

Minitek®

Product Presentation

**Amphenol Information Communications
and Commercial Products**

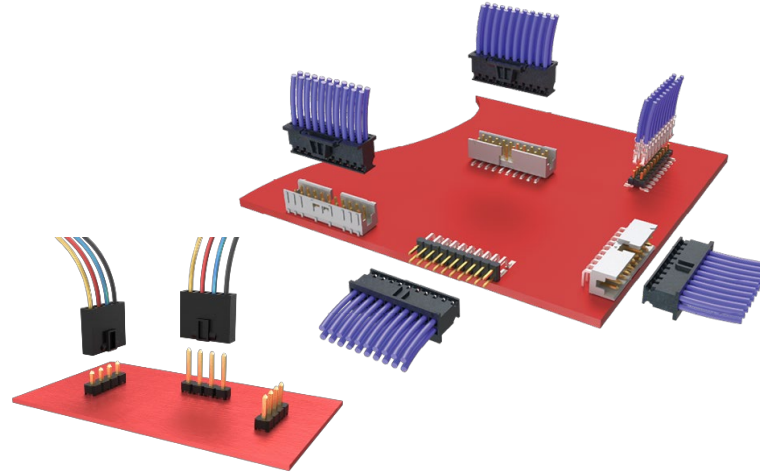
≡FCi Basics

Amphenol ICC

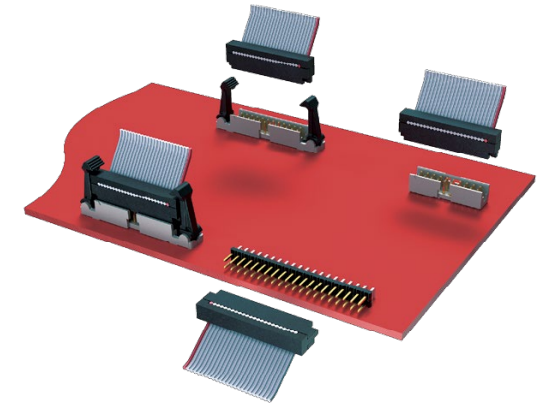
Board-to-Board



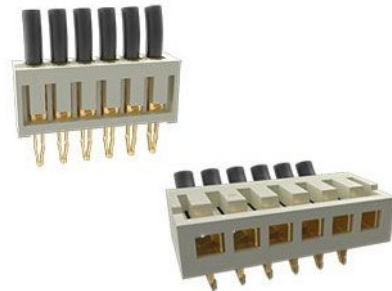
Wire-to-Board



Cable-to-Board



Board-In



Blind Mate Interface



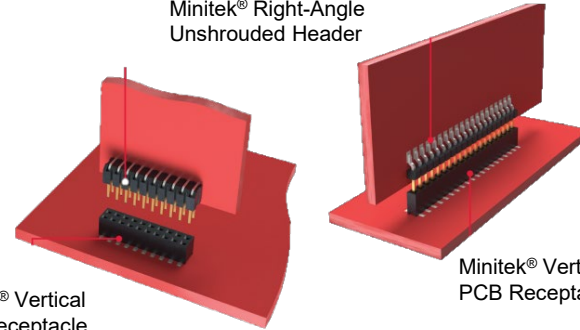
- Minitek® is the most complete Modular Connector System on the market for Board-to-Board and Wire/Cable-to-Board connections on 2,00mm pitch
- Minitek® is available in through-hole, surface-mount or pin-in-paste solder option
- Minitek® comes in single and double rows, straight or right-angle orientation, shrouded or unshrouded with 2 to 50 positions
- Minitek® 2,00mm pitch offers 38% board space reduction compared to 2,54mm systems

Features	Benefits
Modular System	Everything inter-meatable
2.00mm pitch available	38% less board space compared with 2.54mm
Lowest profile ejects latch header	Meets your specific design requirements
Lowest coplanarity at 0.1mm	Facilitates efficient and cost effective automatic placement
Standoffs designs	Make easy the cleaning of the PCB
0.5mm square drawn wire pin	Provides four smooth mating surfaces
High raw material temperature range	Withstands reflow soldering process

