POSITRONIC INDUSTRIES

Authentic Positronic Power Connectors

Compact Power Connectors

The power interface for platforms that utilize Eurocard Form Factors

Look for our NEW! Products!

Right Angle PCB Mount

AC Pass-Through

Panel Mount

Five Package Sizes

Solid, Machined Power Contacts

POSITRONIC INDUSTRIES RoHS Compliant Per EU Directive 2002/95/EC

RoHS Compliant options available!

Catalog C-017 Rev. F3

WWW.CONNECTPOSITRONIC.COM

Connector Excellence®

POSITRONIC INDUSTRIES

About Us

Founded in 1966, Positronic Industries is a vertically integrated manufacturer of high quality interconnect products. Positronic has earned the worldwide reputation as a service oriented, quick-reaction, top quality connector supplier. We are committed to maintaining this reputation by continuous implementation of our **Complete Capability** concept.

Complete Capability

Machining

Design & Development

- Designs new connectors and modifies existing connectors to meet industry requirements
- Continuously conducts marketing studies to identify industry needs for new products
- Ongoing interest in unique connector designs

Tooling

- Tooling support for all manufacturing areas within company
- Provides 80% of new tooling, punch press dies, molds, jigs and fixtures used at Positronic factory locations worldwide

Machining

- Automatic screw machines produce finely crafted contacts and hardware for connector bodies
- Trained technicians operate machines from Tornos, Bechler and Brown & Sharpe

Molding

Molding

- Molds all plastic connector components such as insulators, hoods, angle brackets and more
- Overmold capability available

Plating

- Applies gold and other metal finishes to connector components to any required thickness
- Plating conforms to all military specifications

Quality Assurance Lab

- Quality assurance system certified to ISO 9001
- Maintains aggressive TQM program
- Able to test to IEC, EIA, UL, MIL-DTL-24308, MIL-DTL-28748, SAE AS 39029 and MIL-C-85049 requirements

Finished Stock Inventory

Finished Stock Inventory

- Each main factory location maintains a large inventory of connector components and accessories
- Same day shipments available on many standard connector products
- Stocking agreements available for qualified customers

Worldwide Sales & Service

- Responsive attitude toward customer needs
- Fully trained sales staff located worldwide

Products described within this catalog may be protected by one or more of the following US. patents:

#4,721,472 #4,900,261 #5,255,580
#5,329,697 #6,260,268 #6,835,079

Patented in Canada, 1992 Other Patents Pending

Unless otherwise specified, **dimensional tolerances** are:

1) **±0.03 mm [0.001 inches] for male contact mating diameters.**
2) **±0.08 mm [0.003 inches] for contact termination diameters.**
3) **±0.13 mm [0.005 inches] for all other diameters.**
4) **±0.38 mm [0.015 inches] for all other dimensions.**

Positronic Industries believes the data contained herein to be reliable. Since the technical information is given free of charge, the User employs such information at his own discretion and risk. Positronic Industries assumes no responsibility for results obtained or damages incurred from use of such information in whole or in part.

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

Positronic Industries is proud to participate in the important work of the following organizations....

PICMG® and PICMG® logo are registered trademarks of the PCI Industrial Computers Manufacturers Group.

www.picmg.com

Power Sources Manufacturer's Association

The Multinational Power Electronics Association

www.psma.com

VMEbus International Trade Association

www.vita.com

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

Compact Power Connector Applications

Courtesy of
Kaparel Corporation
www.kaparel.com

Courtesy of
Condor D.C Power Supplies, Inc.
www.condorpower.com

Courtesy of
One Stop Systems
www.onestopsystems.com

Courtesy of
Hybricon Corporation
www.hybricon.com

Please visit the website of the companies listed to view a wide variety of product offerings.

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

COMPACT POWER CONNECTORS

FOR USE IN PLATFORMS WHICH UTILIZE EUROCARD FORM FACTORS

- High current through a small package
- Three level sequential mating
- A.C. or D.C. input, output and power management in a simple package
- Multiple power contacts provide efficient current distribution of multi–voltage outputs
- Multiple output contacts can be paralleled for the increased current requirements of distributed power applications
- Superior blind mating

POSITRONIC INDUSTRIES RoHS Compliant per EU Directive 2002/95/EC

RoHS Compliant options available!

Courtesy of
Tracewell Power, Inc.
www.tracewell.com

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

Positronic Industries
connectpositronic.com

TABLE OF CONTENTS

Compact
Power
Connectors

GENERAL INFORMATION

PCI Connection Systems 1-2
Current Rating Information 3
Temperature Rise Curves 4-6
AC/DC Input Keying 6-7
Large Surface Area Contact Mating System 8
Compliant Terminations 9
Application Specific Arrangements 10
Special Options 11

PCIH SERIES

General Product Information 12
Technical Characteristics 13-14
Connector Outline and Mating Dimensions 15
Right Angle Board Mount Connectors, Male 16-18
Right Angle Board Mount Connectors, Female 19-21
Right Angle Board Mount Connectors with A.C. Pass-Through, Female 22
Straight Solder Connectors, Male 23-24
Straight Solder Connectors, Female 25-26
Straight Solder Connectors with A.C. Pass-Through, Female 27-28
Compliant Termination Connectors, Male 29-30
Compliant Termination Connectors, Female 31-32
Compliant Termination Connectors with A.C. Pass-Through, Female 33-34
Panel Mount Connectors, Female 35
Ordering Information 36

PCIA SERIES

General Product Information 37
Technical Characteristics 38
Connector Outline and Mating Dimensions 39
Right Angle Board Mount Connector, Male 40
Right Angle Board Mount Connectors, Female 41
Straight Solder Connectors, Male and Female 42
Compliant Board Mount Connectors, Male and Female 43
Panel Mount Connectors, Female 44
Ordering Information 45

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

P C I M S E R I E S

General Product Information 46
Technical Characteristics 47-48
Connector Outline Mating Dimensions 49
Right Angle Board Mount Connectors, Male 50-53
Right Angle Board Mount Connectors, Female 54-57
Straight Solder Connectors, Female 58-59
Compliant Termination Connectors, Female 60-61
Panel Mount Connectors, Female 62
Ordering Information 63

P C I B S E R I E S

General Product Information 64
Technical Characteristics 65
Connector Outline and Mating Dimensions 66
Right Angle Board Mount Connectors, Male 67-68
Right Angle Board Mount Connectors, Female 69-71
Straight Solder Connectors, Male 72
Straight Solder Connectors, Female 73
Straight Solder Connectors with A.C. Pass-Through, Female 74
Compliant Termination Connectors, Male 75
Compliant Termination Connectors, Female 76
Compliant Termination Connectors with A.C. Pass-Through, Female 77
Panel Mount Connectors, Female 78
Jackscrew System 79
Ordering Information 80

P C I C S E R I E S

General Product Information 81
Technical Characteristics 82
Connector Outline and Mating Dimensions 83
Right Angle Board Mount Connectors, Male 84
Right Angle Board Mount Connectors, Female 85
Straight Solder Connector, Male 86
Straight Solder Connector and Straight Solder Connector with A.C. Pass -Through, Female. 87
Compliant Termination Connectors, Male and Female 88
Compliant Termination Connector with A.C. Pass-Through, Female 89
Panel Mount Connectors, Female 90
Ordering Information 91

A C C E S S O R I E S & T O O L I N G

Special Options Appendix 92
Removable Crimp Contacts 93
Connector Mounting Information 94
Compliant Press-Fit Connectors Pirnted Board Hole Sizes 95
Application Tooling 96-97
Contact Crimping Information 98-99

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

Positronic Industries
connectpositronic.com

PCI CONNECTION SYSTEMS

Compact
Power
Connectors

SYSTEM 1

MOTHER BOARD TO DAUGHTER BOARD

Female, Straight Solder or Press-fit Contacts
Typical part number: PCIH47F300A1
Currently available in: PCIH, PCIA, PCIM, PCIB, PCIC

Male, Straight Solder or Press-fit Contacts
Typical part number: PCIH47M300A1
Currently available in: PCIH and PCIA

Male, Right Angle Contacts
Typical part number: PCIH47M400A1
Currently available in: PCIH, PCIA, PCIM, PCIB, PCIC

Female, Right Angle Contacts
Typical part number: PCIH47F400A1
Currently available in: PCIH, PCIA, PCIM, PCIB, PCIC

SYSTEM 2

A.C. PASS-THROUGH TO RIGHT ANGLE BOARD MOUNT

Female, Straight Solder or Press-fit with AC Pass-Through Contacts Installed
Typical part number: PCIH47F300A1-246.0 with FC112N2S-1565.0 (Ordered Separately)
Currently available in PCIC, PCIH, and PCIB.

Male, Right Angle Contacts
Typical part number: PCIH47M400A1
Currently available in: PCIH, PCIA, PCIM, PCIB, PCIC

SYSTEM 3

CABLE TO RIGHT ANGLE BOARD MOUNT

Female, Crimp Contacts Installed
Typical part number: PCIH47F8000 with FC112N2S-1565.0 (Order Separately)
Currently available in PCIH, PCIA, PCIM, PCIB, PCIC

Male, Right Angle Contacts
Typical part number: PCIH47M400A1
Currently available in: PCIH, PCIA, PCIM, PCIB, PCIC

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

SYSTEM 4

RIGHT ANGLE BOARD MOUNT TO RIGHT ANGLE BOARD MOUNT

Female, Right Angle Contacts
Typical part number: PCIH47F400A1
Currently available in: PCIH, PCIA, PCIM, PCIB, PCIC

Male, Right Angle Contacts
Typical part number: PCIH47M400A1
Currently available in: PCIH, PCIA, PCIM, PCIB, PCIC

SYSTEM 5

RIGHT ANGLE BOARD MOUNT WITH A.C. PASS-THROUGH TO RIGHT ANGLE BOARD MOUNT

Female, Right Angle with
AC Pass-Through Contacts Installed
Typical part number: PCIH47F400A1-246.4 with
FC112N2S-1565.0 (Ordered Separately)
Currently available in: PCIH.

Male, Right Angle Contacts
Typical part number: PCIH47M400A1
Currently available in: PCIH, PCIA, PCIM, PCIB, PCIC

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 P.C. 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.

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

TEMPERATURE RISE CURVES

Tested per IEC Publication 60512–3, Test 5a

Test Detail: Curves were developed with all power contacts energized through 12 awg wire. Temperature rise was measured in the contact mating area. Test was conducted in static air.

Temperature curve developed using **PCIH47M400A1** and **PCIH47F9300A1** connectors and 12 AWG wire. All size 16 contacts under load.

Temperature curve developed using **PCIA60W36M400A1** and **PCIA60W36F9300A1** connectors and 12 AWG wire. All size 16 contacts under load.

Positronic Industries
connectpositronic.com

TEMPERATURE RISE CURVES

Compact
Power
Connectors

Tested per IEC Publication 60512–3, Test 5a

Test Detail: Curves were developed with all power contacts energized through 12 awg wire. Temperature rise was measured in the contact mating area. Test was conducted in static air.

Temperature curve developed using **PCIM30W15M400A1** and **PCIM30W15F9300A1** connectors and 12 AWG wire. All size 16 contacts under load.

Temperature curve developed using **PCIB26W11M400A1** and **PCIB26W11F9300A1** connectors and 12 AWG wire. All size 16 contacts under load.

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

TEMPERATURE RISE CURVES AND A.C./D.C. INPUT KEYING

Tested per IEC Publication 60512–3, Test 5a

Test Detail: Curves were developed with all power contacts energized through 12 awg wire. Temperature rise was measured in the contact mating area. Test was conducted in static air.

Temperature curve developed using **PCIC16W7M400A1** and **PCIC16W7F9300A1** connectors and 12 AWG wire. All size 16 contacts under load.

AC/DC INPUT KEYING

The PCIH49W25 variant has two more contacts than the PCIH47 variant, This provides an “electrical keying” for dedicated AC and DC inputs in a single connector (see below). This prevents damage to power supplies if mechanical keying fails or is not used. **Contacts can be depopulated as creepage and clearance requirements dictate.** It is also important to note that male versions of the PCIH47 will mate to female versions of the PCIH49W25.

Dedicated AC Input
Position 45 - Ground
Positions 46, 47 - Line, Neutral
Positions 48, 49 - Depopulated, if required.

Dedicated DC Input
Position 45 - Ground (optional)
Positions 48, 49 - D.C. Input
Positions 46, 47 - Depopulated, if required.

NEW! MECHANICAL KEYING

Mechanical keying is valuable for applications which offer A.C. or D.C. input power supplies. Inserting a D.C. input power supply into an A.C. slot can damage the power supply. Mechanical keying prevents this.

MATERIALS: Nylon **COLOR:** White

MALE PLUG

FEMALE PLUG

PART NUMBER 2703-16-0-0

To insert male plug use tool # 4311-0-0-0

PART NUMBER 2704-26-0-0

PCIH47 connectors can be ordered for use with keying plugs. Select base part number and add modifier -441.0 or -442.0 as described on page 92.

KEYED TO MATE

Keys can be placed in positions 48 and 49 to achieve keying.

KEYED TO BLOCK

TYPICAL EXAMPLE FOR A.C. INPUT SUPPLIES

FEMALE

MALE

This example shows keying which allows A.C. input male connector to mate with A.C. input female connector. D.C. input male connector will not not mate with A.C. input female connector.

TYPICAL EXAMPLE FOR D.C. INPUT SUPPLIES

FEMALE

MALE

This example shows keying which allows D.C. input male connector to mate with D.C. input female connector. A.C. input male connector will not not mate with D.C. input female connector.

