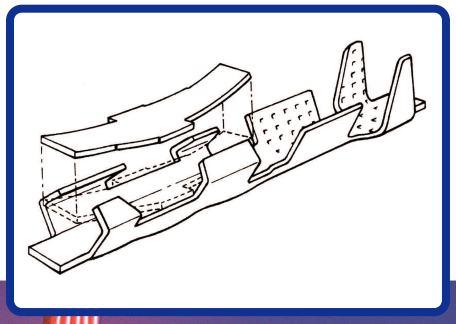
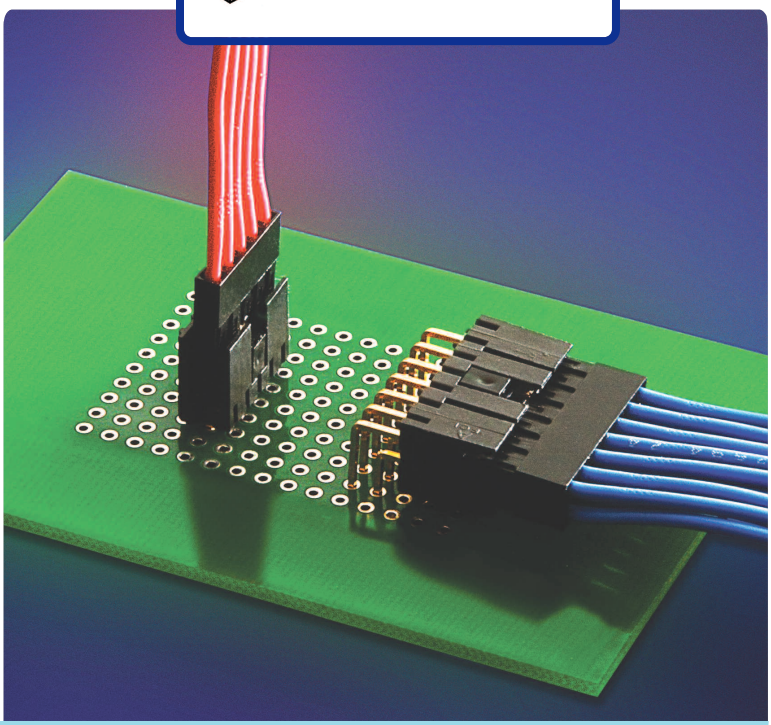
PV® WIRE-TO-BOARD CONNECTOR SYSTEM

Unique Design Provides High Reliability, High Durability and High Retention





DESCRIPTION

The innovative PV crimp-to-wire system connects discrete wire to printed circuit boards. High-reliability, dual-metal receptacle contacts are designed to plug to industry-standard 0.025" (0.635mm) square posts.

The receptacle contacts can be installed in insulating MINI-LATCH™ connector housings or used discretely. Contacts are spaced on 0.100" (2.54mm) pitch in single or double-row housing configurations.

Terminated receptacle contacts and housing assemblies can be plugged to staked pins, BERGSTIK® unshrouded headers, or shrouded PCB headers. The side walls of the shrouded headers include an integral "friction gripping" feature that fits to the sides of the MINI-LATCH housing and reduces the risk of disengagement. A side key on the MINI-LATCH housing and a corresponding keyway in the header side-wall provide polarization to prevent mis-mating.

FEATURES & BENEFITS

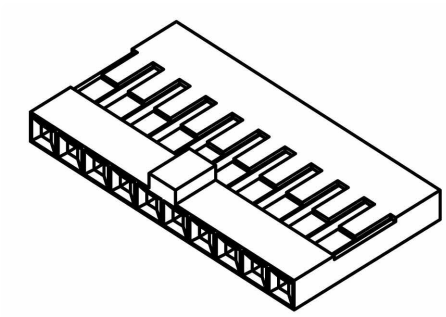
- Unique dual-metal PV receptacle contact maintains contact pressure through 1000 mating cycles. A beryllium copper spring provides high normal force at the mating interface, while the brass contact body produces a reliable, gas-tight crimp termination. The choice of two different spring pressures allows 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

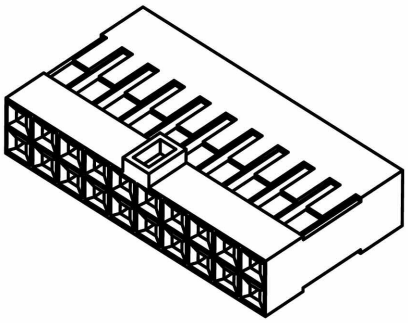
- Instrumentation and Medical
- Industrial Equipment
- Consumer and White Goods
- Motor Vehicle
- Data and Communications

