Experience
• Founded in 1966
• Involvement in the development of international connector specifications through EIA®, IEC and ISO as well as PICMG®.
• Introduction of new and unique connector products to the electronics industry.
• Patent holder for many unique connector features and manufacturing techniques.
• Vertically integrated manufacturing – raw materials to finished connectors.

Technology
• Expertise with solid machined contacts provides a variety of high reliability connectors including high current density power connectors.
• Quality Assurance lab is capable of testing to IEC, EIA, UL, CUL, military and customer-specified requirements.
• In-house design and development of connectors based on market need or individual customer requirements.
• Internal manufacturing capabilities include automatic precision contact machining, injection molding, stamping, plating operations and connector assembly.
• Manufacturing locations in southwest Missouri, U.S.A. (headquarters); Puerto Rico, France, China, Singapore, and India. Total square footage: 407,441.

Support
• Compliance to a variety of international and customer specific environmental requirements.
• Large in-house inventory of finished connectors. Customer specific stocking programs.
• Factory direct technical sales support in major cities worldwide.
• One-on-one customer support from worldwide factory locations.
• World class web site.
• Value-added solutions and willingness to develop custom products with reasonable price and delivery.

Regional Headquarters
Springfield, MO        Auch, France      Singapore

Products described within this catalog may be protected by one or more of the following US patents:
#4,900,261†    #5,255,580    #5,329,697    #6,260,268
#6,835,079    #7,115,002    #8,944,697    #9,304,263
†Patented in Canada, 1992 Other Patents Pending

POSITRONIC® IS AN ITAR REGISTERED COMPANY

Mission Statement
“To utilize product flexibility and application assistance to present quality interconnect solutions which represent value to customers worldwide.”

Positronic Industries’ FEDERAL SUPPLY CODE (Cage Code) FOR MANUFACTURERS is 28198

Unless otherwise specified, dimensional tolerances are:
1) ±0.001 inches [0.03 mm] for male contact mating diameters.
2) ±0.003 inches [0.08 mm] for contact termination diameters.
3) ±0.005 inches [0.13 mm] for all other diameters.
4) ±0.015 inches [0.38 mm] for all other dimensions.

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In 1989, Positronic Introduced the Power Connection Systems series. Since that time PCS has been the power connector of choice in a wide variety of applications. The popularity of PCS is due to a growing list of features, they include:

**Low Contact Resistance**

**Sequential Mating Options**

**Discriminating Locking System**

**Board to Board / Board - Cable / Cable - Cable**

**Size 12 Contacts with Screw Terminations**

**Safety Shrouded Options**

**Many Connector Variants Available From Stock**

**Mixed Density Variants**
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**DIMENSIONS ARE IN INCHES [MILLIMETERS]. ALL DIMENSIONS ARE SUBJECT TO CHANGE.**
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Visit our website for the latest catalog updates and supplements at [https://www.connectpositronic.com/family/power-connection-system/](https://www.connectpositronic.com/family/power-connection-system/)
SYSTEM 1  
MOTHER BOARD-DAUGHTER BOARD

PLB06M300A1 Straight solder or PLB06M92ST20A1 Compliant termination press-in

SYSTEM 2  
SIDE TO SIDE BOARD MOUNTING

PLB06M4BN0A2

SYSTEM 3  
STACKABLE BOARD MOUNTING

PLB06F300A1 Straight solder or PLB06F94ST40A1 Compliant termination press-in

SYSTEM 4  
SANDWICH BOARD MOUNTING

PLB06F3N0C1

DIMENSIONS ARE IN INCHES [MILLIMETERS]. ALL DIMENSIONS ARE SUBJECT TO CHANGE.
CABLE CONNECTION SYSTEMS

SYSTEM 5
CABLE TO RIGHT ANGLE (90°) BOARD MOUNTING

PLB06F4BN0A1
With contacts installed
Crimp or solder termination

PLB06M0000
With contacts installed

PLB06F0000
With contacts installed

PLB06M4BN0A2
Crimp or solder termination

PLB06F0000
Crimp or solder termination

Lock hole
Lock tab
Typical for connection systems 5, 6, 7 and 8

SYSTEM 6
CABLE TO STRAIGHT BOARD MOUNTING

PLB06F300C1 Straight solder or PLB06F92ST20C1 Compliant termination press-in

PLB06M0000
With contacts installed
Crimp or solder termination

PLB06F0000
With contacts installed

PLB06M300C1 Straight solder or PLB06M92ST20C1 Compliant termination press-in

PLB06M0000
With contacts installed
Crimp or solder termination

SYSTEM 7
CABLE TO CABLE

PLB06F0000
With contacts installed
Crimp or solder termination

PLB06M0000
With contacts installed
Crimp or solder termination
SYSTEM 8
PANEL MOUNTED TO CABLE

Non-removable fixed contacts with 18 AWG [1.0mm²] solder wire terminations or crimp contact terminations for wire sizes 12 AWG [4.0mm²] through 32 AWG [0.03mm²]

PLB06M0000
With contacts installed

Crimp or solder termination

SYSTEM 9
CABLE CONNECTOR WITH CABLE ADAPTER

PLB06F0050
INTEGRAL FEED THROUGH CONNECTION SYSTEM

ALLOWS THREE WAY INTERFACE

- PCB FRONTSIDE TO A CONNECTOR
- PCB BACKSIDE TO A CONNECTOR
- PRESS-IN CONNECTIONS WITH PCB

CONTACT TECHNICAL SALES FOR MORE INFORMATION.
DEMystifying CURRENT RATINGS

Connector current ratings seem to be shrouded in mystery at times. The user wonders how a listed current rating is relevant to a particular application. Perhaps more mysterious is how similar connectors from various manufacturers list different current rating values. While it is true that material choices and design can enhance a connector’s current rating, the test method by which the rating was developed must be understood when evaluations are made.

Users of connectors for power applications are entitled to current rating test details in order to make an informed choice. Ideally, a connector’s current rating should be developed within the application for which it is being considered. Although ideal, this approach is not always practical given the many differing applications. In order for connector manufacturers to give potential product users an idea of what can be expected, connectors are given current ratings based on a specific test method.

A wide variety of test methods are employed in order to develop current ratings for connectors. Some of these methods come from standards that are recognized industry-wide, while others are unique to the manufacturer or user. These various test methods can produce different results for the same product. It is no wonder confusion sometimes results.

There are key factors that, when understood, can help in choosing the right power connector. All test methods used to rate current have similarities; however, there are variables in applying the test methods which explain differing results.

Current ratings are usually established by first developing a temperature rise curve. This curve plots temperature rise against increasing current levels. The curve is a reliable tool in understanding heat generation of the connector at various currents. When a defined failure is reached, the test ends. The highest current level achieved is usually listed as the current rating.

The temperature rise curve, and therefore the current rating, will change when certain key factors are varied. These are:

- Where is the temperature sensing probe placed? If placed on the contact in the mating area (the hottest spot), the results will be quite different than if placed on the outside of the connector body.
- Are the contacts being tested and rated in free air or are they contained within the connector housing? Contacts will obviously be cooler in free air.
- Are all of the contacts in the connector under load? If only part of the contacts are under load, the temperature rise could be less.
- What is the defined failure? Does the test end when the temperature rise reaches 30°C, 40°C, or some other number? Does it end when the temperature rise plus ambient temperature equal the operating limit of the connector housing? The current rating will be fixed by the defined failure point.
- How were the test samples prepared? Were the samples energized through a printed circuit board? How many layers? How large were the traces? What was the weight of the copper? Were the samples energized through wire? What size was the wire? How long was the wire? Was the sample tested in static or forced air conditions? All of these factors can affect cooling characteristics.

Clearly, a current rating value alone is not enough, and must be viewed in the context of the test used to develop the rating. When the test method is understood, evaluating and comparing power connectors for specific applications becomes much less of a mystery.
THE PCS SERIES utilizes Positronic LARGE SURFACE AREA CONTACT MATING SYSTEM

- Separates mechanical and electrical functions for superior performance
- Low contact resistance provides minimized voltage drop across the contact
- True closed entry design prevents damage to female contacts and will not allow misaligned or bent contacts to enter
- Precision machined from solid copper alloy
- Stable insertion and withdrawal forces throughout repeated mating cycles

WHY IS THE L.S.A. SYSTEM SUPERIOR?

The primary function of connector contact is electrical conductivity. Also, a mechanical function is required to provide normal force between male and female contacts. In order to provide for proper mechanical characteristics, material that has good memory or “elasticity” must be chosen. This will ensure contact normal force in a coupled condition and allow for repeated coupling and uncoupling.

Unfortunately, many materials that have good memory characteristics have low electrical conductivity. For instance, beryllium copper is a good choice for mechanical function; however, some beryllium copper alloys are poor conductors and have relatively low conductivity rates.

The conductivity path of many contact designs goes directly through materials that have been chosen based on mechanical need. If these materials have a low conductivity rating, increased contact resistance will result.

Positronic Large Surface Area Contact System separates the mechanical and electrical functions. A spring retention member provides normal forces, while the electrical conductivity path is through highly conductive contact material. See above detail.
BI-SPRING POWER PRESS-IN TERMINATIONS

The Next Evolution In Compliant Technology. Fully Compliant, Fully Reliable.

Reliable, solderless connections from connectors to backplanes started with solid press-in technology. Although these are still used today, concerns about board damage led to the use of compliant press-in technology. This technology allows the connection to be made through compliance of the contact termination along with printed circuit board hole deformation. Although risk of damaged printed circuit boards and backplanes is lessened, damage can still occur due to relatively high insertion and extraction forces.

The next step in press-in technology is a highly reliable connection between the contact termination and backplane that is accomplished with reduced insertion and extraction forces. This eliminates risk of printed circuit board and backplane damage. This technology exists today with Positronic Bi-Spring Power Press-in termination.

- Average insertion and extraction forces of size 16 contacts are 22N [5 lbs.] per contact and do not produce stresses in printed circuit boards and backplanes that can occur with higher insertion forces. These stresses can cause board warpage and hole damage.

- Connector systems utilizing Bi-Spring terminations use mounting screws to secure the connector to the printed circuit board or backplane. Stresses that occur during coupling, uncoupling or shock and vibration of systems are not transferred to the printed circuit boards or backplanes through the press-in connection. The electrical integrity of the connector to board interface is maintained; this is particularly important in power applications. Bellcore GR1217 details a preference for mounting hardware when using press-in terminations.

- Size 16 Bi-Spring terminations are designed to meet the performance requirements and hole diameters as listed in the internationally recognized specification IEC 60352-5.

- Lower insertion and extraction forces eliminate the need for expensive pressing equipment.

COMPLIANT TERMINATION PRESS-IN CONNECTOR

- Polarizing groove
- Fixed member or discriminating locking system
- #2 self tapping mounting screws
- Steel, zinc plate or stainless steel, passivated
- 0.155 [3.94] dp. x ø0.076 [1.93] mounting hole typ.
- Contact lead-in diameter 0.047 [1.19]
- Contact termination diameter 0.069 [1.76]
The design of Power Connection Systems Series connectors allows for the development of application specific contact arrangements in a timely manner and at a reasonable price. Thirteen connector housing sizes exist that may accommodate size 20, size 16, size 12, or size 8 contacts (see the Power Connection Systems catalog for connector housing dimensions). After reviewing the dimensions and the following basic information, contact Technical Sales with your current, voltage, and safety requirements. We look forward to working with you to develop a connector for your specific needs.

**BASIC CONNECTOR DIMENSIONS**

### Male Connector Dimensions

<table>
<thead>
<tr>
<th>PART NUMBER</th>
<th>A</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLA03**00A1</td>
<td>1.126</td>
</tr>
<tr>
<td>PLAH03**00A1</td>
<td>12.60</td>
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<td>PLA04**00A1</td>
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<td>PLAH04**00A1</td>
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<td>PLA06**00A1</td>
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<td>PLAH06**00A1</td>
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<tr>
<td>PLA08**00A1</td>
<td>2.112</td>
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<tr>
<td>PLAH08**00A1</td>
<td>53.64</td>
</tr>
</tbody>
</table>

### Female Connector Dimensions

<table>
<thead>
<tr>
<th>PART NUMBER</th>
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</tr>
</thead>
<tbody>
<tr>
<td>PLB06**00A1</td>
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<tr>
<td>PLBH06**00A1</td>
<td>28.60</td>
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<tr>
<td>PLB08**00A1</td>
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<tr>
<td>PLBH08**00A1</td>
<td>33.63</td>
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<tr>
<td>PLB12**00A1</td>
<td>1.718</td>
</tr>
<tr>
<td>PLBH12**00A1</td>
<td>43.64</td>
</tr>
<tr>
<td>PLB16**00A1</td>
<td>2.112</td>
</tr>
<tr>
<td>PLBH16**00A1</td>
<td>53.64</td>
</tr>
<tr>
<td>PLB20**00A1</td>
<td>2.506</td>
</tr>
<tr>
<td>PLBH20**00A1</td>
<td>63.65</td>
</tr>
</tbody>
</table>

### Four Contact Sizes to Choose From

- **Size 8 contact**: Ø0.142 [3.61]
- **Size 12 contact**: Ø0.094 [2.39]
- **Size 16 contact**: Ø0.0625 [1.588]
- **Size 20 contact**: Ø0.040 [1.00]

### Many Termination Types Can Be Supplied

- Straight Solder or Press-in
- Right Angle (90°) Solder
- Crimp Removable
- Removable Solder Cup

### Popular Options

- Sequential Mating
- Selective Loading

Contact sizes and termination types may be mixed within a single connector.
## TECHNICAL CHARACTERISTICS

### MATERIALS AND FINISHES:
- **Insulator:** Glass-filled polyester, UL 94V-0.
- **Contacts:** Precision machined copper alloy with gold flash over nickel, or 0.000030 inch [0.76µ] gold over nickel, or 0.000050 [1.27µ] gold over nickel. Solder coated terminations optional.
- **Mounting Clip:** Beryllium copper with nickel plate.
- **Hood:** Glass filled polymer, UL 94V-0.
- **Mounting Bracket:** Brass with tin plate.
- **Push-on Fastener:** Spring tempered copper alloy, tin plate

### ELECTRICAL CHARACTERISTICS:

#### INITIAL CONTACT RESISTANCE:
- **Standard Contact Material:** See page 9 for detail information.
- **High Conductivity Contact Material:** See page 9 for detail information.

#### ELECTRICAL CHARACTERISTICS OF COMPLIANT PRESS-IN CONNECTION TO PLATED-THROUGH-HOLE OF PRINTED BOARD:
- **Initial Contact Resistance of Connection:**
  - Less than 1.0 milliohms per IEC 60512-2, test 2a.

#### ELECTRICAL CHARACTERISTICS OF COMPLIANT PRESS-IN CONNECTION TO PLATED-THROUGH-HOLE OF PRINTED BOARD:
- **Initial Contact Resistance of Connection:**
  - 0.064 inch [1.63mm] diameter hole of a 0.125 inch [3.2mm] thick printed board

#### ELECTRICAL CHARACTERISTICS OF COMPLIANT PRESS-IN CONNECTION TO PLATED-THROUGH-HOLE OF PRINTED BOARD:
- **Initial Contact Resistance of Connection:**
  - 0.0016 ohms max. per IEC 60512-2, test 2b.
- **High Conductivity Contact Material:**
  - 0.0007 ohms max. per IEC 60512-2, test 2b.
- **Insulation Resistance:**
  - 5 G ohms per IEC 60512-2, test 3a, method A.
- **Voltage Proof:**
  - 2000 V rms per IEC 60512-2, test 4a, method C.
- **Creepage Distance:**
  - 0.157 inch [4 mm] minimum.
- **Clearance Distance:**
  - 0.125 inch [3.2 mm] minimum.
- **Working Voltage:**
  - Designed to meet UL 600 VAC and CSA 600 VAC.
- **Working Temperature:**
  - -55°C to +125°C

**Note:** Contact technical sales for availability of high temperature insulator material.

### MECHANICAL CHARACTERISTICS:

#### Removable Contacts:
- **Insert contact to rear face of insulator, release from front face of insulator.** Size 16, 0.0625 inch [1.588 mm] diameter male contact. Female contact “closed entry” design for highest reliability.
- **Removable Contact Retention in Insulator:**
  - 15 lbs. [67N] per IEC 60512-8, test 15a.
- **Fixed Contacts:**
  - Solder cup and printed board terminations. Size 16, 0.0625 inch [1.588 mm] diameter male contact. Female contact has “closed entry” design for highest reliability.
- **Fixed Contact Retention in Insulator:**
  - 6 lbs. [26N].
- **Resistance to Solder Iron Heat:**
  - 500°F [260°C] for 10 seconds duration per IEC 60512-6, test 12e, 25 watt soldering iron.
- **Contact Terminations:**
  - Crimp or solder removable contacts from wire sizes 12 AWG [4.0 mm²] through 24 AWG [0.25 mm²]. Straight and Right Angle (90°) solder printed board mount, 0.0625 inch [1.588 mm] tail diameter. Compliant termination press-in. Fixed contact solder cup termination, 18 AWG [1.0 mm²] maximum.
- **Contact Insertion and Withdrawal Forces:**
  - 8 oz. [2.2N] nominal per contact.
- **Connection Systems:**
  - Connector provides cable to cable, cable to printed board, cable to panel mount and printed board to printed board application.
- **Sequential Mating System:**
  - Cable and printed board mount connectors. Male contacts provide as many as three mating lengths.
- **Locking System:**
  - Insulators provide locking between cable to cable, cable to printed board and cable to panel mount applications.
- **Polarizations:**
  - Provided in insulator design. Further polar-ization in cable connectors can be provided by mixing male contacts in female insulators and female contacts in male insulators.
- **Mounting to Printed Board:**
  - Self-tapping screws for compliant connectors. 500 operations per IEC 60512-5.
- **Mechanical Operations:**
  - 8 oz. [2.2N] nominal per contact.

### MECHANICAL CHARACTERISTICS OF COMPLIANT PRESS-IN CONNECTORS:

#### Press-in Contact Bi-Spring Construction, Compliant Termination:
- **Initial Press-in Force of Individual Contact into Plated-Through-Hole:**
  - 0.0695 inch [1.77mm] diameter with 0.050 inch [1.27mm] lead-in diameter. Offered with two termination lengths.
- **Contact Retention in Insulator and 0.125 inch [3.2mm] thick printed board:**
  - 5 lbs. [22N] minimum combined retention forces per MIL-STD-2166, Type III compliant contact classification, after third repair-replacement of contact in insulator and plated-through-hole, 0.064 inch [1.63mm] diameter in a 0.125 inch [3.2mm] thick printed board.
- **Vibration:**
  - No electrical discontinuity of 1u second or greater when tested per MIL-STD-1344, Method 2005, Test conditioning.
- **Initial Press-in Force of Individual Contact into Plated-Through-Hole:**
  - 8.5 lbs. [38N] average when pushed out of an 0.064 inch [1.63mm] Ø hole in a 0.125 inch [3.2mm] thick printed board.

**CUL Recognized**

File # E49351

*Note: CUL recognizes all sizes, except PLB20, consult Technical Sales for status.
**TEST DETAIL:** Each curve was developed using individual connector bodies fully loaded with contacts. All power contacts energized through 12 awg wire. Temperature rise was measured in the contact mating area. Test was conducted with connectors in static air. Terminations of test connectors were straight compliant press-in to right angle (90°) solder. See page 4 for more information.

<table>
<thead>
<tr>
<th>CONNECTOR VARIANT</th>
<th>STANDARD CONTACTS</th>
<th>CONNECTOR VARIANT</th>
<th>HIGH CONDUCTIVITY CONTACTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLA03</td>
<td>32 amperes</td>
<td>PLAH03</td>
<td>42 amperes</td>
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<tr>
<td>PLB12</td>
<td>25 amperes</td>
<td>PLBH12</td>
<td>32 amperes</td>
</tr>
<tr>
<td>PLC30</td>
<td>18 amperes</td>
<td>PLCH30</td>
<td>24 amperes</td>
</tr>
</tbody>
</table>

Temperature rise curves and contact current ratings were developed for the specific connector variants shown when tested in accordance with UL1977.

