



Innovative Solutions for Lighting Applications

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APPLICATIONS OVERVIEW



RotaConnect™



Universal Contacts



Terminal Blocks



Griplet™ Miniature IDC



1.20mm Wire-to-Board



DESIGN NAVIGATOR

	Retrofit Lamps	Indoor Fixtures	Outdoor Fixtures	Signage	Specialty Lighting	Lighting Controls	Max Current Rating (A)	Max Voltage Rating (V)	Min Dielectric Withstand Voltage (V)	Operating Temperature Range (°C)	SMT Compatible	Wire Range (AWG)	Solid Wire	Stranded Wire	Wire-to-Board	Wire-to-Wire	Board-to-Board	Standard
PCB and Wire Connectors																		
BergStik® 2.54mm						3	1500	-65 to +130										UL CSA
Dubox® 2.54mm						3	1000	-65 to +125										UL CSA
Minitek™ 2.00mm						2	200	650	-55 to +125		26 to 30							UL CSA
1.27mm Wire-to-Board						4	125	500	-55 to +125		up to 22							UL CSA
Minitek127® 1.27mm						1	125	500	-55 to +125									UL CSA
1.2mm Wire-to-Board						0.5	50	500	-25 to +85		28 to 30							UL
RotaConnect™						5	125		-40 to +125		22 to 30							UL
Terminal Blocks						7	300	1600			18 to 22							UL
Universal Contacts						2	12		-40 to +85									UL
Griplet™ Miniature IDC									-40 to +125		20 to 36							UL
Power Distribution																		
Minitek Pwr™ 4.2mm						9	600	1500	-40 to +105		16 to 28							UL
Minitek Pwr™ 3.0mm						5	250	1000	-40 to +105		20 to 30							UL



BergStik® 2.54mm

Wire-to-Board, Wire-to-Wire & Board-to-Board Connectors

The BergStik® 2.54mm product family is available in surface-mount, through-hole and Pin-in-Paste versions with single and double row offerings, in straight or right-angle orientation, with 2 to 72 positions. Featuring a “breakaway” design, each connector can be cut or broken to length to suit the application profile. The maximum current rating is 3A per contact.

Key Features & Benefits

- High Temperature Plastic
- Selective Plating
- Custom sizes to meet your specific design requirements
- Wide variety of stack heights in 0.5mm increments



Dubox® 2.54mm

Board-to-Board Connectors

The Dubox® 2.54mm product family offers an extensive range of through-hole and surface-mount options, including single or double row in either straight or right angle orientation from 2 to 50 positions, with a maximum current rating of 3A per contact.

Key Features & Benefits

- Dual beam contact design for highly reliable electrical performances
- The Dubox® contact has a pre stressed, dual beam design to enable low insertion force
- Mates with very short pins (5mm)
- Selective plating
- Floating solder tails self center on circuit pads and assure coplanarity
- 4-wall contact design for signal protection



Minitek™ 2.00mm

Wire-to-Board & Board-to-Board Connectors

The Minitek™ 2.00mm board-to-board and wire-to-board connector range includes PCB Card connectors, Shrouded and Unshrouded headers and IDC/CTW receptacles. The connectors are available in surface mount, through hole, and in Pin-in-Paste, double row versions, in either straight or right angle orientation from 4 to 50 positions. The maximum current rating is 2A per contact.

Key Features & Benefits

- Full modular system: Everything is intermateable & it is the most complete 2.00mm system
- Lowest profile eject latch header
- Lowest coplanarity at 0.1mm
- Operating Temperature as high as 125°C
- New optional active latch Pin-in-Paste headers
- Lowest profile strain relief

PCB AND WIRE CONNECTORS



1.27mm Wire-to-Board

Wire-to-Board Connectors

FCI's new 1.27mm Wire-to-Board connectors are specially designed to meet the harsh industrial market applications. They are developed based on existing proven design controls. These connectors are repairable in field.

Key Features & Benefits

- Existing / proven crimp section & (automated) crimp tooling up to AWG22
- Contact section suitable for 1.27mm pitch
- Tight cable & wire routing
- 4N normal force for vibration & Tin separable interface
- >70N connector locking strength
- Multi contact retention
- Terminal Positioning Assurance
- Poka Yoke polarization



Minitek127® 1.27mm

Wire-to-Board & Board-to-Board Connectors

Minitek127® is an extensive modular range of 1.27mm pitch connectors for all types of wire-to-board and board-to-board applications. It includes straight and right angle, surface mount and through mount, pin headers and board receptacles in different plating variations and position numbers up to 100. The product line also include IDC version.