Minitek® Straight Unshrouded Header

Type	Base part number
Single Row TMT/PiP	10138654
Double Row TMT/PiP	57102
Double Row SMT	57202

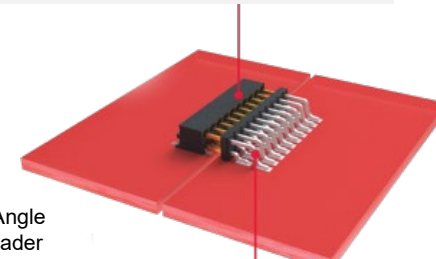
Minitek® Right-Angle Unshrouded Header



Minitek® Vertical PCB Receptacle

Minitek® Horizontal PCB Receptacle

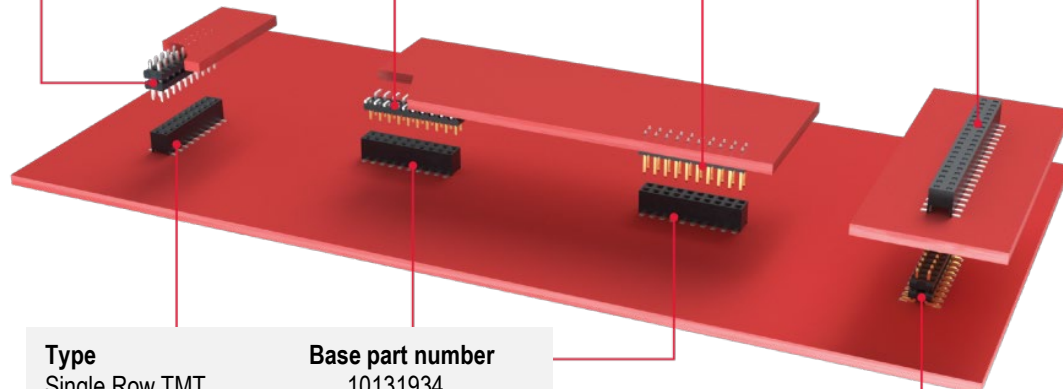
Type	Base part number
Single Row TMT	10131931
Single Row SMT	10131930
Double Row TMT	10131932
Double Row SMT	10131933



Minitek® Right-Angle Unshrouded Header

Type	Base part number
single Row SMT	10112684
Double Row TMT	98423
Double Row SMT	10112690
Double Row PiP	10072353

Minitek® Unshrouded Stacking Headers



Type	Base part number
Single Row TMT	10131934
Single Row SMT	10131935
Double Row TMT	10131936
Double Row SMT	10131937

Minitek® Vertical PCB Receptacle

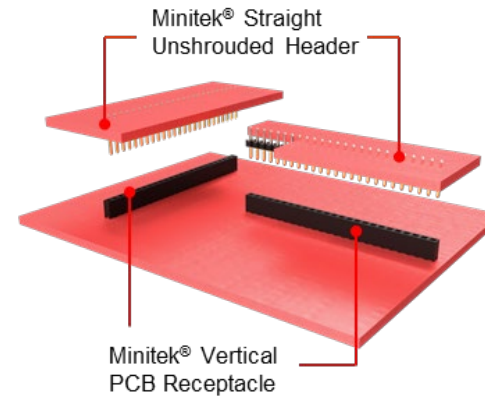
Minitek® Vertical PCB Receptacle

Minitek® Vertical PCB Receptacle

Type	Base part number
Double Row TMT / PiP	59112
Double Row SMT	59202

Minitek® Unshrouded Stacking Headers

Minitek® Straight Unshrouded Header



Minitek® Vertical PCB Receptacle

Material

- Housing : High Temperature Thermoplastic
- Flammability : UL94V-0
- Terminal: Phosphor bronze
- Plating: up to 0.76 μm (30 $\mu\text{''}$) Gold / GXT over 1.27 μm (50 $\mu\text{''}$) nickel