NOTE: Once keying plugs are installed, they can be removed. To change keying sequence, remove installed plugs and insert **new** male and female keying plugs.

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

ALL PCI SERIES utilize Positronic Industries'

"Large Surface Area Contact Mating System"

- Separates mechanical and electrical functions for superior performance
- Low contact resistance provides minimized voltage drop across the contact
- "Closed Entry" design prevents damage to female contacts and will not allow misaligned or bent contacts to enter
- Precision machined from solid, high conductivity copper alloy
- Uniform insertion/withdrawal forces through 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 "springiness" 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 Industries 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.

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

POSITRONIC INDUSTRIES
BI-SPRING POWER COMPLIANT TERMINATIONS

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

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

The next step in press–fit 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 P.C. board and backplane damage. This technology exists today with Positronic Industries Bi–Spring Power Press–Fit termination.

Bi–Spring Power Press–Fit Compliant Terminations

- Average insertion and extraction forces of size 16 contacts are 22N (5 lbs.) per contact and do not produce stresses in P.C. 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 P.C. board or backplane. Stresses that occur during coupling, uncoupling or shock and vibration of systems are not transferred to the P.C. boards or backplanes through the press–fit 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–fit terminations.
- Size 16 Bi–Spring terminations are designed to meet the performance requirements and hole diameters as listed in the internationally recognized specification IEC60352–5.
- Lower insertion and extraction forces eliminate the need for expensive pressing equipment.

OMEGA SIGNAL LEVEL COMPLIANT TERMINATIONS

Today's power supplies feature communication options with the host system. The power interface must have reliable signal level connections.

Positronic Industries Omega Press–Fit terminations are the perfect solderless connection companion to the Bi–Spring Power Press–Fit terminations.

Patent No. 6,260,268

Omega Signal Level Press–Fit Compliant Terminations

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

APPLICATION SPECIFIC ARRANGEMENTS

The Compact Power Connector Series design allows for the development of application specific contact arrangements in a timely manner and at a reasonable price. After reviewing 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

RIGHT ANGLE BOARD MOUNT CONNECTOR

Male Connector Dimensions

Female Connector Dimensions

STRAIGHT BOARD MOUNT CONNECTOR

Male Connector Dimensions

Female Connector Dimensions

FOUR CONTACT SIZES TO CHOOSE FROM

Size 12 contact

Size 16 contact

Size 20 contact

Size 22 contact

Contact sizes may be mixed within a single connector.

BASIC SERIES	"A"	"B"	"C"	"D"
PCIH	91.03 [3.584]	91.04 [3.584]	93.82 [3.694]	93.82 [3.694]
PCIA	116.53 [4.588]	120.90 [4.760]	119.32 [4.698]	119.32 [4.698]
PCIB	53.54 [2.108]	53.54 [2.108]	N/A	56.32 [2.217]
PCIC	43.96 [1.731]	43.96 [1.731]	N/A	46.74 [1.840]
PCIM	69.66 [2.743]	69.66 [2.743]	N/A	72.44 [2.852]

MANY TERMINATION TYPES CAN BE SUPPLIED

Straight Solder or Compliant
Right Angle Solder
Crimp Removable
Different Termination Types can be mixed within a single connector

POPULAR OPTIONS

Sequential Mating
Recessed Female Contacts
Selective Loading

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

Why Pay For More Than You Need?

The current carrying capability of the Compact Power Connector is considerable. In many applications a customer may be paying for unused capacity if a fully loaded connector is used. Connectors are available with fewer power contacts loaded to allow for a cost savings.

The **PICMG® 2.11 Power Interface Specification** allows for three loading options of male contact, right angle, free board connectors. Female contact fixed board connectors may not be selectively loaded. Consult PICMG 2.11 for details.

	Output Contact Position Loaded *	Total Output Contacts*	Positronic Part Number
Option 1	1,3,4,5,6,7,8,9,11,12,13,15,16,17,19,20	16	PCIH47M400A1-259.2
Option 2	1,4,5,8,9,12,13,16,19,20	10	PCIH47M400A1-259.0
Option 3	1,5,9,13,19,20	6	PCIH47M400A1-259.1

* All input and signal contact positions are loaded.

Additional savings can be gained when female contact connectors are supplied selectively loaded for applications not specific to PICMG® 2.11.

PCI Inverted Options

Female Connectors

(Available in
PCIH, PCIA, PCIM, PCIB, PCIC)

Male Connectors

(Available in
PCIH, PCIM, PCIB, PCIC)

Inverted options allow flexibility in positioning the connector as best suited for specific applications.

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

The **PCIH** series was developed specifically for use with **CompactPCI®** in–rack modular power supplies. The package size is ideal for use in all 3U and 6U based platforms. The PCIH series is an excellent choice in **IEEE 1101.1**, **IEEE 1101.10**, and **VITA 30** applications where system power requirements have exceeded the capabilities of commonly used power connectors.

The **PCIH47** variant is fully compliant to the **PICMG® 2.11 Power Interface Specification**. This Specification details standardized power for use with **CompactPCI®** systems. Visit www.picmg.com for details.

PCIH SERIES CONTACT VARIANTS

FACE VIEW OF MALE AND REAR VIEW OF FEMALE

PCIH38 VARIANT

PCIH38R VARIANT (Inverted)

23 Size 16 Power Contacts and 15 Size 20 Signal Contacts

CompactPCI®

PCIH47 VARIANT

PCIH47R VARIANT (Inverted)

23 Size 16 Power Contacts and 24 Size 22 Signal Contacts

PCIH49W25 VARIANT

PCIH49W25R VARIANT

25 Size 16 Power Contacts and 24 Size 22 Signal Contacts

Positronic Industries
connectpositronic.com

TECHNICAL CHARACTERISTICS

Compact Power Connectors

MATERIALS AND FINISHES:

Insulator: Glass-filled polyester, UL 94V-0, blue color.

Contacts: High conductivity precision-machined copper alloy with gold flash over nickel, or 0.76µ [0.000030 inch] gold over nickel, or 1.27µ [0.000050 inch] gold over nickel. Other finishes available upon request.

Mounting Screws: Steel, zinc plated.

ELECTRICAL CHARACTERISTICS:

PCIH Contact Current Ratings, per UL 1977

See Temperature Rise Curves on page 4 for details.

PCIH38:

Size 16 Power Contacts:	
Positions 36, 37, and 38:	40 amperes continuous, all contacts under load.
Positions 1 – 20:	28 amperes continuous, all contacts under load.
Size 20 Signal Contacts:	5 amperes nominal rating.

PCIH47:

Size 16 Power Contacts:	
Positions 45, 46, and 47:	40 amperes continuous, all contacts under load.
Positions 1 – 20:	28 amperes continuous, all contacts under load.
Size 22 Signal Contacts:	3 amperes nominal rating.

PCIH49:

Size 16 Power Contacts:	28 amperes continuous, all contacts under load.
Size 22 Signal Contacts:	3 amperes nominal rating.

Initial Contact Resistance; maximum:

Size 16 Contact:	0.0007 ohms maximum.
Size 20 Contact:	0.004 ohms maximum.
Size 22 Contact:	0.004 ohms maximum. Per IEC 512-2, Test 2b.

Insulator Resistance: 5 G ohms per IEC 512-2, Test 3a.

Voltage Proof:

PCIH38:

Contacts 36, 37 and 38:	3,000 V r.m.s.
Contacts 1 through 20:	1,500 V r.m.s.
Contacts 21 through 35:	1,000 V r.m.s.

PCIH47:

Contacts 45, 46, and 47:	3,000 V r.m.s.
Contacts 1 through 20:	1,500 V r.m.s.
Contacts 21 through 44:	1,000 V r.m.s.

PCIH49:

Contacts 1 through 20:	1,500 V r.m.s.
Contacts 45 through 49:	1,500 V r.m.s.
Contacts 21 through 44:	1,000 V r.m.s.

Creepage and Clearance Distance; minimum:

PCIH38:

Contact 38 to Contact 36:	3.2mm [0.126 inch]
Contact 37 to Contact 36:	3.2mm [0.126 inch]
Contact 38 to Signal Contacts:	6.4mm [0.252 inch]
Contact 37 to Signal Contacts:	6.4mm [0.252 inch]
Contact 38 to Contact 37:	2.5mm [0.098 inch]
Contact 36 to Signal Contacts:	2.0mm [0.079 inch]

PCIH47:

Contact 47 to Contact 45:	3.2mm [0.126 inch]
Contact 46 to Contact 45:	3.2mm [0.126 inch]
Contact 47 to Signal Contacts:	6.4mm [0.252 inch]
Contact 46 to Signal Contacts:	6.4mm [0.252 inch]
Contact 47 to Contact 46:	2.5mm [0.098 inch]
Contact 45 to Signal Contacts:	2.0mm [0.079 inch]

PCIH47:

Contact 36 to Signal Contacts:	2.0mm [0.079 inch]

Working Voltage:

PCIH38:

Contacts 36, 37 and 38:	1,000 V r.m.s.
Contacts 1 through 20:	500 V r.m.s.
Contacts 21 through 35:	333 V r.m.s.

PCIH47:

Contacts 45, 46, and 47:	1,000 V r.m.s.
Contacts 1 through 20:	500 V r.m.s.
Contacts 21 through 44:	333 V r.m.s.

PCIH49:

Contacts 1 through 20:	500 V r.m.s.
Contacts 45 through 49:	500 V r.m.s.
Contacts 21 through 44:	333 V r.m.s.

MECHANICAL CHARACTERISTICS:

Blind Mating System: Male and female connector bodies provide “lead-in” for 1.3 mm [0.050 inch] diametral misalignment.

Polarization: Provided by connector body design.

Removable Contacts: Install contact from rear of insulator; release from front of insulator. Size 16 and size 20 female contacts feature “Closed Entry” design. Size 22 female contacts feature “Robi–D” open entry design.

Removable Contact Retention in Connector Body:

Size 16 Contacts:	67 N [15 lbs.]
Size 20 Contacts:	45 N [10 lbs.]
Size 22 Contacts:	27 N [6 lbs.]

Fixed Contacts: Printed board terminations, both straight and right angle. Size 16 female contacts feature “Closed Entry” design. Size 20 and 22 feature rugged “Robi-D Open Entry” contact design. “Closed Entry” contacts available, consult Technical Sales.

Fixed Contact Retention in Connector Body:

Size 16 Contacts:	45 N [10 lbs.]
Size 20 and 22 Contacts:	27 N [6 lbs.]

Resistance to Solder Heat: 260˚C [500˚F] for 10 seconds duration per IEC 512-6, Test 12e, 25-watt soldering iron.

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

TECHNICAL CHARACTERISTICS

Sequential Contact Mating System:

PCIH38: First mate contact 36 and last mate contact positions 22, 25 and 28.

PCIH47 and PCIH49 with MOS: First mate contact 45 and last mate contact position 27.

Consult Technical Sales for customer specified sequential mating.

Safety "Recessed in Insulator" Contacts: The following size 16 contacts are recessed 5mm [0.197 inch] below the face of the female connector insulator per safety requirements.

PCIH38: Contact positions 37 and 38.

PCIH47 and PCIH49 with MOS: Contact positions 46 and 47.

Compliant Terminations: Size 16, 20 and 22 contacts are available with Compliant Contact Terminations.

Printed Board and Panel Mounting: Mounting holes provided in connector body for both printed board and panel mounting. Self-tapping screws are available.

Mechanical Operations: 250 couplings, minimum.

CLIMATIC CHARACTERISTICS:

Working Temperature: -55˚C to +125˚C.

U.L. Recognized File #E49351
CSA Recognized File #LR54219
TUV Recognized File #215/99

POSITRONIC INDUSTRIES RoHS Compliant per EU Directive 2002/95/EC

For RoHS options see page 36.

PCIH CONNECTOR OUTLINE DIMENSIONS

RIGHT ANGLE BOARD MOUNT CONNECTOR

Male Connector Dimensions

Female Connector Dimensions

STRAIGHT BOARD MOUNT CONNECTOR

Male Connector Dimensions

Female Connector Dimensions

PCIH CONNECTOR MATING DIMENSIONS

(FULLY MATED)

Straight Board Mount or Panel Mount Female to Straight Board Mount Male.

Right Angle Board Mount Female to Straight Board Mount Male.

Straight Board Mount or Panel Mount Female to Right Angle Board Mount Male.

Right Angle Board Mount Female to Right Angle Board Mount Male.

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

See page 35 for panel mount connector dimensions.

RIGHT ANGLE
BOARD MOUNT CONNECTORS, MALE

STANDARD PART NUMBER
PCIH38M400A1

CONNECTOR DIMENSIONS

CONTACT HOLE PATTERN

Note: See below for suggested printed board hole sizes.

INVERTED PART NUMBER
PCIH38RM400A1

CONNECTOR DIMENSIONS

CONTACT HOLE PATTERN

SUGGESTED PRINTED BOARD HOLE SIZES:

Suggest Ø1.14 [0.045] holes for size 20 contact holes.
Suggest Ø2.03 [0.080] holes for size 16 contact holes.
Suggest Ø3.56±0.08 [0.140±0.003] holes for connector mounting holes.

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

STANDARD PART NUMBER
PCIH47M400A1

CONNECTOR DIMENSIONS

CONTACT HOLE PATTERN

Note: See below for suggested printed board hole sizes.

