# Minitek® 2.00mm Blind Mate Interface

*Product Presentation*

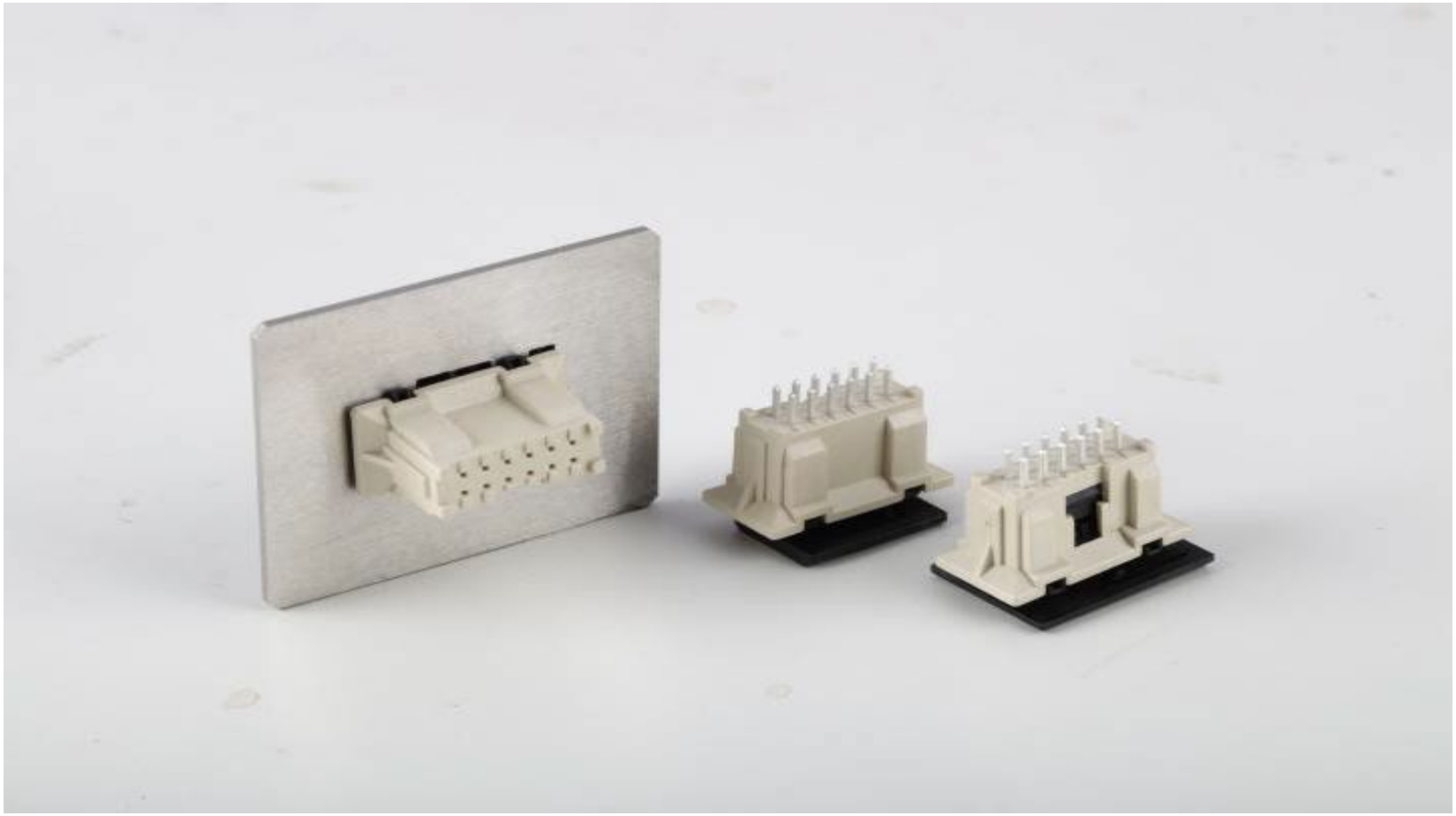
Amphenol Information Communications and Commercial Products

