Minitek® Pwr 3.0 BMI Connector System

Blind Mate Interface (BMI) Connector

ROBUST AND VERSATILE SELF-ALIGNING CONNECTOR

Minitek® Pwr 3.0 BMI is a flexible and comprehensive solution designed for power applications with a current rating up to 12 A per circuit. It is available in 4 to 24 circuits in dual row with right-angle and vertical options. Both WTB and WTW solutions are supported in this 3 mm BMI product family.

- Scoop-proof housing prevents terminals from damage
- Polarized mating geometry to prevent mismatching
- Fully isolated terminal stops prevent terminals from damage
- Available in 4 to 24 circuits in dual row through-hole type with right-angle and vertical options



TARGET MARKETS



FEATURES

BENEFITS

FEATURES	BENEFITS
Blind mate interface	Allows ± 2.54 mm gatherability for blind mating
Fully isolated terminals	Prevents terminals from potential damage during operation
Fully polarized housings	Prevents accidental mismating
Scoop-proof housings	Ensures terminals and header pins are not damaged for angled mating
Glow wire compliant option	Complies with International Standard IEC 60335-1 for household appliances
Supports FMLB for hot plug applications	Well secured terminals in housing
UL 94 V-0 flammability rated LCP material	High flammability rating
RoHS compliant and lead-free	Meets environmental, health, and safety requirements

TECHNICAL INFORMATION

MATERIAL

- Board Connector: Copper Alloy with optional Tin and Gold plating
- Housing: LCP & Nylon, Black, UL 94 V-0
- Crimping Terminal: Copper Alloy with optional Tin and Gold plating

MECHANICAL PERFORMANCE

- 2 Terminals are used:
  - 10134160 – Insertion force 4.1 N (low insertion force) – Withdrawal force 0.6 N per circuit
  - 10132447 – Insertion force 8.0 N (high insertion force) – Withdrawal force 2.4 N per circuit
- Durability: 30 mating cycles
- Wire Pullout Force: Refer to product specifications

ELECTRICAL PERFORMANCE

- Low Level Contact Resistance: 10 mΩ max.
- Insulation Resistance: 1000 MΩ min.
- Voltage Rating: 600 Vrms
- Current Rating: 12 A/ contact for HCC variant & 8.5 A for STD variant (refer Product specification for more details)
- Dielectric Withstand Voltage: 22000 V AC
- Temperature Rise: 30 °C max

PACKAGING

- PCB Header: Tray and Tape and reel
- Crimping Housing: Bag
- Terminal: Reel

APPROVALS & CERTIFICATION

- Dual Row: UL E66906 & E467317
- Glow Wire Ignition Temperature (GWIT) per IEC 60695-2-13
- Glow Wire Flammability Index (GWFI) per IEC 60695-2-12

SPECIFICATIONS

- Amphenol Product Specification: GS-12-1177
  ** for HCC variant GS-12-1291
- Amphenol Application Specification: GS-20-0399
- Amphenol Packaging Specification: GS-14-2359

ENVIRONMENTAL

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

TOOLING INFORMATION

- Terminal Extraction Tool: 10129274-030LF

TARGET MARKETS/APPLICATIONS



1U Rack Box
Customer Premises Equipment (CPE)
Generic Telecom Box
Interface Converter
WiMAX Box



Air Conditioner
Microwave Oven
Refrigerator
Set Top Box



Blade Server
Desktop PC and Motherboard
HDD Application
Rack-Mount Server
Server-Orthogonal Configuration



Defibrillator
Hospital Bed
Patient Monitor
Ultrasound Equipment



Chemical Detection System
Radar Equipment

Disclaimer
Please note that the above information is subject to change without notice.

PART NUMBERS

Find part number details using the search box on www.amphenol-cs.com

Type	Description	Part Numbers
Board Header	Dual Row Vertical PCB header, through hole (BMI)	10138980
	Dual Row Right Angle PCB header, through hole (BMI)	10144754
	Dual Row HCC Right Angle Through Hole Header	10175353
	Dual Row HCC Vertical Through Hole Header	10175354
Cable Hsg	Dual Row Receptacle Hsg	10159684
Terminal	Receptacle terminal	10134160/10132447/10166702
Cable Hsg	Dual Row Plug Hsg	10160855
Terminal	Plug terminal	10161703/10127719/ 10132448

*denotes base part number. Please contact Amphenol for complete part numbers.

TOOLING INFORMATION

APPLICATORS

Terminal Part Number	AWG Range	Semi-Auto Crimping Machine	Fully-Auto Pneumatic Crimping Applicator	Fully-Auto Mechanical Crimping Applicator
10132447-00XXLF	16 AWG-20 AWG	10159974-002	10159975-002	10159976-002
10132448-00XXLF				
10127718-00XXLF	20 AWG-24 AWG	10159974-001	10159975-001	10159976-001
10127719-00XXLF	20 AWG-24 AWG	10159974-006	10159975-006	10159976-006
10134160-X310LF	16 AWG-20 AWG	10159974-003	10159975-003	10159976-003
10134160-X320LF	20 AWG-24 AWG	10159974-004	10159975-004	10159976-004
10134160-X330LF	26 AWG-30 AWG	10159974-005	10159975-005	10159976-005
10161703-X310LF	16 AWG-20 AWG	10159974-009	10159975-009	10159976-009
10161703-X320LF	20 AWG-24 AWG	10159974-010	10159975-010	10159976-010
10161703-X330LF	26 AWG-30 AWG	10159974-011	10159975-011	10159976-011

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HAND CRIMP TOOL

Terminal Part Number	AWG Range	Hand Crimp Tool Part Number
10132447-00XXLF	16 AWG-20 AWG	10159387-002
10132448-00XXLF		
10127719-00XXLF	20 AWG-24 AWG	10159387-001
10127718-00XXLF		
10134160-X310LF	16 AWG-20 AWG	10159387-003
10134160-X320LF	20 AWG-24 AWG	10159387-004
10134160-X330LF	26 AWG-30 AWG	10159387-005
10161703-X310LF	16 AWG-20 AWG	10159387-003
10161703-X320LF	20 AWG-24 AWG	10159387-004
10161703-X330LF	26 AWG-30 AWG	10159387-005

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