INVERTED PART NUMBER
PCIH47RM400A1

CONNECTOR DIMENSIONS

CONTACT HOLE PATTERN

SUGGESTED PRINTED BOARD HOLE SIZES:

Suggest Ø1.14 [0.045] holes for size 22 contact holes.
Suggest Ø 2.03 [0.080] holes for size 16 contact holes.
Suggest Ø 3.56±0.08 [0.140±0.003] holes for connector mounting holes.

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

RIGHT ANGLE
BOARD MOUNT CONNECTORS, MALE

STANDARD PART NUMBER
PCIH49W25M400A1-378.0

CONNECTOR DIMENSIONS

CONTACT HOLE PATTERN

Note: See below for suggested printed board hole sizes.

SUGGESTED PRINTED BOARD HOLE SIZES:

Suggest Ø1.14 [0.045] holes for size 20 contact holes.
Suggest Ø2.03 [0.080] holes for size 16 contact holes.
Suggest Ø3.56±0.08 [0.140±0.003] holes for connector mounting holes.

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

STANDARD PART NUMBER
PCIH38F400A1

CONNECTOR DIMENSIONS

CONTACT HOLE PATTERN

Note: See below for suggested printed board hole sizes.

INVERTED PART NUMBER
PCIH38RF400A1

CONNECTOR DIMENSIONS

CONTACT HOLE PATTERN

SUGGESTED PRINTED BOARD HOLE SIZES:

Suggest Ø1.14 [0.045] holes for size 20 contact holes.
Suggest Ø2.03 [0.080] holes for size 16 contact holes.
Suggest Ø3.56±0.08 [0.140±0.003] holes for connector mounting holes.

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

RIGHT ANGLE
BOARD MOUNT CONNECTORS, FEMALE

STANDARD PART NUMBER
PCIH47F400A1

CONTACT HOLE PATTERN

CONNECTOR DIMENSIONS

Note: See below for suggested printed board hole sizes.

INVERTED PART NUMBER
PCIH47RF400A1

CONTACT HOLE PATTERN

CONNECTOR DIMENSIONS

SUGGESTED PRINTED BOARD HOLE SIZES:

Suggest Ø1.14 [0.045] holes for size 22 contact holes.
Suggest Ø2.03 [0.080] holes for size 16 contact holes.
Suggest Ø3.56±0.08 [0.140±0.003] holes for connector mounting holes.

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

STANDARD PART NUMBER
PCIH49W25F400A1-379.0

CONNECTOR DIMENSIONS

CONTACT HOLE PATTERN

Note: See below for suggested printed board hole sizes.

INVERTED PART NUMBER
PCIH49W25RF400A1-379.0

CONNECTOR DIMENSIONS

CONTACT HOLE PATTERN

SUGGESTED PRINTED BOARD HOLE SIZES:

Suggest Ø1.14 [0.045] holes for size 22 contact holes.
Suggest Ø2.03 [0.080] holes for size 16 contact holes.
Suggest Ø3.56±0.08 [0.140±0.003] holes for connector mounting holes.

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

RIGHT ANGLE BOARD MOUNT CONNECTORS WITH A.C. PASS-THROUGH, FEMALE

STANDARD PART NUMBER
PCIH47F400A1-246.4

CONTACT HOLE PATTERN

CONNECTOR DIMENSIONS

Note: See below for suggested printed board hole sizes.

INVERTED PART NUMBER
PCIH47RF400A1-246.4

CONTACT HOLE PATTERN

CONNECTOR DIMENSIONS

SUGGESTED PRINTED BOARD HOLE SIZES:

Suggest Ø1.14 [0.045] holes for size 22 contact holes.
Suggest Ø2.03 [0.080] holes for size 16 contact holes.
Suggest Ø3.56±0.08 [0.140±0.003] holes for connector mounting holes.

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

STANDARD PART NUMBER
PCIH38M300A1

CONNECTOR DIMENSIONS

CONTACT HOLE PATTERN

Note: See below for suggested printed board hole sizes.

STANDARD PART NUMBER
PCIH47M300A1

CONNECTOR DIMENSIONS

CONTACT HOLE PATTERN

SUGGESTED PRINTED BOARD HOLE SIZES:

Suggest Ø1.00 [0.039] holes for size 20 and size 22 contact holes.
Suggest Ø1.60 [0.063] holes for size 16 contact holes.
Suggest Ø3.56±0.08 [0.140±0.003] holes for connector mounting holes.

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

STRAIGHT SOLDER CONNECTORS, MALE

STANDARD PART NUMBER
PCIH49W25M300A1-378.0

CONNECTOR DIMENSIONS

CONTACT HOLE PATTERN

Note: See below for suggested printed board hole sizes.

SUGGESTED PRINTED BOARD HOLE SIZES:

Suggest Ø1.00 [0.039] holes for size 20 and size 22 contact holes.
Suggest Ø1.60 [0.063] holes for size 16 contact holes.
Suggest Ø3.56±0.08 [0.140±0.003] holes for connector mounting holes.

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

STANDARD PART NUMBER
PCIH38F300A1

CONTACT HOLE PATTERN

CONNECTOR DIMENSIONS

Note: See below for suggested printed board hole sizes.

STANDARD PART NUMBER
PCIH47F300A1

CONTACT HOLE PATTERN

CONNECTOR DIMENSIONS

SUGGESTED PRINTED BOARD HOLE SIZES:

Suggest Ø1.00 [0.039] holes for size 20 and size 22 contact holes.
Suggest Ø1.60 [0.063] holes for size 16 contact holes.
Suggest Ø3.56±0.08 [0.140±0.003] holes for connector mounting holes.

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

STRAIGHT SOLDER CONNECTORS, FEMALE

STANDARD PART NUMBER
PCIH49W25F300A1-379.0

CONTACT HOLE PATTERN

CONNECTOR DIMENSIONS

Note: See below for suggested printed board hole sizes.

SUGGESTED PRINTED BOARD HOLE SIZES:

Suggest Ø1.00 [0.039] holes for size 20 and size 22 contact holes.
Suggest Ø1.60 [0.063] holes for size 16 contact holes.
Suggest Ø3.56±0.08 [0.140±0.003] holes for connector mounting holes.

LOW PROFILE PART NUMBER
PCIH38F300A1-246.1

CONNECTOR DIMENSIONS

CONTACT HOLE PATTERN

Note: See below for suggested printed board hole sizes.

LOW PROFILE PART NUMBER
PCIH47F300A1-246.0

CONNECTOR DIMENSIONS

CONTACT HOLE PATTERN

SUGGESTED PRINTED BOARD HOLE SIZES:

Suggest Ø1.00 [0.039] holes for size 20 and size 22 contact holes.
Suggest Ø1.60 [0.063] holes for size 16 contact holes.
Suggest Ø3.56±0.08 [0.140±0.003] holes for connector mounting holes.

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

STRAIGHT SOLDER CONNECTOR WITH A.C. PASS-THROUGH, FEMALE

LOW PROFILE PART NUMBER
PCIH49W25F300A1-246.3

CONNECTOR DIMENSIONS

CONTACT HOLE PATTERN

Note: See below for suggested printed board hole sizes.

HIGH PROFILE PART NUMBER
PCIH38F300A1-245.0

CONNECTOR DIMENSIONS

CONTACT HOLE PATTERN

SUGGESTED PRINTED BOARD HOLE SIZES:

Suggest Ø1.00 [0.039] holes for size 20 and size 22 contact holes.
Suggest Ø1.60 [0.063] holes for size 16 contact holes.
Suggest Ø3.56±0.08 [0.140±0.003] holes for connector mounting holes.

STANDARD PART NUMBER
PCIH38M9300A1
PCIH38M9400A1

CONNECTOR DIMENSIONS

CONTACT HOLE PATTERN

CONTACT TAIL LENGTH		
Code	"L" Length	Board Thickness
93	5.72 [0.225]	2.29 to 4.45 [0.090 to 0.175]
94	7.04 [0.277]	4.45 min. [0.175 min.]

SUGGESTED PRINTED BOARD HOLE SIZES:
Suggest Ø3.56±0.08 [0.140±0.003] holes for connector mounting holes.
Note: See page 95 for suggested printed board drill hole sizes, recommended plating and finished hole sizes.

STANDARD PART NUMBER
PCIH47M9300A1
PCIH47M9400A1

CONNECTOR DIMENSIONS

CONTACT HOLE PATTERN

CONTACT TAIL LENGTH		
Code	"L" Length	Board Thickness
93	5.72 [0.225]	2.29 to 4.45 [0.090 to 0.175]
94	7.04 [0.277]	4.45 min. [0.175 min.]

SUGGESTED PRINTED BOARD HOLE SIZES:
Suggest Ø3.56±0.08 [0.140±0.003] holes for connector mounting holes.
Note: See page 95 for suggested printed board drill hole sizes, recommended plating and finished hole sizes.

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

COMPLIANT TERMINATION CONNECTORS, MALE

STANDARD PART NUMBER
PCIH49W25M9300A1-378.0
PCIH49W25M9400A1-378.0

CONNECTOR DIMENSIONS

CONTACT HOLE PATTERN

CONTACT TAIL LENGTH		
Code	**"L" Length**	**Board Thickness**
93	5.72 [0.225]	2.29 to 4.45 [0.090 to 0.175]
94	7.04 [0.277]	4.45 min. [0.175 min.]

SUGGESTED PRINTED BOARD HOLE SIZES:

Suggest Ø3.56±0.08 [0.140±0.003] holes for connector mounting holes.
Note: See page 95 for suggested printed board drill hole sizes, recommended plating and finished hole sizes.

ENLARGED DETAIL OF COMPLIANT CONTACT TERMINATIONS

STANDARD PART NUMBER
PCIH38F9300A1
PCIH38F9400A1

CONNECTOR DIMENSIONS

CONTACT HOLE PATTERN

CONTACT TAIL LENGTH		
Code	**"L" Length**	**Board Thickness**
93	5.72 [0.225]	2.29 to 4.45 [0.090 to 0.175]
94	7.04 [0.277]	4.45 min. [0.175 min.]

SUGGESTED PRINTED BOARD HOLE SIZES:
Suggest Ø3.56±0.08 [0.140±0.003] holes for connector mounting holes.
Note: See page 95 for suggested printed board drill hole sizes, recommended plating and finished hole sizes.

STANDARD PART NUMBER
PCIH47F9300A1
PCIH47F9400A1

CONNECTOR DIMENSIONS

CONTACT HOLE PATTERN

CONTACT TAIL LENGTH		
Code	**"L" Length**	**Board Thickness**
93	5.72 [0.225]	2.29 to 4.45 [0.090 to 0.175]
94	7.04 [0.277]	4.45 min. [0.175 min.]

SUGGESTED PRINTED BOARD HOLE SIZES:
Suggest Ø3.56±0.08 [0.140±0.003] holes for connector mounting holes.
Note: See page 95 for suggested printed board drill hole sizes, recommended plating and finished hole sizes.

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

COMPLIANT TERMINATION CONNECTORS, FEMALE

STANDARD PART NUMBER
PCIH49W25F9300A1-379.0
PCIH49W25F9400A1-379.0

CONNECTOR DIMENSIONS

CONTACT HOLE PATTERN

CONTACT TAIL LENGTH		
Code	**"L" Length**	**Board Thickness**
93	5.72 [0.225]	2.29 to 4.45 [0.090 to 0.175]
94	7.04 [0.277]	4.45 min. [0.175 min.]

SUGGESTED PRINTED BOARD HOLE SIZES:

Suggest Ø3.56±0.08 [0.140±0.003] holes for connector mounting holes.
Note: See page 95 for suggested printed board drill hole sizes, recommended plating and finished hole sizes.

LOW PROFILE PART NUMBER
PCIH38F9300A1-246.1
PCIH38F9400A1-246.1

CONNECTOR DIMENSIONS

CONTACT HOLE PATTERN

CONTACT TAIL LENGTH		
Code	**"L" Length**	**Board Thickness**
93	5.72 [0.225]	2.29 to 4.45 [0.090 to 0.175]
94	7.04 [0.277]	4.45 min. [0.175 min.]

SUGGESTED PRINTED BOARD HOLE SIZES:
Suggest Ø3.56±0.08 [0.140±0.003] holes for connector mounting holes.
Note: See page 95 for suggested printed board drill hole sizes, recommended plating and finished hole sizes.

LOW PROFILE PART NUMBER
PCIH47F9300A1-246.0
PCIH47F9400A1-246.0

CONNECTOR DIMENSIONS

CONTACT HOLE PATTERN

CONTACT TAIL LENGTH		
Code	**"L" Length**	**Board Thickness**
93	5.72 [0.225]	2.29 to 4.45 [0.090 to 0.175]
94	7.04 [0.277]	4.45 min. [0.175 min.]

SUGGESTED PRINTED BOARD HOLE SIZES:
Suggest Ø3.56±0.08 [0.140±0.003] holes for connector mounting holes.
Note: See page 95 for suggested printed board drill hole sizes, recommended plating and finished hole sizes.

COMPLIANT TERMINATION CONNECTORS WITH A.C. PASS-THROUGH, FEMALE

LOW PROFILE PART NUMBER

PCIH49W25F9300A1-246.3
PCIH49W25F9400A1-246.3

CONNECTOR DIMENSIONS

CONTACT HOLE PATTERN

CONTACT TAIL LENGTH		
Code	**"L" Length**	**Board Thickness**
93	5.72 [0.225]	2.29 to 4.45 [0.090 to 0.175]
94	7.04 [0.277]	4.45 min. [0.175 min.]