MINI-LATCH™ RECEPTACLE HOUSINGS

SINGLE ROW, POLARIZED, 78211 SERIES



DOUBLE ROW, POLARIZED, 69176 SERIES



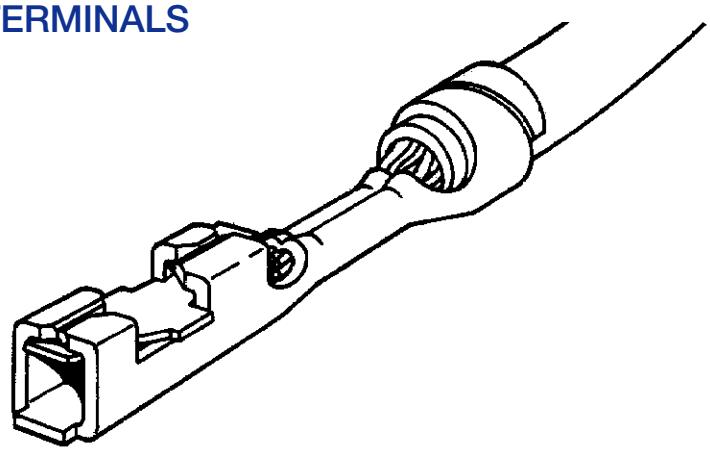
PART NUMBER CONSTRUCTION

PPPPP-0NNLF

PPPPP Housing Style
- 78211=Single Row, Polarized
- 69176=Double Row, Polarized

NN Number of Positions
- Single Row: 03 to 15
- Double Row: 04 to 30

PV® RECEPTACLE TERMINALS

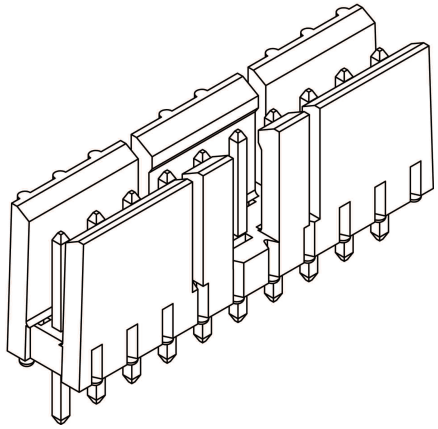


Wire Size (AWG)	Application Spring Force	Packaging / Plating					
		Reel			Box (Loose Piece)		
		Tin	15 µ" Gold	30 µ" Gold	Tin	15 µ" Gold	30 µ" Gold
22, 24, 26 or two 26 or two 28	High	**47217-000LF**	**48245-000LF**	**48046-000LF**	**47715-000LF**	**48254-000LF**	**48234-000LF**
	Ultra High	**47649-000LF**	**48248-000LF**	**48051-000LF**	**47750-000LF**	**48257-000LF**	**48236-000LF**
28, 30, 32 or two 30 or two 32	High	**47213-000LF**	**48246-000LF**	**48045-000LF**	**47714-000LF**	**48255-000LF**	**48237-000LF**
	Ultra High	**47650-000LF**	**48249-000LF**	**48050-000LF**	**47751-000LF**	**48258-000LF**	**48239-000LF**
32, 34, 36	High	**75543-007LF**	n/a	**75543-013LF**	**75543-008LF**	n/a	**75543-014LF**
	Ultra High	**75543-011LF**	n/a	**75543-017LF**	**75543-012LF**	n/a	**75543-018LF**

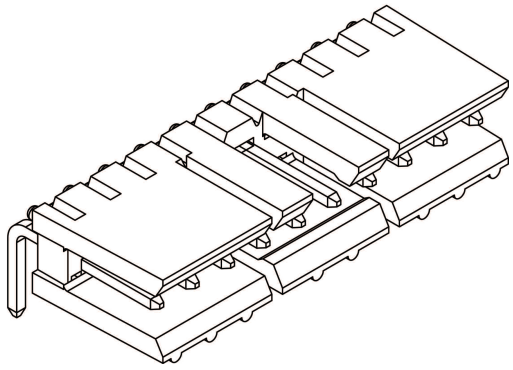
For detailed dimensions, connect to www.fciconnect.com/pv