Environmental

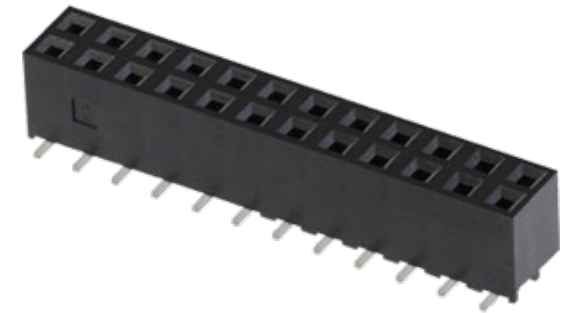
- Operating Temperature: -55°C to +125°C

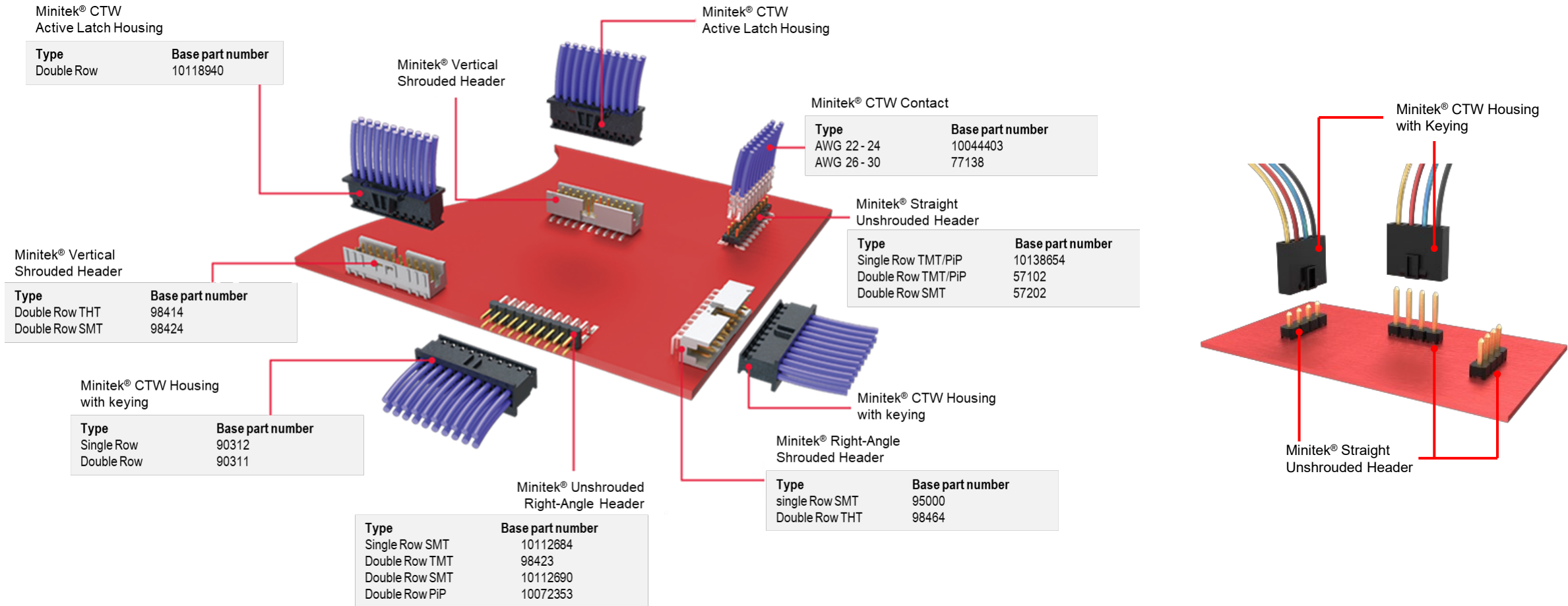
Electrical Performance

- Current rating: up to 2A continuous
- Contact resistance: 20m Ω max.
- Insulation resistance : 1000 M Ω min
- Contact dielectric withstanding voltage: 650V rms

Mechanical Performance

- Mating cycles (durability): 100 - Gold
- Insertion force gold finish contact: 1.8 N
- Withdrawal force (min) gold finish contact: 0.2 N
- Contact normal force: 0,8N
- Contact wiping length: 1.5mm