SUGGESTED PRINTED BOARD HOLE SIZES:

Suggest Ø3.56±0.08 [0.140±0.003] holes for connector mounting holes.

Note: See page 95 for suggested printed board drill hole sizes, recommended plating and finished hole sizes.

HIGH PROFILE PART NUMBER

PCIH38F9300A1-245.0
PCIH38F9400A1-245.0

CONTACT HOLE PATTERN

CONNECTOR DIMENSIONS

CONTACT TAIL LENGTH		
Code	**"L" Length**	**Board Thickness**
93	5.72 [0.225]	2.29 to 4.45 [0.090 to 0.175]
94	7.04 [0.277]	4.45 min. [0.175 min.]

SUGGESTED PRINTED BOARD HOLE SIZES:

Suggest Ø3.56±0.08 [0.140±0.003] holes for connector mounting holes.

Note: See page 95 for suggested printed board drill hole sizes, recommended plating and finished hole sizes.

FEMALE PANEL MOUNT CRIMP CONTACT CONNECTOR DIMENSIONS

REMOVABLE CRIMP CONTACTS MUST BE ORDERED SEPARATELY

STANDARD PART NUMBER
PCIH38F8000

PANEL CUT OUT

STANDARD PART NUMBER
PCIH47F8000

PANEL CUT OUT

FOR REMOVABLE CRIMP CONTACT ORDERING INFORMATION, SEE PAGE 93.

DIMENSIONS ARE IN MILLIMETERS [INCHES].
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	2	3	4	5	6	7	8	9
EXAMPLE	PCIH	47	F	93	0	0	A1	/AA	

STEP 1 - BASIC SERIES

PCIH – PCIH Series

STEP 2 - CONNECTOR VARIANTS

38 – 23 size 16 contacts and 15 size 20 contacts
38R – 23 size 16 contacts and 15 size 20 contacts inverted style, use with contact type "4"
47 – 23 size 16 contacts and 24 size 22 contacts
47R – 23 size 16 contacts and 24 size 22 contacts inverted style, use with contact type "4"
49W25 – 25 size 16 contacts and 24 size 22 contacts
*49W25R – 25 size 16 contacts and 24 size 22 contacts inverted style, use with contact type "4"

STEP 3 - CONNECTOR GENDER

M - Male
F - Female

STEP 4 - CONTACT TERMINATION TYPE

3 – Solder, Straight Printed Board Mount with 4.50 [0.177] tail extension for connection systems 1 and 2.
4 – Solder, Right Angle Printed Board Mount with 2.68 [0.106] tail extension for connection systems 1, 2, 3 and 4.
** 8 – Contacts must be ordered separately for Panel Mount Cable Connectors, connection system 3. Female connector only.
93 – Press–Fit, Compliant Termination size 16 and size 20 or size 22 Straight Printed Board Mount for use with board thicknesses of 2.29 to 4.45 [0.090 to 0.175]. Connection systems 1 and 2.
94 – Press–Fit, Compliant Termination size 16 and size 20 or size 22 Straight Printed Board Mount for use with board thickness of 4.45 minimum [0.175 minimum]. Connection systems 1 and 2.

STEP 5 - MOUNTING STYLE

0 – Not Applicable

See page 94 for mounting screw options.

STEP 6 - HOODS

0 – Not applicable

STEP 9 - SPECIAL OPTIONS

FOR LISTING OF SPECIAL OPTIONS, SEE SPECIAL OPTIONS APPENDIX ON PAGE 92.

STEP 8 - ENVIRONMENTAL COMPLIANCE OPTIONS

/AA - Compliant per EU Directive 2002/95/EC (RoHS)

NOTE: If compliance to environmental legislation is not required, this step will not be used. Example: PCIH47F9300A1

STEP 7 - CONTACT PLATING FOR PRINTED BOARD TYPE CONNECTORS

0 – Crimp contacts ordered separately
A1 – Gold flash over nickel on mating end and termination end.
A2 – Gold flash over nickel on mating end and 5.00 microns [0.000200 inch] tin-lead solder coat on termination end. Not available with code 93 or code 94 in step 4.
C1 – 0.76 microns [0.000030 inch] gold over nickel on mating end and termination end.
C2 – 0.76 microns [0.000030 inch] gold over nickel on mating end and 5.00 microns [0.000200 inch] tin-lead solder coat on termination end. Not available with code 93 or code 94 in step 4.
D1 – 1.27 microns [0.000050 inch] gold over nickel on mating end and termination end.
D2 – 1.27 microns [0.000050 inch] gold over nickel on mating end and 5.00 microns [0.000200 inch] tin-lead solder coat on termination end. Not available with code 93 or code 94 in step 4.

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-dimensional IGES file.

SK Drawing

3-dimensional model

* Female contact variants are readily available. Contact Technical Sales for availability of male contact variants.

** Available for 38 and 47 variants. Contact Technical Sales for availability of 49W25 variant.

The PCIA Series encompasses all of the features of the PCIH Series and provides greater input and output current capacity in a slightly larger package. The package size is suitable for 6U and larger based systems or in systems which do not conform to a particular standard. Reliability, high current capacity and many system management connections make the PCIA Series ideal for higher wattage power supplies which are used in telecom, computer, information systems and industrial applications.

PCIA SERIES CONTACT VARIANTS

FACE VIEW OF MALE AND REAR VIEW OF FEMALE

PCIA60W36 VARIANT

PCIA60W36R VARIANT (inverted)

Currently available in female only, use with contact type 4.

36 Size 16 Power Contacts and 24 Size 22 Signal Contacts

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

TECHNICAL CHARACTERISTICS

MATERIALS AND FINISHES:

Insulator: Glass-filled polyester, UL 94V-0, blue color.

Contacts: High conductivity precision-machined copper alloy with gold flash over nickel, or 0.76µ [0.000030 inch] gold over nickel, or 1.27µ [0.000050 inch] gold over nickel. Other finishes available upon request.

Mounting Screws: Steel, zinc plated.

ELECTRICAL CHARACTERISTICS:

PCIA Contact Current Ratings, per UL 1977

See Temperature Rise Curves on page 4 for details.

Size 16 Power Contacts:

Positions 55 through 60: 38 amperes continuous, all contacts under load.

Positions 1 through 30: 28 amperes continuous, all contacts under load.

Size 22 Signal Contacts: 3 amperes nominal rating.

Initial Contact Resistance; maximum:

Size 16 Contact: 0.0007 ohms maximum.

Size 22 Contact: 0.004 ohms maximum. Per IEC 512-2, Test 2b.

Insulator Resistance: 5 G ohms per IEC 512-2, Test 3a.

Voltage Proof:

PCIA60W36:

Contacts 55 through 60: 3,000 V r.m.s.
Contacts 1 through 30: 1,500 V r.m.s.
Contacts 31 through 54: 1,000 V r.m.s.

Creepage and Clearance Distance; minimum:

PCIA60W36:

Contacts 59 and 60 to Contacts 55 and 56: 3.2mm [0.126 inch]
Contacts 57 and 58 to Contacts 55 and 56: 3.2mm [0.126 inch]
Contacts 59 and 60 to Signal Contacts: 6.4mm [0.252 inch]
Contacts 57 and 58 to Signal Contacts: 6.4mm [0.252 inch]
Contacts 59 and 60 to Contacts 57 and 58: 2.5mm [0.098 inch]
Contacts 55 and 56 to Signal Contacts: 2.0mm [0.079 inch]

Working Voltage:

PCIA60W36:

Contacts 55 through 60: 1,000 V r.m.s.
Contacts 1 through 30: 500 V r.m.s.
Contacts 31 through 54: 333 V r.m.s.

POSITRONIC INDUSTRIES RoHS Compliant per EU Directive 2002/95/EC

For RoHS options see page 45.

MECHANICAL CHARACTERISTICS:

Blind Mating System: Male and female connector bodies provide "lead-in" for 1.3mm [0.050 inch] diametral misalignment.

Polarization: Provided by connector body design.

Fixed Contacts: Printed board terminations, both straight and right angle. Size 16 female contacts feature "Closed Entry" design. Size 22 feature rugged "Robi-D Open Entry" contact design. "Closed Entry" contacts available, consult Technical Sales.

Fixed Contact Retention in Connector Body:

Size 16 Contacts: 45 N [10 lbs.]
Size 22 Contacts: 27 N [6 lbs.]

Resistance to Solder Heat: 260˚C [500˚F] for 10 seconds duration per IEC 512-6, Test 12e, 25-watt soldering iron.

Sequential Contact Mating System:

PCIA60W36: First mate contacts 55 and 56 and last mate contact position 37.

Consult Technical Sales for customer specified sequential mating.

Safety "Recessed in Insulator" Contacts: The following size 16 contacts are recessed 5mm [0.197 inch] below the face of the female connector insulator per safety requirements.

PCIA60W36: Contact positions 57 through 60.

Compliant Terminations: Size 16 and 22 contacts are available with Compliant Contact Terminations.

Printed Board Mounting: Mounting holes provided in connector body for printed board mounting. Self-tapping screws are available.

Mechanical Operations: 250 couplings, minimum.

CLIMATIC CHARACTERISTICS:

Working Temperature: -55˚C to +125˚C.

U.L. Recognized File #E49351*
CSA Recognized File #LR54219*
TUV recognitions are in process.
Consult Technical Sales for updated information.

*** U.L. and CSA recognitions are in process for PCIA60W36F8000 and PCIA60W36M(3,93 or 94)00(A1, A2, C1 or C2) connectors.**

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

PCIA CONNECTOR OUTLINE DIMENSIONS

RIGHT ANGLE BOARD MOUNT CONNECTOR

Male Connector Dimensions

Female Connector Dimensions

STRAIGHT BOARD MOUNT CONNECTOR

Male Connector Dimensions

Female Connector Dimensions

PCIA CONNECTOR MATING DIMENSIONS

(FULLY MATED)

Straight Board Mount or Panel Mount Female to Straight Board Mount Male.

Straight Board Mount Female to Right Angle Board Mount Male.

Straight Board Mount or Panel Mount Female to Right Angle Board Mount Male.

Right Angle Board Mount Female to Right Angle Board Mount Male.

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

See page 42 for panel mount connector dimensions.

RIGHT ANGLE
BOARD MOUNT CONNECTOR, MALE

STANDARD PART NUMBER
PCIA60W36M400A1

CONNECTOR DIMENSIONS

CONTACT HOLE PATTERN

SUGGESTED PRINTED BOARD HOLE SIZES:

Suggest Ø1.14 [0.045] holes for size 22 contact holes.
Suggest Ø2.03 [0.080] holes for size 16 contact holes.
Suggest Ø3.56±0.08 [0.140±0.003] holes for connector mounting holes.

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

STANDARD PART NUMBER
PCIA60W36F400A1

CONNECTOR DIMENSIONS

CONTACT HOLE PATTERN

Note: See below for suggested printed board hole sizes.

INVERTED PART NUMBER
PCIA60W36RF400A1

CONNECTOR DIMENSIONS

CONTACT HOLE PATTERN

SUGGESTED PRINTED BOARD HOLE SIZES:

Suggest Ø1.14 [0.045] holes for size 22 contact holes.
Suggest Ø2.03 [0.080] holes for size 16 contact holes.
Suggest Ø3.56±0.08 [0.140±0.003] holes for connector mounting holes.

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

STRAIGHT SOLDER CONNECTOR DIMENSIONS, MALE

STANDARD PART NUMBER
PCIA60W36M300A1

CONTACT HOLE PATTERN

CONNECTOR DIMENSIONS

Note: See below for suggested printed board hole sizes.

STRAIGHT SOLDER CONNECTOR DIMENSIONS, FEMALE

STANDARD PART NUMBER
PCIA60W36F300A1

CONTACT HOLE PATTERN

CONNECTOR DIMENSIONS

SUGGESTED PRINTED BOARD HOLE SIZES:

Suggest Ø1.00 [0.039] holes for size 22 contact holes.
Suggest Ø1.60 [0.063] holes for size 16 contact holes.
Suggest Ø3.56±0.08 [0.140±0.003] holes for connector mounting holes.

COMPLIANT TERMINATION CONNECTOR DIMENSIONS, MALE

STANDARD PART NUMBER

PCIA60W36M9300A1
PCIA60W36M9400A1

CONTACT HOLE PATTERN

CONNECTOR DIMENSIONS

CONTACT TAIL LENGTH		
Code	"L" Length	Board Thickness
93	5.72 [0.225]	2.29 to 4.45 [0.090 to 0.175]
94	7.04 [0.277]	4.45 min. [0.175 min.]

SUGGESTED PRINTED BOARD HOLE SIZES:

Suggest Ø3.56±0.08 [0.140±0.003] holes for connector mounting holes.

Note: See page 95 for suggested printed board drill hole sizes, recommended plating and finished hole sizes.

COMPLIANT TERMINATION CONNECTOR DIMENSIONS, FEMALE

STANDARD PART NUMBER

PCIA60W36F9300A1
PCIA60W36F9400A1

CONTACT HOLE PATTERN

CONNECTOR DIMENSIONS

CONTACT TAIL LENGTH		
Code	"L" Length	Board Thickness
93	5.72 [0.225]	2.29 to 4.45 [0.090 to 0.175]
94	7.04 [0.277]	4.45 min. [0.175 min.]

SUGGESTED PRINTED BOARD HOLE SIZES:

Suggest Ø3.56±0.08 [0.140±0.003] holes for connector mounting holes.

Note: See page 95 for suggested printed board drill hole sizes, recommended plating and finished hole sizes.

