

PV[®] WIRE-TO-BOARD CONNECTOR SYSTEM

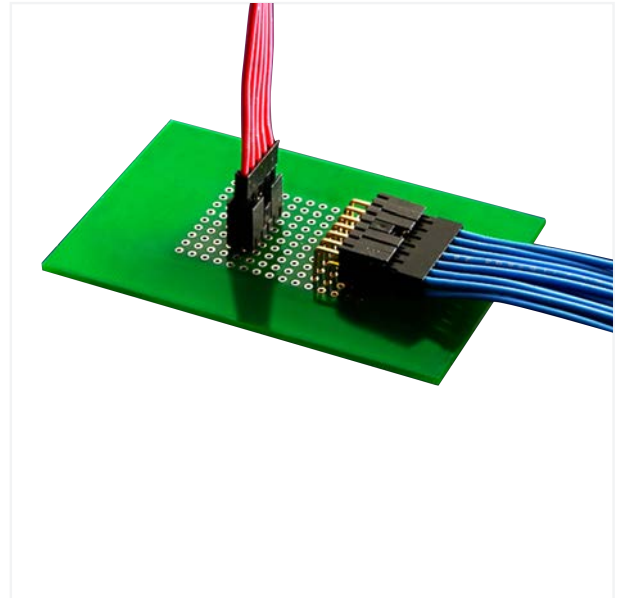
Unique Design Provides High Reliability, High Durability And High Retention

OVERVIEW

The innovative PV[®] crimp-to-wire system connects discrete wire to printed circuit boards. High reliability dual-metal receptacle terminals plug to industry standard 0.025 inch (0.635mm) square posts. A variety of containment, protection and guidance options are available for both sides of the connector interface.

Wire side- PV[®] receptacle terminals can be terminated to wire and used discretely or inserted to multiple-circuit, MINI-LATCH connector housings that include optional polarizing keys.

Printed Circuit side- Shrouded multiple-post, headers include an integral friction feature that grips the sides of the mating MINI-LATCH housings and reduces the risk of disengagement. Other FCI header options include discrete staked pins or BergStik[®] un-shrouded headers.



FEATURES & BENEFITS

- Unique dual-metal PV[®] receptacle contact maintains contact pressure through 1000 mating cycles. A beryllium copper spring provides high normal force at the mating interface, while the brass contact body produces a reliable, gas-tight crimp termination
- Choice of three different spring pressures allows the user to customize insertion and withdrawal forces to individual application requirements
- Shrouded header side walls engage with the sides of the MINI-LATCH housing to provide additional retention
- MINI-LATCH housing firmly retains PV[®] wire contacts
- Available in single or double row configurations
- Keyed MINI-LATCH housings and header keyways provide polarization to prevent mis-mating
- Two wall header design provides mechanical benefits plus economy
- Application tooling is supported by FCI

TARGET MARKETS/APPLICATIONS

- Instrumentation and Medical
- Industrial equipment
- Consumer and white goods
- Automotive electronics
- Data and communications
- Military and avionics

**PV® WIRE-TO-BOARD
CONNECTOR SYSTEM**



MINI-LATCH RECEPTACLE HOUSINGS

0.100in. / 2.54mm pitch

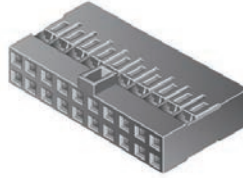
SINGLE ROW, POLARIZED, 78211 SERIES

Range: 03 to 15 positions



DOUBLE ROW, POLARIZED, 65846 SERIES

Range: 04 to 72 positions



SINGLE ROW, 65039 SERIES

Range: 01 to 36 positions



DOUBLE ROW, 65043 SERIES

Range: 04 to 72 positions



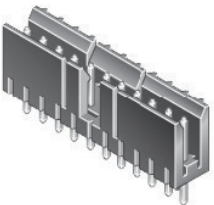
Maximum wire diameter for use in these housings is 1.52mm

