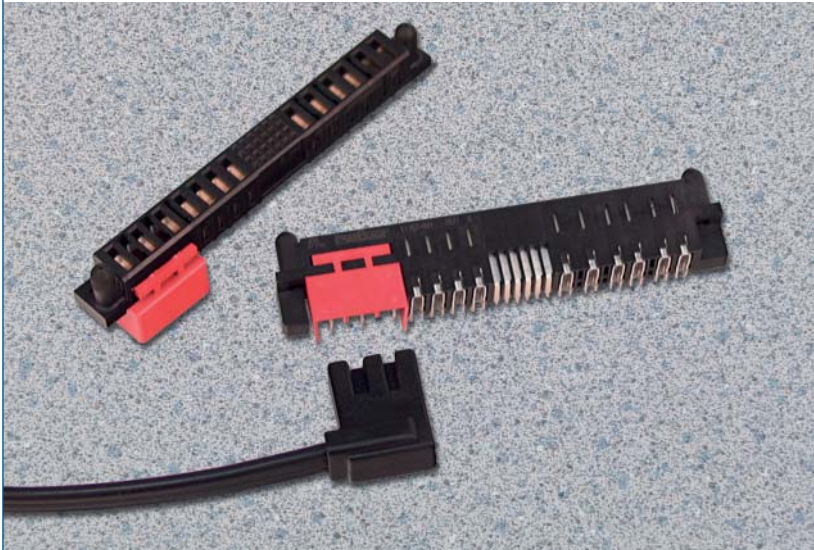




# PwrBlade<sup>®</sup> Power Distribution Connector System

## AC Cable Port Connector



## Description

The introduction of the PwrBlade<sup>®</sup> AC Cable Port Connector expands the PwrBlade<sup>®</sup> product line and offers customers with increased system design flexibility and reduced cost. The AC Cable Port Connector integrates AC Line Voltage input and DC output into a single connector while separating the AC voltages from the PCB. For this configuration, only a single connector is required for pluggable Power Supplies.

The AC Cable Port Connector consists of both AC (input) and DC (output) power contacts and signal contacts and are available in vertical and right angle Receptacles. A shrouded AC Cable port (shown above in red) insulates and polarizes the AC cable. In addition, FCI can supply the AC cable assembly to meet specific application needs. The PwrBlade<sup>®</sup> Connector System, based on a modular product design and manufacturing process, provides ultimate design flexibility, reduces applied cost, and meets a variety of application needs.

<http://www.fciconnect.com>

Americas Tel.: 800 237 2374

717 938 7200

Europe Tel.: 33 1 39 49 21 83

Asia/Pacific Tel.: 65 549 6666

## Features

- One-piece connector for AC (input) and DC (output)
- Segregated AC input contacts (cable pass through)
- Cable port shrouded for protection
- Locking bar for contact retention
- Available in right angle and vertical receptacles
  - Vertical receptacle available in press fit
  - Right angle receptacle available in solder
- FMLB contacts allow up to 3 levels of power and signal sequencing - 2 levels for power and 2 levels for signal (FMLB for cable port contacts also available)
- Wide variety of configurations for custom design

## Benefits

- Bridges power from outside source through connector interface
- Modular product design and manufacturing process allow product flexibility
- Reduces applied cost
- One-piece pluggable power supply interface

## Target Markets

- Data Com
- Telecom
- Industrial and Instrumentation

## Target Applications

- Servers
- Fault-tolerant computers
- Hot-swap redundant N+1 Power distribution systems
- Distributed Power



# PwrBlade<sup>®</sup> Power Distribution Connector System

## Technical Features

### Materials

- Housing: Glass-filled high temperature nylon
  - Color: Black
- Shroud: Glass-filled high temperature nylon
  - Color: Red

### Contacts

- Power contacts: Copper based alloy
- Signal contacts: Copper based alloy

### Plating

- All contacts: 0.76  $\mu\text{m}$  (30  $\mu\text{in.}$ ) gold over 1.27  $\mu\text{m}$  (50  $\mu\text{in.}$ ) nickel

## Electrical Performance

- Insulation resistance: 10 M $\Omega$  min.
- Withstanding voltage (power): 2,500V DC
- Withstanding voltage (signal): 1,000V DC
- Current rating: 48 A for single-powered contact; derated to 30 amps in a system
- Contact resistance: 2.0 m $\Omega$  max. at rated power

## Technical Documents

- Product Specification – GS-12-149
- Application Specification – BUS-20-067
- PwrBlade<sup>®</sup> Worksheets for custom design or layout
  - 51900 – AC Cable Port R/A Receptacle
  - 51901 – AC Cable Port Vertical Receptacle

<http://www.fciconnect.com>

## Mechanical Performance

- Mating force: 12 lbs. typical for 11 power, 24 signal configuration

## Tooling

- For Press Fit tooling contact your local FCI Sales Representative

## Part Numbers

### AC Cable Port Connector Family Print Numbers

#### AC Cable Port R/A Receptacle

Part Number	Configuration
51894-YYY	Power+Signal+Power+Cable
51919-YYY	Power+Cable
51921-YYY	Signal+Power+Cable
51923-YYY	Power+Signal+Cable

#### AC Cable Port Vertical Receptacle

Part Number	Configuration
51897-YYY	Power+Signal+Power+Cable
51925-YYY	Power+Cable
51927-YYY	Signal+Power+Cable
51929-YYY	Power+Signal+Cable

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