This information is provided so that the user can make comparisons between various connector sizes and contact materials.
MATING DIMENSIONS

(FULLY MATED)

- Straight Board Mount Male to Straight Board Mount Female
- Straight Board Mount Male to Right Angle (90°) Board Mount Female
- Right Angle (90°) Board Mount Male to Straight Board Mount Female
- Right Angle (90°) Board Mount Male to Right Angle (90°) Board Mount Female
- Straight Board Mount Male to Panel Mount Female
- Panel Mount Male to Straight Board Mount Female
- Right Angle (90°) Board Mount Male to Panel Board Mount Female
- Panel Mount Male to Right Angle (90°) Board Mount Female
- Panel Mount Male to Panel Mount Female
- Cable Mount Male to Straight Board Mount Female
- Straight Board Mount Male to Cable Mount Female
- Cable Mount Male to Right Angle (90°) Board Mount Female
- Right Angle (90°) Board Mount Male to Cable Mount Female
- Cable Mount Male to Panel Mount Female
- Panel Mount Male to Cable Mount Female
- Cable Mount Male to Cable Mount Female
## PLA STRAIGHT PRINTED BOARD MOUNT CONNECTORS

### CODE 3, 0.146 [3.71] CONTACT EXTENSION

*Positronic recommends the practice of using mounting hardware to secure connector to printed circuit board.*

**NOTE:** Mounting screws can be supplied with connectors using step 5 in ordering information on page 26. Mounting screws can also be ordered separately by part number. See page 59.

**Typical part number:**
- PLA03M300A1
- PLAH03M300A1

<table>
<thead>
<tr>
<th>PART NUMBER</th>
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</tr>
</thead>
<tbody>
<tr>
<td>PLA03*300A1</td>
<td>1.126</td>
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<tr>
<td>PLAH03*300A1</td>
<td>1.178</td>
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<tr>
<td>PLA04*300A1</td>
<td>1.324</td>
</tr>
<tr>
<td>PLAH04*300A1</td>
<td>1.376</td>
</tr>
</tbody>
</table>

Plating - See ordering information for contact plating options.

*Asterisk determines gender of connector, M for male, F for female.

---

## PLB STRAIGHT PRINTED BOARD MOUNT CONNECTORS

### CODE 3, 0.146 [3.71] CONTACT EXTENSION

**NOTE:** Mounting screws can be supplied with connectors using step 5 in ordering information on page 26. Mounting screws can also be ordered separately by part number. See page 59.

**Typical part number:**
- PLB06M300A1
- PLBH06M300A1

<table>
<thead>
<tr>
<th>PART NUMBER</th>
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<tr>
<td>PLB06*300A1</td>
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<tr>
<td>PLBH06*300A1</td>
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<td>1.324</td>
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<tr>
<td>PLBH08*300A1</td>
<td>1.376</td>
</tr>
<tr>
<td>PLB12*300A1</td>
<td>1.718</td>
</tr>
<tr>
<td>PLBH12*300A1</td>
<td>1.770</td>
</tr>
</tbody>
</table>

Plating - See ordering information for contact plating options.

*Asterisk determines gender of connector, M for male, F for female.

---

## PLC STRAIGHT PRINTED BOARD MOUNT CONNECTORS

### CODE 3, 0.146 [3.71] CONTACT EXTENSION

**NOTE:** Mounting screws can be supplied with connectors using step 5 in ordering information on page 26. Mounting screws can also be ordered separately by part number. See page 59.

**Typical part number:**
- PLC09M300A1
- PLCH09M300A1

<table>
<thead>
<tr>
<th>PART NUMBER</th>
<th>A</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLC09*300A1</td>
<td>1.126</td>
</tr>
<tr>
<td>PLC09H*300A1</td>
<td>1.178</td>
</tr>
<tr>
<td>PLC12*300A1</td>
<td>1.324</td>
</tr>
<tr>
<td>PLC12H*300A1</td>
<td>1.376</td>
</tr>
<tr>
<td>PLC18*300A1</td>
<td>1.718</td>
</tr>
<tr>
<td>PLC18H*300A1</td>
<td>1.770</td>
</tr>
</tbody>
</table>

Plating - See ordering information for contact plating options.

*Asterisk determines gender of connector, M for male, F for female.

---

**REV G2**

**DIMENSIONS ARE IN INCHES [MILLIMETERS]. ALL DIMENSIONS ARE SUBJECT TO CHANGE.**
### PLA STRAIGHT PRINTED BOARD MOUNT CONNECTORS

**Code 32, 0.377 [9.58] Contact Extension**

<table>
<thead>
<tr>
<th>PART NUMBER</th>
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<th>PART NUMBER</th>
<th>A</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLA03*3200A1</td>
<td>1.126</td>
<td>PLA06*3200A1</td>
<td>1.718</td>
</tr>
<tr>
<td>PLA03H*3200A1</td>
<td>0.910</td>
<td>PLA06H*3200A1</td>
<td>1.354</td>
</tr>
<tr>
<td>PLA06*3200A1</td>
<td>1.324</td>
<td>PLA06H*3200A1</td>
<td>2.112</td>
</tr>
<tr>
<td>PLA06H*3200A1</td>
<td>1.324</td>
<td>PLA06*3200A1</td>
<td>2.112</td>
</tr>
</tbody>
</table>

* *Asterisk determines gender of connector, M for male, F for female.*

**NOTE:** Mounting screws can be supplied with connectors using step 5 in ordering information on page 26. Mounting screws can also be ordered separately by part number. See page 59.

---

### PLB STRAIGHT PRINTED BOARD MOUNT CONNECTORS

**Code 32, 0.377 [9.58] Contact Extension**

<table>
<thead>
<tr>
<th>PART NUMBER</th>
<th>A</th>
<th>PART NUMBER</th>
<th>A</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLB06*3200A1</td>
<td>1.126</td>
<td>PLB16*3200A1</td>
<td>2.112</td>
</tr>
<tr>
<td>PLB06H*3200A1</td>
<td>0.910</td>
<td>PLB16H*3200A1</td>
<td>2.112</td>
</tr>
<tr>
<td>PLB08*3200A1</td>
<td>1.324</td>
<td>PLB20*3200A1</td>
<td>2.506</td>
</tr>
<tr>
<td>PLB08H*3200A1</td>
<td>1.324</td>
<td>PLB20H*3200A1</td>
<td>2.506</td>
</tr>
<tr>
<td>PLB12*3200A1</td>
<td>0.802</td>
<td>PLB12H*3200A1</td>
<td>1.718</td>
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<tr>
<td>PLB12H*3200A1</td>
<td>0.802</td>
<td>PLB12*3200A1</td>
<td>1.718</td>
</tr>
</tbody>
</table>

* *Asterisk determines gender of connector, M for male, F for female.*

**NOTE:** Mounting screws can be supplied with connectors using step 5 in ordering information on page 26. Mounting screws can also be ordered separately by part number. See page 59.

---

### PLC STRAIGHT PRINTED BOARD MOUNT CONNECTORS

**Code 32, 0.377 [9.58] Contact Extension**

<table>
<thead>
<tr>
<th>PART NUMBER</th>
<th>A</th>
<th>PART NUMBER</th>
<th>A</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLC09*3200A1</td>
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<td>PLC24*3200A1</td>
<td>2.112</td>
</tr>
<tr>
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<tr>
<td>PLC12*3200A1</td>
<td>1.324</td>
<td>PLC30*3200A1</td>
<td>2.506</td>
</tr>
<tr>
<td>PLC12H*3200A1</td>
<td>1.324</td>
<td>PLC30H*3200A1</td>
<td>2.506</td>
</tr>
<tr>
<td>PLC18*3200A1</td>
<td>0.802</td>
<td>PLC18*3200A1</td>
<td>1.718</td>
</tr>
<tr>
<td>PLC18H*3200A1</td>
<td>0.802</td>
<td>PLC18*3200A1</td>
<td>1.718</td>
</tr>
</tbody>
</table>

* *Asterisk determines gender of connector, M for male, F for female.*

**NOTE:** Mounting screws can be supplied with connectors using step 5 in ordering information on page 26. Mounting screws can also be ordered separately by part number. See page 59.

---

**DIMENSIONS ARE IN INCHES [MILLIMETERS]. ALL DIMENSIONS ARE SUBJECT TO CHANGE.**

---

**Rev G2**
PLA COMPLIANT PRESS-IN CONNECTORS

**Code 92 or Code 93**

See page 56 for Installation Tooling.

<table>
<thead>
<tr>
<th>PART NUMBER</th>
<th>A</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLA03**00A1</td>
<td>1.126</td>
</tr>
<tr>
<td>PLA04**00A1</td>
<td>1.324</td>
</tr>
<tr>
<td>PLA06**00A1</td>
<td>1.718</td>
</tr>
<tr>
<td>PLA08**00A1</td>
<td>2.112</td>
</tr>
<tr>
<td>PLA12**00A1</td>
<td>2.506</td>
</tr>
</tbody>
</table>

Plating- See ordering information for contact plating options.

For connection systems 1, 4 and 6.

**NOTE:** Positronic recommends the practice of using mounting hardware to secure connector to printed circuit board. Mounting screws can be supplied with connectors using step 5 in ordering information on page 26. Mounting screws can also be ordered separately by part number. See page 59.

Typical part number: PLA03M93ST30A1
PLA03F93ST30A1

**Asterisks determine gender of connector, M for male, F for female and contact code 92 or 93.**

**CONTACT CODE | L | PCB THICKNESS**
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>92</td>
<td>0.183 [4.65]</td>
<td>0.093 [2.36]</td>
</tr>
<tr>
<td>93</td>
<td>0.218 [5.54]</td>
<td>0.125 [3.18]</td>
</tr>
</tbody>
</table>

PLB COMPLIANT PRESS-IN CONNECTORS

**Code 92 or Code 93**

See page 56 for Installation Tooling.

<table>
<thead>
<tr>
<th>PART NUMBER</th>
<th>A</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLB06**00A1</td>
<td>1.126</td>
</tr>
<tr>
<td>PLB08**00A1</td>
<td>1.324</td>
</tr>
<tr>
<td>PLB12**00A1</td>
<td>1.718</td>
</tr>
<tr>
<td>PLB16**00A1</td>
<td>2.112</td>
</tr>
<tr>
<td>PLB20**00A1</td>
<td>2.506</td>
</tr>
<tr>
<td>PLB08**00A1</td>
<td>1.324</td>
</tr>
<tr>
<td>PLB12**00A1</td>
<td>1.718</td>
</tr>
<tr>
<td>PLB16**00A1</td>
<td>2.112</td>
</tr>
<tr>
<td>PLB20**00A1</td>
<td>2.506</td>
</tr>
</tbody>
</table>

Plating- See ordering information for contact plating options.

For connection systems 1, 4 and 6.

**NOTE:** Positronic recommends the practice of using mounting hardware to secure connector to printed circuit board. Mounting screws can be supplied with connectors using step 5 in ordering information on page 26. Mounting screws can also be ordered separately by part number. See page 59.

Typical part number: PLB06M93ST30A1
PLB06F93ST30A1

**Asterisks determine gender of connector, M for male, F for female and contact code 92 or 93.**

**CONTACT CODE | L | PCB THICKNESS**
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>92</td>
<td>0.183 [4.65]</td>
<td>0.093 [2.36]</td>
</tr>
<tr>
<td>93</td>
<td>0.218 [5.54]</td>
<td>0.125 [3.18]</td>
</tr>
</tbody>
</table>

PLC COMPLIANT PRESS-IN CONNECTORS

**Code 92 or Code 93**

See page 56 for Installation Tooling.

<table>
<thead>
<tr>
<th>PART NUMBER</th>
<th>A</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLC09**00A1</td>
<td>1.126</td>
</tr>
<tr>
<td>PLC12**00A1</td>
<td>1.324</td>
</tr>
<tr>
<td>PLC18**00A1</td>
<td>1.718</td>
</tr>
<tr>
<td>PLC24**00A1</td>
<td>2.112</td>
</tr>
<tr>
<td>PLC30**00A1</td>
<td>2.506</td>
</tr>
</tbody>
</table>

Plating- See ordering information for contact plating options.

For connection systems 1, 4 and 6.

**NOTE:** Positronic recommends the practice of using mounting hardware to secure connector to printed circuit board. Mounting screws can be supplied with connectors using step 5 in ordering information on page 26. Mounting screws can also be ordered separately by part number. See page 59.

Typical part number: PLC09M93ST30A1
PLC09F93ST30A1

**Asterisks determine gender of connector, M for male, F for female and contact code 92 or 93.**

**CONTACT CODE | L | PCB THICKNESS**
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>92</td>
<td>0.183 [4.65]</td>
<td>0.093 [2.36]</td>
</tr>
<tr>
<td>93</td>
<td>0.218 [5.54]</td>
<td>0.125 [3.18]</td>
</tr>
</tbody>
</table>
SUGGESTED PRINTED BOARD HOLE SIZES:

Suggest 0.080 [2.03] Ø holes in printed board for solder contact termination positions.

Suggest 0.100 [2.54] Ø holes in printed board when mounting connectors with #2 thread forming screws.

Suggest 0.123±0.003 [3.15±0.08] Ø holes in printed board when mounting connector with push-on fasteners.

NOTE: See page 57 for suggested printed board drill hole sizes, recommended plating and finished hole sizes for compliant contact termination positions.
### Connectors Designed To Customer Specifications

**Positronic’s** PLA(H), PLB(H), PLC(H) and PLS(H) series connectors can be modified to customers specifications.

**Examples:** select loading of contacts for cost savings or to gain creepage and clearance distances; longer printed circuit board terminations; customer specified hardware.

Contact Technical Sales with your particular requirements.

---

SUGGESTED PRINTED BOARD HOLE SIZES:

- Suggest 0.080 [2.03] Ø holes in printed board for solder contact termination positions.
- Suggest 0.100 [2.54] Ø holes in printed board when mounting connectors with #2 thread forming screws.
- Suggest 0.123±0.003 [3.15±0.08] Ø holes in printed board when mounting connector with push-on fasteners.

**NOTE:** See page 57 for suggested printed board drill hole sizes, recommended plating and finished hole sizes for compliant contact termination positions.
RIGHT ANGLE (90°) SOLDER PRINTED BOARD CONNECTOR

PLA RIGHT ANGLE (90°) PRINTED BOARD MOUNT

**CODE 4, 0.146 [3.71] CONTACT EXTENSION**

**NOTE:** MOUNTING SCREWS CAN BE ORDERED SEPARATELY BY PART NUMBER WHEN CHOOSING B3 BRACKETS. SEE PAGE 59.

*ASTERISK determines gender of connector, M for male, F for female.

<table>
<thead>
<tr>
<th>PART NUMBER</th>
<th>A</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLA03*400A1</td>
<td>1.126</td>
</tr>
<tr>
<td>PLA03*400A1</td>
<td>[28.60]</td>
</tr>
<tr>
<td>PLA04*400A1</td>
<td>1.324</td>
</tr>
<tr>
<td>PLA04*400A1</td>
<td>[33.63]</td>
</tr>
</tbody>
</table>

Plating- See ordering information for contact plating options.

For connection systems 1, 2 and 5.

---

PLB RIGHT ANGLE (90°) PRINTED BOARD MOUNT

**CODE 4, 0.146 [3.71] CONTACT EXTENSION**

**NOTE:** MOUNTING SCREWS CAN BE ORDERED SEPARATELY BY PART NUMBER WHEN CHOOSING B3 BRACKETS. SEE PAGE 59.

*ASTERISK determines gender of connector, M for male, F for female.

<table>
<thead>
<tr>
<th>PART NUMBER</th>
<th>A</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLB06*400A1</td>
<td>1.126</td>
</tr>
<tr>
<td>PLB06*400A1</td>
<td>[28.60]</td>
</tr>
<tr>
<td>PLB08*400A1</td>
<td>1.324</td>
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<tr>
<td>PLB08*400A1</td>
<td>[33.63]</td>
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<tr>
<td>PLB12*400A1</td>
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</tr>
<tr>
<td>PLB12*400A1</td>
<td>[43.63]</td>
</tr>
</tbody>
</table>

Plating- See ordering information for contact plating options.

For connection systems 1, 2 and 5.

---

PLC RIGHT ANGLE (90°) PRINTED BOARD MOUNT

**CODE 4, 0.146 [3.71] CONTACT EXTENSION**

**NOTE:** MOUNTING SCREWS CAN BE ORDERED SEPARATELY BY PART NUMBER WHEN CHOOSING B3 BRACKETS. SEE PAGE 59.

*ASTERISK determines gender of connector, M for male, F for female.

<table>
<thead>
<tr>
<th>PART NUMBER</th>
<th>A</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLC09*400A1</td>
<td>1.126</td>
</tr>
<tr>
<td>PLC09*400A1</td>
<td>[28.60]</td>
</tr>
<tr>
<td>PLC12*400A1</td>
<td>1.324</td>
</tr>
<tr>
<td>PLC12*400A1</td>
<td>[33.63]</td>
</tr>
<tr>
<td>PLC18*400A1</td>
<td>1.716</td>
</tr>
<tr>
<td>PLC18*400A1</td>
<td>[43.63]</td>
</tr>
</tbody>
</table>

Plating- See ordering information for contact plating options.

For connection systems 1, 2 and 5.
**PLA RIGHT ANGLE (90°) PRINTED BOARD MOUNT**

**MALE**

0.600 [15.24]  
0.377 [9.58]  
e0.062 [1.57]

**FEMALE**

0.600 [15.24]  
0.377 [9.58]  
e0.062 [1.57]

**Typical part number:** PLA03M42BN0A1  
PLAH03M42BN0A1

**PART NUMBER** | **A**  
--- | ---  
PLA03*4200A1  
PLAH03*4200A1 | 1.126  
[28.60]  
1.324  
[33.63]  
1.718  
[43.64]

**NOTES:**
- MOUNTING SCREWS CAN BE ORDERED SEPARATELY BY PART NUMBER WHEN CHOOSING B3 BRACKETS. SEE PAGE 59.
- *Asterisk determines gender of connector, M for male, F for female.

**PLB RIGHT ANGLE (90°) PRINTED BOARD MOUNT**

**MALE**

0.600 [15.24]  
0.377 [9.58]  
e0.062 [1.57]

**FEMALE**

0.600 [15.24]  
0.377 [9.58]  
e0.062 [1.57]

**Typical part number:** PLB06M42BN0A1  
PLBH06M42BN0A1

**PART NUMBER** | **A**  
--- | ---  
PLB06*4200A1  
PLBH06*4200A1 | 1.126  
[28.60]  
1.324  
[33.63]  
1.718  
[43.64]

**NOTES:**
- MOUNTING SCREWS CAN BE ORDERED SEPARATELY BY PART NUMBER WHEN CHOOSING B3 BRACKETS. SEE PAGE 59.
- *Asterisk determines gender of connector, M for male, F for female.

**PLC RIGHT ANGLE (90°) PRINTED BOARD MOUNT**

**MALE**

0.600 [15.24]  
0.377 [9.58]  
e0.062 [1.57]

**FEMALE**

0.600 [15.24]  
0.377 [9.58]  
e0.062 [1.57]

**Typical part number:** PLC09M42BN0A1  
PLCH09M42BN0A1

**PART NUMBER** | **A**  
--- | ---  
PLC09*4200A1  
PLCH09*4200A1 | 1.126  
[28.60]  
1.324  
[33.63]  
1.718  
[43.64]

**NOTES:**
- MOUNTING SCREWS CAN BE ORDERED SEPARATELY BY PART NUMBER WHEN CHOOSING B3 BRACKETS. SEE PAGE 59.
- *Asterisk determines gender of connector, M for male, F for female.