FCi Basics

Amphenol ICC

# Blind Mate Interface (BMI)

FCi Basics





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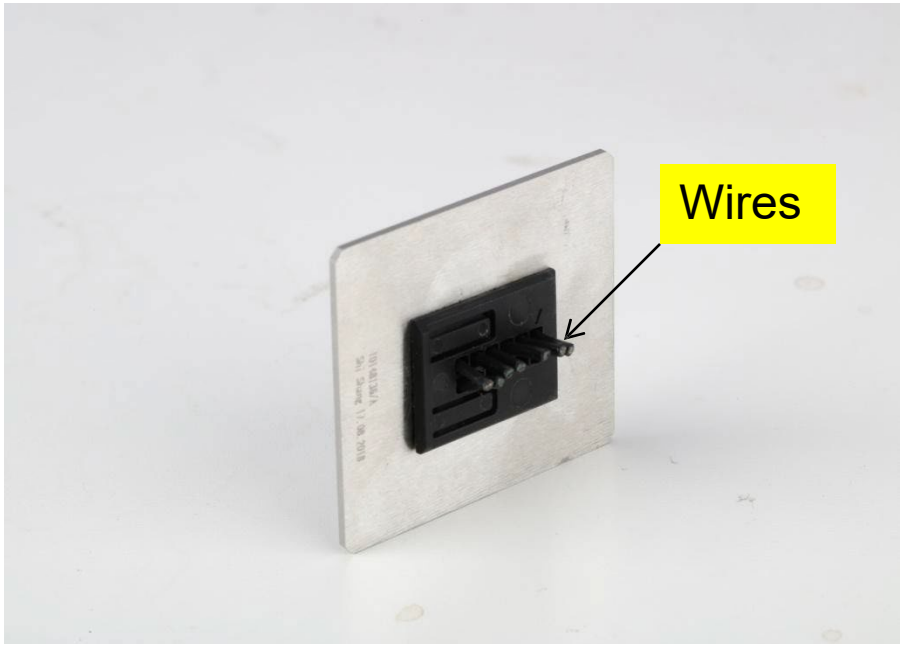
# Minitek® 2.00mm - BMI

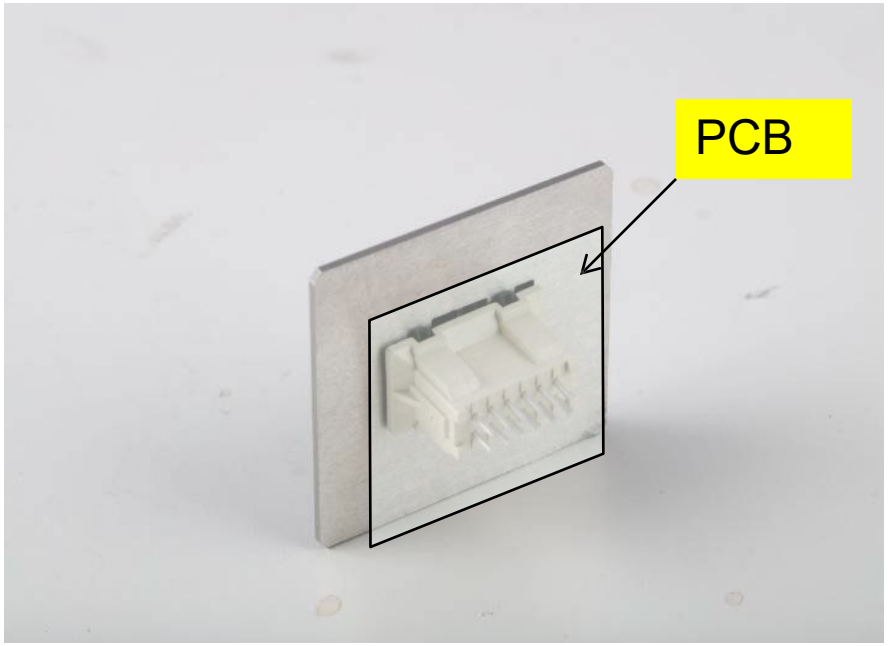
## Product Introduction

FCi Basics

- Blind Mate is primarily a **panel mount** solution made from one receptacle (black) and one header (white)




FRONT (Receptacle)




REAR Side (header)



