

# fischer

## elektronik

**Desk consoles and shell cases**  
**Combination cases**  
**Miniature aluminium cases**  
**Design cases**



### Desk consoles and shell cases

- versatile choice of desk consoles and shell cases made of aluminium
- suitable for pcb or non standardised components
- with integrated guide slots with grid of 1HP
- customer specified printing of the front panels made in our in house printing shop
- special dimensions and surfaces



### Combination cases and tube cases

- suitable for all current Euro-cards with multiple combination possibilities
- as a desk case or for mounting rail fastening
- protection sealing up to IP 54
- EMC version achieved by electrically conductive surfaces and sealings
- modifications and variations as well as special constructions, machinings and designs made to customer's requirements



### Miniature aluminium cases

- case consists of a tubus or two half shells made of aluminium profiles
- with integrated cooling fins
- integrated guide slot for insertion of printed circuits or mounting plates
- D-sub connectors can be mounted without front panel cutouts, special lengths and other surfaces upon customer's specification



### Design cases

- customised cases "Chac", "Frame", "Rail" and "Eurotainer"
- aluminium case for Eurocards 100 mm, non-standard components or PCBs
- insertion possibility for front foils and foil key pads
- anodised or lacquered front panels and aluminium extruded profiles
- individual colouring of the plastic covers
- customised front panel design and imprinting

**19" System cases**  
**19" Subracks**  
**19" Plug-in boxes**  
**19" Insert modules**



### 19" System cases

- state of the art shape design and colourings
- suitable for EMC applications
- outer dimensions as per subrack, therefore suitable as well for rack installation
- front and rear side optional installation of bus circuit board and part front panels
- all dimensions and colours can be made to customer's design requirements

### 19" Subrack

- suitable for wall mounting, cabinet installation or rail mounting
- suitable for standard, IEEE and EMC applications
- desktop case with integrated subrack
- special heights and depths or partial units
- large range of accessories
- additional treatments, modifications or surfaces for your special demand



### 19" Plug-in boxes

- insertion of horizontally placed pcb or non standardised components
- 1 U up to 6 U, with and without handles
- side panels made of aluminium sheet or extrusion profile
- versatile versions with removable cover & bottom panels
- durable silk screen printing in all common RAL colours
- customer specified holes and profile treatments

### 19" Insert modules

- with or without side panel heatsinks
- EMC protected version
- integrated T-section suitable for insulating strips, threaded rails, or square-nuts
- with integrated pcb guide rails
- frame module for direct card insertion
- realisation of customer specific versions

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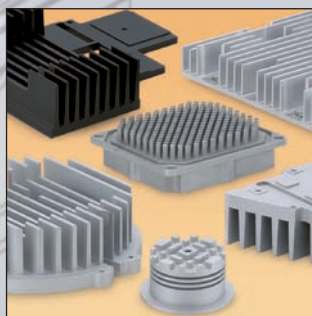


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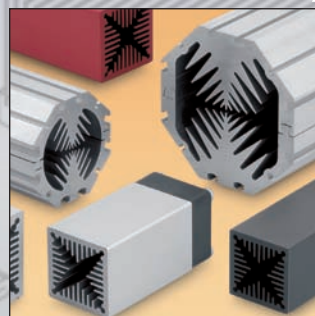
  
**TÜV**  
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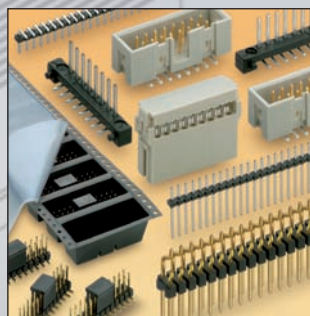
  
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**Extruded heat sinks**  
**Processor coolers**  
**Finger-shaped heat sinks**