**DIMENSIONS ARE IN INCHES [MILLIMETERS]. ALL DIMENSIONS ARE SUBJECT TO CHANGE.**

**CONNECTORS**

- **PCS SERIES**
  - *Asterisk determines gender of connector, M for male, F for female.

**PLATING**

- See ordering information for contact plating options.
  - For connection systems 1, 2, 3 and 5.

**Rev G2**
**NEW DRAWINGS**

Typical part number: PLA03M63B30A1
PLAH03M63B30A1

**NOTE:** Positronic recommends the practice of using mounting hardware to secure connector to printed circuit board. Mounting screws are ordered separately by part number. See page 59.

**PLA RIGHT ANGLE (90°) PRESS-IN CONNECTOR**

**CODE 62 OR CODE 63**

For connection systems 1, 2 and 5.

**PART NUMBER**

<table>
<thead>
<tr>
<th>A</th>
<th>CONTACT CODE</th>
<th>L</th>
<th>PCB THICKNESS</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLA03**B30A1</td>
<td>62</td>
<td>0.183</td>
<td>0.093</td>
</tr>
<tr>
<td></td>
<td></td>
<td>63</td>
<td>0.219</td>
</tr>
</tbody>
</table>

**NOTE:** Asterisk determines gender of connector, M for male, F for female, and contact code 62 or 63.

**Typical part number:**

PLA03M63B30A1
PLAH03M63B30A1

**Typical part number:**

PLA03F63B30A1
PLAH03F63B30A1

**Typical part number:**

PLA03M63B30A1
PLAH03M63B30A1

**Typical part number:**

PLA03F63B30A1
PLAH03F63B30A1

**Typical part number:**

PLB06**B30A1
PLBH06**B30A1

**Typical part number:**

PLB06F63B30A1
PLBH06F63B30A1

**Typical part number:**

PLB08**B30A1
PLBH08**B30A1

**Typical part number:**

PLB08F63B30A1
PLBH08F63B30A1

**Typical part number:**

PLB16**B30A1
PLBH16**B30A1

**Typical part number:**

PLB16F63B30A1
PLBH16F63B30A1

**Typical part number:**

PLB12**B30A1
PLBH12**B30A1

**Typical part number:**

PLB12F63B30A1
PLBH12F63B30A1

**Typical part number:**

PLB18**B30A1
PLBH18**B30A1

**Typical part number:**

PLB18F63B30A1
PLBH18F63B30A1

**Typical part number:**

PLC09**B30A1
PLCH09**B30A1

**Typical part number:**

PLC09F63B30A1
PLCH09F63B30A1

**Typical part number:**

PLC12**B30A1
PLCH12**B30A1

**Typical part number:**

PLC12F63B30A1
PLCH12F63B30A1

**Typical part number:**

PLC18**B30A1
PLCH18**B30A1

**Typical part number:**

PLC18F63B30A1
PLCH18F63B30A1

**Typical part number:**

PLC24**B30A1
PLCH24**B30A1

**Typical part number:**

PLC24F63B30A1
PLCH24F63B30A1

**Typical part number:**

PLC30**B30A1
PLCH30**B30A1

**Typical part number:**

PLC30F63B30A1
PLCH30F63B30A1

**NOTE:** Positronic recommends the practice of using mounting hardware to secure connector to printed circuit board. Mounting screws are ordered separately by part number. See page 59.

**PLB RIGHT ANGLE (90°) PRESS-IN CONNECTOR**

**CODE 62 OR CODE 63**

For connection systems 1, 2 and 5.

**PART NUMBER**

<table>
<thead>
<tr>
<th>A</th>
<th>CONTACT CODE</th>
<th>L</th>
<th>PCB THICKNESS</th>
</tr>
</thead>
<tbody>
<tr>
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<td>62</td>
<td>0.183</td>
<td>0.093</td>
</tr>
<tr>
<td></td>
<td></td>
<td>63</td>
<td>0.219</td>
</tr>
</tbody>
</table>

**NOTE:** Asterisk determines gender of connector, M for male, F for female, and contact code 62 or 63.

**Typical part number:**

PLB06**B30A1
PLBH06**B30A1

**Typical part number:**

PLB06F63B30A1
PLBH06F63B30A1

**Typical part number:**

PLB08**B30A1
PLBH08**B30A1

**Typical part number:**

PLB08F63B30A1
PLBH08F63B03A1

**Typical part number:**

PLB16**B30A1
PLBH16**B30A1

**Typical part number:**

PLB16F63B03A1
PLBH16F63B03A1

**Typical part number:**

PLB12**B30A1
PLBH12**B30A1

**Typical part number:**

PLB12F63B03A1
PLBH12F63B03A1

**Typical part number:**

PLB18**B30A1
PLBH18**B30A1

**Typical part number:**

PLB18F63B03A1
PLBH18F63B03A1

**Typical part number:**

PLC09**B30A1
PLCH09**B30A1

**Typical part number:**

PLC09F63B03A1
PLCH09F63B03A1

**Typical part number:**

PLC12**B30A1
PLCH12**B30A1

**Typical part number:**

PLC12F63B03A1
PLCH12F63B03A1

**Typical part number:**

PLC18**B30A1
PLCH18**B30A1

**Typical part number:**

PLC18F63B03A1
PLCH18F63B03A1

**Typical part number:**

PLC24**B30A1
PLCH24**B30A1

**Typical part number:**

PLC24F63B03A1
PLCH24F63B03A1

**Typical part number:**

PLC30**B30A1
PLCH30**B30A1

**Typical part number:**

PLC30F63B03A1
PLCH30F63B03A1

**NOTE:** Positronic recommends the practice of using mounting hardware to secure connector to printed circuit board. Mounting screws are ordered separately by part number. See page 59.

**PLC RIGHT ANGLE (90°) PRESS-IN CONNECTOR**

**CODE 62 OR CODE 63**

For connection systems 1, 2 and 5.

**PART NUMBER**

<table>
<thead>
<tr>
<th>A</th>
<th>CONTACT CODE</th>
<th>L</th>
<th>PCB THICKNESS</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLC09**B30A1</td>
<td>62</td>
<td>0.183</td>
<td>0.093</td>
</tr>
<tr>
<td></td>
<td></td>
<td>63</td>
<td>0.219</td>
</tr>
</tbody>
</table>

**NOTE:** Asterisk determines gender of connector, M for male, F for female, and contact code 62 or 63.

**Typical part number:**

PLC09**B30A1
PLCH09**B30A1

**Typical part number:**

PLC09F63B03A1
PLCH09F63B03A1

**Typical part number:**

PLC12**B30A1
PLCH12**B30A1

**Typical part number:**

PLC12F63B03A1
PLCH12F63B03A1

**Typical part number:**

PLC18**B30A1
PLCH18**B30A1

**Typical part number:**

PLC18F63B03A1
PLCH18F63B03A1

**Typical part number:**

PLC24**B30A1
PLCH24**B30A1

**Typical part number:**

PLC24F63B03A1
PLCH24F63B03A1

**Typical part number:**

PLC30**B30A1
PLCH30**B30A1

**Typical part number:**

PLC30F63B03A1
PLCH30F63B03A1

**NOTE:** Positronic recommends the practice of using mounting hardware to secure connector to printed circuit board. Mounting screws are ordered separately by part number. See page 59.

**Rev G2**
### PLA 03
- Dimension: 0.441±0.002 [11.20±0.05]
- Dimension: 0.882±0.005 [22.40±0.13]
- Dimension: 0.237±0.015 [6.02±0.38]

### PLA 04
- Dimension: 0.540±0.002 [13.72±0.05]
- Dimension: 1.080±0.005 [27.43±0.13]
- Dimension: 0.237±0.015 [6.02±0.38]

### PLA 06
- Dimension: 0.737±0.002 [18.72±0.05]
- Dimension: 1.474±0.005 [37.44±0.13]
- Dimension: 0.237±0.015 [6.02±0.38]

### PLA 08
- Dimension: 0.934±0.002 [23.72±0.05]
- Dimension: 1.868±0.005 [47.45±0.13]
- Dimension: 0.237±0.015 [6.02±0.38]

### PLB 06
- Dimension: 0.040±0.015 [1.02±0.38]
- Dimension: 0.237±0.015 [6.02±0.38]

### PLB 08
- Dimension: 0.040±0.015 [1.02±0.38]
- Dimension: 0.237±0.015 [6.02±0.38]

### PLB 12
- Dimension: 0.197±0.002 [5.00±0.05]
- Dimension: 0.099±0.002 [2.51±0.05]

### PLB 16
- Dimension: 0.197±0.002 [5.00±0.05]
- Dimension: 0.099±0.002 [2.51±0.05]

### PLB 20
- Dimension: 0.441±0.002 [11.20±0.05]
- Dimension: 2.262±0.005 [57.45±0.13]
- Dimension: 0.237±0.015 [6.02±0.38]

### PLC 09
- Dimension: 0.157±0.015 [3.99±0.38]
- Dimension: 0.040±0.015 [1.02±0.38]
- Dimension: 0.237±0.015 [6.02±0.38]

See page 20 for suggested printed board hole sizes.
SUGGESTED PRINTED BOARD HOLE SIZES:
Suggest 0.080 [2.03] Ø holes in printed board for solder contact termination positions.
Suggest 0.123±0.003 [3.15±0.08] Ø holes in printed board when mounting connector with push-on fasteners.

NOTE: See page 57 for suggested printed board drill hole sizes, recommended plating and finished hole sizes for compliant contact termination positions.

PANEL MOUNT CONNECTORS WITH SOLDER CUP CONTACTS

CODE 2, 18 AWG [1.00mm²] MAX.

<table>
<thead>
<tr>
<th>CONNECTOR VARIANTS</th>
<th>A (INCHES)</th>
<th>B (INCHES)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLA03</td>
<td>1.126</td>
<td>0.408</td>
</tr>
<tr>
<td>PLA04</td>
<td>1.324</td>
<td>0.408</td>
</tr>
<tr>
<td>PLA06</td>
<td>1.718</td>
<td>0.408</td>
</tr>
<tr>
<td>PLA08</td>
<td>2.112</td>
<td>0.408</td>
</tr>
<tr>
<td>PLB06</td>
<td>1.126</td>
<td>0.606</td>
</tr>
<tr>
<td>PLB08</td>
<td>1.324</td>
<td>0.606</td>
</tr>
<tr>
<td>PLB12</td>
<td>1.718</td>
<td>0.606</td>
</tr>
<tr>
<td>PLB16</td>
<td>2.112</td>
<td>0.606</td>
</tr>
<tr>
<td>PLB20</td>
<td>2.506</td>
<td>0.606</td>
</tr>
<tr>
<td>PLC09</td>
<td>1.126</td>
<td>0.802</td>
</tr>
<tr>
<td>PLC12</td>
<td>1.324</td>
<td>0.802</td>
</tr>
<tr>
<td>PLC18</td>
<td>1.718</td>
<td>0.802</td>
</tr>
<tr>
<td>PLC24</td>
<td>2.112</td>
<td>0.802</td>
</tr>
<tr>
<td>PLC30</td>
<td>2.506</td>
<td>0.802</td>
</tr>
</tbody>
</table>

NOTE: MOUNTING SCREWS CAN BE SUPPLIED WITH CONNECTORS USING STEP 5 IN ORDERING INFORMATION ON PAGE 26. MOUNTING SCREWS CAN ALSO BE ORDERED SEPARATELY BY PART NUMBER, SEE PAGE 59.
**MALE INSULATOR DIMENSIONS**

**FOR CABLE CONNECTORS WITH SIZE 16 REMOVABLE CONTACTS**

**CODE 0 OR CODE 7**

CONTACTS ARE NOT SUPPLIED WITH CONNECTOR AND MUST BE ORDERED SEPARATELY

---

**PLA 03**

- Male Insulator Dimensions
- PLA 03

**PLA 04**

- Male Insulator Dimensions
- PLA 04

**PLA 06**

- Male Insulator Dimensions
- PLA 06

**PLA 08**

- Male Insulator Dimensions
- PLA 08

**PLB 06**

- Male Insulator Dimensions
- PLB 06

**PLB 08**

- Male Insulator Dimensions
- PLB 08

**PLB 12**

- Male Insulator Dimensions
- PLB 12

**PLB 16**

- Male Insulator Dimensions
- PLB 16

**PLC 09**

- Male Insulator Dimensions
- PLC 09

**PLC 12**

- Male Insulator Dimensions
- PLC 12

**PLC 18**

- Male Insulator Dimensions
- PLC 18

**PLC 24**

- Male Insulator Dimensions
- PLC 24

**PLC 30**

- Male Insulator Dimensions
- PLC 30

---

For information regarding size 16 removable contacts, see Removable Contact section, pages 47-53.
FEMALE INSULATOR DIMENSIONS
FOR CABLE CONNECTORS WITH SIZE 16 REMOVABLE CONTACTS
CODE 0 OR CODE 7
CONTACTS ARE NOT SUPPLIED WITH CONNECTOR AND MUST BE ORDERED SEPARATELY

For information regarding size 16 removable contacts, see Removable Contact section, pages 47-53.
MALE INSULATOR DIMENSIONS
FOR PANEL MOUNT CONNECTORS

CODE 1 OR CODE 8
CONTACTS ARE NOT SUPPLIED WITH CONNECTOR AND MUST BE ORDERED SEPARATELY

NOTE: MOUNTING SCREWS CAN BE SUPPLIED WITH CONNECTORS USING STEP 5 IN ORDERING INFORMATION ON PAGE 26. MOUNTING SCREWS CAN ALSO BE ORDERED SEPARATELY BY PART NUMBER. SEE PAGE 59.

For information regarding panel cutouts, see page 63.

For information regarding size 16 removable contacts, see Removable Contact section, pages 47-53.

DIMENSIONS ARE IN INCHES [MILLIMETERS].
ALL DIMENSIONS ARE SUBJECT TO CHANGE.
FEMALE INSULATOR DIMENSIONS FOR PANEL MOUNT CONNECTORS WITH SIZE 16 REMOVABLE CONTACTS

CODE 1 OR CODE 8

CONTACTS ARE NOT SUPPLIED WITH CONNECTOR AND MUST BE ORDERED SEPARATELY

NOTE: MOUNTING SCREWS CAN BE SUPPLIED WITH CONNECTORS USING STEP 5 IN ORDERING INFORMATION ON PAGE 26. MOUNTING SCREWS CAN ALSO BE ORDERED SEPARATELY BY PART NUMBER. SEE PAGE 59.

For information regarding panel cutouts, see page 63.

For information regarding size 16 removable contacts, see Removable Contact section, pages 47-53.
SEQUENTIAL MATING SYSTEM

*REMOVABLE CONTACTS FOR CABLE CONNECTORS MUST BE ORDERED SEPARATELY
FOR CONTACT SELECTION, SEE SIZE 16 CONTACTS ON PAGE 49

EXAMPLE 1

LENGTH CODE     "X" CONTACT LENGTH
A                0.370 [9.40]
B                0.330 [8.38]
C                0.310 [7.87]
D                0.290 [7.37]
E                0.250 [6.35]

MATING CONNECTOR TYPE CONTACT OPTIONS
Board to Board    B, D, E
Board to Cable*  A, C, E
Cable to Cable*  A, D

EXAMPLE 2

Typical Part Number:
PLA06M300A1-E1B2B

Typical Part Number:
PLA08M4B0C1-D8B

SEQUENTIAL MATING SYSTEM
CRIMP REMOVABLE CONTACT PART NUMBERS

<table>
<thead>
<tr>
<th>WIRE SIZE</th>
<th>LENGTH CODE “A”</th>
<th>LENGTH CODE “C”</th>
<th>LENGTH CODE “D”</th>
<th>LENGTH CODE “E”</th>
</tr>
</thead>
<tbody>
<tr>
<td>AWG/[mm²]</td>
<td>MC112N-133.3</td>
<td>MC112N-133.2</td>
<td>MC112N-133.1</td>
<td>MC112N-133.0</td>
</tr>
<tr>
<td>12 - 14</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[4.0 - 2.5]</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16 - 18 - 20</td>
<td>MC116N-133.3</td>
<td>MC116N-133.2</td>
<td>MC116N-133.1</td>
<td>MC116N-133.0</td>
</tr>
<tr>
<td>[1.5 - 1.0 - 0.5]</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

For information regarding size 16 removable contacts, see Removable Contact section, pages 47-53.

SEQUENCE CONTACT MATING CONNECTOR

PCS SERIES

SELECTION GUIDE FOR ORDERING DIFFERENT CONTACT LENGTHS

STEP 9 OF ORDERING INFORMATION
SELECT CONNECTOR USING ORDERING INFORMATION ON PAGE 26
THEN CHOOSE STEPS BELOW FOR SEQUENTIAL MATING SYSTEM CONTACTS

<table>
<thead>
<tr>
<th>STEP</th>
<th>EXAMPLE</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>EXAMPLE</td>
<td>E</td>
<td>B</td>
<td>B</td>
<td>D</td>
<td>B</td>
<td>D</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

STEP 1
Specify code for most frequently used contact mating length. This length is used for all contacts not specified in steps 2 through 9.

STEP 2
Position number for first special length contact.

STEP 3
Length of contact specified in step 2. (Choose from length code chart)

STEP 4
Position number for second special length contact.

STEP 5
Length of contact specified in step 4. (Choose from length code chart)

STEP 6
Position number for third special length contact.

STEP 7
Length of contact specified in step 6 (Choose from length code chart).

STEP 8
Position number for fourth special length contact.

STEP 9
Length of contact specified in step 8 (Choose from length code chart).

DIMENSIONS ARE IN INCHES [MILLIMETERS].
ALL DIMENSIONS ARE SUBJECT TO CHANGE.

Rev G1
**ORDERING INFORMATION - CODE NUMBERING SYSTEM**

Specify Complete Connector By Selecting An Option From Step 1 Through 7

**STEP 1 - BASIC SERIES**

<table>
<thead>
<tr>
<th>PLB 06 F 3 0 0 A1 /AA</th>
</tr>
</thead>
</table>

**STEP 2 - CONNECTOR VARIANTS**

1 Row - 03, 04, 06, 08
2 Row - 06, 08, 12, 16, 20
3 Row - 09, 12, 18, 24, 30

**STEP 3 - CONNECTOR GENDER**

M = Male
F = Female

**STEP 4 - CONTACT TERMINATION TYPE**

*0 - Order contacts separately for cable connectors for connection systems 5, 6, 7, 8 and 9, see pages 47-53.
*1 - Removable contact, panel mounted connector for connection system 8. Order contacts separately, see pages 47-53.
2 - Solder cup, 18 AWG [1.0mm²] max. for panel mount connector, for connection system 8. Not available as PLH.
3 - Solder, Straight Printed Board Mount with 0.377 [9.51] tail extension for connection systems 1, 4 and 6.
32 - Solder, Straight Printed Board Mount with 0.377 [9.51] tail extension for connection systems 3 and systems 1, 4 and 6.
4 - Solder, Right Angle (90°) Printed Board Mount with 0.146 [3.71] tail extension for connection systems 1, 2 and 5.
42 - Solder, Right Angle (90°) Printed Board Mount with 0.377 [9.51] tail extension for connection system 3 and systems 1, 2 and 5.
63 - Press-in, compliant termination Right Angle (90°) Printed Board Mount, termination length 0.219 [5.65]. Must select “B3” in step 5.
*7 - Order contacts separately for cable connectors for connection systems 5, 6, 7, 8 and 9, see pages 47-53. Terminating side of insulator has 0.165 [4.19] ø c'bore for large wire sizes.
**8 - Removable contact, panel mounted connector for connection system 8. Order contacts separately, see pages 47-53. Terminating side of insulator has 0.165 [4.19] ø c'bore for large wire sizes.
92 - Straight printed board mount, press-in, length 0.183 [4.65] for 0.093 inch [2.36] thick board.
93 - Straight printed board mount, press-in, length 0.218 [5.54] for 0.125 inch [3.18] thick board.