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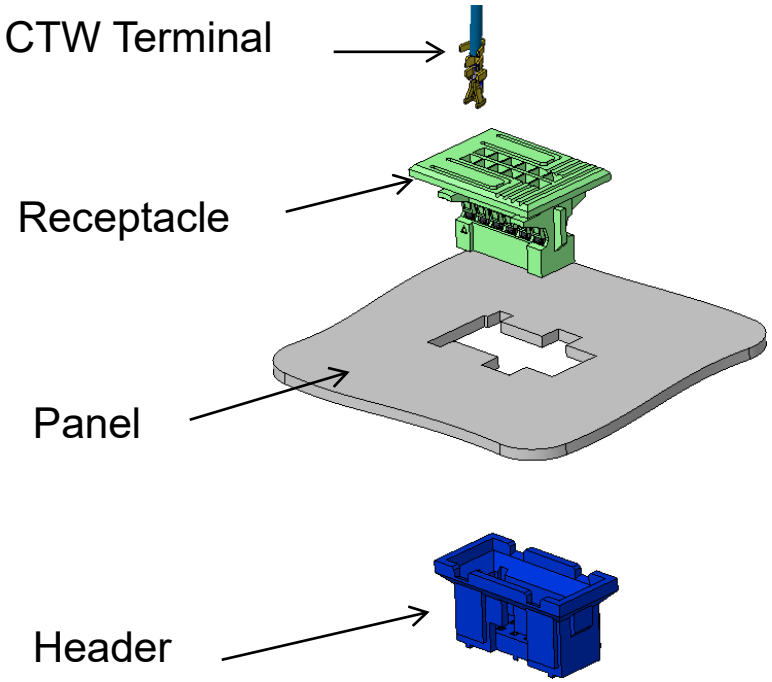
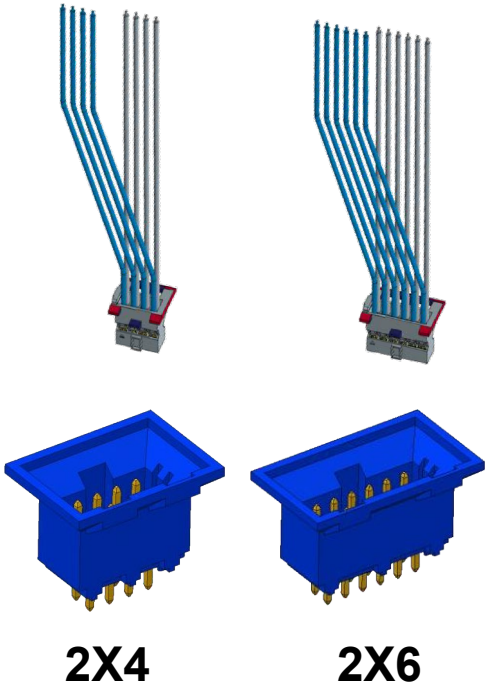
## Exploded view

FCi Basics




- Available in **2X4** and **2X6** positions
- **2A** per contact – all contacts powered
- **200V**
- **-40°C to +125°C**
- **Glow Wire** compliant



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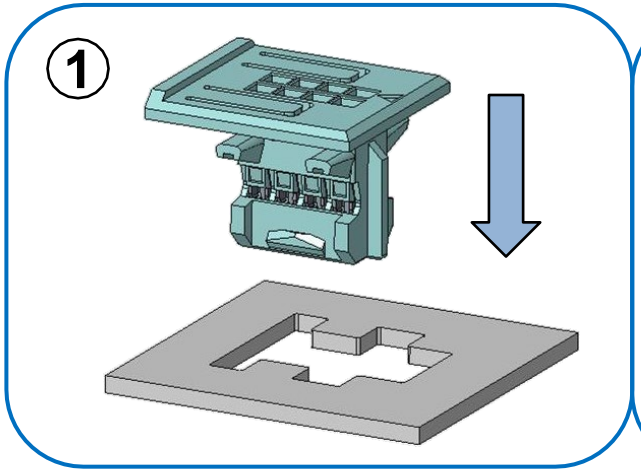
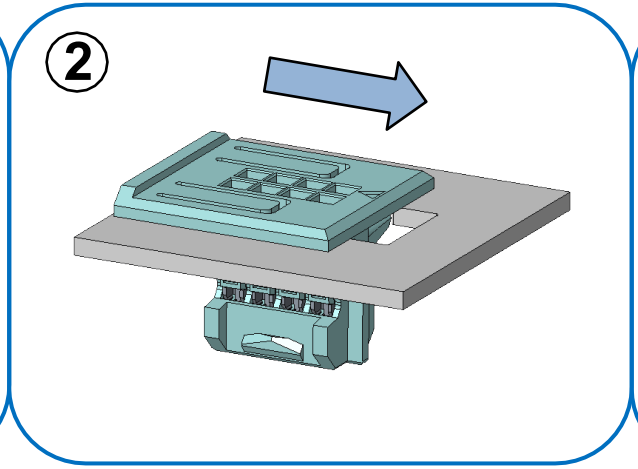
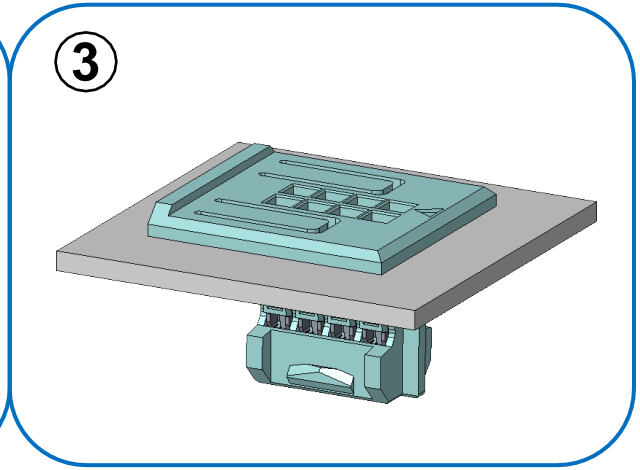
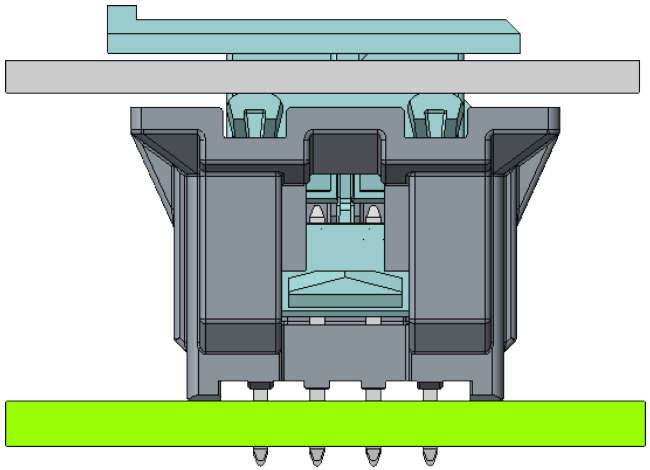
## Mounting instruction