**Cooling aggregates**  
**Sockets**  
**Connectors**

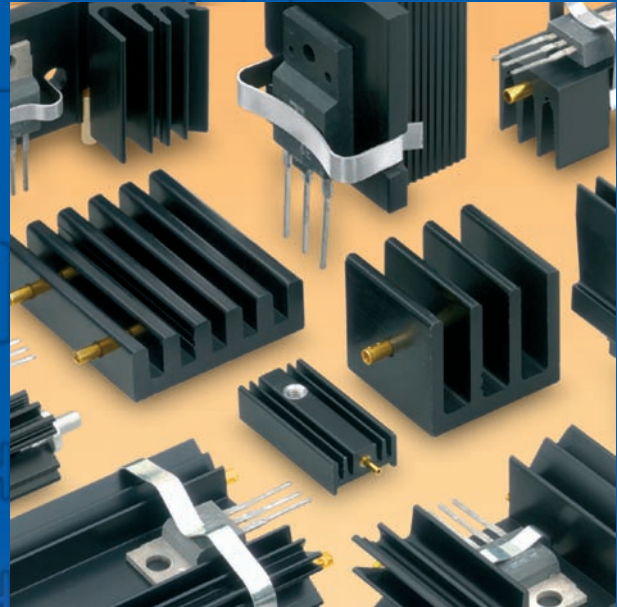


**Brackets**  
**Cases**  
**19" Technology**



### Machined extruded heatsinks

- several hundred profiles permanently in stock
- highest precision due to modern production machines
- profile machining in sizes of up to 1600 mm
- special CNC-machining according to customer's requirements
- any required surface treatment
- machining even on anodised heatsinks
- special profiles for your specific requirements



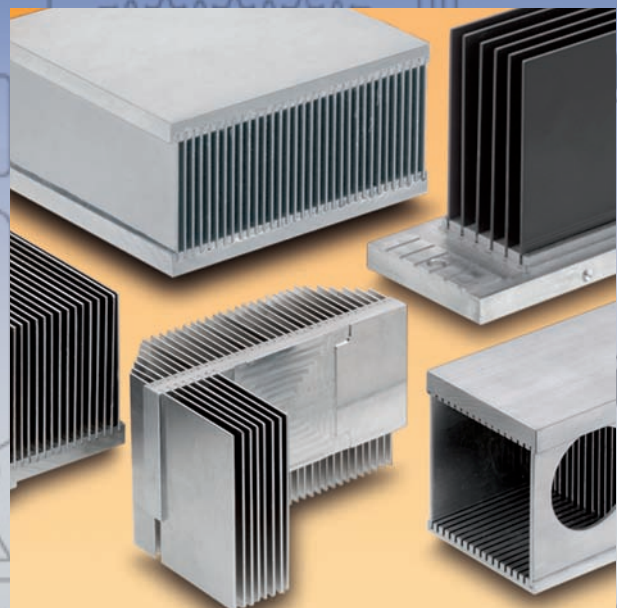
### Extruded heatsinks with retaining springs

- pressed-in solder pins for direct solder-in fastening
- solder pins with insulation ring or as a threaded bolt
- for horizontal or vertical PCB-mounting
- fast and easy semiconductor-mounting by means of retaining springs
- high pressing force and integral hold of the semiconductor due to different retaining springs
- customer specified versions and modifications



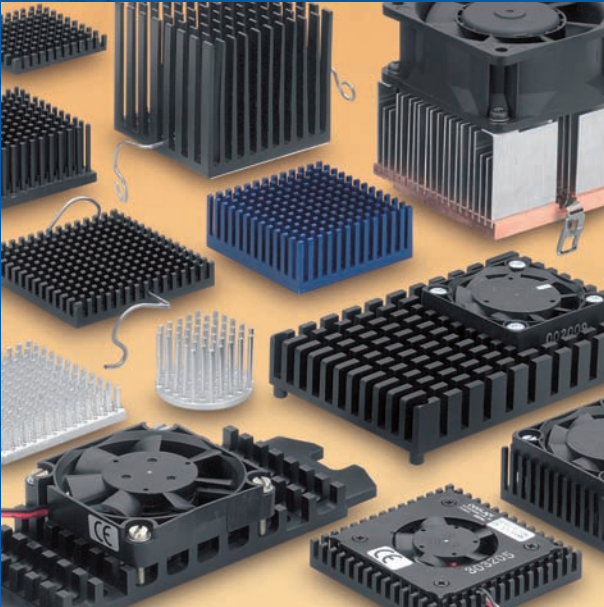
### Heatsinks for LEDs

- competence in cooling LEDs
- customer specified treatments and special designs
- guidance and support with application based "thermal management"
- certified partner supporting the **LED Light for you** OSRAM network  
powered by OSRAM
- "LED - Light for you" **CERTIFIED PARTNER**
- versatile assortment of standard heatsinks