Key Features & Benefits

- One of the most fully configured systems available
- Intermateable with other common designs, not a proprietary system



1.2mm Wire-to-Board

Wire-to-Board Connectors

FCI's new 1.2mm pitch wire-to-board connectors are low profile (mated height of 2.50mm) and compact with pin count availability for 3, 4 and 6 pin counts. The plug and receptacle uses a frictional mating method to provide the retaining function to enable up to 20 mating cycles. The low profile and compact design of the connector gives its advantage in applications where space is tight and the enclosed receptacle profile make sure that the side entry matings are easy in tight spaces. The additional polarized key slots prevent any misalignment issues between the plug and receptacle.

Key Features & Benefits

- Low profile
- Compact
- Polarized mating



RotaConnect™ Rotatable Wire-to-Board & Board-to-Board Connectors

Wire-to-Board & Board-to-Board Connectors

The unique rotatable wire-to-board and board-to-board SMT connectors can be used to support perpendicular, coplanar and angled connections, in multiple mating/un-mating directions. They are available in 2 and 4 positions.

The hermaphroditic "mates to itself" design enables mating at any angle between +90° and -60° which enables connector to be placed anywhere on PCB. This design allows the use of a single part number which will comprise both male and female contacts.

The high temperature grade housing material is reflow soldering compatible. The tape and reel packaging permits vacuum pick and place application.

Key Features & Benefits

- Reliable dual beam contact
- Hold down for PCB retention
- Pins are protected by housing
- Floating and Rotation possible
- RoHS Compliant



Terminal Blocks : NQ SMT Wire-to-Board Spring Clamp System

Wire-to-Board & Wire-to-Wire Connectors

With a low profile of 5.0mm height, the NQ SMT Spring Clamp is highly ideal for LED devices and other compact applications, such as LED lighting modules. It is also suitable for consumer electronics, factory automation equipment, and applications which require easy-to-use wire insertion and extraction methods. Two contact pitch sizes are available, 2.5mm with a current rating of 5A (150V), and 4.0mm with a current rating of 7A (300V). Both models are end-to-end stackable and feature 1 to 10 contact positions.

Key Features & Benefits

- User-friendly push-button level latch is engineered for effortless wire removal
- Compact industry-standard PCB pattern layout makes it a noteworthy space-saver
- Saves space and is drop-in compatible with certain competitive products



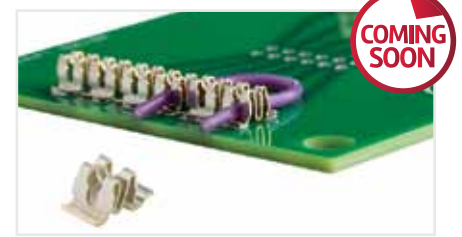
Universal Contacts

Board-to-Board Connectors

A Universal Contact is an independent SMT contact which provides an electrical connection between a device and a PCB. It is manufactured as a single piece stamped product, incorporating pre-load and anti-lift features. It can be used to connect a number of device components in any direction and configuration using the same interface.

Key Features & Benefits

- Available in working heights ranging from 0.45mm to 3.40mm that meet customer multiple applications
- Beryllium Copper Alloy
- Contact Area Plating: 40u" gold plating, 40u" GXT plating, Gold Flash and specified plating depends on customer requirement
- "Side wings" protect the active parts of the contact which prevent contact from overstressing and potential damage
- Domed contact point allows good normal force and LLCR (Low Level Contact Resistance)
- Solderwell that prevents solder from going into the contact spring
- Reel and tape package allows SMT process



Griplet™ Miniature IDC Connectors

Wire-to-Wire Connectors

FCI's new Griplet™ Miniature Insulation Displacement Connectors (IDC) are specially designed to meet the harsh industrial market applications. They are tested to automotive levels of reliability on shock, vibration and temperatures cycling.

The IDC contact provides a gas-tight connection to the PCB for long term reliability and the connector housing captures the wire insulation for positive strain relief.

Key Features & Benefits

- Height of 3.7mm and a footprint of 4.0mm x 6.1mm
- Low profile and compact designs suitable for area where space is tight
- Designed for a stackable pitch up to 12 positions
- Optional thru and end caps lock in place to provide maximum strain relief
- High temperature insulator capable to 260°C reflow soldering processes
- Ease of installation
- Low and high volume assembly tools to match production volume

▶ POWER DISTRIBUTION



Minitek Pwr™ 4.2mm

Wire-to-Board, Wire-to-Wire & Wire-to-Panel Connectors

Minitek Pwr™ 4.2mm connectors are designed for power application with current rating up to 9A per circuit. Available in dual row with 2 to 24 circuits for wire-to-board, wire-to-wire and wire-to-panel mount applications.

