooling heatsinks and cases and also special front and cover plates can be manufactured to suit customers' requirements in terms of decorative design.

CNC machining centres and automatic machines are used to ensure optimum processing quality. Components receive mechanical surface treatment in preparation for anodizing or galvanic coating such as chromium or gold, consisting of sandblasting, grinding and polishing.





Powder Coating

For the safe use of electronic casings under difficult ambient conditions where anodized or painted casing surfaces are no longer sufficient, first-class surface coating is required.

In addition to its standard product range, Fischer Elektronik offers robust and invulnerable powder coatings. In addition to colour and structural options for individual surface designs, powder coatings offer excellent resistance to scratches, abrasion and shocks and provide outstanding protection against corrosion and chemicals as well as good electrical insulation.

Other important features include a long service life, high light fastness and a base material which is environmentally friendly, as the powder contains neither heavy metals nor solvents.









Screen printing & Laser lettering

For optical identification of milling Fischer use screen printing or YAG-lasers.

Espacially laser inscriptions are of outstanding quality and ensure good, permanent legibility, even in the case of letter sizes below 1mm and under the influence of solvents.

PCB Level Connectors



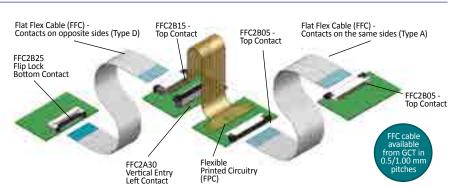
SIM card connectors

- Hinged
- Push-push
- Retainer
- **Dual SIM**
- SIM + uSD combo



FFC connectors & cables

- ✓ 0.3, 0.5, 1.0mm pitch
- ✓ Side or top entry
- Top or bottom contact
- ✓ Side or filp lock



Memory SD & uSD card connectors

- ✓ Hinged
- ✓ Push-push
- ✓ Push-pull



USB 2.0 & 3.0 connectors

- ✓ Micro USB
- Mini USB
- ✓ Full size USB
- A, B, AB types available



Modular Jack connectors

- ✓ 4-8 positions
- ✓ 4-8 positions loaded
- ✓ Right angle or vertical
- ✓ THT or SMD style



Board-to-board connectors

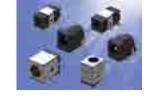
- ✓ 0.8, 1.0, 1.27, 2.0, 2.54mm pitch
- Headers, elevated headers, sockets. elevated sockets
- Horizontal, parallel, perpendicular
- THT or SMD style





DC Power Jacks

- ✓ THT and SMD
- ✓ 0.65mm, 2.00mm, 2.35mm & 2.50mm center pin diameters
- ✓ Current ratings from 1.5A to 8.0A
- ✓ Shielded variations in both straight and right angle orientation



firther elektronik **2**3

- ✓ PCB connectors male and female headers, contact strips ✓ DIL, PGA, PLCC, transistors sockets
- ✓ IDC connectors male & female headers, one & two rows
- ✓ D-SUB connectors



- ✓ Flat ribbon cables







✓ Board to Board Connectors:

- Centerline 1.27, 2.00, 2.54mm
- SMD & THT

RJ45 & RJ11, RJ12 Jacks

- THT & SMD versions
- · Shielded & unshielded
- Single & multiport
- With integrated magnetics and/or LED indicators

USB Jacks

- THT & SMD versions
- Type A, B & microB

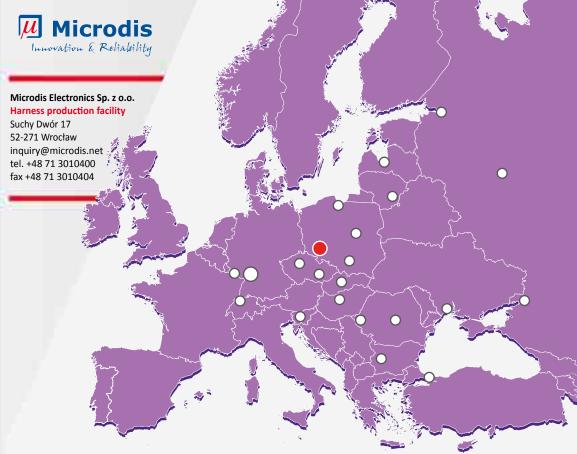
M12 Jacks

- D coded or X coded types
- 4 or 8 pins
- · THT or panel mounted
- · Sealing level up to IP68









AAEON AEGID ALPS ELECTRIC **AMBER WIRELESS ASROCK BRIGHTEK CAMDENBOSS EPSON FISCHER CONNECTORS** FISCHER ELEKTRONIK GLOBAL CONNECTOR TECHNOLOGY IIYAMA **ISOCOM** JST **LEAR** MAXTENA **MECAL MEDER** MEDIKABEL METZ CONNECT NEXCOM SEOUL SEMICONDUCTOR TAIWAN SEMICONDUCTOR **U-BLOX**

WEZAG

Switches, encoders, potentiometers and printers RF ISM, Bluetooth modules and transceivers Mini-ITX industrial boards Power, THT and chip LEDs and LED modules Interconnect components, electronic housings, 19" cabinets Crystals, oscillators, filters and sensors Military, medical and industrial connectors Heatsinks, connectors, 19" and case technology SIM-Holders, memory card connectors, USB connectors Large Format Displays Optocouplers, optoswitches Signal connectors Automotive and white goods connectors GPS, Galileo, Glonass, Iridium antennas Machines and systems for wire crimping Reed switches, sensors and relays UL/CSA/DIN certified, customized industrial cables Terminal block connectors - screw, spring and pins Industrial computers and panels LEDs - power, full color, 230AC Semiconductor devices GNSS, GSM, UMTS/HSPA/CDMA/LTE/NBIoT modules, WiFi, Bluetooth, NFC, V2V/V2X, antennas Hand tools for crimping, pneumatic presses

Industrial computers and panels

RFID systems and transponders

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Currently the Microdis Group employs over 100 people, with a large number of electronic engineers, mostly involved in sales and marketing.

As a company with an extensive experience in the distribution of electronic components, and a purchasing center in Germany for many years, we are able to offer almost any product from a wide variety of electronic components. We offer also the production of cable harnesses and programming of crystal oscillators for a customised frequency. Cooperation with a catalogue distributor provides fast deliveries (2 days) of a wide range of catalogue products.

We have certificates of quality management DIN EN ISO 9001:2015 for the distribution of electronic components.

EN v.4.5

