

DUFLEX

2.54mm Pitch

OVERVIEW

FCI, a leader in flex circuit connectors offers the most innovative and complete range of products in the industry. FCI offers products in LIF (low insertion force) and ZIF (zero insertion force), top and bottom contact options, vertical and right angle orientations, surface mount and through hole terminations in contact spacing options all the way down to 0.2mm with finer pitch products on the way.

Additional features, such as optional cable locks and additional mounting devices, insure that FCI has a solution for almost any application, no matter how demanding.

As your connection to innovation, FCI continues to bring you unique solutions that not only give you the footprint you need but help to maximize the quality level of your application. Many of our flex circuit connectors offer ZIF with prehold, which applies a small retention force on the cable to hold it in place until the actuator is locked. FCI introduced the first flex connector with a back side flip actuator that allows the user to insert the flex cable and lock the actuator with one hand. FCI improved that feature on many products by modifying the connector housing to provide visual confirmation that the flex cable is mated properly. FCI was also the company that first brought you the option of an FFC/FPC connector under 1mm in height. These features combine to insure your application has the highest quality possible when it leaves your site.

Duflex™ connectors represent a low cost and reliable solution for terminating FPC/FFC and membrane touch switches. Designed for use on a 2.54mm grid the Duflex connector combines the advantage of the well proven Dubox™ receptacle with the assembly speed of IDC (Insulation Displacement Contact) termination techniques. Available in single and double row versions with up to 36 contacts per row.



FEATURES & BENEFITS

- Reliable dual beam contact design features pre-stressed contact beam for low insertion force
- Ideal for large-volume users
- Mass-termination reduces overall costs and time
- Contacts fitting all housing styles ensures versatility and minimizes stock values

TARGET MARKETS / APPLICATIONS

- Industrial control & equipment
- Business & retail equipment

TECHNICAL INFORMATION

- Cable Termination: Mates with 0.62mm square or round pins as short as 5mm
- Cable type: FCC/ FPC
- Height of housing: 3.8mm for single row and 6.34mm for double row
- Gold or tin plating
- Accommodated cable thickness: 0.3 +/- 0.05mm (0.012±0.0001 inch)

PART NUMBER

Housing

6XXXX

Description	Part Number
Single row housing	67013
Double row housing	66987

Number of contacts per row
2 – 36

Contact

76785

Packaging	01
15000 per cardboard reel	01
3000 per cardboard reel	11

Plating	3
0.75µm gold; Contact area, tin-lead cable area, 0.30N min/0.6N max. insertion force	3
5.00µm tin-lead; Contact area, tin-lead cable area, 0.30N min/0.6N max. insertion force	4

FFCDUFLEX073EA4

CLINCHER™

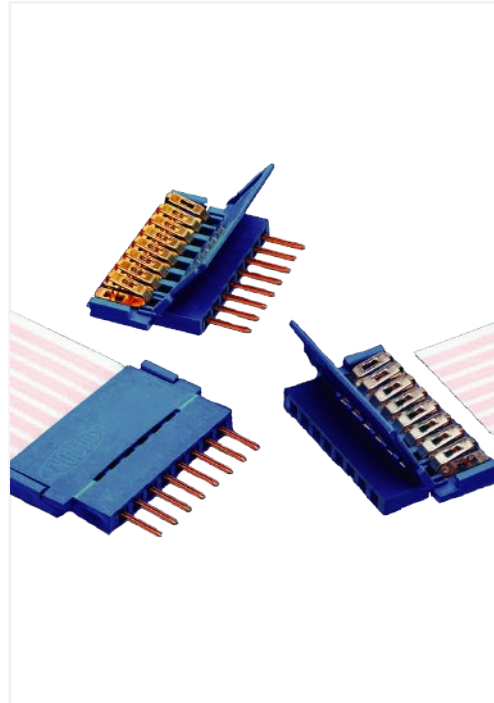
Connector System for Flexible Circuitry (0.100in./ 2.54mm pitch)
Maximum reliability; Low applied cost

OVERVIEW

The CLINCHER™ connector family includes single-row pin and receptacle connectors designed for termination to flat flexible circuitry. Products are available for Flat Flexible Cable (FFC), Flexible Printed Circuit (FPC), and Conductive Ink Circuitry (CIC).

The connectors include features that optimize reliability at both the termination and disconnect interfaces. “Clinch” cable termination produces gas-tight, contamination-free connections to each conductor. The receptacle connectors utilize FCI’s proven and highly-reliable Mini PV™ contact design. Complementary shrouded PCB headers provide options for latching and proper connector alignment.

Contacts are pre-loaded to connector housings enabling mass termination to unprepared cable. The CLINCHER™ connector mass termination design accelerates cable assembly processes and reduces costs.