**STEP 5 - MOUNTING STYLE**

0 - None
1 - Metal Right Angle (90°) Mounting Bracket
BN - Metal Right Angle (90°) Mounting Bracket with Push-on Fastener
B3 - Plastic Right Angle (90°) Mounting Bracket with Cross Bar
B3N - Plastic Right Angle (90°) Mounting Bracket with Cross Bar and Push-on Fastener
N - Push-on Fastener For Straight Printed Board Mount Connectors
*N - Push-on Fastener
*ST2 - Self-tapping steel screws 2-28 x 0.250 ± 0.030 [6.35 ± 0.76] length for 0.093 [2.36] thick board.
*ST3 - Self-tapping steel screws 2-28 x 0.312 ± 0.030 [7.92 ± 0.76] length for 0.125 [3.18] thick board.
*ST4 - Self-tapping steel screws 2-28 x 0.375 ± 0.030 [9.53 ± 0.76] length for 0.175 [4.45] thick board.
*SS2 - Self-tapping stainless steel screws 2-28 x 0.250 ± 0.030 [6.35 ± 0.76] length for 0.093 [2.36] thick board.
*SS3 - Self-tapping stainless steel screws 2-28 x 0.312 ± 0.030 [7.92 ± 0.76] length for 0.125 [3.18] thick board.
*SS4 - Self-tapping stainless steel screws 2-28 x 0.375 ± 0.030 [9.53 ± 0.76] length for 0.175 [4.45] thick board.

**STEP 6 - HOODS AND PANEL MOUNT**

0 - None
5 - Top Opening Hood
6 - Panel Mount, quick release.
81 - Panel Mount, fixed for 0.040 [1.02] thick panel.
82 - Panel Mount, fixed for 0.060 [1.52] thick panel.
83 - Panel Mount, fixed for 0.090 [2.29] thick panel.
11 - Blind Mating System for 0.040 [1.02] thick panel.
12 - Blind Mating System for 0.060 [1.52] thick panel.
13 - Blind Mating System for 0.090 [2.29] thick panel.
14 - Blind Mating System for 0.120 [3.05] thick panel.

**STEP 7 - CONTACT PLATING FOR PRINTED BOARD CONNECTORS**

<table>
<thead>
<tr>
<th>TYPE</th>
<th>CONTACT PLATING FOR PRINTED BOARD CONNECTORS</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0.00020 inch [5.00µ] tin-lead solder coat on termination end. Not available with code 62, 63, 92 or 93 in step 4.</td>
</tr>
<tr>
<td>A1</td>
<td>Gold flash over nickel on mating end and termination end.</td>
</tr>
<tr>
<td>A2</td>
<td>Gold flash over nickel on mating end and 0.00020 inch [5.00µ] tin-lead solder coating termination end. Not available with code 62, 63, 92 or 93 in step 4.</td>
</tr>
<tr>
<td>C1</td>
<td>0.000030 inch [0.76µ] gold over nickel on mating end and termination end.</td>
</tr>
<tr>
<td>C2</td>
<td>0.000030 inch [0.76µ] gold over nickel on mating end and 0.000020 inch [5.00µ] tin-lead solder coated termination end. Not available with code 62, 63, 92 or 93 in step 4.</td>
</tr>
<tr>
<td>D1</td>
<td>0.000050 inch [1.27µ] gold over nickel on mating end and termination end.</td>
</tr>
<tr>
<td>D2</td>
<td>0.000050 inch [1.27µ] gold over nickel on mating end and 0.000020 inch [5.00µ] tin-lead solder coated termination end. Not available with code 62, 63, 92 or 93 in step 4.</td>
</tr>
</tbody>
</table>

**STEP 8 - ENVIRONMENTAL COMPLIANCE OPTIONS**

/AA - RoHS Compliant

**NOTE:** If compliance to environmental legislation is not required, this step will not be used.
Example: PLB06F300A1

**STEP 9 - SPECIAL OPTIONS**

Sequential Mating Systems refer to page 25.

CONTACT TECHNICAL SALES FOR SPECIAL OPTIONS

**FOR SPECIAL OPTIONS**

<table>
<thead>
<tr>
<th>TYPE</th>
<th>FOR SPECIAL OPTIONS</th>
</tr>
</thead>
</table>

**NOTE:** Once you have made a connector selection, contact Technical Sales if you would like to receive a drawing in DXF, PDF format or a 3-D IGES, STEP, or SOLIDWORKS file.

**DIMENSIONS ARE IN INCHES [MILLIMETERS]. ALL DIMENSIONS ARE SUBJECT TO CHANGE.**
**SAFETY SHROUD CONNECTOR**

Safety Shrouded Connector to Prevent Unsafe Exposure to High Energy Circuits

* Size 12 Power Contacts
* Large Surface Area Mating System
* Discriminating Locking System
* Contact Current Rating to 40 Amperes

**Board - Cable / Cable - Cable**

---

### TECHNICAL CHARACTERISTICS

**MATERIALS AND FINISHES:**

- **Insulator:** Glass-filled polyester, UL 94V-0.
  - Contact technical sales for availability of high temperature insulator material.
- **Contacts:** Precision machined copper alloy with gold flash over nickel, or 0.000030 inch [0.76µ] gold over nickel, or 0.000050 [1.27µ] gold over nickel. Solder coated terminations optional.
- **Push-on Fastener:** Spring tempered copper alloy, tin plate.

**ELECTRICAL CHARACTERISTICS:**

- **Contact Current Rating:** 40 amperes continuous, derated per IEC 60512-3, test 5b. Higher currents available with high conductivity contacts, contact Technical Sales
- **Initial Contact Resistance:** 0.001 ohms max. per IEC 60512-2, test 2b.
- **Insulation Resistance:** 5 G ohms per IEC 60512-2, test 3a.
- **Voltage Proof:** 3.000 minimum V r.m.s. per IEC 60512-2, test 4a, method A.
- **Clearance and Creepage Distance:** 0.220 [5.60] minimum
- **Working Voltage:** 600 minimum V. r.m.s.
- **Working Temperature:** 250 VAC at 20 amperes
  - -55°C to +125°C
  - Contact technical sales for availability of high temperature insulator material.

**MECHANICAL CHARACTERISTICS:**

- **Removable Contacts:** Rear insertion/ front release. Female contact features “Closed Entry” design for highest reliability. 0.094 [2.39] diameter male contact.
- **Removable Contact Retention in Insulator:** 15 lbs. [67N] per IEC 60512-8, test 15a.
- **Fixed Contacts:** Printed board terminations, both straight and 90°. Female contact features “Closed Entry” design for highest reliability. 0.094 [2.39] diameter male contact.
- **Fixed Contact Retention in Insulator:** 15 lbs. [67N], minimum.
- **Resistance to Soldering Iron Heat:** 500°F [260°C] for 10 seconds duration per IEC 60512-6, test 12e, 25 watt soldering iron.
- **Contact Terminations:** Crimp removable contacts for wire size 12 AWG [4.0 mm²]. Straight and right angle (90°)solder printed board mount, 0.090 [2.29] tail diameter.
- **Connection Systems:** Cable to cable, cable to printed board and cable to panel mount.
- **Locking System:** Insulators provide locking between cable to cable, cable to printed board and cable to panel mount applications.
- **Polarization:** Provided in insulator design.
- **Mounting to P.C. Board:** Rapid installation push-on fasteners.
- **Mechanical Operations:** 500 operations
System 5
Cable to Right
Angle (90°) Board
Mount

System 6
Cable to Straight
Board Mount

System 7
Cable to Cable

System 8
Panel Mounting
to Cable

CONNECTOR VARIANTS
FACE VIEW OF MALE OR REAR VIEW OF FEMALE CONNECTOR

PLS5W5

PLS7W7

FEMALE CABLE CONNECTOR
FOR CABLE CONNECTORS WITH SIZE 12 REMOVABLE CONTACTS
CODE 0
CONTACTS ARE NOT SUPPLIED WITH CONNECTOR AND MUST BE ORDERED SEPARATELY

<table>
<thead>
<tr>
<th>PART NUMBER</th>
<th>A</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>PLS5W5F0000</td>
<td>1.655 [42.04]</td>
<td></td>
</tr>
<tr>
<td>PLS7W7F0000</td>
<td>2.072 [52.64]</td>
<td></td>
</tr>
</tbody>
</table>

Typical part number:
PLS5W5F0000

For information regarding size 12 removable contacts, see Removable Contact section, pages 47-53.
MALE PANEL MOUNT CONNECTOR
FOR PANEL MOUNT CONNECTORS WITH SIZE 12 REMOVABLE CONTACTS
CODE 1
CONTACTS ARE NOT SUPPLIED WITH CONNECTOR AND MUST BE ORDERED SEPARATELY

Typical part number:
PLS5W5M10000

<table>
<thead>
<tr>
<th>PART NUMBER</th>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLS5W5M10000</td>
<td>1.795</td>
<td>1.295</td>
</tr>
<tr>
<td>PLS7W7M10000</td>
<td>2.213</td>
<td>1.713</td>
</tr>
</tbody>
</table>

FEMALE PANEL MOUNT CONNECTOR
FOR PANEL MOUNT CONNECTORS WITH SIZE 12 REMOVABLE CONTACTS
CODE 1
CONTACTS ARE NOT SUPPLIED WITH CONNECTOR AND MUST BE ORDERED SEPARATELY

Typical part number:
PLS5W5F10000

*CONTACT TECHNICAL SALES
FOR AVAILABILITY OF 7W7 VARIANT.

For information regarding size 12 removable contacts, see Removable Contact section, pages 47-53.

DIMENSIONS ARE IN INCHES [MILLIMETERS].
ALL DIMENSIONS ARE SUBJECT TO CHANGE.
SAFETY SHROUD

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ems

STRAIGHT SOLDER AND RIGHT ANGLE (90°) SOLDER PRINTED BOARD CONNECTOR

MALE STRAIGHT PRINTED BOARD MOUNT CONNECTOR
CODE 3, 0.146 [3.71] CONTACT EXTENSION

Typical part number: PLS5W5M300A1

<table>
<thead>
<tr>
<th>PART NUMBER</th>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLS5W5M300A1</td>
<td>1.795</td>
<td>1.295</td>
</tr>
<tr>
<td>PLS7W7M300A1</td>
<td>2.213</td>
<td>1.713</td>
</tr>
</tbody>
</table>

MALE RIGHT ANGLE (90°) PRINTED BOARD MOUNT CONNECTOR
CODE 4, 0.146 [3.71] CONTACT EXTENSION

Typical part number: PLS5W5M400A1

<table>
<thead>
<tr>
<th>PART NUMBER</th>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLS5W5M400A1</td>
<td>1.795</td>
<td>1.295</td>
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<tr>
<td>PLS7W7M400A1</td>
<td>2.213</td>
<td>1.713</td>
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</tbody>
</table>

PRINTED BOARD CONTACT HOLE PATTERNS

STRAIGHT SOLDER

PLS5W5

PLS7W7

RIGHT ANGLE (90°)

PLS5W5

PLS7W7

DIMENSIONS ARE IN INCHES [MILLIMETERS]. ALL DIMENSIONS ARE SUBJECT TO CHANGE.
## ORDERING INFORMATION - CODE NUMBERING SYSTEM

Specify Complete Connector By Selecting An Option From Step 1 Through 7

### STEP 1 - BASIC SERIES
- **PLS** - PLS Series
- **PLSH** - High conductivity contacts

### STEP 2 - CONNECTOR VARIANTS
- **5W5** - Five size 12 contacts
- **7W7** - Seven size 12 contacts

### STEP 3 - CONNECTOR GENDER
- **M** - Male
- **F** - Female

### STEP 4 - CONTACT TERMINATION TYPE
- **0** - Order contacts separately for cable connectors for connection systems 5, 6, 7 and 8, see pages 47-53. Female connectors only. **
- **1** - Order contacts separately for Panel Mount connectors for connection system 7, see pages 47-53. For 7W7 female variant consult technical sales.
- **3** - Solder, Straight Printed Board Mount with 0.146 [3.71] tail extension for connection system 6. Male connectors only. ***
- **4** - Solder, Right Angle (90°) Printed Board Mount with 0.146 [3.71] tail extension for connection system 5. Male connectors only. ***

### STEP 5 - MOUNTING STYLE
- **0** - None.
- **N** - Push-on Fastener for Straight Printed Board Mount Connectors

### STEP 6 - CABLE ADAPTER
- **0** - None
- **5** - Top Opening Hood, see accessories section page 60.

### NOTE: Once you have made a connector selection, contact Technical Sales if you would like to receive a drawing in DXF, PDF format or a 3-D IGES, STEP, or SOLIDWORKS file.

** Consult technical sales for availability of male version of contact type 0.
*** Consult technical sales for availability of female version of contact type 3 and 4.

### NOTE:
If compliance to environmental legislation is not required, this step will not be used. Example: PLS5W5M400A1
A.C. / D.C. INPUT CONNECTOR

* Hot Plug Capability
* Screw Termination Contacts
* Size 12 Power Contacts
* Large Surface Area Mating System
* Contact Current Rating to 40 Amperes
* Sequential Mating Options
* Discriminating Locking System

TECHNICAL CHARACTERISTICS

MATERIALS AND FINISHES:
- **Insulator:** Glass-filled polyester, UL 94V-0. Contact technical sales for availability of high temperature insulator material.
- **Contacts:** Precision machined copper alloy with gold flash over nickel, or 0.000030 inch [0.76µ] gold over nickel, or 0.000050 [1.27µ] gold over nickel. Solder coated terminations optional.
- **Hood:** Glass-filled polyester, UL 94V-0.
- **Mounting Bracket:** Brass, tin plate.
- **Push-on Fastener:** Spring tempered copper alloy, tin plate.
- **Mounting Screw:** Steel, zinc plate, or stainless steel passivated.

ELECTRICAL CHARACTERISTICS:

**CONTACT CURRENT RATING:**
- Standard Contact Material: 40 amperes. See page 33 for details.
- High Conductivity Contact Material: 55 amperes. See page 33 for details.

**INITIAL CONTACT RESISTANCE:**
- Standard Contact Material: 0.001 ohms max. per IEC 60512-2, test 2b.
- High Conductivity Contact Material: 0.00037 ohms max. per IEC 60512-2, test 2b.

**Insulation Resistance:**
- 5 G ohms per IEC 60512-2, test 3a.
- 3,750 V r.m.s. per IEC 60512-2, test 4a, method A.

**Clearance and Creepage Distance:**
- 0.125 [3.18] minimum

**Working Voltage:**
- 1,250 V. r.m.s.

**Hot Pluggable [50 couplings per UL 1977 paragraph 15]:**
- Contact technical sales
- Contact technical sales for availability of high temperature insulator material.

**MECHANICAL CHARACTERISTICS:**

**Removable Contacts:** Rear insertion/ front release. Female contact features “Closed Entry” design for highest reliability. 0.094 [2.39]

**Removable Contact Retention in Insulator:**
- 20 lbs. [89N] per IEC 60512-8, test 15a.
- Printed board terminations, both straight and right angle (90°). Female contact features “Closed Entry” design for highest reliability. 0.094 [2.39] diameter male contact.

**Fixed Contact Retention in Insulator:**
- 10 lbs. [44N], minimum.

**Resistance to Soldering Iron Heat:**
- 260°C [500°F] for 10 seconds duration per IEC 60512-6, test 12e, 25 watt soldering iron.

**Contact Terminations:** Crimp removable contacts and solder cup removable contacts for wire size 12 AWG [4.0 mm²]. Straight and right angle (90°) solder printed board mount, 0.090 [2.29] tail diameter. Compliant termination press-in.

**Connection Systems:**
- Cable to cable, cable to printed board, cable to panel mount, and printed board to printed board.

**Sequencial Mating Systems:** Male contacts can provide two mating lengths.

**Locking System:**
- Insulators provide locking between cable to cable, cable to printed board, and cable to panel mount applications. Provided in insulator design.

**Polarization:**
- Provided in insulator design.

**Mounting to P.C. Board:**
- Rapid installation push-on fasteners.

**Mechanical Operations:**
- 500 operations
**Power Connection Systems**

- **System 1**: Mother Board - Daughter Board
- **System 2**: Side to Side Board Mounting
- **System 4**: Sandwich Board Mounting
- **System 5**: Cable to Right Angle (90°) Board Mount
- **System 6**: Cable to Straight Board Mount
- **System 7**: Cable to Cable
- **System 8**: Panel Mounting to Cable
- **System 9**: Cable Connector with Cable Adapter

---

**TEMPERATURE RISE CURVE**

**STANDARD CONTACT MATERIALS**

Connectors with PLB Prefix

- Standard Density: Curve developed using PLB3W3M4BN0A1 and PLB3W3F300A1 mated connector terminated to 12 AWG wire.
- High Conductivity: Curve developed using PLBH3W3M9300A1 and PLBH3W3F9300A1 mated connector terminated to 12 AWG wire

**HIGH CONDUCTIVITY CONTACT MATERIALS**

Connectors with PLBH Prefix or “S” suffix on crimp contacts

- Test conducted per IEC Publication 60512-3, Test 5a. All power contacts under load.

---

DIMENSIONS ARE IN INCHES [MILLIMETERS]. ALL DIMENSIONS ARE SUBJECT TO CHANGE.
CABLE AND PANEL MOUNT CONNECTOR

CONNECTOR VARIANT
FACE VIEW OF MALE CONNECTOR

CABLE CONNECTOR FOR USE WITH SIZE 12 REMOVABLE CONTACTS
CODE 0
CONTACTS ARE NOT SUPPLIED WITH CONNECTOR AND MUST BE ORDERED SEPARATELY

PART NUMBER: PLB3W3M0000

Part Number: PLB3W3F0000

PANEL MOUNT CONNECTOR FOR USE WITH SIZE 12 REMOVABLE CONTACTS
CODE 1
CONTACTS ARE NOT SUPPLIED WITH CONNECTOR AND MUST BE ORDERED SEPARATELY

NOTE: MOUNTING SCREWS CAN BE SUPPLIED WITH CONNECTORS USING STEP 5 IN ORDERING INFORMATION ON PAGE 38. MOUNTING SCREWS CAN ALSO BE ORDERED SEPARATELY BY PART NUMBER. SEE PAGE 59.

Part Number: PLB3W3M1000

Part Number: PLB3W3F1000

For information regarding size 12 removable contacts, see Removable Contact section, pages 47-53.

DIMENSIONS ARE IN INCHES [MILLIMETERS].
ALL DIMENSIONS ARE SUBJECT TO CHANGE.
STRAIGHT PRINTED BOARD MOUNT CONNECTOR
CODE 3, 0.146 [3.71] CONTACT EXTENSION

NOTE: MOUNTING SCREWS CAN BE SUPPLIED WITH CONNECTORS USING STEP 5 IN ORDERING INFORMATION ON PAGE 38. MOUNTING SCREWS CAN ALSO BE ORDERED SEPARATELY BY PART NUMBER. SEE PAGE 59.

Part Number: PLB3W3M300A1

Part Number: PLB3W3F300A1

COMPLIANT PRESS-IN CONNECTOR
CODE 93, 0.225 [5.72] CONTACT EXTENSION

NOTE: Positronic recommends the practice of using mounting hardware to secure connector to printed circuit board. Mounting screws can be supplied with connectors using step 5 in ordering information on page 38. Mounting screws can also be ordered separately by part number. See page 59.