Material

- Housing : High Temperature Thermoplastic
- Flammability : UL94V-0
- Terminal: Phosphor bronze
- Plating: up to 0.76 μm (30 $\mu\text{"}$) Gold / GXT over 1.27 μm (50 $\mu\text{"}$) nickel

Environmental

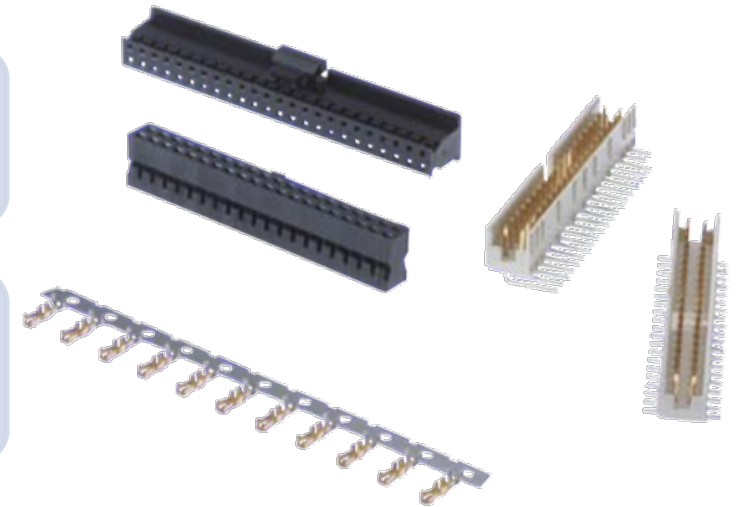
- Operating Temperature: -55°C to +125°C