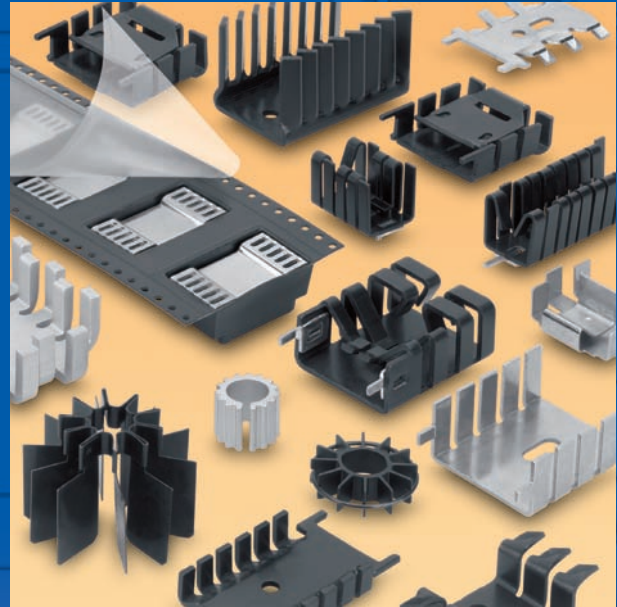
### Lamella heatsinks

- lamella heatsinks made of aluminium or copper with special design for forced air convection
- compact design with very low thermal resistances
- with one or two sided mounting area precisely milled to flatness
- additional machining, modification and special designs according to customer's specification



#### Heatsinks and fan coolers for processors

- excellent thermal efficiency due to flow-favouring omnidirectional fin geometry
- easy mounting by means of integrated fastening clip, double sided adhesive thermal foil or thermal glue
- compact design with high mechanical stability
- special high-quality industrial model
- customer specified versions and machinings



#### Finger shaped and miniature heatsinks

- made of phosphorus bronze, aluminium- or copper material
- effective cooling of small transistors
- mounting of the semi-conductor by using screws or an integrated spring clip
- can be soldered directly on the PCB due to solderable surfaces or pressed on solderable pins
- special packing such as Tape & Reel, bar magazine, tray, etc.



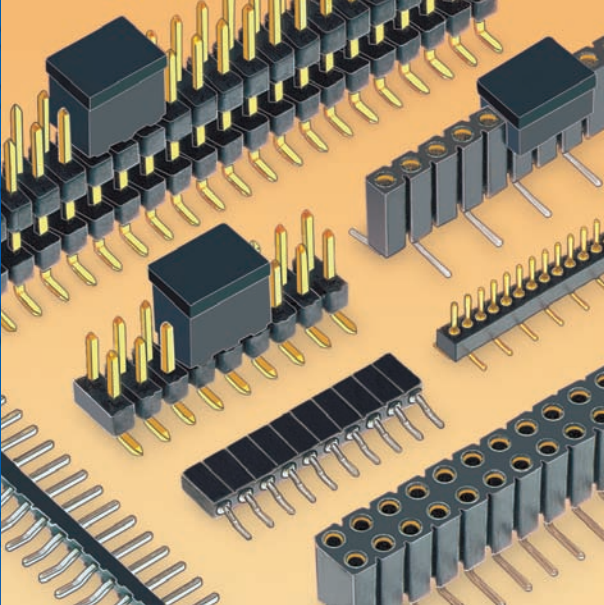
#### Cooling aggregates

- segment-, hollow fins-, miniature, high-performance cooling aggregates and effective design with axial, diagonal and radial fan motors
- precisely milled to flatness semi-conductor mounting areas
- flow-optimised fin geometry
- fixed lengths are balanced precisely to the fan motor
- cooling aggregates also available without fan motors
- additional machining according to customer's requirements



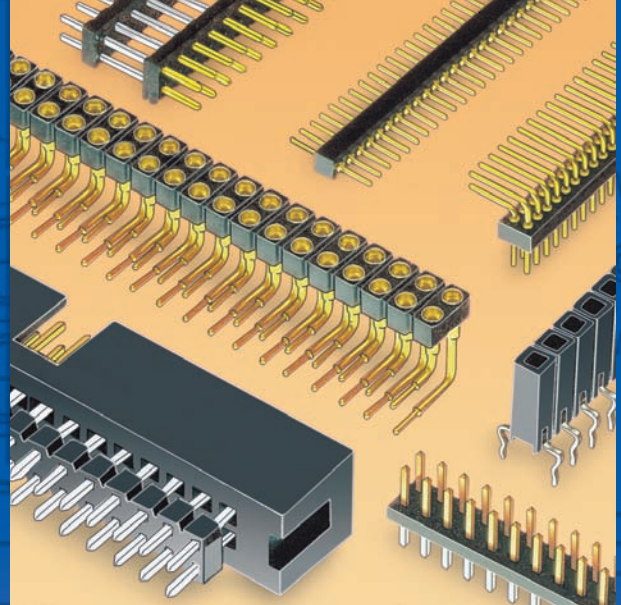
#### Thermal interface material

- thermally conductive and electrically insulating foils
- thermally conductive paste with silicone, without silicone or with graphite
- various thermal materials such as silicone elastomere, gel rubbers and foam-foils, polyimide foils etc.
- large scale of standard cut-outs, tapes, plates, tubes and caps
- customer specified production of our thermally conductive foils according to customer's drawings