Part Number: PLB3W3M93ST30A1

Part Number: PLB3W3F93ST30A1

CONTACT HOLE PATTERN
FOR STRAIGHT PRINTED BOARD MOUNT AND COMPLIANT PRESS-IN CONNECTORS

SUGGESTED PRINTED BOARD HOLE SIZES:
Suggest Ø 0.114 [2.90] finished holes in printed board for straight solder printed board mount contacts.
Suggest Ø 0.123±0.003 [3.15±0.08] holes in printed board for mounting connector with push-on fasteners or 0.100 [2.54] for mounting connector with #2 screws.

NOTE: See page 57 for suggested printed board drill hole sizes, recommended plating and finished hole sizes for compliant contact termination positions.
RIGHT ANGLE (90°) PRINTED BOARD MOUNT CONNECTOR

**Code 4, 0.146 [3.71] Contact Extension**

**Male**

- Part Number: PLB3W3M4BN0A1

**Female**

- Part Number: PLB3W3F4BN0A1

**Contact Hole Pattern**

RIGHT ANGLE (90°) ANGLE PRINTED BOARD MOUNT CONNECTORS

- **3X Contacts holes**
  - 1.080 [27.43]
  - 0.159 [4.04]
  - 0.060 [1.52]

- **2X Mounting holes**
  - 0.540 [13.72]
  - 0.276 [7.01] Typ.

**SUGGESTED PRINTED BOARD HOLE SIZES:**

Suggest Ø 0.114 [2.90] finished holes in printed board for right angle (90°) solder printed board mount contacts.

Suggest Ø 0.123±0.003 [3.15±0.08] holes in printed board for mounting connector with push-on fasteners.
SCREW TERMINATION CONNECTOR

SCREW TERMINATIONS ALLOWS FOR CONVENIENT FIELD INSTALLATION WHEN REQUIRED

**CODE 71**

CONTACTS MAY BE SUPPLIED WITH CONNECTOR OR ORDERED SEPARATELY

**REPLACEMENT CONTACT**

For use with wire size 12 awg [4.0mm²] or smaller

**Typical Part Number:**
PLB3W3F7100A1 supplied with 3 contacts

**Typical Part Number:**
FST612N2

**SEQUENTIAL MATING CONTACTS**

**BOARD MOUNT CONNECTORS**

- 0.330 [8.38] NOMINAL
- 0.250 [6.35] NOMINAL

**CRIMP AND PANEL MOUNT CONNECTORS**

- 0.330 [8.38] NOMINAL
- 0.250 [6.35] NOMINAL

**Modification number -338.0** (see step 8 of the ordering information) allows for board mount connector to have position 3 loaded with a 0.330 [8.38] nominal mating length contact and positions 1 and 2 loaded with 0.250 [6.35] nominal mating length contacts. Contact technical sales for additional sequencing options.

**MC610NS** and **MC612N** crimp contacts and **MC610NS** and **MC612N** solder cup contacts to be used for 0.330 [8.38] nominal mating length. **MC610NS-228.2** and **MC612N-228.2** crimp contacts and **MS610NS-228.2** and **MS612N-228.2** solder cup contacts to be used for 0.250 [6.35] nominal mating length.
**POWER INPUT CONNECTOR ORDERING INFORMATION**

**ORDERING INFORMATION - CODE NUMBERING SYSTEM**
Specify Complete Connector By Selecting An Option From Step 1 Through 7

<table>
<thead>
<tr>
<th>STEP</th>
<th>EXAMPLE</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EXAMPLE</strong></td>
<td>PLB 3W3 F 3 0 0 A1 /AA</td>
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<tr>
<td><strong>STEP 1 - BASIC SERIES</strong></td>
<td></td>
<td>PLB - PLB Series</td>
<td>PLBH - High conductivity contacts.</td>
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<td><strong>STEP 2 - CONNECTOR VARIANTS</strong></td>
<td></td>
<td>3W3 - Three size 12 contacts</td>
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<tr>
<td><strong>STEP 3 - CONNECTOR GENDER</strong></td>
<td></td>
<td>M - Male</td>
<td>F - Female</td>
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<tr>
<td><strong>STEP 4 - CONTACT TERMINATION TYPE</strong></td>
<td></td>
<td>0 - Order contacts separately for cable connectors for connection systems 5, 6, 7, 8 and 9, see pages 47-53.</td>
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<td>*1 - Removable contact, panel mount connector for connection system 8. Order contacts separately, see pages 47-53.</td>
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<tr>
<td></td>
<td></td>
<td>*3 - Solder, Straight Printed Board Mount with 0.146 [3.71] tail extension for connection systems 1, 4, and 6.</td>
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<td></td>
<td>4 - Solder, Right Angle (90°) Printed Board Mount with 0.146 [3.71] tail extension for connection systems 1, 2 and 5.</td>
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<td></td>
<td></td>
<td>71 - Screw termination cable connector. Supplied with 3 contacts.</td>
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<td></td>
<td>*93 - Press-in, Compliant Termination for 0.090 [2.29] to 0.175 [4.45] thick P.C. board, for connector systems 1, 4, and 6.</td>
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<tr>
<td><strong>STEP 5 - MOUNTING STYLE</strong></td>
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<td>0 - None</td>
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<td>B - Metal Right Angle (90°) Mounting Bracket.</td>
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<td>BN - Metal Right Angle (90°) Mounting Bracket with Push-on Fastener.</td>
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<tr>
<td></td>
<td></td>
<td>N - Push-On Fastener For Straight Printed Board Mount Connectors</td>
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<td>ST2 - Self-tapping steel screws 2-28 x 0.250±0.030 [6.35±0.76] length for 0.093 [2.36] thick board.</td>
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<td>ST3 - Self-tapping steel screws 2-28 x 0.312±0.030 [7.92±0.76] length for 0.125 [3.18] thick board.</td>
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<td>ST4 - Self-tapping steel screws 2-28 x 0.375±0.030 [9.53±0.76] length for 0.175 [4.45] thick board.</td>
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<td>SS2 - Self-tapping stainless steel screws 2-28 x 0.250±0.030 [6.35±0.76] length for 0.093 [2.36] thick board.</td>
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<td>SS3 - Self-tapping stainless steel screws 2-28 x 0.312±0.030 [7.92±0.76] length for 0.125 [3.18] thick board.</td>
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<td>SS4 - Self-tapping stainless steel screws 2-28 x 0.375±0.030 [9.53±0.76] length for 0.175 [4.45] thick board.</td>
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</tbody>
</table>

*1 Mounting screws are available with code 1, 3 and 93. To order mounting screws separately, see page 59 for part numbers.

**STEP 6 - CABLE ADAPTER AND BLIND MATE SYSTEM**
| 0 - None. |
| 11 - Blind Mating System for 0.040 [1.02] thick panel. |
| 12 - Blind Mating System for 0.060 [1.52] thick panel. |
| 13 - Blind Mating System for 0.090 [2.29] thick panel. |
| 14 - Blind Mating System for 0.120 [3.05] thick panel. |

**STEP 7 - CONTACT PLATING FOR PRINTED BOARD CONNECTORS**
| 0 - Crimp Contacts ordered separately, see pages 47-53. |
| A1 - Gold flash over nickel on mating end and termination end. |
| A2 - Gold flash over nickel on mating end and 0.00020 inch [5.00µ] tin-lead solder coat on termination end. Not available with contact code 71 or 93. |
| C1 - 0.000030 inch [0.76µ] gold over nickel on mating end and termination end. |
| C2 - 0.000030 inch [0.76µ] gold over nickel on mating end and 0.00020 inch [5.00µ] tin-lead solder coated termination end. Not available with contact code 71 or 93. |
| D1 - 0.000050 inch [1.27µ] gold over nickel on mating end and termination end. |
| D2 - 0.000050 inch [1.27µ] gold over nickel on mating end and 0.00020 inch [5.00µ] tin-lead solder coated termination end. Not available with contact code 71 or 93. |

**STEP 8 - ENVIRONMENTAL COMPLIANCE OPTIONS**
| /AA - RoHS Compliant |

**NOTE:** If compliance to environmental legislation is not required, this step will not be used. Example: PLB3W3F300A1

**STEP 9 - SPECIAL OPTIONS**
| -338.0 - Sequential mating. Position 3 first mate, last break. Available on 3, 4, and 93 only. |

**CONTACT TECHNICAL SALES FOR SPECIAL OPTIONS**

DIMENSIONS ARE IN INCHES [MILLIMETERS]. ALL DIMENSIONS ARE SUBJECT TO CHANGE.
MATERIALS AND FINISHES:

**Insulator:** Glass-filled polyester, UL 94V-0. Contact technical sales for availability of high temperature insulator material.

**Contacts:** Precision machined copper alloy with gold flash over nickel, or 0.000030 inch [0.76µ] gold over nickel, or 0.000050 [1.27µ] gold over nickel. Solder coated terminations optional.

**Mounting Clip:** Beryllium copper with tin plate.

**Hood:** Glass filled polyester, UL 94V-0.

**Mounting Bracket:** Brass with tin plate.

**Push-on Fastener:** Spring tempered copper alloy, tin plate.

**TECHNICAL CHARACTERISTICS**

**ELECTRICAL CHARACTERISTICS:**

**SIGNAL CONTACTS**
- Contact Current Rating: 7.5 amperes nominal.
- Initial Contact Resistance: 0.007 ohms max. per IEC 60512-2, test 2b.

**POWER CONTACTS**
- Contact Current Rating: See temperature rise curves on page 40. For additional information see pages 47-53.
- Initial Contact Resistance: Standard Conductivity: 0.0005 ohms max. per IEC 60512-2, test 2b.
- High Conductivity: 0.0003 ohms max. per IEC 60512-2, test 2b.

**SHIELDED CONTACTS**
- Initial Contact Resistance: 0.008 ohms maximum.
- Nominal Impedance: 50 ohms.
- Insertion Loss: -0.46 dB at 1 GHz
  -1.5 dB at 2 GHz
- VSWR: 1.15 average at 1 GHz
  1.56 average at 2 GHz
- Above values measured using frequency domain techniques.
- Proof Voltage: 1000 V r.m.s.

**ELECTRICAL CHARACTERISTICS, CONTINUED:**

**HIGH VOLTAGE CONTACTS**
- Flash over Voltage: 3600 V r.m.s.
- Proof Voltage: 2700 V r.m.s.
- Initial Contact Resistance: 0.008 ohms maximum.

**CONNECTOR**
- Insulation Resistance: 5 G ohms per IEC 60512-2, test 3a, method A.
- Working Voltage: 600 V rms.
- Voltage Proof: 2200 V rms per IEC 60512-2, test 4a, method C.
- Clearance and Creepage Distance: 0.080 inch [2.03 mm]
- Working Temperature: -55°C to +125°C.

**MECHANICAL CHARACTERISTICS:**

**SIGNAL CONTACTS**
- Removable: Insert contact to rear face of insulator, release from front face of insulator.
- Size 20 contacts, 0.040 inch [1.02 mm] diameter male contacts, closed entry design female contacts.

**Fixed:** Straight solder, right angle (90°) solder and straight compliant press-in printed board mount terminations. Size 20 contacts, 0.040 inch [1.02 mm] diameter male contacts, open entry design female contacts.

CUL Recognized
File # E49351

DIMENSIONS ARE IN INCHES [MILLIMETERS]. ALL DIMENSIONS ARE SUBJECT TO CHANGE.
MECHANICAL CHARACTERISTICS, CONTINUED:

POWER CONTACTS:
- **Removable:** Insert contact to rear face of insulator, release from front face of insulator. Size 8 contacts, 0.142 inch [3.61 mm] diameter male contacts, closed entry design female contacts.
- **Printed Board Mount:** Straight solder, right angle (90°) solder and straight compliant press-in printed board mount terminations. Size 8 contacts, 0.142 inch [3.61 mm] male contacts, closed entry design female contacts.

SHIELDED CONTACTS:
- **Removable:** Insert contact to rear face of insulator, release from front face of insulator. Size 8 contacts. See page 53 table of cable sizes for contact termination dimensions.

HIGH VOLTAGE CONTACTS:
- **Removable:** Insert contact to rear face of insulator, release from front face of insulator. Size 8 contacts. Straight and right angle (90°) terminations. 0.041 inch [1.04 mm] minimum hole diameter.

Contact Terminations:
- 20-24 AWG [0.5-0.25mm²] removable crimp signal, 0.028 inch [0.71 mm] diameter straight and right angle (90°) solder printed board mount.
- 8-16 AWG [10.0-1.0mm²] removable solder and crimp power, 0.125 inch [3.18 mm] diameter straight and right angle (90°) solder printed board mount, power, shielded, high voltage cable, and straight compliant press-in terminations.

Contact Retention in Insulator:
- Fixed signal - 9 lbs. [40 N].
- Removable Signal - 10 lbs. [44N].
- Power, shielded and high voltage - 22 lbs. [98 N].

Resistance to Solder Iron Heat:
- 500° F [260° C] for 10 second duration per IEC 60512-6, test 12e, 25 watt soldering iron.

Connection Systems:
- Connector provides cable to cable, cable to printed board, cable to panel mount and printed board to printed board application.

Locking System:
- Insulators provide locking between cable to cable, cable to printed board and cable to panel mount applications.

Polarizations:
- Provided in insulator design.

Mounting to Printed Board:
- Rapid installation push-on fasteners. Self-tapping screws for compliant connectors.

Mechanical Operations:
- 500 operations per IEC 60512-5.

continued from previous page . . .

TECHNICAL INFORMATION AND TEMPERATURE RISE CURVES

**STANDARD CONTACT MATERIAL**

<table>
<thead>
<tr>
<th>TEMPERATURE RISE (°C)</th>
<th>RATED CURRENT (AMPERES)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>10</td>
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<td>10</td>
<td>20</td>
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<tr>
<td>120</td>
<td>30</td>
</tr>
</tbody>
</table>

Test conducted in accordance with UL1977. All power contacts under load.

**10W2:** Curve developed using PLB10W2F9300A1 and PLB10W2M0000 connectors with MC4008D contacts terminated to 8 AWG wire.

**16W4:** Curve developed using PLC16W4F9300A1 and PLC16W4M0000 connectors with MC4008D contacts terminated to 8 AWG wire.

**HIGH CONDUCTIVITY CONTACT MATERIAL**

<table>
<thead>
<tr>
<th>TEMPERATURE RISE (°C)</th>
<th>RATED CURRENT (AMPERES)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>10</td>
</tr>
<tr>
<td>10</td>
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<td>110</td>
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</tr>
<tr>
<td>120</td>
<td>30</td>
</tr>
</tbody>
</table>

Test conducted in accordance with UL1977. All power contacts under load.

**10W2:** Curve developed using PLBH10W2F9300A1 and PLB10W2M0000 connectors with MC4008DS contacts terminated to 8 AWG wire.

**16W4:** Curve developed using PLCH16W4F9300A1 and PLC16W4M0000 connectors with MC4008DS contacts terminated to 8 AWG wire.

DIMENSIONS ARE IN INCHES [MILLIMETERS]. ALL DIMENSIONS ARE SUBJECT TO CHANGE.
PLB10W2 CABLE CONNECTOR
FOR USE WITH SIZE 20 AND SIZE 8 REMOVABLE CONTACTS
CODE 0
CONTACTS ARE NOT SUPPLIED WITH CONNECTOR AND MUST BE ORDERED SEPARATELY

**MALE**

**FEMALE**

Part Number:
PLB10W2M0000

Part Number:
PLB10W2F0000

---

PLC16W4 CABLE CONNECTOR
FOR USE WITH SIZE 20 AND SIZE 8 REMOVABLE CONTACTS
CODE 0
CONTACTS ARE NOT SUPPLIED WITH CONNECTOR AND MUST BE ORDERED SEPARATELY

**MALE**

**FEMALE**

Part Number:
PLC16W4M0000

Part Number:
PLC16W4F0000

---

For information regarding size 20 and size 8 removable contacts, see Removable Contact section, pages 47-53.
PLB10W2 PANEL MOUNT CONNECTOR
FOR USE WITH SIZE 20 AND SIZE 8 REMOVABLE CONTACTS
CODE 1
CONTACTS ARE NOT SUPPLIED WITH CONNECTOR AND MUST BE ORDERED SEPARATELY

MALE

0.235±0.020
[5.97±0.51]
1.073±0.020
[27.25±0.51]
0.606±0.020
[15.39±0.51]

1.718±0.020
[43.64±0.51]
0.606
[15.39]

Part Number:
PLB10W2M1000

FEMALE

0.190±0.020
[4.83±0.51]
0.560±0.020
[14.22±0.51]

0.944±0.020
[23.98±0.51]

1.718±0.020
[43.64±0.51]
0.606
[15.39]

Part Number:
PLB10W2F1000

NOTE: MOUNTING SCREWS CAN BE SUPPLIED WITH CONNECTORS USING STEP 5 IN ORDERING INFORMATION ON PAGE 46. MOUNTING SCREWS CAN ALSO BE ORDERED SEPARATELY BY PART NUMBER. SEE PAGE 59.

For panel cutout, see chart on page 63.

PLC16W4 PANEL MOUNT CONNECTOR
FOR USE WITH SIZE 20 AND SIZE 8 REMOVABLE CONTACTS
CODE 1
CONTACTS ARE NOT SUPPLIED WITH CONNECTOR AND MUST BE ORDERED SEPARATELY

MALE

0.235±0.020
[5.97±0.51]
1.073±0.020
[27.25±0.51]
0.606±0.020
[15.39±0.51]

1.718±0.020
[43.64±0.51]
0.802
[20.37]

Part Number:
PLC16W4M1000

FEMALE

0.190±0.020
[4.83±0.51]
0.560±0.020
[14.22±0.51]

0.944±0.020
[23.98±0.51]

1.718±0.020
[43.64±0.51]
0.802
[20.37]

Part Number:
PLC16W4F1000

NOTE: MOUNTING SCREWS CAN BE SUPPLIED WITH CONNECTORS USING STEP 5 IN ORDERING INFORMATION ON PAGE 46. MOUNTING SCREWS CAN ALSO BE ORDERED SEPARATELY BY PART NUMBER. SEE PAGE 59.

For panel cutout, see chart on page 63.

For information regarding size 20 and size 8 removable contacts, see Removable Contact section, pages 47-53.
SUGGESTED PRINTED BOARD HOLE SIZES:

Suggest 0.145 [3.68] Ø hole in printed board for power contact termination positions.
Suggest 0.045 [1.14] Ø hole for signal solder contact termination positions.
Suggest 0.100 [2.54] Ø hole in printed board when mounting connectors with #2 thread forming screws.
Suggest 0.123±0.003 [3.12±0.08] Ø hole in printed board for mounting connector with push-on fasteners.

NOTE: See page 57 for suggested printed board drill hole sizes, recommended plating and finished hole sizes for compliant contact termination positions.
PLB(H)10W2 RIGHT ANGLE (90°) PRINTED BOARD MOUNT CONNECTOR
CODE 4, 0.146 [3.71] CONTACT EXTENSION

MALE
Typical part numbers:
PLB10W2M400A1
PLBH10W2M400A1

FEMALE
Typical part numbers:
PLB10W2F400A1
PLBH10W2F400A1

NOTE:
MOUNTING SCREWS CAN BE ORDERED SEPARATELY BY PART NUMBER WHEN CHOOSING B3 BRACKETS. SEE PAGE 59.

PLC(H)16W4 RIGHT ANGLE (90°) PRINTED BOARD MOUNT CONNECTOR
CODE 4, 0.146 [3.71] CONTACT EXTENSION

MALE
Typical part numbers:
PLC16W4M400A1
PLCH16W4M400A1

FEMALE
Typical part numbers:
PLC16W4F400A1
PLCH16W4F400A1

NOTE:
MOUNTING SCREWS CAN BE ORDERED SEPARATELY BY PART NUMBER WHEN CHOOSING B3 BRACKETS. SEE PAGE 59.