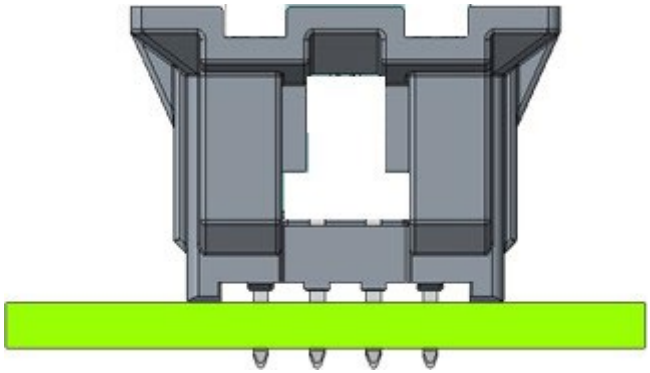
FCi Basics







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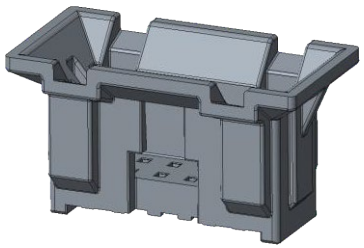
## Unique Customer Value

FCi Basics

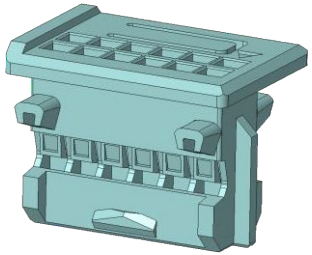
- The product offering is based on 4 components
  - A header which can be used with a fixed or a floating receptacle
  - The fixed receptacle is similar to existing market solutions
  - The floating receptacle is **new** on the market
  - Minitek® CTW terminals

*Header*



P/N : 10148138

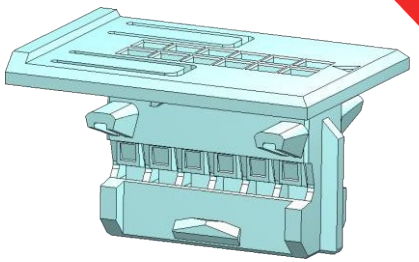
*Fixed receptacle*



P/N : 10148139

NEW

*Floating receptacle*



P/N : 10148136

*CTW terminal*

P/N : 77318 (AWG 26 30)
P/N: 1044403 (AWG 22 -24)