FEATURES & BENEFITS

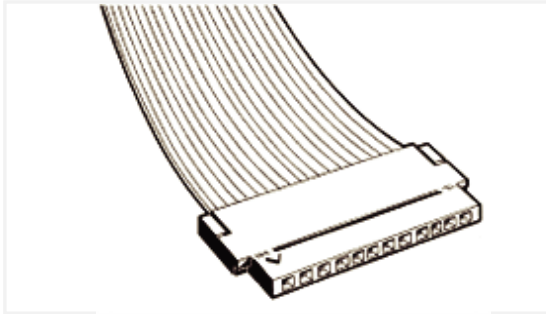
- “Clinch” cable termination provides four gas-tight, contamination-free contact points to each conductor
- Receptacle design features highly-reliable Mini PV dual-metal contacts
- Mass termination to unprepared cable reduces assembly costs
- Housing window permits crimp inspection to verify proper termination
- Receptacle openings feature a beveled “lead-in” to reduce risk of stubbing with mating pins
- Connector sizes range from 2 to 34 positions
- Polarization options aid proper alignment and mating
- Positive-locking, latching options assure secure mating to industry-standard headers for severe applications
- Economy two-wall PCB headers provide passive proper termination
- Receptacle openings feature a beveled “lead-in” environmental regulations

TARGET MARKETS / APPLICATIONS

- Appliances and White goods
- Membrane Switches and Electronic Displays
- Industrial and Instrumentation
- Medical
- POS equipment
- Hand-held terminals

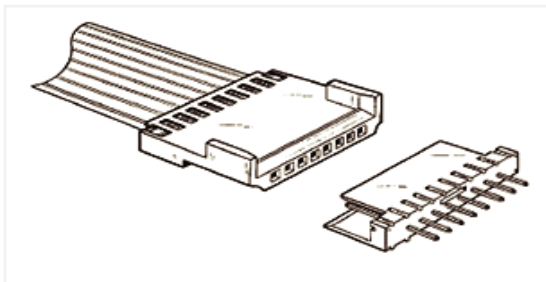
CLINCHER™ RECEPTACLES

RECEPTACLE STANDARD SERIES 65801



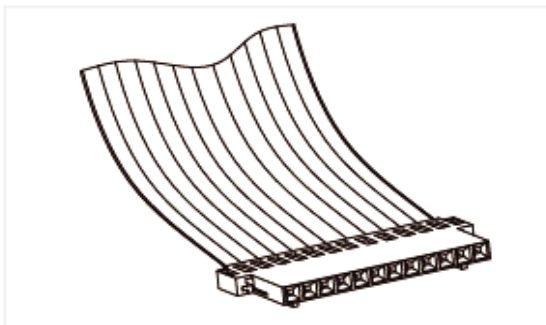
- Positions available: 2 through 32
- Plating Options: Gold/GXT or lead-free pure tin
- Mates best with: Clincher Pin Connectors Series 66226 or FCI Mini-latch pin connectors or BergStik™ / equivalent .025in. sq. posted. 0.100in. pitch un-shrouded headers
- For part numbers and technical information, search on: Base part number 65801

RECEPTACLE OUTSIDE BAR POLARIZED WITH PASSIVE LATCHING SERIES 67516



- Positions available: 2 through 16
- Plating Options: Gold/GXT or lead-free pure tin
- Mates best with: Clincher PCB Pin Headers Series 95735, 95736
- For part numbers and technical information, search on: Base part number 67516

RECEPTACLE INSIDE BAR POLARIZED SERIES 10027313



- Positions available: 6 through 34
- Plating Options: Gold/GXT or lead-free pure tin
- Mates best with industry standard PCB Pin connectors or BergStik™ / equivalent .025in. sq. posted, 0.100in. pitch un-shrouded headers
- For part numbers and technical information, search on: Base part number 10027313

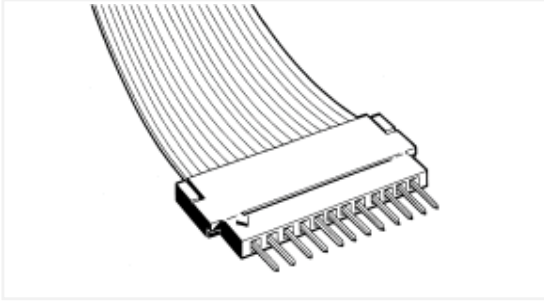
RECEPTACLE INSIDE BAR POLARIZED WITH LATCHING SERIES 10022753



- Positions available: 6 through 34
- Plating Options: Gold/GXT or lead-free pure tin
- Mates best with industry standard PCB Pin connectors
- For part numbers and technical information, search on: Base part number 10022753