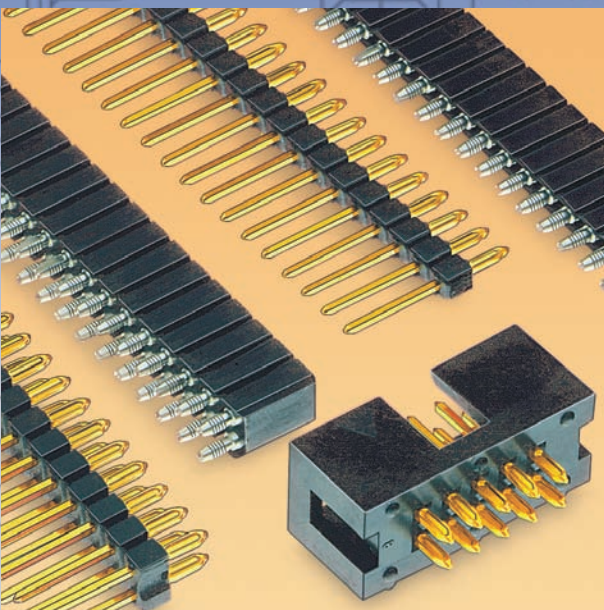
### Male and female header for SMT mounting

- male header, one row and two rows, with pick and place pad, vertical and horizontal design
- female header, one row and two rows, with pick and place pad, vertical and horizontal design
- pitch: 2.54 mm, 2.00 mm, 1.27 mm



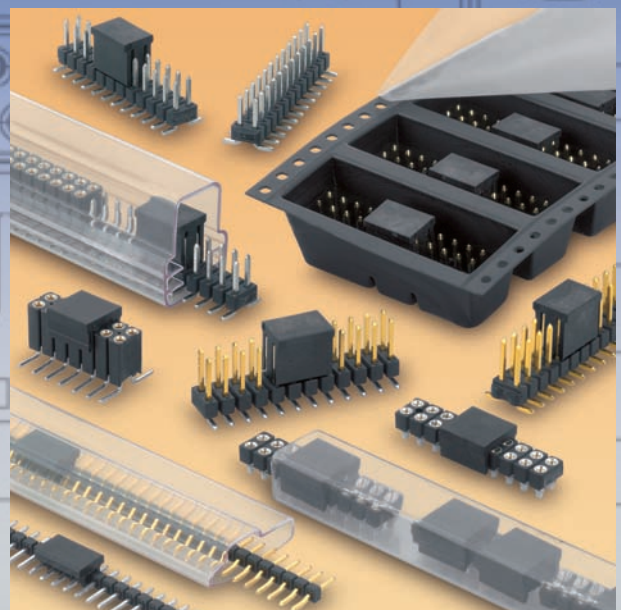
### Male and female header for solder-in mounting

- male header, one row or two rows, in straight and angled design, length of contacts up to 65 mm
- protective-shroud male header, 10-50 contacts
- female header, one and two rows, in straight and angled design with stamped contacts or precision contacts
- plug-through female header, one row and two rows
- pitch: 2.54 mm, 2.00 mm, 1.27 mm



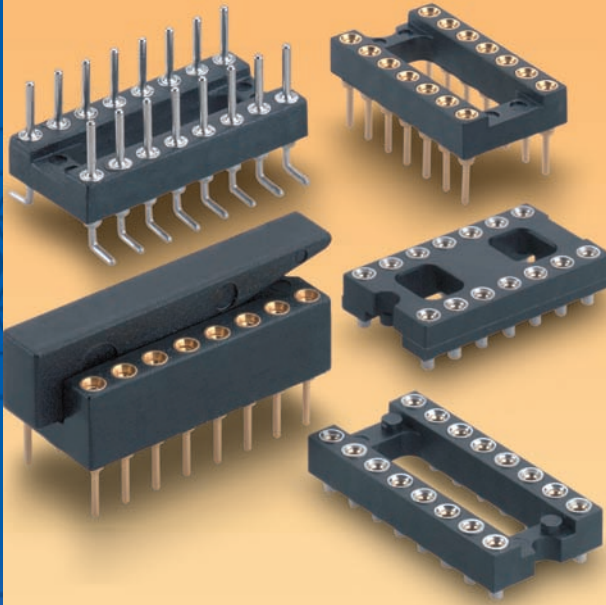
### Male and female headers for press-in mounting

- male header, one row and two rows, version straight
- female header, one row and two rows, in version straight
- protective-shroud male header with 10 to 20 contacts