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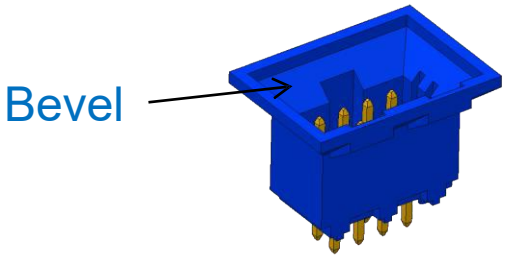
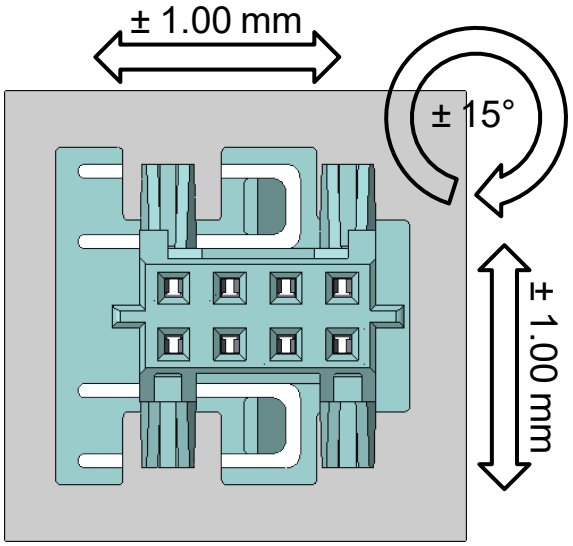
NEW

## Floating Receptacle - Advantage

Most BMI receptacles are fixed on the panel. Whereby misalignment during mating between header and receptacle is being caught up by the bevel of the header: this helps to guide the mating parts to the right position.




In addition to the bevel, Minitek® BMI offers floating allowance on the panel, even when parts are mated.

This feature supports self-alignment of the receptacle, to absorb positioning errors between board and panel.

This is very convenient when several headers have to be plugged in during one mating operation: this eliminates the risk of putting too much stress on the solder tails of the header, and prevents system failures.

# Minitek® 2.00 - BMI

## Technical information

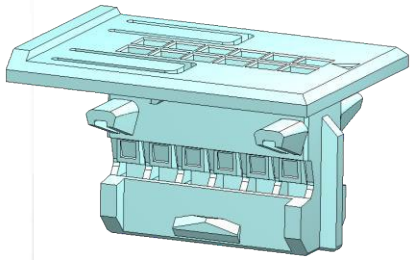
FCi Basics

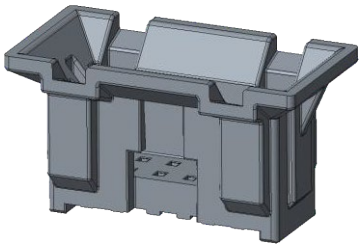
### MATERIAL

- Header Housing: High temperature thermoplastic , natural
- Receptacle Housing: High temperature thermoplastic, black
- Crimping Terminal: Copper alloy
- Plating : Gold/GXT on the contact area, tin on tail. nickel under layer

### ELECTRICAL PERFORMANCE

- Low level contact resistance: 20mΩ max.
- Insulation resistance: 1000mΩ min.
- Voltage rating: 200V rms
- Current rating: 2A/contact
- Dielectric Withstanding Voltage: 650V AC
- Temperature Rise: 30°C max.





NEW

### MECHANICAL PERFORMANCE

- Catching: ±2mm in x and y axis
- Misalignment with Floating Option: ±1mm or 15° in x and y axis, ±0.3mm in z axis
- Terminal Insertion Force: 2N max. per contact
- Durability: 100 mating cycles for gold plating, 10 mating cycles for tin plating

### ENVIRONMENTAL

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

### PACKAGING

- Header : Tube packaging / Tape and Reel
- Receptacle: Bag
- Terminal: Reel

### APPROVALS AND CERTIFICATION

- Glow Wire Ignition Temperature (GWIT) per IEC 60695–2–13
- Glow Wire Flammability Index (GWFI) per IEC 60695–2–12
- UL

### SPECIFICATION

- Amphenol Product Specification: GS–12–1470

### TARGET MARKETS/APPLICATIONS

Data

Industrial

Medical



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## Features & Benefits

FCi Basics

| FEATURES | BENEFITS |
| --- | --- |
| ▪ Fully polarized housings | ▪ Prevents accidentel 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 AWG 22-30 | ▪ 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 |



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# Minitek® 2.00mm - BMI
## Application

FCi Basics

- Industrial & Instrumentation
  - Power converter
  - Power amplifier
- Data
  - Server
  - Data Center
- Medical
  - Laser system
  - Autoclave chamber
  - Magnetic resonance
  - Tomography

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Thank you