SHROUDED PCB HEADERS

0.100in. / 2.54mm pitch

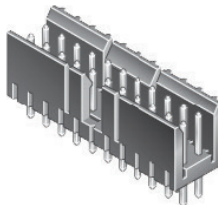
SINGLE ROW, VERTICAL, 69167 SERIES

Range: 03 to 15 positions



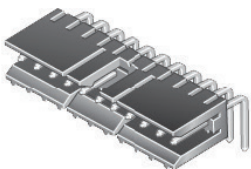
DOUBLE ROW, VERTICAL, 69168 SERIES

Range: 04 to 30 positions



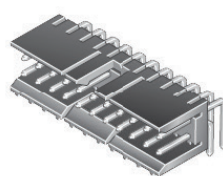
SINGLE ROW, 65039 SERIES

Range: 01 to 15 positions

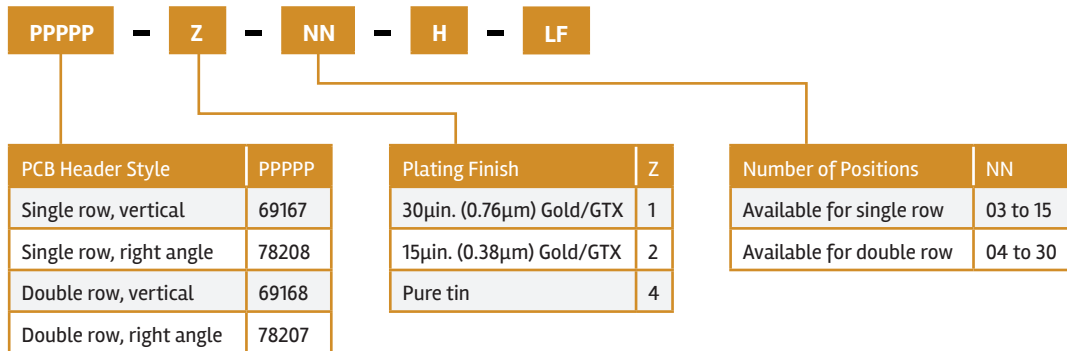


DOUBLE ROW, 65043 SERIES

Range: 04 to 30 positions



PART NUMBER CONSTRUCTION

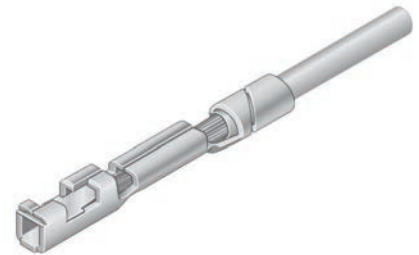


PV® DUAL METAL CRIMP RECEPTACLE TERMINALS

For mating to 0.025in. / 0.635mm square posts

Step 1	Step 2	Step 2	Step 4
Select application	Select spring force	Select wire size (AWG)	Select plating

Step 1	Step 2
Application Housing	Spring Force
40 – 72 contacts per housing	Standard
10 – 50 contacts per housing	High
02 – 20 contacts per housing	Ultra high
Discrete contact posts	Ultra high



Step 3		Step 4						
Wire Size (AWG)	Spring Force	Plating/ Packaging						
		Reel				Box (Loose piece)		
		Tin	15µ Gold (0.38µm)	30µ Gold (0.76µm)	40µ Gold (0.91µm) (Europe)	Tin	15µ Gold (0.38µm)	30µ Gold (0.76µm)
PV® Part Numbers								
18, 20 or two 22 or two 24	Standard		48241-000LF	48231-000LF	48276-002LF		48250-000LF	48266-000LF
	High		48244-000LF	48047-002LF			48253-000LF	48232-000LF
	Ultra-high	47648-000LF	48247-000LF	48252-000LF	47566-002LF	47749-000LF	48256-000LF	48233-000LF
22, 24, 26 or two 26 or two 28	Standard	47445-000LF	48242-000LF	48049-000LF	47457-002LF		48251-000LF	48235-000LF
	High	47217-000LF	48245-000LF	48046-000LF	47439-002LF	47715-000LF	48254-000LF	48234-000LF
	Ultra-high	47649-000LF	48248-000LF	48051-000LF	47565-002LF	47750-000LF	48257-000LF	48236-000LF
28, 30, 32 or two 30 or two 32	Standard	47446-000LF	48243-000LF	48048-002LF		47748-000LF		48238-000LF
	High	47213-000LF	48246-000LF	48045-000LF	47437-002LF	47714-000LF	48255-000LF	48237-000LF
	Ultra-high	47650-000LF	48249-000LF	48050-000LF	47564-002LF	47751-000LF	48258-000LF	48239-000LF
32, 34, 36	Standard			75543-015LF				
	High	75543-007LF		75543-013LF		75543-008LF		75543-014LF
	Ultra-high	75543-011LF		75543-017LF		75543-012LF		75543-018LF