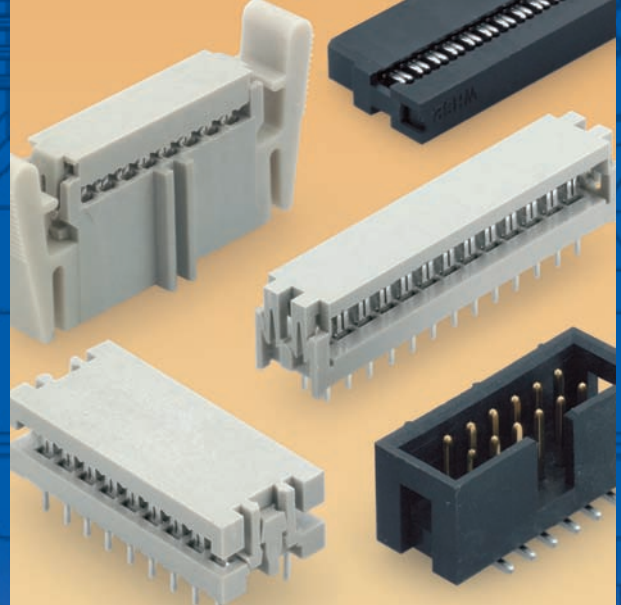
### Packaging types for automatic assembly of SMD headers

- tube magazine
- tape and reel



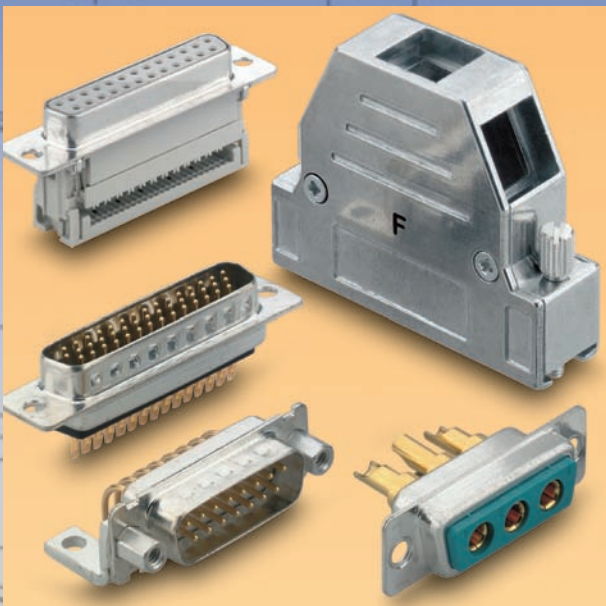
#### Sockets

- precision sockets and plugs for solder-in technique
- precision sockets and plugs for SMT
- DIL-IC sockets with extract-spline



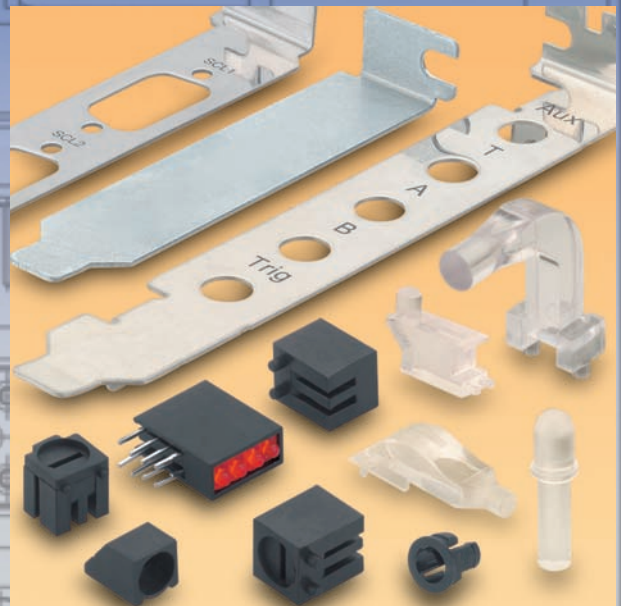
#### IDC connectors

- female header with and without strain relief, one row and two rows
- shroud headers for lockable female multipoint connector, two-rows: 6-50 contacts
- pcb connector, one row, two rows and four rows
- flat ribbon cable



#### D-Sub connectors

- male and female connectors for solder-in, SMT and IDC-technique
- high density connectors
- mixed layout connectors
- D-sub hoods
- accessories



#### Brackets and LED-holders

- brackets with and without fixing tabs
- low profile brackets for PCI
- LED-retainer with and without LED
- light pipes for SMT components