SHROUDED PCB HEADERS

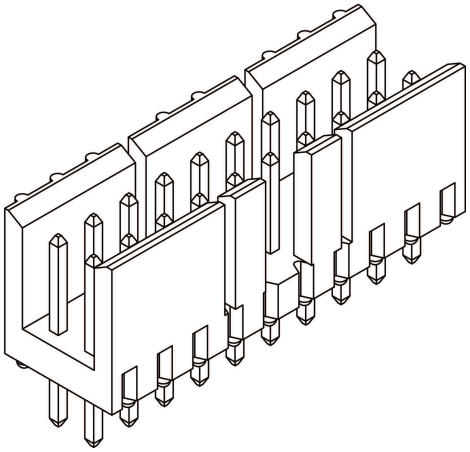
SINGLE ROW, VERTICAL, 69167 SERIES



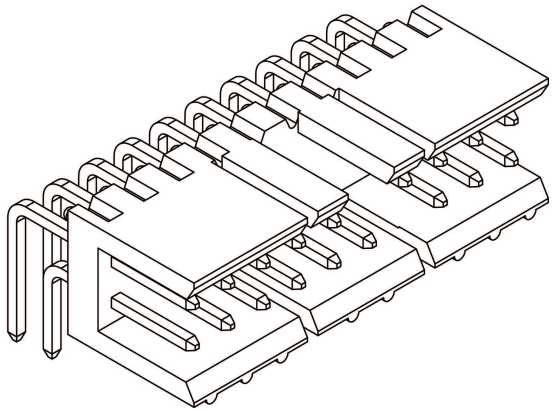
SINGLE ROW, RIGHT ANGLE, 78208 SERIES



DOUBLE ROW, VERTICAL, 69168 SERIES



DOUBLE ROW, RIGHT ANGLE, 78207 SERIES



PART NUMBER CONSTRUCTION

PPPPP-0NNLF

PPPPP PCB Header Style and Orientation
- 69167=Single Row, Vertical
- 78208=Single Row, Right Angle
- 69168=Double Row, Vertical
- 78207=Double Row, Right Angle

NN Number of Positions
- Single Row: 03 to 15
- Double Row: 04 to 30

For detailed dimensions, connect to www.fciconnect.com/pv

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 UL 94-V0
  - Shrouded PCB Headers: Glass filled Nylon UL 94-V0
- All parts with "LF" suffix are RoHS compliant

ELECTRICAL CHARACTERISTICS

- Current Rating Single Circuit: 3.0 amps with 32 AWG wire; Larger wires allow more; All applications require de-rating
- Withstanding Voltage: 1000 V RMS
- Insulation Resistance, Wire Connector: >10000 Megohms
- Insulation Resistance, PCB Header: >5000 Megohms
- Contact Resistance (LLCR), Wire Connector: <2 milliohms

MECHANICAL CHARACTERISTICS

- Mating Force (individual contact maximum)
  - High force spring: 450 grams
  - Ultra-high force spring: 1100 grams
- Un-mating Force (individual contact minimum)
  - High force spring: 75 grams
  - Ultra-high force spring: 175 grams
- PV contact retention in MINI-LATCH Housing: 4 lbs per contact
- Durability: 1000 cycles
- Temperature: -40C to +105 C

APPROVALS AND CERTIFICATIONS

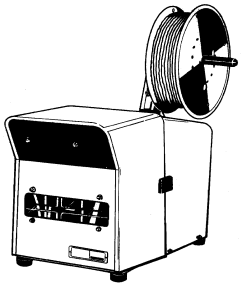
- UR E66906
- CSA LR46923

TECHNICAL DOCUMENTS

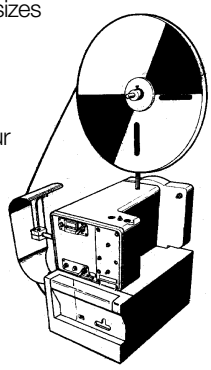
- Product Specification:
  BUS-12-067 (PV and MINI-LATCH Wire connectors)
  BUS-12-075 (Shrouded PCB Headers)
- Application drawings: TA-75, TA-146, TA-531

APPLICATION TOOLING

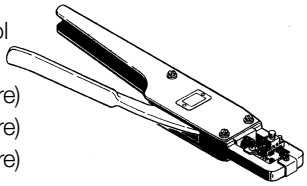
- PV-250A Semi-automatic Crimping
  - Easy to use
  - Pneumatically operated
  - Low cost
  - Estimated 1000 crimps per hour
- Machine Part Number
  - 107416-101 (18-20AWG)
  - 107416-102 (22-26AWG)
  - 107416-103 (28-32AWG)



- 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 applicator)
- Applicator Tooling Part Numbers
  - 133867-104 (18-20AWG)
  - 133867-105 (22-26AWG)
  - 133867-106 (28-32AWG)



- 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

For detailed dimensions, connect to www.fciconnect.com/pv