

# **ROTACONNECT® ROTATABLE BOARD-TO-BOARD CONNECTOR**

#### **OVERVIEW**

FCI extends the RotaConnect® Board-to-Board (BTB) range with a pegged version. The locating pegs aid simple placement. This eliminates the hold-down and hence will help customer save the space between connectors on the PCB.

The RotaConnect® BTB range is a unique rotatable Board-to-Board SMT connector that can be used to support perpendicular, coplanar and angled connections, in multiple mating and unmating directions.

The hermaphroditic "mates to itself" design enables mating at any angle between +90° and -60°, enabling the connectors to be placed anywhere on the 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 solder compatible. Tape and reel packaging permits vacuum pick and place application.

With this extension, FCI's RotaConnect® BTB range offers 2 and 4 positions with hold-down and locating peg options.



#### **FEATURES**

- · Hermaphroditic "mates to itself" design
- Mates under any angle  $+90^{\circ}$  and  $-60^{\circ}$
- Header contact contains a coined hole, the center of the hole
  Connection Reliability is the intended rotation point
- · Reliable dual beam contact
- Receptacle contact will guide itself into the center of the hole Self-guided features prevent mis-mating and assure
- · Pins are protected by housing
- · Hold-down option
- · Locating peg option

### **BENEFITS**

- · Eliminates the need for both a header and receptacle for Board-to-Board applications
- Angled connection is not an issue, as connectors can be placed anywhere on the PCB
- correct counterpart positioning
- · Prevents pin damage during connector mating
- · Better retention onto the PCB
- Simplify positioning even in manual assembly condition

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# **TECHNICAL INFORMATION**

#### **MATERIALS**

• Housing: High-Temperature thermoplastic UL94V-0

• Contact: Copper Alloy

• Plating:  $GXT^{\text{\tiny{IM}}}$ 

#### **ELECTRICAL PERFORMANCE**

Current Rating: up to 5AOperating Voltage: 125V

#### **ENVIRONMENTAL**

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

#### **MECHANICAL PERFORMANCE**

• Durability: ≤ 20 mating cycles

• Mating Angle: between +90 $^{\circ}$  and -60 $^{\circ}$ 

## **SPECIFICATIONS**

• Test specifications EIA 364 and IEC test methods

#### **APPROVALS AND CERTIFICATIONS**

• UL E66906

## **PACKAGING**

· Tape and Reel

#### **TARGET MARKET/APPLICATIONS**

- Industrial
  - Control boards
  - Sensors, Actuators
  - Rigid LED strips
  - Automotive lighting
  - Channel lettering
  - Lighting luminaries

# **PART NUMBERS**

| Description  | No. of Contacts | Termination | Contact Type     | Part Number    |
|--|-----------------|-------------|------------------|----------------|
| 2 Position Hermaphroditic Rotatable<br>Board-To-Board Connector                    | 2               | SMT         | 1 Male, 1 Female | 10120045-200LF |
| 2 Position Hermaphroditic Rotatable<br>Board-To-Board Connector with Locating Pegs | 2               | SMT         | 1 Male, 1 Female | 10120045-201LF |
| 4 Position Hermaphroditic Rotatable<br>Board-To-Board Connector                    | 4               | SMT         | 2 Male, 2 Female | 10120045-400LF |
| 4 Position Hermaphroditic Rotatable<br>Board-To-Board Connector with Locating Pegs | 4               | SMT         | 2 Male, 2 Female | 10120045-401LF |