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

FEMALE PANEL MOUNT CRIMP CONTACT CONNECTOR DIMENSIONS

REMOVABLE CRIMP CONTACTS MUST BE ORDERED SEPARATELY

STANDARD PART NUMBER
PCIA60W36F8000

PANEL CUT OUT

FOR REMOVABLE CRIMP CONTACT ORDERING INFORMATION, SEE PAGE 93.

ORDERING INFORMATION - CODE NUMBERING SYSTEM

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

STEP	1	2	3	4	5	6	7	8		9
EXAMPLE	PCIA	60W36	M	93	0	0	A1	/AA	—	

STEP 1 - BASIC SERIES

PCIA – PCIA Series

STEP 2 - CONNECTOR VARIANTS

60W36 – 36 size 16 contacts and 24 size 22 contacts

60W36R – 36 size 16 contacts and 24 size 22 contacts. Inverted style, use with contact Type “4”. Currently available in female only.

STEP 3 - CONNECTOR GENDER

M - Male
F - Female

STEP 4 - CONTACT TERMINATION TYPE

3 – Solder, Straight Printed Board Mount with 4.50 [0.177] tail extension for connection system 1.

4 – Solder, Right Angle Printed Board Mount with 2.68 [0.106] tail extension for connection systems 1, 3 and 4.

8 – Contacts must be ordered separately for Panel Mount Cable Connectors, connection system 3. Female connector only.

93 – Press–Fit, Compliant Termination size 16 and size 22 Straight Printed Board Mount for use with board thicknesses of 2.29 to 4.45 [0.090 to 0.175]. Connection system 1.

94 – Press–Fit, Compliant Termination size 16 and size 22 Straight Printed Board Mount for use with board thickness of 4.45 minimum [0.175 minimum]. Connection system 1.

STEP 5 - MOUNTING STYLE

0 – Not Applicable

See page 94 for mounting screw options.

STEP 6 - HOODS

0 – Not applicable

STEP 7 - CONTACT PLATING FOR PRINTED BOARD TYPE CONNECTORS

0 – Crimp contacts ordered separately

A1 – Gold flash over nickel on mating end and termination end.

A2 – Gold flash over nickel on mating end and 5.00 microns [0.000200 inch] tin-lead solder coat on termination end. Not available with code 93 or code 94 in step 4.

C1 – 0.76 microns [0.000030 inch] gold over nickel on mating end and termination end.

C2 – 0.76 microns [0.000030 inch] gold over nickel on mating end and 5.00 microns [0.000200 inch] tin-lead solder coat on termination end. Not available with code 93 or code 94 in step 4.

D1 – 1.27 microns [0.000050 inch] gold over nickel on mating end and termination end.

D2 – 1.27 microns [0.000050 inch] gold over nickel on mating end and 5.00 microns [0.000200 inch] tin-lead solder coat on termination end. Not available with code 93 or code 94 in step 4.

STEP 8 - ENVIRONMENTAL COMPLIANCE OPTIONS

/AA - Compliant per EU Directive 2002/95/EC (RoHS)

NOTE: If compliance to environmental legislation is not required, this step will not be used. Example: PCIA60W36M9300A1

STEP 9 - SPECIAL OPTIONS

FOR LISTING OF SPECIAL OPTIONS, SEE SPECIAL OPTIONS APPENDIX ON PAGE 92.

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-dimensional IGES file.

SK Drawing

3-dimensional model

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

The PCIM Series encompasses all of the features of the PCIH Series in a smaller package. Reliability, high current capacity and many system management connections make the PCIM Series ideal for use in telecom, computer, information systems and industrial applications.

PCIM SERIES CONTACT VARIANTS

FACE VIEW OF MALE AND REAR VIEW OF FEMALE

PCIM30W15 VARIANT

PCIM30W15R VARIANT (inverted)

15 Size 16 Power Contacts and 15 Size 22 Signal Contacts

PCIM33W18 VARIANT

PCIM33W18R VARIANT (inverted)

18 Size 16 Power Contacts and 15 Size 22 Signal Contacts

PCIM34W13 VARIANT

PCIM34W13R VARIANT (inverted)

13 Size 16 Power Contacts and 21 Size 22 Signal Contacts

PCIM37W16 VARIANT

PCIM37W16R VARIANT (inverted)

16 Size 16 Power Contacts and 21 Size 22 Signal Contacts

MATERIALS AND FINISHES:

Insulator: Glass-filled polyester, UL 94V-0, blue color.

Contacts: High conductivity precision-machined copper alloy with gold flash over nickel, or 0.76µ [0.000030 inch] gold over nickel, or 1.27µ [0.000050 inch] gold over nickel. Other finishes available upon request.

Mounting Screws: Steel, zinc plated.

ELECTRICAL CHARACTERISTICS:

PCIM Contact Current Ratings, per UL 1977

See Temperature Rise Curves on page 5 for details.

PCIM30W15:

Size 16 Power Contacts:	
Positions 28, 29, and 30:	45 amperes continuous, all contacts under load.
Positions 1 through 12:	32 amperes continuous, all contacts under load.
Size 22 Signal Contacts:	3 amperes nominal rating.

PCIM33W18:

Size 16 Power Contacts:	30 amperes continuous, all contacts under load.
Size 22 Signal Contacts:	3 amperes nominal rating.

PCIM34W13:

Size 16 Power Contacts:	
Positions 32, 33, and 34:	45 amperes continuous, all contacts under load.
Positions 1 through 10:	32 amperes continuous, all contacts under load.
Size 22 Signal Contacts:	3 amperes nominal rating.

PCIM37W16:

Size 16 Power Contacts:	30 amperes continuous, all contacts under load.
Size 22 Signal Contacts:	3 amperes nominal rating.

Initial Contact Resistance; maximum:

Size 16 Contact:	0.0007 ohms maximum.
Size 22 Contact:	0.004 ohms maximum. Per IEC 512-2, Test 2b.

Insulator Resistance: 5 G ohms per IEC 512-2, Test 3a.

Voltage Proof:

PCIM30W15:

Contacts 28, 29, and 30:	3,000 V r.m.s.
Contacts 1 through 12:	1,500 V r.m.s.
Contacts 13 through 27:	1,000 V r.m.s.

PCIM33W18:

Contacts 1 through 12 and 28 through 33:	1,500 V r.m.s.
Contacts 13 through 27:	1,000 V r.m.s.

PCIM34W13:

Contacts 32, 33, and 34:	3,000 V r.m.s.
Contacts 1 through 10:	1,500 V r.m.s.
Contacts 11 through 31:	1,000 V r.m.s.

PCIM37W16:

Contacts 1 through 10 and 32 through 37:	1,500 V r.m.s.
Contacts 11 through 31:	1,000 V r.m.s.

Creepage and Clearance Distance; minimum:

PCIM30W15:

Contact 30 to Contact 28:	3.2mm [0.126 inch]
Contact 29 to Contact 28:	3.2mm [0.126 inch]
Contact 30 to Signal Contacts:	6.4mm [0.252 inch]
Contact 29 to Signal Contacts:	6.4mm [0.252 inch]
Contact 30 to Contact 29:	2.5mm [0.098 inch]
Contact 28 to Signal Contacts:	2.0mm [0.079 inch]

PCIM33W18:

Contact 28 to Signal Contacts:	2.0mm [0.079 inch]

PCIM34W13:

Contact 34 to Contact 32:	3.2mm [0.126 inch]
Contact 33 to Contact 32:	3.2mm [0.126 inch]
Contact 34 to Signal Contacts:	6.4mm [0.252 inch]
Contact 33 to Signal Contacts:	6.4mm [0.252 inch]
Contact 34 to Contact 33:	2.5mm [0.098 inch]
Contact 32 to Signal Contacts:	2.0mm [0.079 inch]

PCIM37W16:

Contact 32 to Signal Contacts:	2.0mm [0.079 inch]

Working Voltage:

PCIM30W15:

Contacts 28 through 30:	1,000 V r.m.s.
Contacts 1 through 12:	500 V r.m.s.
Contacts 13 through 27:	333 V r.m.s.

PCIM33W18:

Contacts 1 through 12 and 28 through 33:	500 V r.m.s.
Contacts 13 through 27:	333 V r.m.s.

PCIM34W13:

Contacts 32 through 34:	1,000 V r.m.s.
Contacts 1 through 10:	500 V r.m.s.
Contacts 11 through 31:	333 V r.m.s.

PCIM37W16:

Contacts 1 through 12 and 32 through 37:	500 V r.m.s.
Contacts 13 through 31:	333 V r.m.s.

MECHANICAL CHARACTERISTICS:

Blind Mating System: Male and female connector bodies provide “lead-in” for 1.3mm [0.050 inch] diametral misalignment.

Polarization: Provided by connector body design.

Fixed Contacts: Printed board terminations, both straight and right angle. Size 16 female contacts feature “Closed Entry” design. Size 22 feature rugged “Robi-D Open Entry” contact design. “Closed Entry” contacts available, consult Technical Sales.

Fixed Contact Retention in Connector Body:

Size 16 Contacts:	45 N [10 lbs.]
Size 22 Contacts:	27 N [6 lbs.]

U.L. Recognized File #E49351
CSA Recognized File #LR54219
TUV recognitions are in process.
Consult Technical Sales for updated information.

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

TECHNICAL CHARACTERISTICS

Resistance to Solder Heat:	260˚C [500˚F] for 10 seconds duration per IEC 512-6, Test 12e, 25-watt soldering iron.
Sequential Contact Mating System:	
PCIM30W15:	First mate contact 28 and last mate contact position 13.
PCIM33W18:	Last mate contact position 13.
PCIM34W13:	First mate contact 32 and last mate contact position 17.
PCIM37W16:	Last mate contact position 17.

Consult Technical Sales for customer specified sequential mating.

Safety "Recessed in Insulator" Contacts:	The following size 16 contacts are recessed 5mm [0.197 inch] below the face of the female connector insulator per safety requirements.
PCIM30W15:	Contact positions 29 and 30.
PCIM33W18:	None
PCIM34W13:	Contact positions 33 and 34.
PCIM37W16:	None

Compliant Terminations:	Size 16 and 22 contacts are available with Compliant Contact Terminations.
Printed Board Mounting:	Mounting holes provided in connector body for printed board mounting. Self-tapping screws are available.
Mechanical Operations:	250 couplings, minimum.

CLIMATIC CHARACTERISTICS:

Working Temperature:	-55˚C to +125˚C.

POSITRONIC INDUSTRIES RoHS Compliant Per EU Directive 2002/95/EC

For RoHS options see page 63.

PCIM CONNECTOR OUTLINE DIMENSIONS

RIGHT ANGLE BOARD MOUNT CONNECTOR

Female Connector Dimensions

Male Connector Dimensions

STRAIGHT BOARD MOUNT CONNECTOR

Female Connector Dimensions

PCIM CONNECTOR MATING DIMENSIONS

(FULLY MATED)

Straight Board Mount
Female to Right Angle
Board Mount Male.

Right Angle Board Mount
Female to Right Angle
Board Mount Male.

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

RIGHT ANGLE BOARD MOUNT CONNECTORS, MALE

STANDARD PART NUMBER
PCIM30W15M400A1

CONTACT HOLE PATTERN

CONNECTOR DIMENSIONS

Note: See below for suggested printed board hole sizes.

INVERTED PART NUMBER
PCIM30W15RM400A1

CONTACT HOLE PATTERN

CONNECTOR DIMENSIONS

SUGGESTED PRINTED BOARD HOLE SIZES:

Suggest Ø1.14 [0.045] holes for size 22 contact holes.
Suggest Ø2.03 [0.080] holes for size 16 contact holes.
Suggest Ø3.56±0.08 [0.140±0.003] holes for connector mounting holes.

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

STANDARD PART NUMBER:
PCIM33W18M400A1

CONNECTOR DIMENSIONS

CONTACT HOLE PATTERN

Note: See below for suggested printed board hole sizes.

INVERTED PART NUMBER:
PCIM33W18RM400A1

CONNECTOR DIMENSIONS

CONTACT HOLE PATTERN

SUGGESTED PRINTED BOARD HOLE SIZES:

Suggest Ø1.14 [0.045] holes for size 22 contact holes.
Suggest Ø2.03 [0.080] holes for size 16 contact holes.
Suggest Ø3.56±0.08 [0.140±0.003] holes for connector mounting holes.

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

RIGHT ANGLE BOARD MOUNT CONNECTORS, MALE

STANDARD PART NUMBER:
PCIM34W13M400A1

CONNECTOR DIMENSIONS

CONTACT HOLE PATTERN

Note: See below for suggested printed board hole sizes.

INVERTED PART NUMBER:
PCIM34W13RM400A1

CONNECTOR DIMENSIONS

CONTACT HOLE PATTERN

SUGGESTED PRINTED BOARD HOLE SIZES:

Suggest Ø1.14 [0.045] holes for size 22 contact holes.
Suggest Ø2.03 [0.080] holes for size 16 contact holes.
Suggest Ø3.56±0.08 [0.140±0.003] holes for connector mounting holes.

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

STANDARD PART NUMBER
PCIM37W16M400A1

CONNECTOR DIMENSIONS

CONTACT HOLE PATTERN

Note: See below for suggested printed board hole sizes.

INVERTED PART NUMBER
PCIM37W16RM400A1

CONNECTOR DIMENSIONS

CONTACT HOLE PATTERN

SUGGESTED PRINTED BOARD HOLE SIZES:

Suggest Ø1.14 [0.045] holes for size 22 contact holes.
Suggest Ø2.03 [0.080] holes for size 16 contact holes.
Suggest Ø3.56±0.08 [0.140±0.003] holes for connector mounting holes.

