

# Minitek® Pwr Hybrid 4.2 Connector System

Minitek® Pwr Hybrid 4.2 connectors are designed for power and signal application with current rating up to 9A per circuit, available for dual row and 2 to 24 power circuits, and 2 to 12 signal for Wire-to-Board application.

Crimp, snap-in receptacle contacts are used to terminate AWG 16–30 wires. Receptacle housings allow Wire to-Board configurations. Crimping and removal tools are available for wire harness assembly. Board mounted vertical headers support Wire-to-Board interconnections. Wave soldering headers are available in through-hole configuration.



## TARGET MARKETS



## FEATURES

- Separated power and signal contacts
- Flexible modular design
- Flexible design with signal pin
- Signal contact in 2mm pitch and power contact in 4.2mm pitch
- Power pin is separated by signal pin in center position
- Enlarged active latch with low thumb latch operation
- Signal pin with lower insertion and extraction force than power pin
- High retention force for terminal within housing
- Available in UL94V-0 flammability rated LCP
- RoHS compliance and Lead free

## BENEFITS

- Provide power contacts for power distribution and signal contacts for power control
- Number and placement of power and signal contacts are highly configurable for customer power needs
- Backward mateable with traditional 4.2mm power connector if signal pin is absent
- Compact size design and clear identification for cable harness termination
- Better heat dissipation, hence better current rating capability
- Prevents unexpected unmating and provides secure locking mechanism
- Relatively easy to mate and un-mate compared to the similarly configured traditional 4.2mm power connector
- Well secures terminal in housings
- High flammability rating
- Meet environmental, health and safety requirements

## TECHNICAL INFORMATION

### MATERIAL

- Power Contact for Board Header: Brass with Tin, optional Au and GXT™ plating
- Signal Contacts for Header and Receptacle: Phosphorus with optional Au and GXT™ plating
- Power Terminal for Crimping: Brass/Phosphorus with Tin, optional Au and GXT™ plating
- Housing: Nylon 66, UL94V-0

### MECHANICAL PERFORMANCE

- Terminal Insertion Force: 14.7N max
- Terminal Withdrawal Force: 0.5N min.
- Durability: 30 mating cycles

### ELECTRICAL PERFORMANCE

- Low Level Contact Resistance: 10mΩ max.
- Insulation Resistance: 1000MΩ min.
- Voltage Rating: 600Vrms
- Current Rating for Power Contacts: Up to 9A/ contact
- Current Rating for Signal Contacts: Up to 1A/ contact
- Dielectric Withstand Voltage for Power: 1500 VAC
- Dielectric Withstand Voltage for Signal: 1000 VAC
- Temperature Rise: 30°C max

### APPROVALS & CERTIFICATION

- UL/CSA pending

### SPECIFICATION

- Amphenol Product Specification: GS-12-XXXX\*
- Amphenol Application Specification: GS-14-XXXX\*
- Amphenol Packaging Specification: GS-20-XXXX\*  
\*Includes 30°C terminal temperature rise at rated current

### ENVIRONMENTAL

- Operating Temperature: -40°C to +105°C  
\*Includes 30°C terminal temperature rise at rated current

### TARGET MARKETS/APPLICATIONS



Customer Premises Equipment  
Generic Telecom Box



Household Appliances



Fan  
HDD Application  
Interface Converter  
Power Supply Unit  
Rack-Mount Server



Chemical Detection System  
Display System  
Multi-service Station

## PART NUMBERS

Description	Part Numbers
PCB Header Vertical, Through-Hole	10129817
Receptacle Housing	10129815
Receptacle Terminal for Power	10129084
Receptacle Terminal for Signal	72392