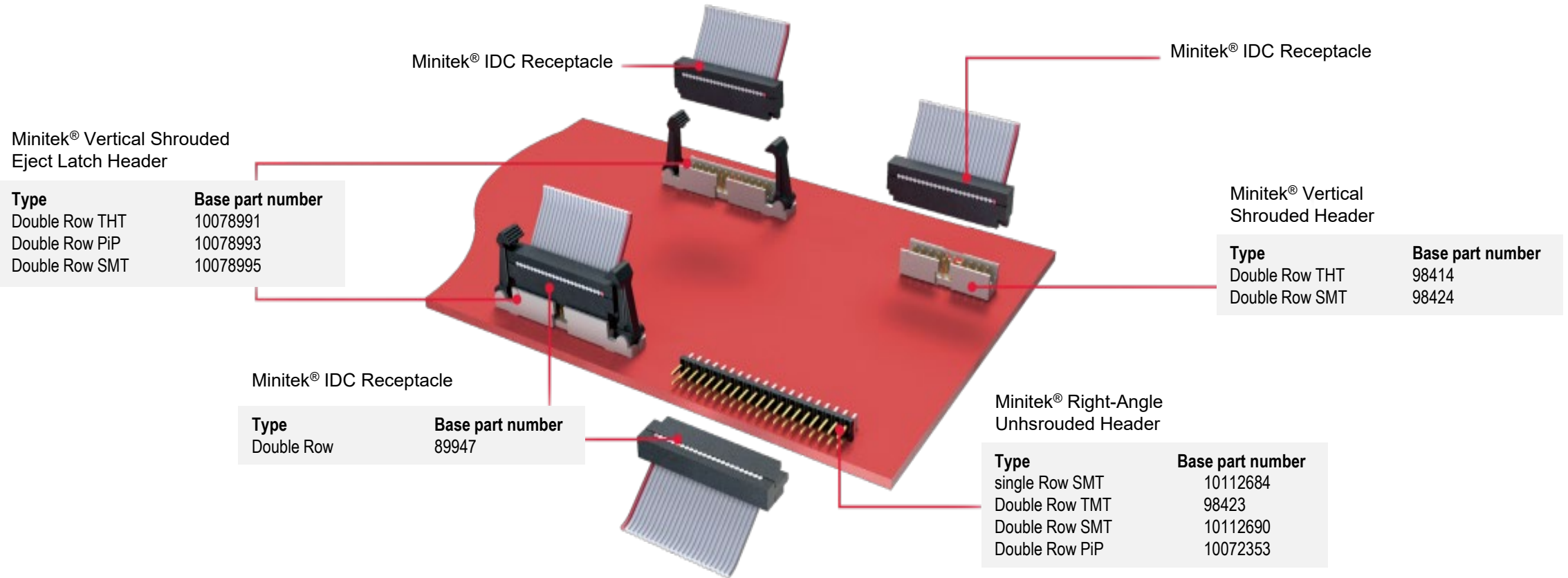
Electrical Performance

- Current rating: up to 2A continuous
- Contact resistance: 20m Ω max.
- Insulation resistance : 1000 M Ω min
- Contact dielectric withstanding voltage: 500V rms

Mechanical Performance

- Insertion force gold finish contact: 1.8 N
- Latching retention force : 15N min (for 2x3 to 2x4 pos.)
- Latching retention force : 25N min for (2x5 to 2x25 pos.)
- Withdrawal force (min) gold finish contact: 0.2 N
- Contact normal force: 0,8N
- Contact wiping length: 1.5mm
- Wire Gauge : 22 to 30 AWG





Material

- Housing : High Temperature Thermoplastic
- Flammability : UL94V-0
- Terminal: Phosphor bronze
- Plating: up to 0.76 μm (30 $\mu\text{"}$) Gold / GXT over 1.27 μm (50 $\mu\text{"}$) nickel

Environmental

- Operating Temperature: -40°C to +125°C

Electrical Performance

- Current rating: up to 1A continuous
- Contact resistance: 20m Ω max.
- Insulation resistance : 1000 M Ω min
- Contact dielectric withstanding voltage: 650V rms

Mechanical Performance

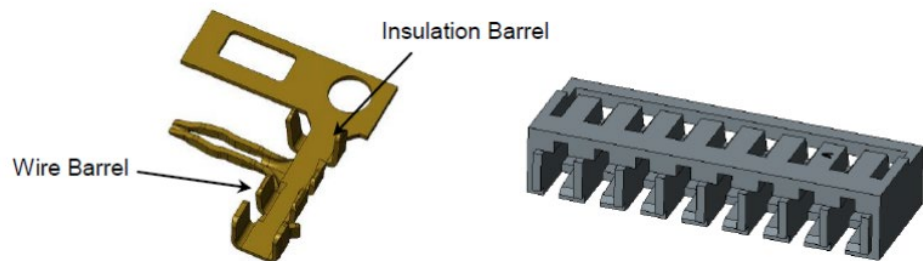
- Insertion force gold finish contact: 1.8 N
- Latching retention force : 30 N
- Withdrawal force (min) gold finish contact: 0.2 N
- Contact normal force: 0,8N
- Contact wiping length: 1.5mm



- Minitek® Board-In connector system is a flexible solution designed for cost efficient & permanent Wire-to-Board applications.
- Minitek® Board-In is a one-piece direct solder to Board solution that provides space and cost savings compared to a two-piece connection system.
- The connector system is currently offered in 2-16 positions and 2.00mm & 2.50mm pitch.
- It covers vertical and horizontal applications.
- Minitek® Board-In is ideal for applications in the following markets: Consumer, Datacom, Industrial & Instrumentation, Automotive

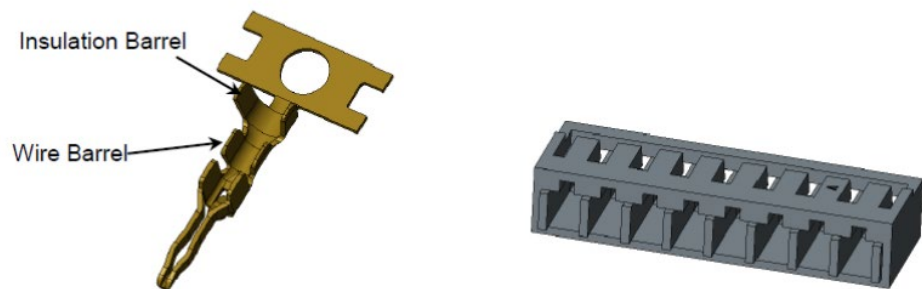
Features	Benefits
Accepts standard through hole soldering methods	More reliable compared to hand soldering
One-piece direct solder-to board assembly	Provides space and cost saving compared to the two-piece connector system
Offered in two pitches and multiple circuit sizes	Design flexibility
Vertical and horizontal configuration	Suitable for applications with limited space
Terminal and housing locking features	Secure connection