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

RIGHT ANGLE
BOARD MOUNT CONNECTORS, FEMALE

STANDARD PART NUMBER
PCIM30W15F400A1

CONNECTOR DIMENSIONS

CONTACT HOLE PATTERN

Note: See below for suggested printed board hole sizes.

INVERTED PART NUMBER
PCIM30W15RF400A1

CONNECTOR DIMENSIONS

CONTACT HOLE PATTERN

SUGGESTED PRINTED BOARD HOLE SIZES:

Suggest Ø1.14 [0.045] holes for size 22 contact holes.
Suggest Ø2.03 [0.080] holes for size 16 contact holes.
Suggest Ø3.56±0.08 [0.140±0.003] holes for connector mounting holes.

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

STANDARD PART NUMBER
PCIM33W18F400A1

CONNECTOR DIMENSIONS

CONTACT HOLE PATTERN

Note: See below for suggested printed board hole sizes.

PCIM SERIES

INVERTED PART NUMBER
PCIM33W18RF400A1

CONNECTOR DIMENSIONS

CONTACT HOLE PATTERN

SUGGESTED PRINTED BOARD HOLE SIZES:

Suggest Ø1.14 [0.045] holes for size 22 contact holes.
Suggest Ø2.03 [0.080] holes for size 16 contact holes.
Suggest Ø3.56±0.08 [0.140±0.003] holes for connector mounting holes.

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

RIGHT ANGLE
BOARD MOUNT CONNECTORS, FEMALE

STANDARD PART NUMBER
PCIM34W13F400A1

CONNECTOR DIMENSIONS

CONTACT HOLE PATTERN

Note: See below for suggested printed board hole sizes.

INVERTED PART NUMBER
PCIM34W13RF400A1

CONNECTOR DIMENSIONS

CONTACT HOLE PATTERN

SUGGESTED PRINTED BOARD HOLE SIZES:

Suggest Ø1.14 [0.045] holes for size 22 contact holes.
Suggest Ø2.03 [0.080] holes for size 16 contact holes.
Suggest Ø3.56±0.08 [0.140±0.003] holes for connector mounting holes.

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

STANDARD PART NUMBER
PCIM37W16F400A1

CONTACT HOLE PATTERN

CONNECTOR DIMENSIONS

Note: See below for suggested printed board hole sizes.

PCIM SERIES

INVERTED PART NUMBER
PCIM37W16RF400A1

CONTACT HOLE PATTERN

CONNECTOR DIMENSIONS

SUGGESTED PRINTED BOARD HOLE SIZES:

Suggest Ø1.14 [0.045] holes for size 22 contact holes.
Suggest Ø2.03 [0.080] holes for size 16 contact holes.
Suggest Ø3.56±0.08 [0.140±0.003] holes for connector mounting holes.

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

STRAIGHT SOLDER CONNECTORS, MALE

NEW!

STANDARD PART NUMBER
PCIM30W15M300A1

CONNECTOR DIMENSIONS

CONTACT HOLE PATTERN

Note: See below for suggested printed board hole sizes.

NEW!

STANDARD PART NUMBER
PCIM33W18M300A1

CONNECTOR DIMENSIONS

CONTACT HOLE PATTERN

SUGGESTED PRINTED BOARD HOLE SIZES:

Suggest Ø1.00 [0.039] holes for size 22 contact holes.
Suggest Ø1.60 [0.063] holes for size 16 contact holes.
Suggest Ø3.56±0.08 [0.140±0.003] holes for connector mounting holes.

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

NEW!

STANDARD PART NUMBER
PCIM34W13M300A1

CONNECTOR DIMENSIONS

CONTACT HOLE PATTERN

Note: See below for suggested printed board hole sizes.

NEW!

STANDARD PART NUMBER
PCIM37W16M300A1

CONNECTOR DIMENSIONS

CONTACT HOLE PATTERN

SUGGESTED PRINTED BOARD HOLE SIZES:

Suggest Ø1.00 [0.039] holes for size 22 contact holes.
Suggest Ø1.60 [0.063] holes for size 16 contact holes.
Suggest Ø3.56±0.08 [0.140±0.003] holes for connector mounting holes.

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

STRAIGHT SOLDER CONNECTORS, FEMALE

STANDARD PART NUMBER
PCIM30W15F300A1

CONTACT HOLE PATTERN

CONNECTOR DIMENSIONS

Note: See below for suggested printed board hole sizes.

STANDARD PART NUMBER
PCIM33W18F300A1

CONTACT HOLE PATTERN

CONNECTOR DIMENSIONS

SUGGESTED PRINTED BOARD HOLE SIZES:

Suggest Ø1.00 [0.039] holes for size 22 contact holes.
Suggest Ø1.60 [0.063] holes for size 16 contact holes.
Suggest Ø3.56±0.08 [0.140±0.003] holes for connector mounting holes.

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

STANDARD PART NUMBER
PCIM34W13F300A1

CONTACT HOLE PATTERN

CONNECTOR DIMENSIONS

Note: See below for suggested printed board hole sizes.

STANDARD PART NUMBER
PCIM37W16F300A1

CONTACT HOLE PATTERN

CONNECTOR DIMENSIONS

SUGGESTED PRINTED BOARD HOLE SIZES:

Suggest Ø1.00[0.039] holes for size 22 contact holes.
Suggest Ø1.60 [0.063] holes for size 16 contact holes.
Suggest Ø3.56±0.08 [0.140±0.003] holes for connector mounting holes.

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

COMPLIANT TERMINATION CONNECTORS, MALE

NEW!

STANDARD PART NUMBER
PCIM30W15M9300A1
PCIM30W15M9400A1

CONNECTOR DIMENSIONS

CONTACT HOLE PATTERN

CONTACT TAIL LENGTH		
Code	**"L" Length**	**Board Thickness**
93	5.72 [0.225]	2.29 to 4.45 [0.090 to 0.175]
94	7.04 [0.277]	4.45 min. [0.175 min.]

SUGGESTED PRINTED BOARD HOLE SIZES:

Suggest Ø3.56±0.08 [0.140±0.003] holes for connector mounting holes.

Note: See page 95 for suggested printed board drill hole sizes, recommended plating and finished hole sizes.

NEW!

STANDARD PART NUMBER
PCIM33W18M9300A1
PCIM33W18M9400A1

CONNECTOR DIMENSIONS

CONTACT HOLE PATTERN

CONTACT TAIL LENGTH		
Code	**"L" Length**	**Board Thickness**
93	5.72 [0.225]	2.29 to 4.45 [0.090 to 0.175]
94	7.04 [0.277]	4.45 min. [0.175 min.]

SUGGESTED PRINTED BOARD HOLE SIZES:

Suggest Ø3.56±0.08 [0.140±0.003] holes for connector mounting holes.

Note: See page 95 for suggested printed board drill hole sizes, recommended plating and finished hole sizes.

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

NEW!

STANDARD PART NUMBER
PCIM34W13M9300A1
PCIM34W13M9400A1

CONNECTOR DIMENSIONS

CONTACT HOLE PATTERN

SUGGESTED PRINTED BOARD HOLE SIZES:

Suggest Ø3.56±0.08 [0.140±0.003] holes for connector mounting holes.

Note: See page 95 for suggested printed board drill hole sizes, recommended plating and finished hole sizes.

CONTACT TAIL LENGTH		
Code	**"L" Length**	**Board Thickness**
93	5.72 [0.225]	2.29 to 4.45 [0.090 to 0.175]
94	7.04 [0.277]	4.45 min. [0.175 min.]

NEW!

STANDARD PART NUMBER
PCIM37W16M9300A1
PCIM37W16M9400A1

CONNECTOR DIMENSIONS

CONTACT HOLE PATTERN

SUGGESTED PRINTED BOARD HOLE SIZES:

Suggest Ø3.56±0.08 [0.140±0.003] holes for connector mounting holes.

Note: See page 95 for suggested printed board drill hole sizes, recommended plating and finished hole sizes.

CONTACT TAIL LENGTH		
Code	**"L" Length**	**Board Thickness**
93	5.72 [0.225]	2.29 to 4.45 [0.090 to 0.175]
94	7.04 [0.277]	4.45 min. [0.175 min.]

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

COMPLIANT TERMINATION CONNECTORS, FEMALE

STANDARD PART NUMBER
PCIM30W15F9300A1
PCIM30W15F9400A1

CONTACT HOLE PATTERN

CONNECTOR DIMENSIONS

CONTACT TAIL LENGTH		
Code	**"L" Length**	**Board Thickness**
93	5.72 [0.225]	2.29 to 4.45 [0.090 to 0.175]
94	7.04 [0.277]	4.45 min. [0.175 min.]

SUGGESTED PRINTED BOARD HOLE SIZES:
Suggest Ø3.56±0.08 [0.140±0.003] holes for connector mounting holes.
Note: See page 95 for suggested printed board drill hole sizes, recommended plating and finished hole sizes.

STANDARD PART NUMBER
PCIM33W18F9300A1
PCIM33W18F9400A1

CONTACT HOLE PATTERN

CONNECTOR DIMENSIONS

CONTACT TAIL LENGTH		
Code	**"L" Length**	**Board Thickness**
93	5.72 [0.225]	2.29 to 4.45 [0.090 to 0.175]
94	7.04 [0.277]	4.45 min. [0.175 min.]

SUGGESTED PRINTED BOARD HOLE SIZES:
Suggest Ø3.56±0.08 [0.140±0.003] holes for connector mounting holes.
Note: See page 95 for suggested printed board drill hole sizes, recommended plating and finished hole sizes.

STANDARD PART NUMBER

PCIM34W13F9300A1
PCIM34W13F9400A1

CONTACT HOLE PATTERN

CONNECTOR DIMENSIONS

CONTACT TAIL LENGTH		
Code	"L" Length	Board Thickness
93	5.72 [0.225]	2.29 to 4.45 [0.090 to 0.175]
94	7.04 [0.277]	4.45 min. [0.175 min.]

SUGGESTED PRINTED BOARD HOLE SIZES:

Suggest Ø3.56±0.08 [0.140±0.003] holes for connector mounting holes.

Note: See page 95 for suggested printed board drill hole sizes, recommended plating and finished hole sizes.

STANDARD PART NUMBER

PCIM37W16F9300A1
PCIM37W16F9400A1

CONTACT HOLE PATTERN

CONNECTOR DIMENSIONS

CONTACT TAIL LENGTH		
Code	"L" Length	Board Thickness
93	5.72 [0.225]	2.29 to 4.45 [0.090 to 0.175]
94	7.04 [0.277]	4.45 min. [0.175 min.]

SUGGESTED PRINTED BOARD HOLE SIZES:

Suggest Ø3.56±0.08 [0.140±0.003] holes for connector mounting holes.

Note: See page 95 for suggested printed board drill hole sizes, recommended plating and finished hole sizes.

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

FEMALE PANEL MOUNT CRIMP CONTACT CONNECTOR DIMENSIONS

REMOVABLE CRIMP CONTACTS MUST BE ORDERED SEPARATELY

STANDARD PART NUMBER
PCIM30W15F8000

NEW!

STANDARD PART NUMBER
PCIM33W18F8000

FOR REMOVABLE CRIMP CONTACT ORDERING INFORMATION, SEE PAGE 93.

FEMALE PANEL MOUNT CRIMP CONTACT CONNECTOR DIMENSIONS

REMOVABLE CRIMP CONTACTS MUST BE ORDERED SEPARATELY

STANDARD PART NUMBER
PCIM34W13F8000

NEW!

STANDARD PART NUMBER
PCIM37W16F8000

FOR REMOVABLE CRIMP CONTACT ORDERING INFORMATION, SEE PAGE 93.

DIMENSIONS ARE IN MILLIMETERS [INCHES].
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	2	3	4	5	6	7	8		9
EXAMPLE	PCIM	34W13	F	93	0	0	A1	/AA	—	

STEP 1 - BASIC SERIES

PCIM – PCIM Series

STEP 2 - CONNECTOR VARIANTS

30W15 – 15 size 16 contacts and 15 size 22 contacts
30W15R – 15 size 16 contacts and 15 size 22 contacts. Inverted style, use with contact type “4”
33W18 – 18 size 16 contacts and 15 size 22 contacts
33W18R – 18 size 16 contacts and 15 size 22 contacts. Inverted style, use with contact type “4”
34W13 – 13 size 16 contacts and 21 size 22 contacts
34W13R – 13 size 16 contacts and 21 size 22 contacts. Inverted style, use with contact type “4”
37W16 – 16 size 16 contacts and 21 size 22 contacts
37W16R – 16 size 16 contacts and 21 size 22 contacts. Inverted style, use with contact type “4”

STEP 3 - CONNECTOR GENDER

M - Male
F - Female

STEP 4 - CONTACT TERMINATION TYPE

3 – Solder, Straight Printed Board Mount with 4.50 [0.177] tail extension for connection system 1.
4 – Solder, Right Angle Printed Board Mount with 2.68 [0.106] tail extension for connection systems 1 and 4.
8 – Contacts must be ordered separately for Panel Mount Cable Connectors, connection system 3. Female connector only.
93 – Press–Fit, Compliant Termination size 16 and size 22 Straight Printed Board Mount for use with board thicknesses of 2.29 to 4.45 [0.090 to 0.175]. Connection system 1.
94 – Press–Fit, Compliant Termination size 16 and size 22 Straight Printed Board Mount for use with board thickness of 4.45 minimum [0.175 minimum]. Connection system 1.