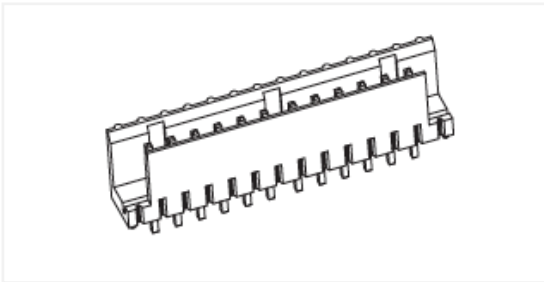
CLINCHER™ PIN CONNECTORS

RECEPTACLE STANDARD SERIES 65801



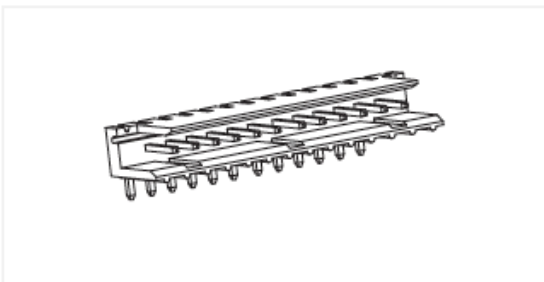
- Positions available: 3 through 14
- Plating Options: Gold/GXT or lead-free pure tin
- Mates best with: Clincher™ Receptacle, Standard Series 65801; FCI Mini-latch/Mini-PV™ Connectors
- For part numbers and technical information, search on: Base part number 66226

RECEPTACLE OUTSIDE BAR POLARIZED WITH PASSIVE LATCHING SERIES 67516



- Positions available: 2 through 16
- Plating Options: Gold/GXT or lead-free pure tin
- Mates best with Clincher™ Receptacle, Outside-bar polarized with Passive Latching Series 67516
- For part numbers and technical information, search on: Base part number 95735

RECEPTACLE INSIDE BAR POLARIZED SERIES 10027313



- Positions available: 2 through 16
- Plating Options: Gold/GXT or lead-free pure tin
- Mates best with Clincher™ Receptacle, Outside-bar polarized with Passive Latching Series 67516
- For part numbers and technical information, search on: Base part number 95736

TECHNICAL INFORMATION

MATERIALS

- Housings: Polypropylene UL 94 V-0, Blue
- Contact body base metal: Receptacles: Cupro-nickel; Pin Headers: Phosphor Bronze
- Contact spring base metal: Beryllium Copper
- Plating, contact spring: 3u Gold/GXT or 10u lead-free

ELECTRICAL PERFORMANCE

- Contact resistance (LLCR) main contacts: 10 mΩ max; 20 mΩ max after environmental exposure
- Insulation Resistance: 5000 MΩ min
- Withstanding voltage: 1000 VAC RMS
- Current Rating: 2.0 amp continuous per contact

MECHANICAL PERFORMANCE

- Mating and Un-mating force: 300 grams max per contact (does not include latching force)
- Latch retention: 4 lbs minimum
- Contact retention: 30 grams min per contact
- Cable retention: 10 lbs per inch of cable width.
- Contact durability: 100 mating cycles

SPECIFICATIONS

- Cable
 - Specification: IPC Standard, FC-220 B Cables type A or B, tolerance class IV
 - Cable thickness: 0.33mm (0.013in.) max including insulation
 - Insulation material: Mylar® or KAPTON® Polyimide
 - Conductor thickness: 0.076 +/- 0.013mm (0.003 +/- 0.0005 in) 305 gr/m²
 - Conductor width: 1.57 +/- 0.07mm (0.062 +/- 0.0003 in)
 - Additional Cable Specifications: See technical drawings: TA-264, TA-371
 - Product Specification: BUS-12-021, BUS-12-022

PACKAGING

- Anti-static Trays

APPLICATION DATA

- TA-372, TA-264, TA-371

CLINCHER™ CONNECTOR SYSTEM FOR FLEXIBLE

APPLICATION TOOLING

PV-219E Semi-Automatic Application Machine

- For mass-terminating both pin and receptacle Clincher connectors to flat flexible circuitry or flat conductor flat cable
- Bench model
- Pneumatically operated
- Tooling is adjustable for single-row housing sizes
- Quick changeover for different housing sizes
- Tooling is adjustable for single-row housing sizes
- Microprocessor controlled
- Machine PN 166652-001



HT-0274 Hand Tool

- For terminating certain pin or receptacle Clincher connectors to flat flexible circuitry or flat conductor cable
- Terminates at all positions
- Terminates 67516 series only
- Lightweight and rugged
- Simple to operate
- Lightweight and rugged
- Tool PN HT-0274



HT 270 Hand Tool

- For terminating certain pin or receptacle Clincher connectors to flat flexible circuitry or flat conductor cable
- Terminates 2, 3, or 4 positions at one time
- Ratchet handle assures complete crimp cycle
- Lightweight and rugged
- Simple to operate
- Lightweight and rugged
- Tool PN HT 270



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