Board-In 2,00mm



R/A Type Terminal 10156613

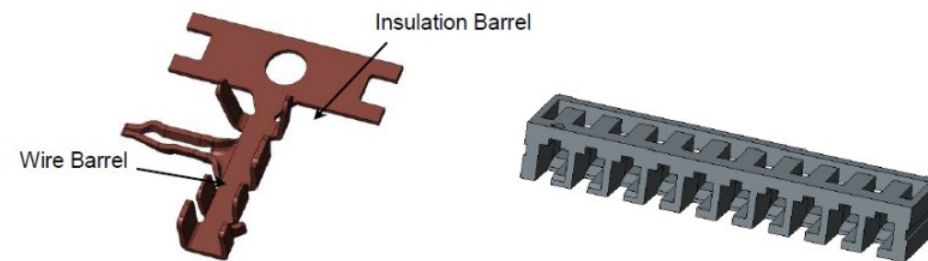
R/A Type Housing 10156612



Vertical Type Terminal 10156615

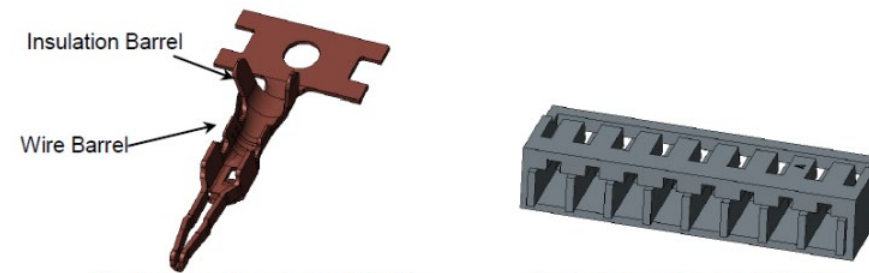
Vertical Type Housing 10156614

Board-In 2,50mm



R/A Type Terminal 10156617

R/A Type Housing 10156616



Vertical Type Terminal 10156619

Vertical Type Housing 10156618

Material

- Housing : High Temperature Thermoplastic
- Flammability : UL94V-0
- Terminal: Phosphor bronze
- Plating: up to 0.76 μm (30 $\mu\text{''}$) Gold / GXT over 1.27 μm (50 $\mu\text{''}$) nickel

Environmental

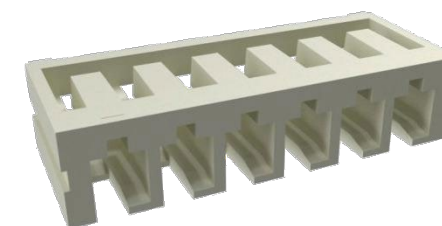
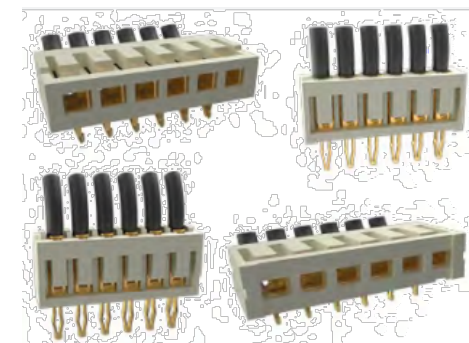
- Operating Temperature: -40°C to +105°C

Electrical Performance

- Current rating: 2A (2,00mm) / 3A (2,50mm)
- Voltage Rating: 250VAC/DC
- Insulation O.D.: 1,30mm max (2,00mm) / 1,70mm max (2,50mm)
- Insulation Resistance: 1000M Ω min

Mechanical Performance

- Terminal/Housing Retention Force: 9,8N min
- Terminal Insertion Force: 9,8N max