STEP 5 - MOUNTING STYLE

0 – Standard Option
See page 94 for mounting screw options.

STEP 6 - HOODS

0 – Not applicable

STEP 7 - CONTACT PLATING FOR PRINTED BOARD TYPE CONNECTORS

0 – Crimp contacts ordered separately
A1 – Gold flash over nickel on mating end and termination end.
A2 – Gold flash over nickel on mating end and 5.00 microns [0.000200 inch] tin-lead solder coat on termination end. Not available with code 93 or code 94 in step 4.
C1 – 0.76 microns [0.000030 inch] gold over nickel on mating end and termination end.
C2 – 0.76 microns [0.000030 inch] gold over nickel on mating end and 5.00 microns [0.000200 inch] tin-lead solder coat on termination end. Not available with code 93 or code 94 in step 4.
D1 – 1.27 microns [0.000050 inch] gold over nickel on mating end and termination end.
D2 – 1.27 microns [0.000050 inch] gold over nickel on mating end and 5.00 microns [0.000200 inch] tin-lead solder coat on termination end. Not available with code 93 or code 94 in step 4.

STEP 8 - ENVIRONMENTAL COMPLIANCE OPTIONS

/AA - Compliant per EU Directive 2002/95/EC (RoHS)

NOTE: If compliance to environmental legislation is not required, this step will not be used. Example: PCIM34W13F9300A1

STEP 9 - SPECIAL OPTIONS

FOR LISTING OF SPECIAL OPTIONS, SEE SPECIAL OPTIONS APPENDIX ON PAGE 92.

Changes to printed catalog: In Step 4, we removed the asterisk (*) note from codes 3, 93, 94, all male and female terminations are both now available. Also in Step 4, we removed the asterisks (**) note reference from code 8, variants 30W15, 33W18, 34W13 and 37W16 shown is Step 2 are available for female terminations only.

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-dimensional IGES file.

SK Drawing

3-dimensional model

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

The PCIB Series encompasses all of the features of the PCIH Series in a smaller package. Reliability, high current capacity and many system management connections make the PCIB Series ideal for use in telecom, computer, information systems and industrial applications.

PCIB SERIES CONTACT VARIANTS

FACE VIEW OF MALE AND REAR VIEW OF FEMALE

PCIB24W9 VARIANT

PCIB24W9R VARIANT (inverted)

9 Size 16 Power Contacts and 15 Size 22 Signal Contacts

PCIB26W11 VARIANT

PCIB26W11R VARIANT (inverted)

11 Size 16 Power Contacts and 15 Size 22 Signal Contacts

MATERIALS AND FINISHES:

Insulator: Glass-filled polyester, UL 94V-0, blue color.

Contacts: High conductivity precision-machined copper alloy with gold flash over nickel, or 0.76µ [0.000030 inch] gold over nickel, or 1.27µ [0.000050 inch] gold over nickel. Other finishes available upon request.

Mounting Screws: Steel, zinc plated.

Jackscrews: Stainless steel, passivated.

ELECTRICAL CHARACTERISTICS:

PCIB Contact Current Ratings, per UL 1977

See Temperature Rise Curves on page 5 for details.

PCIB24W9:

Size 16 Power Contacts:

Positions 22, 23, and 24: 45 amperes continuous, all contacts under load.

Positions 1through 6: 35 amperes continuous, all contacts under load.

Size 22 Signal Contacts: 3 amperes nominal rating.

PCIB26W11:

Size 16 Power Contacts: 34 amperes continuous, all contacts under load.

Size 22 Signal Contacts: 3 amperes nominal rating.

Initial Contact Resistance; maximum:

Size 16 Contact: 0.0007 ohms maximum.

Size 22 Contact: 0.004 ohms maximum.

Per IEC 512-2, Test 2b.

Insulator Resistance: 5 G ohms per IEC 512-2, Test 3a.

Voltage Proof:

PCIB24W9:

Contacts 22, 23 and 24: 3,000 V r.m.s.

Contacts 1 through 6: 1,500 V r.m.s.

Contacts 7 through 21: 1,000 V r.m.s.

PCIB26W11:

Contacts 1 through 6 and 22 through 26: 1,500 V r.m.s.

Contacts 7 through 21: 1,000 V r.m.s.

Creepage and Clearance Distance; minimum:

PCIB24W9:

Contact 24 to Contact 22: 3.2mm [0.126 inch]

Contact 23 to Contact 22: 3.2mm [0.126 inch]

Contact 24 to Signal Contacts: 6.4mm [0.252 inch]

Contact 23 to Signal Contacts: 6.4mm [0.252 inch]

Contact 24 to Contact 23: 2.5mm [0.098 inch]

Contact 22 to Signal Contacts: 2.0mm [0.079 inch]

PCIB26W11:

Contact 22 to Signal Contacts: 2.0mm [0.079 inch]

Working Voltage:

PCIB24W9:

Contacts 22, 23 and 24: 1,000 V r.m.s.

Contacts 1 through 6: 500 V r.m.s.

Contacts 7 through 21: 333 V r.m.s.

PCIB26W11:

Contacts 1 through 6 and 22 through 26: 500 V r.m.s.

Contacts 7 through 21: 333 V r.m.s.

MECHANICAL CHARACTERISTICS:

Blind Mating System: Male and female connector bodies provide "lead-in" for 1.3 mm [0.050 inch] diametral misalignment.

Polarization: Provided by connector body design.

Fixed Contacts: Printed board terminations, both straight and right angle. Size 16 female contacts feature "Closed Entry" design. Size 22 feature rugged "Robi-D Open Entry" contact design. "Closed Entry" contacts available, consult Technical Sales.

Fixed Contact Retention in Connector Body:

Size 16 Contacts: 45 N [10 lbs.]

Size 22 Contacts: 27 N [6 lbs.]

Resistance to Solder Heat: 260˚C [500˚F] for 10 seconds duration per IEC 512-6, Test 12e, 25-watt soldering iron.

Sequential Contact Mating System:

PCIB24W9: First mate contact 22 and last mate contact position 7.

PCIB26W11: Last mate contact position 7.

Consult Technical Sales for customer specified sequential mating.

Safety "Recessed in Insulator" Contacts: The following size 16 contacts are recessed 5.00 mm [0.197 inch] below the face of the female connector insulator per safety requirements.

PCIB24W9: Contact positions 23 and 24.

PCIB26W11: None

Compliant Terminations: Size 16 and 22 contacts are available with Compliant Contact Terminations.

Printed Board Mounting: Mounting holes provided in connector body for printed board mounting. Self-tapping screws are available.

Mechanical Operations: 250 couplings, minimum.

CLIMATIC CHARACTERISTICS:

Working Temperature: -55˚C to +125˚C.

U.L. Recognized File #E49351
CSA Recognized File #LR54219
TUV recognitions are in process.
Consult Technical Sales for updated information.

POSITRONIC INDUSTRIES RoHS Compliant per EU Directive 2002/95/EC

For RoHS options see page 80.

PCIB SERIES

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

PCIB CONNECTOR OUTLINE DIMENSIONS

RIGHT ANGLE BOARD MOUNT CONNECTOR

Female Connector Dimensions

Male Connector Dimensions

STRAIGHT BOARD MOUNT CONNECTOR

NEW!

Female Connector Dimensions

Male Connector Dimensions

PCIB CONNECTOR MATING DIMENSIONS

(FULLY MATED)

Straight Board Mount
Female to Right Angle
Board Mount Male.

Right Angle Board Mount
Female to Right Angle Board
Mount Male.

STANDARD PART NUMBER
PCIB24W9M400A1

CONNECTOR DIMENSIONS

CONTACT HOLE PATTERN

Note: See below for suggested printed board hole sizes.

INVERTED PART NUMBER
PCIB24W9RM400A1

CONNECTOR DIMENSIONS

CONTACT HOLE PATTERN

PCIB SERIES

SUGGESTED PRINTED BOARD HOLE SIZES:

Suggest Ø1.14 [0.045] holes for size 22 contact holes.
Suggest Ø2.03 [0.080] holes for size 16 contact holes.
Suggest Ø3.56±0.08 [0.140±0.003] holes for connector mounting holes.

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

RIGHT ANGLE
BOARD MOUNT CONNECTORS, MALE

STANDARD PART NUMBER
PCIB26W11M400A1

CONNECTOR DIMENSIONS

CONTACT HOLE PATTERN

Note: See below for suggested printed board hole sizes.

INVERTED PART NUMBER
PCIB26W11RM400A1

CONNECTOR DIMENSIONS

CONTACT HOLE PATTERN

PCIB SERIES

SUGGESTED PRINTED BOARD HOLE SIZES:

Suggest Ø1.14 [0.045] holes for size 22 contact holes.
Suggest Ø2.03 [0.080] holes for size 16 contact holes.
Suggest Ø3.56±0.08 [0.140±0.003] holes for connector mounting holes.

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

RIGHT ANGLE BOARD MOUNT CONNECTORS, FEMALE

STANDARD PART NUMBER
PCIB24W9F400A1

CONNECTOR DIMENSIONS

CONTACT HOLE PATTERN

Note: See below for suggested printed board hole sizes.

INVERTED PART NUMBER
PCIB24W9RF400A1

CONNECTOR DIMENSIONS

CONTACT HOLE PATTERN

SUGGESTED PRINTED BOARD HOLE SIZES:

Suggest Ø1.14 [0.045] holes for size 22 contact holes.
Suggest Ø2.03 [0.080] holes for size 16 contact holes.
Suggest Ø3.56±0.08 [0.140±0.003] holes for connector mounting holes.

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

RIGHT ANGLE
BOARD MOUNT CONNECTORS, FEMALE

STANDARD PART NUMBER
PCIB26W11F400A1

CONNECTOR DIMENSIONS

CONTACT HOLE PATTERN

Note: See below for suggested printed board hole sizes.

INVERTED PART NUMBER
PCIB26W11RF400A1

CONNECTOR DIMENSIONS

CONTACT HOLE PATTERN

PCIB SERIES

SUGGESTED PRINTED BOARD HOLE SIZES:

Suggest Ø1.14 [0.045] holes for size 22 contact holes.
Suggest Ø2.03 [0.080] holes for size 16 contact holes.
Suggest Ø3.56±0.08 [0.140±0.003] holes for connector mounting holes.

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

NEW!

STANDARD PART NUMBER
PCIB24W9F400A1-422.0

CONNECTOR DIMENSIONS

CONTACT HOLE PATTERN

SUGGESTED PRINTED BOARD HOLE SIZES:

Suggest Ø1.14 [0.045] holes for size 22 contact holes.
Suggest Ø2.03 [0.080] holes for size 16 contact holes.
Suggest Ø3.56±0.08 [0.140±0.003] holes for connector mounting holes.

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

STRAIGHT SOLDER CONNECTORS, MALE

NEW!

STANDARD PART NUMBER
PCIB24W9M300A1

CONNECTOR DIMENSIONS

CONTACT HOLE PATTERN

Note: See below for suggested printed board hole sizes.

NEW!

STANDARD PART NUMBER
PCIB26W11M300A1

CONNECTOR DIMENSIONS

CONTACT HOLE PATTERN

SUGGESTED PRINTED BOARD HOLE SIZES:

Suggest Ø1.14 [0.045] holes for size 22 contact holes.
Suggest Ø2.03 [0.080] holes for size 16 contact holes.
Suggest Ø3.56±0.08 [0.140±0.003] holes for connector mounting holes.

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

STANDARD PART NUMBER
PCIB24W9F300A1

CONNECTOR DIMENSIONS

CONTACT HOLE PATTERN

Note: See below for suggested printed board hole sizes.

STANDARD PART NUMBER
PCIB26W11F300A1

CONNECTOR DIMENSIONS

CONTACT HOLE PATTERN

PCIB SERIES

SUGGESTED PRINTED BOARD HOLE SIZES:

Suggest Ø1.00 [0.039] holes for size 22 contact holes.
Suggest Ø1.60 [0.063] holes for size 16 contact holes.
Suggest Ø3.56±0.08 [0.140±0.003] holes for connector mounting holes.

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

STRAIGHT SOLDER CONNECTORS WITH A.C. PASS-THROUGH, FEMALE

STANDARD PART NUMBER
PCIB24W9F300A1-246.5

CONNECTOR DIMENSIONS

CONTACT HOLE PATTERN

Note: See below for suggested printed board hole sizes.

NEW!

STANDARD PART NUMBER
PCIB26W11F300A1-246.6

CONNECTOR DIMENSIONS

CONTACT HOLE PATTERN

SUGGESTED PRINTED BOARD HOLE SIZES:

Suggest Ø1.00 [0.039] holes for size 22 contact holes.
Suggest Ø1.60 [0.063] holes for size 16 contact holes.
Suggest Ø3.56±0.08 [0.140±0.003] holes for connector mounting holes.

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

NEW!

STANDARD PART NUMBER
PCIB24W9M9300A1
PCIB24W9M9400A1

CONNECTOR DIMENSIONS

CONTACT HOLE PATTERN

SUGGESTED PRINTED BOARD HOLE SIZES:

Suggest Ø3.56±0.08 [0.140±0.003] holes for connector mounting holes.

Note: See page 95 for suggested printed board drill hole sizes, recommended plating and finished hole sizes.

CONTACT TAIL LENGTH		
Code	**"L" Length**	**Board Thickness**
93	5.72 [0.225]	2.29 to 4.45 [0.090 to 0.175]
94	7.04 [0.277]	4.45 min. [0.175 min.]