RIGHT ANGLE (90°) PRINTED BOARD MOUNT CONTACT HOLE PATTERN
**PLB(H)10W2 COMPLIANT PRESS-IN CONNECTOR**

**CODE 93**

**MALE**

![Male Connector Diagram](image1)

**FEMALE**

![Female Connector Diagram](image2)

**Typical part numbers:**
- PLB10W2M9300A1
- PLBH10W2M9300A1
- PLB10W2F9300A1
- PLBH10W2F9300A1

**NOTE:** Connectors are designed to be mounted to the printed circuit board with screws, see page 59 for mounting screw information. See page 43 for contact hole pattern.

**PLC(H)16W4 COMPLIANT PRESS-IN CONNECTOR**

**CODE 93**

**MALE**

![Male Connector Diagram](image3)

**FEMALE**

![Female Connector Diagram](image4)

**Typical part numbers:**
- PLC16W4M9300A1
- PLCH16W4M9300A1
- PLC16W4F9300A1
- PLCH16W4F9300A1

**NOTE:** Connectors are designed to be mounted to the printed circuit board with screws, see page 59 for mounting screw information. See page 43 for contact hole pattern.
ORDERING INFORMATION - CODE NUMBERING SYSTEM

Specify Complete Connector By Selecting An Option From Step 1 Through 7

<table>
<thead>
<tr>
<th>STEP</th>
<th>EXAMPLE</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>PLC</td>
</tr>
<tr>
<td>2</td>
<td>16W4</td>
</tr>
<tr>
<td>3</td>
<td>F</td>
</tr>
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<td>4</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>B3N</td>
</tr>
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<td>6</td>
<td>0</td>
</tr>
<tr>
<td>7</td>
<td>A1</td>
</tr>
<tr>
<td>8</td>
<td>/AA</td>
</tr>
</tbody>
</table>

STEP 1 - BASIC SERIES
- PLB - 2 Row
- PLBH - 2 Row High conductivity contacts
- PLC - 3 Row
- PLCH - 3 Row High conductivity contacts

STEP 2 - CONNECTOR VARIANTS
- 2 Row - 10W2
- 3 Row - 16W4

STEP 3 - CONNECTOR GENDER
- M - Male
- F - Female

STEP 4 - CONTACT TERMINATION TYPE
- 0 - Removable contact, cable connector. Order contacts separately, see pages 47-53.
- *1 - Removable contact, panel mounted connector. Order contacts separately, see pages 47-53.
- *3 - Solder, Straight Printed Board Mount with 0.146 [3.71] tail extension.
- 4 - Solder, Right Angle (90°) Printed Board Mount with 0.146 [3.71] tail extension.
- *93 - Straight Printed Board Mount, Press-in, length 0.218 [5.54] for 0.125 inch [3.18] thick board.

STEP 5 - MOUNTING STYLE
- 0 - None.
- B - Metal Right Angle (90°) Mounting Bracket.
- B3 - Plastic Right Angle (90°) Mounting Bracket with Cross Bar.
- B3N - Plastic Right Angle (90°) Mounting Bracket with Cross Bar and Push-on Fastener.
- N - Push-On Fastener For Straight Printed Board Mount Connectors
- ST2 - Self-tapping steel screws 2-28 x 0.250+0.030 [6.35+0.76] length for 0.093 [2.36] thick board.
- ST3 - Self-tapping steel screws 2-28 x 0.312+0.030 [7.92+0.76] length for 0.125 [3.18] thick board.
- ST4 - Self-tapping steel screws 2-28 x 0.375+0.030 [9.53+0.76] length for 0.175 [4.45] thick board.
- SS2 - Self-tapping stainless steel screws 2-28 x 0.250+0.030 [6.35+0.76] length for 0.093 [2.36] thick board.
- SS3 - Self-tapping stainless steel screws 2-28 x 0.312+0.030 [7.92+0.76] length for 0.125 [3.18] thick board.
- SS4 - Self-tapping stainless steel screws 2-28 x 0.375+0.030 [9.53+0.76] length for 0.175 [4.45] thick board.

STEP 6 - HOODS AND PANEL MOUNT
- 0 - None.
- 51 - Top Opening Hood.
- 6 - Panel Mount, quick release.
- 81 - Panel Mount, fixed for 0.040 [1.02] thick panel.
- 82 - Panel Mount, fixed for 0.060 [1.52] thick panel.
- 83 - Panel Mount, fixed for 0.090 [2.29] thick panel.
- 11 - Blind Mating System for 0.040 [1.02] thick panel.
- 12 - Blind Mating System for 0.060 [1.52] thick panel.
- 13 - Blind Mating System for 0.090 [2.29] thick panel.
- 14 - Blind Mating System for 0.120 [3.05] thick panel.

STEP 7 - CONTACT PLATING FOR PRINTED BOARD CONNECTORS
- 0 - Crimp Contacts ordered separately, see page 47-53.
- A1 - Gold flash over nickel on mating end and termination end.
- A2 - Gold flash over nickel on mating end and 0.00020 inch [5.00µ] tin-lead solder coat on termination end. Not available with code 93 in step 4.
- C1 - 0.000030 inch [0.76µ] gold over nickel on mating end and termination end.
- C2 - 0.000030 inch [0.76µ] gold over nickel on mating end and 0.00020 inch [5.00µ] tin-lead solder coated termination end. Not available with code 93 in step 4.
- D1 - 0.000050 inch [1.27µ] gold over nickel on mating end and termination end.
- D2 - 0.000050 inch [1.27µ] gold over nickel on mating end and 0.00020 inch [5.00µ] tin-lead solder coated termination end. Not available with code 93 in step 4.

STEP 8 - ENVIRONMENTAL COMPLIANCE OPTIONS
- /AA - RoHS Compliant

NOTE: If compliance to environmental legislation is not required, this step will not be used. Example: PLC16W4F4B3N0A1

STEP 9 - SPECIAL OPTIONS
- CONTACT TECHNICAL SALES FOR SPECIAL OPTIONS

NOTE: Mounting screws are available with code 1, 3 and 93. To order mounting screws separately, see page 59 for part numbers.
REMOVABLE CONTACT TECHNICAL CHARACTERISTICS

SIZE 20 REMOVABLE CONTACT

MATERIALS AND FINISHES:
- **STANDARD**: Precision machined copper alloy with gold flash over nickel. Other finishes are available, see optional plating finishes for -14 and -15.
- **HIGH CONDUCTIVITY**: Tellurium copper, gold flash over nickel. Other finishes are available, see optional plating finishes for -14 and -15.

MECHANICAL CHARACTERISTICS:
- **STANDARD**: Insert contact to rear face of insulator, release from front face of insulator. Size 20 contacts, 0.040 inch [1.02 mm] diameter male contacts, closed entry design female contacts.
- **HIGH CONDUCTIVITY**: Insert contact to rear face of insulator, release from front face of insulator. Size 20 contacts, 0.094 inch [2.39 mm] diameter male contacts. Female contact closed entry for highest reliability.

ELECTRICAL CHARACTERISTICS:
- **Contact Current Rating**: 7.5 amperes nominal.
- **Initial Contact Resistance**: 0.007 ohms max. per IEC 60512-2, test 2b.

SIZE 16 REMOVABLE CONTACT

MATERIALS AND FINISHES:
- **STANDARD**: Precision machined copper alloy with gold flash over nickel. Other finishes are available, see optional plating finishes for -14 and -15.
- **HIGH CONDUCTIVITY**: Tellurium copper, gold flash over nickel. Other finishes are available, see optional plating finishes for -14 and -15.

MECHANICAL CHARACTERISTICS:
- **STANDARD**: Insert contact to rear face of insulator, release from front face of insulator. Size 16 contacts, 0.0625 inch [1.588 mm] diameter male contacts, closed entry design female contacts.
- **HIGH CONDUCTIVITY**: Insert contact to rear face of insulator, release from front face of insulator. Size 12 contacts, 0.094 inch [2.39 mm] diameter male contacts. Female contact closed entry for highest reliability.

ELECTRICAL CHARACTERISTICS:
- **Contact Current Rating**: 40 amperes continuous, derated per IEC 60512-3, test 5b.
- **Initial Contact Resistance**: 0.001 ohms max. per IEC 60512-2, test 2b.

SIZE 8 REMOVABLE CONTACT

MATERIALS AND FINISHES:
- **STANDARD**: Precision machined copper alloy with gold flash over nickel. Other finishes are available, see optional plating finishes for -14 and -15.
- **HIGH CONDUCTIVITY**: Tellurium copper, gold flash over nickel. Other finishes are available, see optional plating finishes for -14 and -15.

MECHANICAL CHARACTERISTICS:
- **STANDARD**: Male contacts, brass. Female contacts, phosphor bronze. Male and female contacts, 0.000030 inch [0.76µ] gold over nickel. Other finishes are available, see optional plating finishes for -14 and -15.
- **HIGH CONDUCTIVITY**: Male contacts, brass. Female contacts, phosphor bronze. Male and female contacts, 0.000030 inch [0.76µ] gold over nickel. Other finishes are available, see optional plating finishes for -14 and -15.

ELECTRICAL CHARACTERISTICS:
- **Contact Current Rating**: 600 V rms
- **Initial Contact Resistance**: 0.012 ohms maximum
- **Insulation Resistance**: 5 G ohms
- **Insertion Loss**: 0.2 dB at 500 MHz for 126N contacts
- **At Sea Level**: 5 G ohms
- **Dielectric Strength**: 600 V rms
- **VSWR**: 170 at 0 to 200 MHz
- **Insertion Loss**: 1.0 dB at 500 MHz for 226N contacts
- **VSWR**: 2.25 at 200 to 500 MHz
- **Dielectric Strength**: 600 V rms
- **VSWR**: 2.25 at 200 to 500 MHz
- **Dielectric Strength**: 600 V rms
- **VSWR**: 2.25 at 200 to 500 MHz
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- **VSWR**: 2.25 at 200 to 500 MHz
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- **VSWR**: 2.25 at 200 to 500 MHz
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- **VSWR**: 2.25 at 200 to 500 MHz
- **Dielectric Strength**: 600 V rms
- **VSWR**: 2.25 at 200 to 500 MHz

For information regarding CRIMP TOOLS & CRIMPING TOOL TECHNIQUES, see page 54.
REMOVABLE CONTACT TECHNICAL CHARACTERISTICS

continued from previous page . . .

MECHANICAL CHARACTERISTICS:

STANDARD AND HIGH CONDUCTIVITY: Insert contact to rear face of insulator, release from front face of insulator. Size 8 contacts, 0.142 inch [3.61 mm] diameter male contacts, closed entry design female contacts.

HIGH VOLTAGE: Insert contact to rear face of insulator, release from front face of insulator. Size 8 contacts. Straight and right angle (80°) terminations. 0.041 inch [1.04 mm] minimum hole diameter.

Durability: 500 cycles minimum.
Vibration: 20g from 10 Hz to 500 Hz.
Shock: 30g-11ms.

SHIELDED: Insert contact to rear face of insulator, release from front face of insulator. Size 8 contacts. See page 53 table of cable sizes for contact Termination dimensions.

ELECTRICAL CHARACTERISTICS:

STANDARD:
Contact Current Rating: See temperature rise curves on page 40.
Initial Contact Resistance: 0.001 ohms max. per IEC 60512-2, test 2b.

HIGH CONDUCTIVITY:
Contact Current Rating: See temperature rise curves on page 40.
Initial Contact Resistance: 0.0003 ohms max. per IEC 60512-2, test 2b.

HIGH VOLTAGE:
Flash over Voltage: 3600 V r.m.s.
Proof Voltage: 2700 V r.m.s.
Initial Contact Resistance: 0.008 ohms maximum.

SHIELDED:
Initial Contact Resistance: 0.008 ohms maximum.
Nominal Impedance: 50 ohms.
Insertion Loss: -0.46 dB at 1 GHz
-1.5 dB at 2 GHz

VSWR:
1.15 average at 1 GHz
1.56 average at 2 GHz
Above values measured using frequency domain techniques.

Proof Voltage: 1000 V r.m.s.

OPTIONAL PLATING FINISHES
-14 0.000030 [0.76 µ] gold over nickel by adding “-14” suffix onto part number. Example: FC720N2-14.
-15 0.000050 inch [1.27µ] gold over nickel by adding “-15”. Example: FC720N2-15.

RoHS OPTIONS:
/AA Environmental Compliance Option: RoHS compliant can be achieved by adding “/AA” suffix onto part number. Examples: FC720N2/AA or for optional plating finishes use FC720N2/AA-14.

REELED CONTACTS:
Contacts may be supplied in plastic carriers, packaged in reels holding 2,000 contacts for use with the automatic pneumatic crimp tools, catalog part numbers 9550-0 and 9550-1; packaged in reels holding 1,000 contacts for use with the automatic pneumatic crimp tools, catalog part number 9555-0-2. The same type carrier is used for both male and female contacts.

All male and female crimp contacts can be ordered in reels by adding letter “R” after the contact part number, such as MC6020DR for a male contact and FC6026DR for a female contact.

Note: Connectors can be kitted with all applicable crimp/solder contacts, contact Technical Sales for connector part number.

Enlarged section of plastic contact carriers

REMOVABLE CRIMP SIGNAL CONTACT
FOR USE WITH PCS MIXED DENSITY SERIES CONNECTORS
CONTACTS MUST BE ORDERED SEPARATELY
SIZE 20

FEMALE CONTACT

MALE CONTACT

PART NUMBER WIRE SIZE [AWG/ [mm²] ØA ØB
FC720N2 20 / 22 / 24 [0.57 / 0.37 / 0.25] 0.045 [1.14] 0.068 [1.73]
MC720N3 20 / 22 / 24 [0.57 / 0.37 / 0.25] 0.045 [1.14] 0.068 [1.73]

For information regarding CRIMP TOOLS & CRIMPING TOOL TECHNIQUES, see page 54.
REMOVABLE CRIMP CONTACT
FOR USE WITH PCS SERIES CONNECTORS
CONTACTS MUST BE ORDERED SEPARATELY
SIZE 16

**FEMALE CONTACT**
“CLOSED ENTRY” DESIGN

**MALE CONTACT**

- **“S” in part number indicates high conductivity material.**
- **Compatible with PL*H PCB mount connectors. See ordering information.**

<table>
<thead>
<tr>
<th>PART NUMBERS</th>
<th>WIRE SIZE AWG/[mm²]</th>
<th>ØA</th>
<th>ØB</th>
<th>OAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FC112N2</td>
<td>12 [4.0]</td>
<td>0.098 [2.49]</td>
<td>N/A</td>
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</tr>
<tr>
<td>FC112N2S</td>
<td>12 [4.0]</td>
<td>0.098 [2.49]</td>
<td>N/A</td>
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<tr>
<td>FC114N2</td>
<td>14-16 [2.5-1.5]</td>
<td>0.081 [2.06]</td>
<td>0.105 [2.67]</td>
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</tr>
<tr>
<td>FC116N2</td>
<td>16-18 [1.5-1.0]</td>
<td>0.067 [1.70]</td>
<td>0.093 [2.36]</td>
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</tr>
<tr>
<td>FC120N2</td>
<td>20-22-24 [0.5-0.3-0.25]</td>
<td>0.045 [1.14]</td>
<td>0.068 [1.73]</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PART NUMBERS</th>
<th>WIRE SIZE AWG/[mm²]</th>
<th>ØA</th>
<th>ØB</th>
<th>OAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>MC112N</td>
<td>12 [4.0]</td>
<td>0.098 [2.49]</td>
<td>N/A</td>
<td>0.764 [19.41]</td>
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<tr>
<td>MC112NS</td>
<td>12 [4.0]</td>
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<td>N/A</td>
<td>0.764 [19.41]</td>
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<tr>
<td>*MC112N-133.0</td>
<td>12 [4.0]</td>
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<td>N/A</td>
<td>0.684 [17.37]</td>
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<tr>
<td>*MC112N-133.1</td>
<td>12 [4.0]</td>
<td>0.098 [2.49]</td>
<td>N/A</td>
<td>0.724 [18.39]</td>
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<tr>
<td>*MC112N-133.2</td>
<td>12 [4.0]</td>
<td>0.098 [2.49]</td>
<td>N/A</td>
<td>0.744 [19.90]</td>
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<tr>
<td>*MC112N-133.3</td>
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<td>0.804 [20.42]</td>
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<td>MC114N</td>
<td>14-16 [2.5-1.5]</td>
<td>0.081 [2.06]</td>
<td>0.105 [2.67]</td>
<td>0.764 [19.41]</td>
</tr>
<tr>
<td>MC116N</td>
<td>16-18 [1.5-1.0]</td>
<td>0.067 [1.70]</td>
<td>0.093 [2.36]</td>
<td>0.764 [19.41]</td>
</tr>
<tr>
<td>*MC116N-133.0</td>
<td>16-18 [1.5-1.0]</td>
<td>0.067 [1.70]</td>
<td>0.093 [2.36]</td>
<td>0.684 [17.37]</td>
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<tr>
<td>*MC116N-133.1</td>
<td>16-18 [1.5-1.0]</td>
<td>0.067 [1.70]</td>
<td>0.093 [2.36]</td>
<td>0.724 [18.39]</td>
</tr>
<tr>
<td>*MC116N-133.2</td>
<td>16-18 [1.5-1.0]</td>
<td>0.067 [1.70]</td>
<td>0.093 [2.36]</td>
<td>0.744 [19.90]</td>
</tr>
<tr>
<td>*MC116N-133.3</td>
<td>16-18 [1.5-1.0]</td>
<td>0.067 [1.70]</td>
<td>0.093 [2.36]</td>
<td>0.804 [20.42]</td>
</tr>
<tr>
<td>MC120N</td>
<td>20-22-24 [0.5-0.3-0.25]</td>
<td>0.045 [1.14]</td>
<td>0.068 [1.73]</td>
<td>0.764 [19.41]</td>
</tr>
</tbody>
</table>

* Indicates Sequential mate contacts, see page 25 for more information regarding Sequential Mating System.