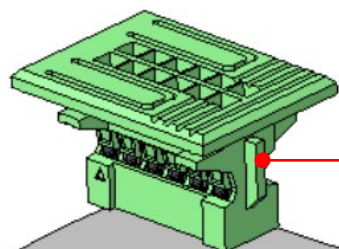
- Minitek® Blind Mate Interface allows to connect headers and receptacle in mezzanine application where there is low visibility at both ends.
- Minitek® Blind Mate Interface allows +/-2,00mm catching for blind mating and +/- 1,00mm misalignment on horizontal axis's
- Minitek® Blind Mate Interface is compatible with multiple manufacturing process and do not need specific industrial tools
- Minitek® Blind Mate Interface ensure secured mating retention and prevents accidental mis mating.

Features	Benefits
Blind mate interface	Allows ±2.00mm catching for blind mating
Floating receptacle option available	Allows ±1.00mm misalignment in x and y axes
Passive locking on housing with low thumb latch operation	Ensure secured mating retention
Fully polarized housings	Prevents accidental mismating
Scoop-proof housings	Ensure terminals and header pins are not damaged from misuse
Available in through hole, PIP and SMT as option	Compatible with multiple manufacturing processes
Existing crimp section and automated crimp tooling from 30AWG to 22AWG	No specific industrial tools required
Glow wire compliant	Complies with International Standard IEC 60335-1 for household appliances
UL flammability	Better safety
RoHS compliant, halogen free and lead-free	Meets environmental, health and safety requirements



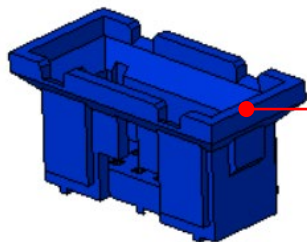
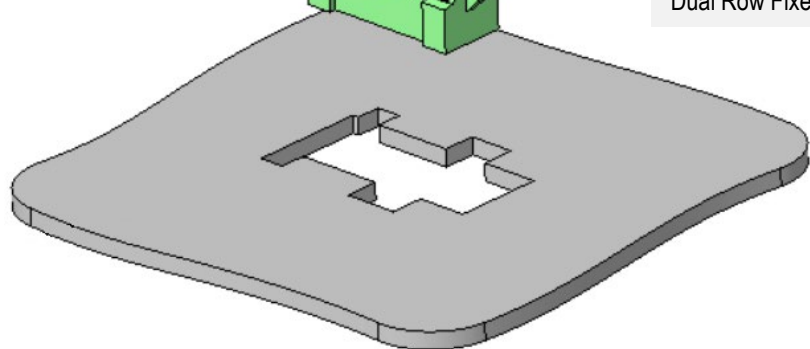
Minitek® CTW Contact

Type	Base part number
AWG 22 - 24	10044403
AWG 26 - 30	77138



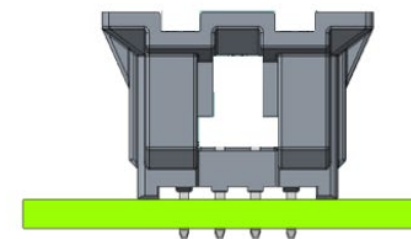
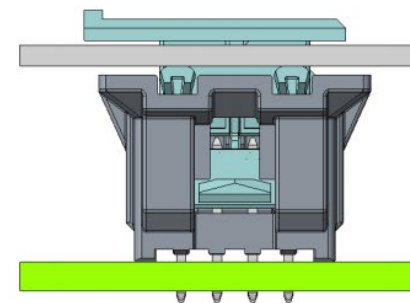
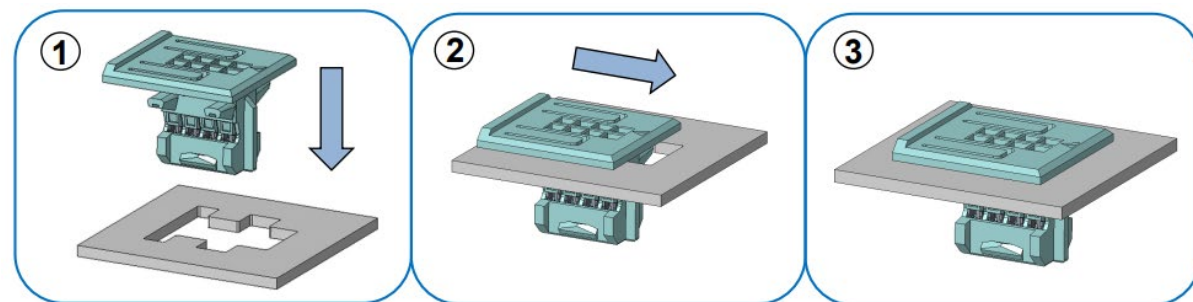
Minitek® BMI Receptacle