Crimp, snap-in plug and receptacle contacts are used to terminate AWG 16–28 wires. Plug and receptacle housings allow wire-to-wire and wire-to-board configurations.

Crimping and removal tools are available for wire harness assembly. Headers assemblies for wire-to-board in interconnections include vertical and right angle components. These wave soldering headers are available in through-hole configurations. A right angle version cable receptacle is also available.

Key Features & Benefits

- Fully isolated terminals to prevent terminal from potential damage during operation
- Positive locking on housing with low thumb latch operation
- Polarized mating geometry to ensure that the header and receptacle are correctly mated
- Scoop-proof housings ensures that the terminals are not damaged for angled mating
- High retention force in housing
- Low insertion force for installation of crimped terminal
- Special right-angle type receptacle ideal for cable routing within 1U or 2U equipment systems
- Support various 1.6mm PCB applications



Minitek Pwr™ 3.0mm

Wire-to-Board & Wire-to-Wire Connectors

Minitek Pwr™ 3.0mm connectors are designed for power application with current rating up to 5A per circuit. Available in dual row with 2 to 24 circuits for Wire-to-Wire and Wire-to-Board applications.

Crimp, snap-in plug and receptacle contacts are used to terminate AWG 20–30 wires. Plug and receptacle housings allow Wire-to-Wire and Wire-to-Board configurations. Crimping and removal tools are available for wire harness assembly.

Header assemblies for Wire-to-Board interconnections include vertical and right-angle components. These wave soldering headers are available in through-hole configurations.

Key Features & Benefits

- Fully isolated terminals to prevent terminals from potential damage during operation
- Positive locking on housing with low thumb latch operation
- Polarized mating geometry to ensure that header and receptacle are correctly mated
- Scoop-proof housings to ensure that the terminals are not damaged for angled mating
- High retention force in housings
- Low insertion force for installation of crimped terminal
- Support various 1.6mm PCB applications

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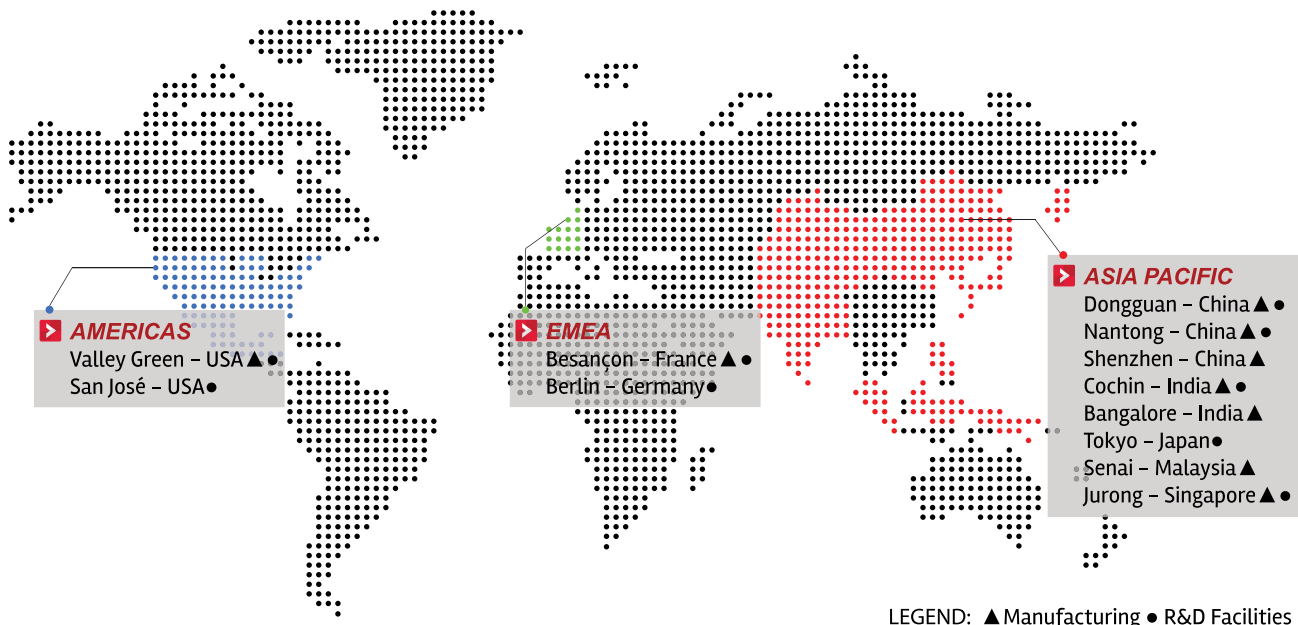
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When you purchase a product from FCI, you can also feel comfortable knowing that you're being responsible.

FCI MANUFACTURING AND R&D FACILITIES



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