**REMOVABLE SOLDER CUP CONTACT**
FOR USE WITH PCS SERIES CONNECTORS
CONTACTS MUST BE ORDERED SEPARATELY
SIZE 16

- **“S” in part number indicates high conductivity material.**
- **Compatible with PL*H PCB mount connectors. See ordering information.**

<table>
<thead>
<tr>
<th>PART NUMBERS</th>
<th>WIRE SIZE AWG/[mm²]</th>
<th>ØA</th>
<th>ØB</th>
</tr>
</thead>
<tbody>
<tr>
<td>FS112N2</td>
<td>12 [4.0]</td>
<td>0.098 [2.49]</td>
<td>N/A</td>
</tr>
<tr>
<td>FS112N2S</td>
<td>12 [4.0]</td>
<td>0.098 [2.49]</td>
<td>N/A</td>
</tr>
<tr>
<td>FS114N2</td>
<td>14 [2.5]</td>
<td>0.081 [2.06]</td>
<td>0.105 [2.67]</td>
</tr>
<tr>
<td>FS116N2</td>
<td>16 [1.5]</td>
<td>0.067 [1.70]</td>
<td>0.093 [2.36]</td>
</tr>
<tr>
<td>FS120N2</td>
<td>20 [0.5]</td>
<td>0.045 [1.14]</td>
<td>0.068 [1.73]</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PART NUMBERS</th>
<th>WIRE SIZE AWG/[mm²]</th>
<th>ØA</th>
<th>ØB</th>
</tr>
</thead>
<tbody>
<tr>
<td>MS112N</td>
<td>12 [4.0]</td>
<td>0.098 [2.49]</td>
<td>N/A</td>
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<tr>
<td>MS112NS</td>
<td>12 [4.0]</td>
<td>0.098 [2.49]</td>
<td>N/A</td>
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<tr>
<td>MS114N</td>
<td>14 [2.5]</td>
<td>0.081 [2.06]</td>
<td>0.105 [2.67]</td>
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<td>MS120N</td>
<td>20 [0.5]</td>
<td>0.045 [1.14]</td>
<td>0.068 [1.73]</td>
</tr>
</tbody>
</table>

Note: Connectors can be kitted with all applicable crimp/solder contacts, contact Technical Sales for connector part number.
### REMOVABLE CRIMP SHIELDED CONTACT

**FOR USE WITH PCS SERIES CONNECTORS**

CONTACTS MUST BE ORDERED SEPARATELY

#### SIZE 16

**MALE CONTACT**

**FEMALE CONTACT**

#### SIZE 12

**MALE CONTACT**

**FEMALE CONTACT**

---

**PART NUMBERS**

<table>
<thead>
<tr>
<th>Part Numbers</th>
<th>Cable Size</th>
<th>Character. Imped.</th>
<th>A</th>
<th>ØB</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCS126N</td>
<td>RG 178 B/U</td>
<td>50 ohms</td>
<td>0.993 [25.22]</td>
<td>0.045 [1.14]</td>
</tr>
<tr>
<td></td>
<td>RG 196 B/U</td>
<td>50 ohms</td>
<td>0.993 [25.22]</td>
<td>0.045 [1.14]</td>
</tr>
<tr>
<td>MCS226N</td>
<td>RG 179 B/U</td>
<td>75 ohms</td>
<td>1.022 [25.96]</td>
<td>0.070 [1.78]</td>
</tr>
<tr>
<td></td>
<td>RG 316 /U</td>
<td>50 ohms</td>
<td>1.022 [25.96]</td>
<td>0.070 [1.78]</td>
</tr>
</tbody>
</table>

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**PART NUMBERS**

<table>
<thead>
<tr>
<th>Part Numbers</th>
<th>Cable Size</th>
<th>Character. Imped.</th>
<th>A</th>
<th>ØB</th>
</tr>
</thead>
<tbody>
<tr>
<td>FCS126N</td>
<td>RG 178 B/U</td>
<td>50 ohms</td>
<td>0.967 [24.56]</td>
<td>0.045 [1.14]</td>
</tr>
<tr>
<td></td>
<td>RG 196 B/U</td>
<td>50 ohms</td>
<td>0.967 [24.56]</td>
<td>0.045 [1.14]</td>
</tr>
<tr>
<td>FCS226N</td>
<td>RG 179 B/U</td>
<td>75 ohms</td>
<td>1.022 [25.96]</td>
<td>0.070 [1.78]</td>
</tr>
<tr>
<td></td>
<td>RG 316 /U</td>
<td>50 ohms</td>
<td>1.022 [25.96]</td>
<td>0.070 [1.78]</td>
</tr>
</tbody>
</table>

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**PART NUMBERS**

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<tr>
<th>Cable Size</th>
<th>Character. Imped.</th>
<th>ØA</th>
<th>ØB</th>
</tr>
</thead>
<tbody>
<tr>
<td>RG 178 B/U</td>
<td>50 ohms</td>
<td>0.147 [3.73]</td>
<td>N/A</td>
</tr>
<tr>
<td>RG 196 B/U</td>
<td>50 ohms</td>
<td>0.147 [3.73]</td>
<td>N/A</td>
</tr>
<tr>
<td>RG 179 B/U</td>
<td>75 ohms</td>
<td>0.165 [4.19]</td>
<td>0.042 [1.06]</td>
</tr>
<tr>
<td>RG 316 /U</td>
<td>50 ohms</td>
<td>0.165 [4.19]</td>
<td>0.042 [1.06]</td>
</tr>
</tbody>
</table>

**PART NUMBERS**

<table>
<thead>
<tr>
<th>Wire Size AWG [mm²]</th>
<th>ØA</th>
<th>ØB</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 [6.0]</td>
<td>0.147 [3.73]</td>
<td>N/A</td>
</tr>
<tr>
<td>12 [4.0]</td>
<td>0.100 [2.54]</td>
<td>0.165 [4.19]</td>
</tr>
</tbody>
</table>

**“S” in part number indicates high conductivity material.**

**“S” in part number indicates high conductivity material.**

**For information regarding CRIMP TOOLS & CRIMPING TOOL TECHNIQUES, see page 54.**

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**For information regarding CRIMP TOOLS & CRIMPING TOOL TECHNIQUES, see page 54.**

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**Note:** Connectors can be kitted with all applicable crimp/solder contacts, contact Technical Sales for connector part number.
**REMOVABLE SOLDER CUP CONTACT**
FOR USE WITH SHROUDED AND POWER INPUT CONNECTORS
CONTACTS MUST BE ORDERED SEPARATELY
SIZE 12

**FEMALE CONTACT**

**MALE CONTACT**

**REMOVABLE CRIMP CONTACT**
FOR USE WITH PCS MIXED DENSITY SERIES CONNECTORS
CONTACTS MUST BE ORDERED SEPARATELY
SIZE 8

**FEMALE CONTACT**

**MALE CONTACT**

**PART NUMBER**

**CURRENT RATING**

**WIRE SIZE**

**ØB**

**PART NUMBER**

**CURRENT RATING**

**WIRE SIZE**

**ØB**
REMOVABLE SOLDER CUP CONTACT
FOR USE WITH PCS MIXED DENSITY SERIES CONNECTORS
CONTACTS MUST BE ORDERED SEPARATELY
SIZE 8

* FEMALE CONTACT
CLOSED ENTRY, L.S.A.

MALE CONTACT

*NOTE: Female contacts feature Large Surface Area (L.S.A.) closed entry contact design which provides maximum mating surfaces between male and female contact and reduced contact resistance during operation.

Note: Connectors can be kitted with all applicable crimp/solder contacts, contact Technical Sales for connector part number.

STRAIGHT SOLDER WIRE TERMINATION

RIGHT ANGLE (90°) SOLDER WIRE TERMINATION

For information regarding CRIMP TOOLS & CRIMPING TOOL TECHNIQUES, see page 54.
REMovable HIGH Voltage Contact
SIZE 8

REMOVABLE SOLDER CUP CONTACT
FOR USE WITH PCS MIXED DENSITY SERIES CONNECTORS
CONTACTS MUST BE ORDERED SEPARATELY
SIZE 8

* FEMALE CONTACT
CLOSED ENTRY, L.S.A.

MALE CONTACT

<table>
<thead>
<tr>
<th>PART NUMBER</th>
<th>CURRENT RATING</th>
<th>WIRE SIZE AWG/mm²</th>
<th>ØB</th>
<th>ØC</th>
</tr>
</thead>
<tbody>
<tr>
<td>FS4008D</td>
<td>40 amperes</td>
<td>8 / [10.0]</td>
<td>0.219 [5.6]</td>
<td>0.182 [4.62]</td>
</tr>
<tr>
<td>FS4012D</td>
<td>20 amperes</td>
<td>12 / [4.0]</td>
<td>0.143 [3.6]</td>
<td>0.112 [2.84]</td>
</tr>
<tr>
<td>FS4016D</td>
<td>10 amperes</td>
<td>16 / [1.5]</td>
<td>0.100</td>
<td>0.069 [1.75]</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PART NUMBER</th>
<th>CURRENT RATING</th>
<th>WIRE SIZE AWG/mm²</th>
<th>ØB</th>
<th>ØC</th>
</tr>
</thead>
<tbody>
<tr>
<td>MS4008D</td>
<td>40 amperes</td>
<td>8 / [10.0]</td>
<td>0.219 [5.6]</td>
<td>0.188 [4.78]</td>
</tr>
<tr>
<td>MS4012D</td>
<td>20 amperes</td>
<td>12 / [4.0]</td>
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<td>0.069 [1.75]</td>
</tr>
</tbody>
</table>

*NOTE: Female contacts feature Large Surface Area (L.S.A.) closed entry contact design which provides maximum mating surfaces between male and female contact and reduced contact resistance during operation.

REMovable HIGH Voltage Contact
FOR USE WITH PCS MIXED DENSITY SERIES CONNECTORS
CONTACTS MUST BE ORDERED SEPARATELY
SIZE 8

STRAIGHT SOLDER WIRE TERMINATION

<table>
<thead>
<tr>
<th>MALE CONTACT</th>
<th>FEMALE CONTACT</th>
</tr>
</thead>
<tbody>
<tr>
<td>MS4820D</td>
<td>FS4820D</td>
</tr>
<tr>
<td>Ø0.142 [3.61]</td>
<td>Ø0.142 [3.61]</td>
</tr>
</tbody>
</table>

RIGHT ANGLE (90°) SOLDER WIRE TERMINATION

<table>
<thead>
<tr>
<th>MALE CONTACT</th>
<th>FEMALE CONTACT</th>
</tr>
</thead>
<tbody>
<tr>
<td>MS4920D</td>
<td>FS4920D</td>
</tr>
<tr>
<td>Ø0.142 [3.61]</td>
<td>Ø0.142 [3.61]</td>
</tr>
</tbody>
</table>

For information regarding CRIMP TOOLS & CRIMPING TOOL TECHNIQUES, see page 54.
PLA (H), PLB (H), PLC (H) and PLS (H) connectors are offered with removable crimp contacts. Positronic recognizes the importance of supplying application tooling to support our customers’ use of our products. Information on application tooling is available on our web site at http://www.connectpositronic.com/design-tools/tooling

There you will find downloadable PDF cross reference charts for removable and compliant press-in contacts. These charts will supply part numbers for insertion, removal and crimping tools, along with information regarding use of tools and techniques.

Connectors Designed To Customer Specifications

Positronic’s PLA(H), PLB(H), PLC(H) and PLS(H) series connectors can be modified to customers specifications.

Examples: select loading of contacts for cost savings or to gain creepage and clearance distances; longer printed circuit board terminations; customer specified hardware.

Positronic can develop and tool new connector designs with reasonable price and delivery.

Contact Technical Sales with your particular requirements.
<table>
<thead>
<tr>
<th>CONTACT APPLICATION TOOLS CROSS REFERENCE LIST</th>
<th>PC PART NUMBER</th>
<th>HANDLE &amp; POSITIONER P/N</th>
<th>HAND CRIMP TOOL P/N</th>
<th>MFG. CROSS MIL EQUIV</th>
<th>INSERTION TOOL P/N</th>
<th>MFG. CROSS MIL EQUIV</th>
<th>REMOVAL TOOL P/N</th>
<th>MFG. CROSS MIL EQUIV</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-2-0-5556</td>
<td>0-2-0-1056</td>
<td>10X11-0-0-0</td>
<td>900X4-0-0-0</td>
<td>10X1-0-1-0-0</td>
<td>90X12-0-0-0</td>
<td>10X1-0-0-0-0</td>
<td>90X12-0-0-0</td>
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<td>10X1-0-0-0-0</td>
<td>90X12-0-0-0</td>
<td>10X1-0-0-0-0</td>
</tr>
</tbody>
</table>

**DIMENSIONS ARE IN INCHES [MILLIMETERS].**

All dimensions are subject to change.

To download a PDF file, visit our web site at [www.connectpositronic.com/pdf_view](http://www.connectpositronic.com/pdf_view).
COMPLIANT PRESS-IN CONNECTOR INSTALLATION TOOLS
USE INDICATED POSITRONIC TOOLS FOR BEST RESULTS

 Positronic offers expert assistance in adapting application tooling to your manufacturing environment. Contact our application tooling specialist for assistance.
 Traditionally, tin-lead has been a popular plating for printed circuit boards (PCB) holes. However, many PCB hole platings must now be RoHS Compliant. Positronic is pleased to offer PCB hole sizes for RoHS PCB plating as shown below.

**COMPLIANT PRESS-IN TERMINATION CONTACT HOLE**

**OMEGA & BI-SPRING COMPLIANT PRESS-IN CONTACT HOLE**

<table>
<thead>
<tr>
<th>BOARD TYPE</th>
<th>CONTACT SIZE / TYPE</th>
<th>RECOMMENDED DRILL HOLE SIZE</th>
<th>RECOMMENDED PLATING</th>
<th>FINISHED HOLE SIZES</th>
</tr>
</thead>
<tbody>
<tr>
<td>TI N-LEAD SOLDER PCB</td>
<td>20 OMEGA</td>
<td>ø0.045±0.001 [ø1.150±0.025]</td>
<td>0.0006 [15µ] min. solder over 0.0010 [25µ] min. copper</td>
<td>ø0.0394±0.0035-0.0024 [ø1.000±0.090-0.060]</td>
</tr>
<tr>
<td></td>
<td>16 BI-SPRING</td>
<td>ø0.069±0.001 [ø1.750±0.025]</td>
<td></td>
<td>ø0.0630±0.0035-0.0024 [ø1.600±0.090-0.060]</td>
</tr>
<tr>
<td></td>
<td>12 BI-SPRING</td>
<td>ø0.102±0.001 [ø2.59±0.025]</td>
<td></td>
<td>ø0.096±0.002 [ø2.44±0.05]</td>
</tr>
<tr>
<td></td>
<td>8 BI-SPRING</td>
<td>ø0.125±0.001 [ø3.180±0.025]</td>
<td></td>
<td>ø0.119±0.002 [ø3.02±0.05]</td>
</tr>
</tbody>
</table>

**RoHS PCB PLATING OPTIONS**

<table>
<thead>
<tr>
<th>BOARD TYPE</th>
<th>CONTACT SIZE / TYPE</th>
<th>RECOMMENDED DRILL HOLE SIZE</th>
<th>RECOMMENDED PLATING</th>
<th>FINISHED HOLE SIZES</th>
</tr>
</thead>
<tbody>
<tr>
<td>COPPER PCB</td>
<td>20 OMEGA</td>
<td>ø0.047±0.001 [ø1.19±0.025]</td>
<td>0.00010 [25µ] min. copper</td>
<td>ø0.043±0.002 [ø1.09±0.05]</td>
</tr>
<tr>
<td></td>
<td>16 BI-SPRING</td>
<td>ø0.069±0.001 [ø1.750±0.025]</td>
<td></td>
<td>ø0.0630±0.0035-0.0024 [ø1.600±0.090-0.060]</td>
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<tr>
<td></td>
<td>12 BI-SPRING</td>
<td>ø0.102±0.001 [ø2.59±0.025]</td>
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<td></td>
<td>8 BI-SPRING</td>
<td>ø0.125±0.001 [ø3.180±0.025]</td>
<td></td>
<td>ø0.119±0.002 [ø3.02±0.05]</td>
</tr>
</tbody>
</table>

| IMMERSION TIN PCB | 20 OMEGA | ø0.047±0.001 [ø1.19±0.025] | 0.00003±0.000006 [0.85±0.15µ] immersion tin over 0.0010 [25µ] min. copper | ø0.043±0.002 [ø1.09±0.05] |
| | 16 BI-SPRING | ø0.069±0.001 [ø1.750±0.025] | | ø0.0630±0.0035-0.0024 [ø1.600±0.090-0.060] |
| | 12 BI-SPRING | ø0.102±0.001 [ø2.59±0.025] | | ø0.096±0.002 [ø2.44±0.05] |
| | 8 BI-SPRING | ø0.125±0.001 [ø3.180±0.025] | | ø0.119±0.002 [ø3.02±0.05] |

| IMMERSION SILVER PCB | 20 OMEGA | ø0.047±0.001 [ø1.19±0.025] | 0.000013±0.000007 [0.34±0.17µ] immersion silver over 0.0010 [25µ] min. copper | ø0.043±0.002 [ø1.09±0.05] |
| | 16 BI-SPRING | ø0.069±0.001 [ø1.750±0.025] | | ø0.0630±0.0035-0.0024 [ø1.600±0.090-0.060] |
| | 12 BI-SPRING | ø0.102±0.001 [ø2.59±0.025] | | ø0.096±0.002 [ø2.44±0.05] |
| | 8 BI-SPRING | ø0.125±0.001 [ø3.180±0.025] | | ø0.119±0.002 [ø3.02±0.05] |

| ELECTROLESS NICKEL / IMMERSION GOLD PCB | 20 OMEGA | ø0.047±0.001 [ø1.19±0.025] | 0.000002 [0.05µ] min. immersion gold over 0.00017±0.000059 [4.5±1.5µ] electrolyless nickel per IPC-4552 over 0.0010 [25µ] min. copper | ø0.043±0.002 [ø1.09±0.05] |
| | 16 BI-SPRING | ø0.069±0.001 [ø1.750±0.025] | | ø0.0630±0.0035-0.0024 [ø1.600±0.090-0.060] |
| | 12 BI-SPRING | ø0.102±0.001 [ø2.59±0.025] | | ø0.096±0.002 [ø2.44±0.05] |
| | 8 BI-SPRING | ø0.125±0.001 [ø3.180±0.025] | | ø0.119±0.002 [ø3.02±0.05] |

COMPLIANT PRESS-IN TERMINATION CONTACT HOLE

**NOTE:** For PCB plating compositions not shown, consult Technical Sales.

When properly used, Positronic omega and bi-spring compliant press-in terminations provide reliable service even under severe conditions.

Connectors utilizing this leading technology compliant press-in contact are easy to install:

1. Inexpensive installation tooling is available from Positronic, to choose the proper installation tool refer to page 56 for part number ordering information.
2. Insert the connector into the P.C. board or backplane and seat connector fully.
3. Secure the connector to the P.C. board or backplane using two self-tapping screws. The screws should be #2 self-tapping screws for plastic.
RIGHT ANGLE (90°) METAL MOUNTING BRACKETS
CODE B ON STEP 5 OF ORDERING INFORMATION PAGE

**MATERIAL:** Glass filled polyester, UL 94V-0.

**PUSH-ON FASTENERS:** Copper alloy, tin plated.

### Table: Mounting Bracket Dimensions

<table>
<thead>
<tr>
<th>SERIES</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLA</td>
<td>0.303 [0.77]</td>
<td>0.321 [0.81]</td>
<td>0.375 [0.95]</td>
<td>0.492 [1.25]</td>
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<tr>
<td>PLB</td>
<td>0.303 [0.77]</td>
<td>0.420 [1.07]</td>
<td>0.375 [0.95]</td>
<td>0.492 [1.25]</td>
</tr>
<tr>
<td>PLC</td>
<td>0.401 [1.02]</td>
<td>0.518 [1.31]</td>
<td>0.375 [0.95]</td>
<td>0.492 [1.25]</td>
</tr>
</tbody>
</table>

**MATERIAL:** Brass, tin plate.

### ACCESSORIES

**RIGHT ANGLE (90°) PLASTIC MOUNTING BRACKET WITH CROSS BAR**
CODE B3 OR CODE B3N ON STEP 5 OF ORDERING INFORMATION PAGE

**MATERIAL:** Glass filled polyester, UL 94V-0.

**PUSH-ON FASTENERS:** Copper alloy, tin plated.

### Diagram: Plastic Mounting Bracket with Cross Bar

**B3 style required for right angle (90°) press-in connectors**

**ACCESSORIES**

**RIGHT ANGLE (90°) METAL AND PLASTIC MOUNTING BRACKETS**

**DIMENSIONS ARE IN INCHES [MILLIMETERS]. ALL DIMENSIONS ARE SUBJECT TO CHANGE.**
PUSH-ON FASTENERS
CODE BN OR CODE N ON STEP 5 OF ORDERING INFORMATION PAGE

CODE BN
FOR USE WITH RIGHT ANGLE (90°) CONNECTOR

CODE N
FOR USE WITH STRAIGHT SOLDER CONNECTOR

MATERIAL: Spring tempered copper alloy, tin plated.

SUGGESTED PRINTED BOARD HOLE SIZES:
Suggest 0.123 ±0.002 [3.12] Ø hole in printed board for mounting connector with push-on fasteners.