 - European Part Numbers



TECHNICAL INFORMATION

MATERIALS

- Contact material:
 - PV® wire terminals: Brass body and beryllium copper spring
 - PCB headers: Phosphor bronze
- Contact plating:
 - PV® wire terminals: Gold or lead-free pure tin over nickel
 - PCB headers: Gold or GXT™ (palladium-nickel with gold flash) or lead-free pure tin over nickel
- Housing material:
 - MINI-LATCH housings: Modified polyphenylene oxide UL94V-0
- Shrouded PCB headers: Glass filled nylon UL94V-0
- All parts with “LF” suffix are RoHS-compliant

ELECTRICAL PERFORMANCE

- Current rating single circuit:
3.0A with 32 AWG wire; larger wires allow more; All applications require de-rating
- Withstanding voltage: 1000V RMS
- Insulation resistance, wire connector: >10000MΩ
- Insulation resistance, PCB header: >5000MΩ
- Contact resistance (LLCR), wire connector: <2mΩ
- Mating force (individual contact maximum)
 - High force spring: 450g
 - Ultra-high force spring: 1100g
- Un-mating force (individual contact minimum)
 - High force spring: 75g
 - Ultra-high force spring: 175g
- PV® contact retention in MINI-LATCH Housing:
4lbs per contact
- Durability: 1000 cycles
- Temperature: -40°C to +105°C

SPECIFICATIONS

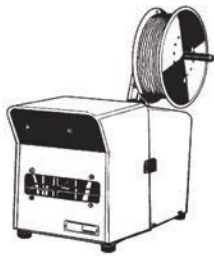
- Product specification:
 - BUS-12-067 (PV® and MINI-LATCH wire connectors)
 - BUS-12-075 (Shrouded PCB headers)
- Application drawings: TA-75, TA-146, TA-531

APPROVALS AND CERTIFICATIONS

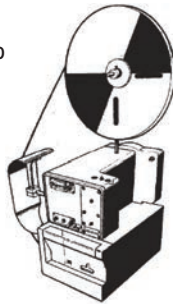
- UR E66906
- CSA LR46923

APPLICATION TOOLING

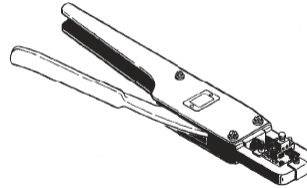
- PV-250A Semi-automatic Crimping Machine
 - Easy to use
 - Pneumatically operated
 - Low cost
 - Estimated 1000 crimps per hour
- Machine Part Number
 - 107416-101 (18-20 AWG)
 - 107416-102 (22-26 AWG)
 - 107416-103 (28-32 AWG)



- OL-740 Semi-automatic Two-Ton Bench Press
 - Uses quick-changing, adjustable crimping applicators for different terminals and wire sizes
 - Most rugged construction
 - Easy to use
 - Electrically operated
 - Estimated 2400 crimps per hour
- Machine Part Number
 - 133911-102 (does not include applicato
- Applicator Tooling Part Numbers
 - 133867-104 (18-20 AWG)
 - 133867-105 (22-26 AWG)
 - 133867-106 (28-32 AWG)



- Ratcheting Hand Crimping Tool
 - Part Number
 - HT-0073 (for 18-20 AWG Wire)
 - HT-0095 (for 22-32 AWG Wire)
 - HT-0112 (for 32-36 AWG Wire)



- PV® Contact Removal Tool
 - Part Number
 - HT-0080