Type	Base part number
Dual Row Floating	10148136
Dual Row Fixed	10148139



Minitek® BMI Header

Type	Base part number
Dual Row	10148138



Material

- Housing : High Temperature Thermoplastic
- Flammability : UL94V-0
- Terminal: Copper alloy
- Plating: up to 0.76 μm (30 μin) Gold / GXT over 1.27 μm (50 μin) nickel

Environmental

- Operating Temperature: -40°C to +125°C

Electrical Performance

- Low Level Contact Resistance: 20m Ω max.
- Insulation Resistance: 1000m Ω min.
- Voltage Rating: 200Vrms
- Current Rating: 2A per contact
- Dielectric Withstanding Voltage: 650V AC

Mechanical Performance

- Catching: $\pm 2\text{mm}$ in x and y axes
- Misalignment with Floating Option: $\pm 1\text{mm}$ or 15° in x and y axes, $\pm 0.3\text{mm}$ in z axis
- Terminal Insertion Force: 2N max. per contact
- Durability: 100 mating cycles for gold plating





Industrial

- Industrial Automation
- Instrumentation
- Medical
- Vending Machines



IT/Datacom



- Servers
- Communication Equipment



Automotive

- Electronic Control Systems

- [Datasheet](#) Minitek® 2,00mm Receptacle
- [Datasheet](#) Minitek® 2,00mm SMT Horizontal Headers
- [Datasheet](#) Minitek® 2,00mm Active Latch Housing
- [Datasheet](#) Minitek® 2,00mm Eject Latch Header CTB
- [Datasheet](#) Minitek® 2,00mm PiP Headers
- [Datasheet](#) Minitek® 2,00mm Shrouded Stacking Headers
- [Datasheet](#) Minitek® 2,00mm Unshrouded Vertical Headers
- [Datasheet](#) Minitek® 2,00mm/2,50mm Board-In
- [Datasheet](#) Minitek® 2,00mm Blind Mate Interface
- [Web product landing page](#) Minitek® 2,00mm
- [Web product landing page](#) Minitek® 2,00mm Board-In
- [Web product landing page](#) Minitek® Blind Mate Interface
- [Product Presentation](#) Minitek® 2,00mm
- [Product Specification](#) Minitek® 2,00mm (DPS-12-011)
- [Product Presentation](#) Minitek® 2,00mm/2,50mm Board-In
- [Product Specification](#) Minitek® 2,00mm Board-In (GS-12-1594)
- [Product Specification](#) Minitek® 2,50mm Board-In (GS-12-1595)
- [Product Presentation](#) Minitek® Blind Mate Interface

- Header *Housing with pins (male connector)*
- Receptacle *Female housing*
- Terminal *Crimp-to-Wire contact*
- Vertical *Connection axis perpendicular to the board*
- Horizontal *Connection axis parallel to the board*
- SMT  *Surface-Mount Technology*
- TMT  *Through-Mount Technology*
- PiP *Pin-in-Paste*
- Low-profile *Connector with small height dimensions*
- Bottom entry *Connection through the lateral side of the receptacle*
- Top entry *Connection through the upper side of the receptacle*
- Locating peg *Feature to be positioned on PCB holes for better alignment*

The top portion of the slide features a complex, low-poly geometric pattern in various shades of blue, ranging from dark navy to light sky blue. The pattern consists of numerous overlapping triangles and polygons, creating a textured, crystalline effect.

Thank you