MOUNTING SCREWS
CODE ST2, ST3, ST4, SS2, SS3, OR SS4 ON STEP 5 OF ORDERING INFORMATION PAGE
NOTE: MOUNTING SCREWS FOR RIGHT ANGLE CONNECTORS ARE ORDERED SEPARATELY USING PART NUMBERS SHOWN IN CHART BELOW.

Stresses that occur during coupling and uncoupling of connectors or through shock and vibration of systems can be transferred to backplanes or P.C. boards through press-in connector terminations. Avoid concern over electrical integrity of the connector to board interface by using mounting screws. Bellcore GR1217 details a preference for the use of mounting hardware and we recommend this practice.

SCREWS ARE #2 SELF-TAPPING FOR PLASTIC.

<table>
<thead>
<tr>
<th>MOUNTING STYLE OPTION</th>
<th>MATERIAL OPTIONS</th>
<th>PART NUMBER</th>
<th>THREAD LENGTH</th>
<th>P.C. BOARDED THICKNESS</th>
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</thead>
<tbody>
<tr>
<td>ST2</td>
<td>STEEL</td>
<td>A4546-7-1-97</td>
<td>0.250±0.030</td>
<td>0.093 [2.36]</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>[6.35±0.76]</td>
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</tr>
<tr>
<td>ST3</td>
<td>STEEL</td>
<td>A4546-7-2-97</td>
<td>0.312±0.030</td>
<td>0.125 [3.18]</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>[7.93±0.76]</td>
<td></td>
</tr>
<tr>
<td>ST4</td>
<td>STEEL</td>
<td>A4546-7-3-97</td>
<td>0.375±0.030</td>
<td>0.175 [4.46]</td>
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<td></td>
<td></td>
<td></td>
<td>[9.53±0.76]</td>
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<tr>
<td>SS2</td>
<td>STAINLESS STEEL</td>
<td>A4546-7-6-4</td>
<td>0.250±0.030</td>
<td>0.093 [2.36]</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>[6.35±0.76]</td>
<td></td>
</tr>
<tr>
<td>SS3</td>
<td>STAINLESS STEEL</td>
<td>A4546-7-7-4</td>
<td>0.312±0.030</td>
<td>0.125 [3.18]</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>[7.93±0.76]</td>
<td></td>
</tr>
<tr>
<td>SS4</td>
<td>STAINLESS STEEL</td>
<td>A4546-7-8-4</td>
<td>0.375±0.030</td>
<td>0.175 [4.46]</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>[9.53±0.76]</td>
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</table>

CONSULT TECHNICAL SALES IF AN ALTERNATE SCREW IS REQUIRED.
# Power Connection Systems Hood

**Power Connection Systems**

**Connections**

- **Connectpositrionic.com**

---

**ACCESSORIES**

---

## CONNECTOR HOODS

**Power Connection Systems**

### Power Connection Systems Hood

**Code 5 on Step 6 of Ordering Information Page**

<table>
<thead>
<tr>
<th>Connector Variant</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLA03</td>
<td>1.000 [25.40]</td>
<td>0.752 [19.10]</td>
<td>0.594 [15.09]</td>
<td>0.312 [7.92] x 0.363 [9.22]</td>
</tr>
<tr>
<td>PLA04</td>
<td>1.000 [25.40]</td>
<td>0.950 [24.13]</td>
<td>0.594 [15.09]</td>
<td>0.312 [7.92] x 0.561 [14.26]</td>
</tr>
<tr>
<td>PLA06</td>
<td>1.000 [25.40]</td>
<td>1.344 [34.14]</td>
<td>0.594 [15.09]</td>
<td>0.312 [7.92] x 0.955 [24.26]</td>
</tr>
<tr>
<td>PLA08</td>
<td>1.000 [25.40]</td>
<td>1.738 [44.15]</td>
<td>0.594 [15.09]</td>
<td>0.312 [7.92] x 1.349 [34.26]</td>
</tr>
<tr>
<td>PLB06</td>
<td>1.000 [25.40]</td>
<td>0.752 [19.10]</td>
<td>0.792 [20.12]</td>
<td>0.510 [12.95] x 0.363 [9.22]</td>
</tr>
<tr>
<td>PLB08</td>
<td>1.000 [25.40]</td>
<td>0.950 [24.13]</td>
<td>0.792 [20.12]</td>
<td>0.510 [12.95] x 0.561 [14.26]</td>
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<tr>
<td>PLB12</td>
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<td>1.344 [34.14]</td>
<td>0.792 [20.12]</td>
<td>0.510 [12.95] x 0.955 [24.26]</td>
</tr>
<tr>
<td>PLB16</td>
<td>1.000 [25.40]</td>
<td>1.738 [44.15]</td>
<td>0.792 [20.12]</td>
<td>0.510 [12.95] x 1.349 [34.26]</td>
</tr>
<tr>
<td>PLB3W3</td>
<td>1.000 [25.40]</td>
<td>0.950 [24.13]</td>
<td>0.990 [25.15]</td>
<td>0.708 [17.98] x 0.561 [14.26]</td>
</tr>
<tr>
<td>PLC09</td>
<td>1.000 [25.40]</td>
<td>0.752 [19.10]</td>
<td>0.990 [25.15]</td>
<td>0.708 [17.98] x 0.263 [6.70]</td>
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<tr>
<td>PLC12</td>
<td>1.000 [25.40]</td>
<td>0.950 [24.13]</td>
<td>0.990 [25.15]</td>
<td>0.708 [17.98] x 1.349 [34.26]</td>
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<tr>
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<td>1.344 [34.14]</td>
<td>0.990 [25.15]</td>
<td>0.708 [17.98] x 0.955 [24.26]</td>
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<tr>
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<td>1.738 [44.15]</td>
<td>0.990 [25.15]</td>
<td>0.708 [17.98] x 1.349 [34.26]</td>
</tr>
<tr>
<td>PLC30</td>
<td>1.000 [25.40]</td>
<td>2.132 [54.15]</td>
<td>0.990 [25.15]</td>
<td>0.708 [17.98] x 1.743 [44.27]</td>
</tr>
</tbody>
</table>

---

## Hood for Use with PLS5W5 Connector

**Code 5 on Step 6 of Ordering Information Page**

- **Features internal cable clamp.**

---

### Hood for Use with PLS5W5 Connector

**Code 5 on Step 6 of Ordering Information Page**

- **Features internal cable clamp.**

---

**DIMENSIONS ARE IN INCHES [MILLIMETERS]. ALL DIMENSIONS ARE SUBJECT TO CHANGE.**

---

**ACCESSORIES**
**PANEL MOUNT CONNECTORS WITH QUICK RELEASE MOUNTING CLIP**

**CODE 6 IN STEP 6 OF ORDERING INFORMATION PAGE**

**MALE**

- Mounting Clip
- Factory Installed

**FEMALE**

- Mounting Clip
- Factory Installed

<table>
<thead>
<tr>
<th>CONNECTOR VARIANTS</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLA03</td>
<td>1.126 [28.60]</td>
<td>0.408 [10.36]</td>
<td>0.445 [11.30]</td>
</tr>
<tr>
<td>PLA04</td>
<td>1.324 [33.63]</td>
<td>0.408 [10.36]</td>
<td>0.445 [11.30]</td>
</tr>
<tr>
<td>PLA06</td>
<td>2.112 [53.64]</td>
<td>0.606 [15.39]</td>
<td>0.445 [11.30]</td>
</tr>
<tr>
<td>PLB06</td>
<td>1.126 [28.60]</td>
<td>0.606 [15.39]</td>
<td>0.445 [11.30]</td>
</tr>
<tr>
<td>PLB08</td>
<td>1.324 [33.63]</td>
<td>0.606 [15.39]</td>
<td>0.445 [11.30]</td>
</tr>
<tr>
<td>PLB12</td>
<td>1.718 [43.64]</td>
<td>0.606 [15.39]</td>
<td>0.445 [11.30]</td>
</tr>
</tbody>
</table>

**PANEL MOUNT CONNECTORS WITH QUICK RELEASE MOUNTING CLIP**

**FOR REMOVABLE CONTACTS**

**CODE 6 IN STEP 6 OF ORDERING INFORMATION PAGE**

**CONNECTOR VARIANTS**

<table>
<thead>
<tr>
<th>CONNECTOR VARIANTS</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLA03</td>
<td>1.600 [40.64]</td>
<td>1.168 [29.67]</td>
<td>0.445 [11.30]</td>
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<tr>
<td>PLA04</td>
<td>1.798 [45.67]</td>
<td>1.366 [34.70]</td>
<td>0.445 [11.30]</td>
</tr>
<tr>
<td>PLA06</td>
<td>2.192 [55.68]</td>
<td>1.760 [44.70]</td>
<td>0.445 [11.30]</td>
</tr>
<tr>
<td>PLA08</td>
<td>2.586 [65.68]</td>
<td>2.154 [54.71]</td>
<td>0.445 [11.30]</td>
</tr>
<tr>
<td>PLB06</td>
<td>1.600 [40.64]</td>
<td>1.168 [29.67]</td>
<td>0.643 [16.33]</td>
</tr>
<tr>
<td>PLB08</td>
<td>1.798 [45.67]</td>
<td>1.366 [34.70]</td>
<td>0.643 [16.33]</td>
</tr>
<tr>
<td>PLB12</td>
<td>2.192 [55.68]</td>
<td>1.760 [44.70]</td>
<td>0.643 [16.33]</td>
</tr>
<tr>
<td>PLB16</td>
<td>2.586 [65.68]</td>
<td>2.154 [54.71]</td>
<td>0.643 [16.33]</td>
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<tr>
<td>PLB20</td>
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<td>2.548 [64.72]</td>
<td>0.643 [16.33]</td>
</tr>
<tr>
<td>PLC09</td>
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<td>1.168 [29.67]</td>
<td>0.839 [21.31]</td>
</tr>
<tr>
<td>PLC12</td>
<td>1.798 [45.67]</td>
<td>1.366 [34.70]</td>
<td>0.839 [21.31]</td>
</tr>
<tr>
<td>PLC18</td>
<td>2.192 [55.68]</td>
<td>1.760 [44.70]</td>
<td>0.839 [21.31]</td>
</tr>
<tr>
<td>PLC24</td>
<td>2.586 [65.68]</td>
<td>2.154 [54.71]</td>
<td>0.839 [21.31]</td>
</tr>
<tr>
<td>PLC30</td>
<td>2.980 [75.69]</td>
<td>2.548 [64.72]</td>
<td>0.839 [21.31]</td>
</tr>
</tbody>
</table>

**PANEL CUTOUT**

**FOR USE WITH QUICK RELEASE MOUNTING CLIPS**

Maximum panel thickness: 0.063 [1.60] nominal.

**DIMENSIONS ARE IN INCHES [MILLIMETERS], ALL DIMENSIONS ARE SUBJECT TO CHANGE.**
**Fixed Style Mounting Clip and Panel Cutout**

**Panel Mount Connectors with *Fixed Style Mounting Clip***

Code 81, 82 and 83 in Step 6 of Ordering Information Page

**Panel Cutout**

For use with fixed style mounting clips

**Connector Variants**

<table>
<thead>
<tr>
<th>Connector Variants</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
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<td>1.380 [35.05]</td>
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<td>0.193 [4.90]</td>
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<td>2.760 [70.10]</td>
<td>2.530 [64.26]</td>
<td>0.643 [16.33]</td>
<td>0.300 [7.62]</td>
</tr>
</tbody>
</table>

**Panel Mount Connectors with *Fixed Style Mounting Clip***

**Panel Cutout**

For connection system 8

**Connector Variants**

<table>
<thead>
<tr>
<th>Connector Variants</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLB06</td>
<td>1.126 [28.60]</td>
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<td>PLB06F10810</td>
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</tbody>
</table>

**Clip Material:** Beryllium copper, nickel plated

*May be used with either fixed solder or removable contact connector insulators.*
## PANEL MOUNT CUTOUT

![Diagram of Panel Mount Cutout](image)

**DIMENSIONS ARE IN INCHES [MILLIMETERS]. ALL DIMENSIONS ARE SUBJECT TO CHANGE.**

<table>
<thead>
<tr>
<th>CONNECTOR VARIANTS</th>
<th>A ±0.005</th>
<th>B ±0.005</th>
<th>C ±0.005</th>
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</thead>
<tbody>
<tr>
<td>PLA03</td>
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<td>0.650 [16.51]</td>
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<tr>
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<td>1.079 [27.41]</td>
<td>0.847 [21.51]</td>
<td>0.430 [10.92]</td>
</tr>
<tr>
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<td>1.473 [37.41]</td>
<td>1.241 [31.52]</td>
<td>0.430 [10.92]</td>
</tr>
<tr>
<td>PLA08</td>
<td>1.867 [47.42]</td>
<td>1.635 [41.53]</td>
<td>0.430 [10.92]</td>
</tr>
<tr>
<td>PLB06</td>
<td>0.682 [22.40]</td>
<td>0.650 [16.51]</td>
<td>0.627 [15.93]</td>
</tr>
<tr>
<td>PLB08</td>
<td>1.079 [27.41]</td>
<td>0.847 [21.51]</td>
<td>0.627 [15.93]</td>
</tr>
<tr>
<td>PLB12</td>
<td>1.473 [37.41]</td>
<td>1.241 [31.52]</td>
<td>0.627 [15.93]</td>
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<td>1.635 [41.53]</td>
<td>0.627 [15.93]</td>
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<tr>
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<td>2.029 [51.54]</td>
<td>0.627 [15.93]</td>
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<td>PLB3W3</td>
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<td>0.847 [21.51]</td>
<td>0.627 [15.93]</td>
</tr>
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<td>1.241 [31.52]</td>
<td>0.627 [15.93]</td>
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<td>PLC09</td>
<td>0.682 [22.40]</td>
<td>0.650 [16.51]</td>
<td>0.824 [20.93]</td>
</tr>
<tr>
<td>PLC12</td>
<td>1.079 [27.41]</td>
<td>0.847 [21.51]</td>
<td>0.824 [20.93]</td>
</tr>
<tr>
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<td>1.241 [31.52]</td>
<td>0.824 [20.93]</td>
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<td>1.635 [41.53]</td>
<td>0.824 [20.93]</td>
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<tr>
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<td>2.029 [51.54]</td>
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<td>1.241 [31.52]</td>
<td>0.824 [20.93]</td>
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</table>
### BLIND MATING SYSTEM

**CODE 11, 12, 13 AND 14**

**IN STEP 6 OF ORDERING INFORMATION PAGE**

Contact technical sales for additional information.

### MATERIALS AND FINISHES:

- **BLIND MATING PLATE:** Stainless steel.
- **BLIND MATING GUIDE:** Stainless steel, passivated.
- **FLOAT SCREW:** Steel, zinc plate with chromate seal.

Blind mating system sold in a kit containing a connector - plate assembly, Blind mating guides, and float screws.

### PANEL CUTOUT

**FOR USE WITH FLOATING AND FIXED CONNECTOR BLIND MATING SYSTEMS**

**Typical Part Number: PLB08F10120**

<table>
<thead>
<tr>
<th>CONNECTOR VARIANTS</th>
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<th>B ±0.005</th>
<th>C</th>
<th>D ±0.005</th>
<th>D1 ±0.005</th>
<th>E</th>
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**NOTE:** Panel thickness may impact the interaction of mating end of blind mate pin. Shimming between the panel and the head of the blind mate pin may be necessary to minimize tilt of the blind mate system. Contact technical sales for additional technical information.

**PART NUMBER**

- **PL**
  - PL****1**
  - PLB3W3*10110
  - PL****2**
  - PLB3W3*10120
  - PL****3**
  - PLB3W3*10130
  - PL****4**
  - PLB3W3*10140

**Panel or Printed Circuit Board**
Positronic HIGH RELIABILITY Products

**POWER**
- **Contact Sizes:** 0, 4, 8, 12, 16, 18, 20, 22 and 24
- **Current Ratings:** To 200 amperes per contact
- **Terminations:** Crimp and fixed cable connector, straight solder, right angle (90°) solder, straight compliant press-in and right angle (90°) compliant press-in
- **Configurations:** Multiple variants in a variety of package sizes
- **Compliance:** PICMG 2.11, PICMG 3.0, VITA 41, DSCC, GSFC S-311-P-4, GSFC S-311-P-10

**FEATURES:**
- High current density
- Energy saving - low contact resistance
- Hot swap capability
- AC/DC operation in a single connector
- Signal contacts for hardware management
- Blind mating
- Sequential mating
- Large surface area contact mating system
- Wide variety of accessories
- Customer-specified contact arrangements
- Modular tolerizing which produces a single piece connector insert

**D-SUBMINIATURE**
- **Contact Sizes:** 8, 16, 20 and 22
- **Current Ratings:** To 100 amperes
- **Terminations:** Crimp, wire solder, straight solder, right angle (90°) solder, straight compliant press-in and right angle (90°) compliant press-in
- **Configurations:** Multiple variants in both standard and high densities, thirty package sizes
- **Qualifications:** MIL-DTL-28748, AS39029, CCITT V.35

**FEATURES:**
- Four performance levels available for best cost/performance ratio: professional, industrial, military and space-flight quality
- Options include high voltage, coax, thermocouple and air coupling contacts; environmentally sealed and dual port connector packages including mixed density;
- Broad selection of accessories
- Size 20 and 22 contacts suitable for use in carrying power
- IP65, IP67

**RECTANGULAR**
- **Contact Sizes:** 16, 20 and 22
- **Current Ratings:** To 13 amperes nominal
- **Terminations:** Crimp, wire solder, straight solder, right angle (90°) solder, and straight compliant press-in
- **Configurations:** Multiple variants in both standard and high densities, thirty package sizes
- **Qualifications:** MIL-DTL-28748, AS39029, CCITT V.35

**FEATURES:**
- Two performance levels available: industrial quality and military quality
- A wide variety of accessories
- Broad selection of contact arrangement and package sizes
- Connector coding device (keying) options

**CIRCULAR**
- **Contact Sizes:** 8, 12, 16, 20 and 22
- **Current Ratings:** To 40 amperes nominal
- **Terminations:** Feedthrough is standard; flying leads and board mount available upon request
- **Configurations:** See D-subminiature and circular configurations above
- **Compliance:** Space-D32

**FEATURES:**
- Non-corrodible / lightweight composite construction
- EMI/RFI shielded versions
- Thermocouple contacts
- Environmentally sealed versions
- Rear insertion/ front release of removable contacts
- Two level sequential mating
- Overmolding available on full assemblies

**HERMETIC**
- **Contact Sizes:** 8, 12, 16, 20 and 22
- **Current Ratings:** To 40 amperes nominal
- **Terminations:** Feedthrough is standard; flying leads and board mount available upon request
- **Configurations:** See D-subminiature and circular configurations above
- **Compliance:** Space-D32

**FEATURES:**
- Intended for use as an electrical feedthrough in high vacuum applications
- Helium leakage rate at ambient temperature: < 5x10^-9 mbar.l/s under a vacuum 1.5x10^-3 mbar
- Signal, power, coax and high voltage versions available
- Connectors can be mounted on flange assembly per customer specification

For more information, visit www.connectpositronic.com or call your nearest Positronic sales office listed on the back of this catalog.
Divisional Headquarters

**Positronic | Americas**  
423 N Campbell Ave  
Springfield MO 65806 USA  
+1 800 641 4054  
info@connectpositronic.com

**Positronic | Europe**  
Z.I. d’Engachies  
46, route d’Engachies  
F-32020 Auch Cedex 9 France  
+33 5 6263 4491  
contact@connectpositronic.com

**Positronic | Asia**  
3014A Ubi Rd 1 #07-01  
Singapore 408703  
+65 6842 1419  
singapore@connectpositronic.com

Sales Offices

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