NEW!

STANDARD PART NUMBER
PCIB26W11M9300A1
PCIB26W11M9400A1

CONNECTOR DIMENSIONS

CONTACT HOLE PATTERN

SUGGESTED PRINTED BOARD HOLE SIZES:

Suggest Ø3.56±0.08 [0.140±0.003] holes for connector mounting holes.

Note: See page 95 for suggested printed board drill hole sizes, recommended plating and finished hole sizes.

CONTACT TAIL LENGTH		
Code	**"L" Length**	**Board Thickness**
93	5.72 [0.225]	2.29 to 4.45 [0.090 to 0.175]
94	7.04 [0.277]	4.45 min. [0.175 min.]

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

COMPLIANT TERMINATION CONNECTORS, FEMALE

STANDARD PART NUMBER
PCIB24W9F9300A1
PCIB24W9F9400A1

CONTACT HOLE PATTERN

CONNECTOR DIMENSIONS

CONTACT TAIL LENGTH		
Code	**"L" Length**	**Board Thickness**
93	5.72 [0.225]	2.29 to 4.45 [0.090 to 0.175]
94	7.04 [0.277]	4.45 min. [0.175 min.]

SUGGESTED PRINTED BOARD HOLE SIZES:
Suggest Ø3.56±0.08 [0.140±0.003] holes for connector mounting holes.
Note: See page 95 for suggested printed board drill hole sizes, recommended plating and finished hole sizes.

STANDARD PART NUMBER
PCIB26W11F9300A1
PCIB26W11F9400A1

CONTACT HOLE PATTERN

CONNECTOR DIMENSIONS

CONTACT TAIL LENGTH		
Code	**"L" Length**	**Board Thickness**
93	5.72 [0.225]	2.29 to 4.45 [0.090 to 0.175]
94	7.04 [0.277]	4.45 min. [0.175 min.]

SUGGESTED PRINTED BOARD HOLE SIZES:
Suggest Ø3.56±0.08 [0.140±0.003] holes for connector mounting holes.
Note: See page 95 for suggested printed board drill hole sizes, recommended plating and finished hole sizes.

STANDARD PART NUMBER
PCIB24W9F9300A1-246.5
PCIB24W9F9400A1-246.5

CONNECTOR DIMENSIONS

CONTACT HOLE PATTERN

CONTACT TAIL LENGTH		
Code	"L" Length	Board Thickness
93	5.72 [0.225]	2.29 to 4.45 [0.090 to 0.175]
94	7.04 [0.277]	4.45 min. [0.175 min.]

SUGGESTED PRINTED BOARD HOLE SIZES:
Suggest Ø3.56±0.08 [0.140±0.003] holes for connector mounting holes.
Note: See page 95 for suggested printed board drill hole sizes, recommended plating and finished hole sizes.

STANDARD PART NUMBER
PCIB26W11F9300A1-246.6
PCIB26W11F9400A1-246.6

NEW!

CONNECTOR DIMENSIONS

CONTACT HOLE PATTERN

CONTACT TAIL LENGTH		
Code	"L" Length	Board Thickness
93	5.72 [0.225]	2.29 to 4.45 [0.090 to 0.175]
94	7.04 [0.277]	4.45 min. [0.175 min.]

SUGGESTED PRINTED BOARD HOLE SIZES:
Suggest Ø3.56±0.08 [0.140±0.003] holes for connector mounting holes.
Note: See page 95 for suggested printed board drill hole sizes, recommended plating and finished hole sizes.

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

FEMALE PANEL MOUNT CRIMP CONTACT CONNECTOR DIMENSIONS

REMOVABLE CRIMP CONTACTS MUST BE ORDERED SEPARATELY

STANDARD PART NUMBER
PCIB24W9F8000

PANEL CUT OUT

NEW!

STANDARD PART NUMBER
PCIB26W11F8000

PANEL CUT OUT

FOR REMOVABLE CRIMP CONTACT ORDERING INFORMATION, SEE PAGE 93.

MALE BOARD MOUNT CONTACT CONNECTOR DIMENSIONS

AVAILABLE IN CODE 3, CODE 93, AND CODE 94

NEW!

EXAMPLE PART NUMBER
PCIB26W11M9300A1-444.0

FOR CONTACT HOLE PATTERNS FOR CODE 93 AND CODE 94, SEE PAGE 76.

FOR CONTACT HOLE PATTERNS FOR CODE 3, SEE PAGE 73.

OTHER JACKSCREW LENGTH OPTIONS AVAILABLE, CONTACT TECHNICAL SALES FOR DETAILS.

FEMALE CRIMP CONTACT CONNECTOR DIMENSIONS

REMOVABLE CRIMP CONTACTS MUST BE ORDERED SEPARATELY

NEW!

STANDARD PART NUMBER
PCIB26W11F8000-443.0

FOR REMOVABLE CRIMP CONTACT ORDERING INFORMATION, SEE PAGE 93.

DIMENSIONS ARE IN MILLIMETERS [INCHES].
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	2	3	4	5	6	7	8		9
EXAMPLE	PCIB	26W11	F	93	0	0	A1	/AA	—	

STEP 1 - BASIC SERIES

PCIB – PCIB Series

STEP 2 - CONNECTOR VARIANTS

24W9 – 9 size 16 contacts and 15 size 22 contacts

24W9R – 9 size 16 contacts and 15 size 22 contacts. Inverted style, use with contact type "4"

26W11 – 11 size 16 contacts and 15 size 22 contacts

26W11R – 11 size 16 contacts and 15 size 22 contacts. Inverted style, use with contact type "4"

STEP 3 - CONNECTOR GENDER

M - Male
F - Female

STEP 4 - CONTACT TERMINATION TYPE

3 – Solder, Straight Printed Board Mount with 4.50 [0.177] tail extension for connection system 1.

4 – Solder, Right Angle Printed Board Mount with 2.68 [0.106] tail extension for connection systems 1 and 4.

8 – Contacts must be ordered separately for Panel Mount Cable Connectors, connection system 3. Female connector only.

93 – Press–Fit, Compliant Termination size 16 and size 22 Straight Printed Board Mount for use with board thicknesses of 2.29 to 4.45 [0.090 to 0.175]. Connection system 1.

94 – Press–Fit, Compliant Termination size 16 and size 22 Straight Printed Board Mount for use with board thickness of 4.45 minimum [0.175 minimum]. Connection system 1.

STEP 5 - MOUNTING STYLE

0 – Standard Option

See page 94 for mounting screw options.

STEP 6 - HOODS

0 – Not applicable

Changes to printed catalog: In Step 4, we removed the asterisk (*) note from code 8.

STEP 9 - SPECIAL OPTIONS

FOR LISTING OF SPECIAL OPTIONS, SEE SPECIAL OPTIONS APPENDIX ON PAGE 92.

STEP 8 - ENVIRONMENTAL COMPLIANCE OPTIONS

/AA - Compliant per EU Directive 2002/95/EC (RoHS)

NOTE: If compliance to environmental legislation is not required, this step will not be used. Example: PCIB26W11F9300A1

STEP 7 - CONTACT PLATING FOR PRINTED BOARD TYPE CONNECTORS

0 – Crimp contacts ordered separately

A1 – Gold flash over nickel on mating end and termination end.

A2 – Gold flash over nickel on mating end and 5.00 microns [0.000200 inch] tin-lead solder coat on termination end. Not available with code 93 or code 94 in step 4.

C1 – 0.76 microns [0.000030 inch] gold over nickel on mating end and termination end.

C2 – 0.76 microns [0.000030 inch] gold over nickel on mating end and 5.00 microns [0.000200 inch] tin-lead solder coat on termination end. Not available with code 93 or code 94 in step 4.

D1 – 1.27 microns [0.000050 inch] gold over nickel on mating end and termination end.

D2 – 1.27 microns [0.000050 inch] gold over nickel on mating end and 5.00 microns [0.000200 inch] tin-lead solder coat on termination end. Not available with code 93 or code 94 in step 4.

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-dimensional IGES file.

SK Drawing

3-dimensional model

The PCIC Series encompasses all of the features of the PCIH Series in a **1U** package. Reliability, high current capacity and many system management connections make the PCIC Series ideal for use in telecom, computer, information systems and industrial applications.

PCIC SERIES CONTACT VARIANTS

FACE VIEW OF MALE AND REAR VIEW OF FEMALE

PCIC16W7 VARIANT

PCIC16W7R VARIANT (inverted)

7 Size 16 Power Contacts and 9 Size 22 Signal Contacts

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

TECHNICAL CHARACTERISTICS

MATERIALS AND FINISHES:

Insulator: Glass-filled polyester, UL 94V-0, blue color.

Contacts: High conductivity precision-machined copper alloy with gold flash over nickel, or 0.76µ [0.000030 inch] gold over nickel, or 1.27µ [0.000050 inch] gold over nickel. Other finishes available upon request.

Mounting Screws: Steel, zinc plated.

ELECTRICAL CHARACTERISTICS:

PCIC Contact Current Ratings, per UL 1977
See Temperature Rise Curves on page 6 for details.

Size 16 Power Contacts:
- **Positions 14, 15, and 16:** 40 amperes continuous, all contacts under load.
- **Positions 1 through 4:** 30 amperes continuous, all contacts under load.

Size 22 Signal Contacts: 3 amperes nominal rating.

Initial Contact Resistance; maximum:
- **Size 16 Contact:** 0.0007 ohms maximum.
- **Size 22 Contact:** 0.004 ohms maximum.

Per IEC 512-2, Test 2b.

Insulator Resistance: 5 G ohms per IEC 512-2, Test 3a.

Voltage Proof:
PCIC16W7:

Contacts 14, 15, and 16:	3,000 V r.m.s.
Contacts 1 through 4:	1,500 V r.m.s.
Contacts 5 through 13:	1,000 V r.m.s.

Creepage and Clearance Distance; minimum:
PCIC16W7:

Contact 16 to Contact 14:	3.2mm [0.126 inch]
Contact 15 to Contact 14:	3.2mm [0.126 inch]
Contact 16 to Signal Contacts:	6.4mm [0.252 inch]
Contact 15 to Signal Contacts:	6.4mm [0.252 inch]
Contact 16 to Contact 15:	2.5mm [0.098 inch]
Contact 14 to Signal Contacts:	2.0mm [0.079 inch]

Working Voltage:
PCIC16W7:

Contacts 14, 15 and 16:	1,000 V r.m.s.
Contacts 1 through 4:	500 V r.m.s.
Contacts 5 through 13:	333 V r.m.s.

MECHANICAL CHARACTERISTICS:

Blind Mating System: Male and female connector bodies provide "lead-in" for 1.3mm [0.050 inch] diametral misalignment.

Polarization: Provided by connector body design.

Fixed Contacts: Printed board terminations, both straight and right angle. Size 16 female contacts feature "Closed Entry" design. Size 22 feature rugged "Robi-D Open Entry" contact design. "Closed Entry" contacts available, consult Technical Sales.

Fixed Contact Retention in Connector Body:
- **Size 16 Contacts:** 45 N [10 lbs.]
- **Size 22 Contacts:** 27 N [6 lbs.]

Resistance to Solder Heat: 260˚C [500˚F] for 10 seconds duration per IEC 512-6, Test 12e, 25-watt soldering iron.

Sequential Contact Mating System:
PCIC16W7: First mate contact 14 and last mate contact position 5.
Consult Technical Sales for customer specified sequential mating.

Safety "Recessed in Insulator" Contacts: The following size 16 contacts are recessed 5mm [0.197 inch] below the face of the female connector insulator per safety requirements.
PCIC16W7: Contact positions 15 and 16.

Compliant Terminations: Size 16 and 22 contacts are available with Compliant Contact Terminations.

Printed Board Mounting: Mounting holes provided in connector body for printed board mounting. Self-tapping screws are available.

Mechanical Operations: 250 couplings, minimum.

CLIMATIC CHARACTERISTICS:

Working Temperature: -55˚C to +125˚C.

U.L. Recognized File #E49351*
CSA Recognized File #LR54219*
TUV recognitions are in process.
Consult Technical Sales for updated information.

*** U.L. and CSA recognitions are in process for PCIC16W7(3,93 or 94)00(A1, A2, C1 or C2)-246.2 connector.**

POSITRONIC INDUSTRIES RoHS Compliant per EU Directive 2002/95/EC

For RoHS options see page 91.

PCIC CONNECTOR OUTLINE DIMENSIONS

RIGHT ANGLE BOARD MOUNT CONNECTOR

Female Connector Dimensions

Male Connector Dimensions

STRAIGHT BOARD MOUNT CONNECTOR

NEW!

Female Connector Dimensions

Male Connector Dimensions

PCIC CONNECTOR MATING DIMENSIONS

(FULLY MATED)

Straight Board Mount
Female to Right Angle
Board Mount Male.

Right Angle Board Mount
Female to Right Angle
Board Mount Male.

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

RIGHT ANGLE BOARD MOUNT CONNECTORS, MALE

STANDARD PART NUMBER
PCIC16W7M400A1

CONNECTOR DIMENSIONS

CONTACT HOLE PATTERN

Note: See below for suggested printed board hole sizes.

INVERTED PART NUMBER
PCIC16W7RM400A1

CONNECTOR DIMENSIONS

CONTACT HOLE PATTERN

SUGGESTED PRINTED BOARD HOLE SIZES:

Suggest Ø1.14 [0.045] holes for size 22 contact holes.
Suggest Ø2.03 [0.080] holes for size 16 contact holes.
Suggest Ø3.56±0.08 [0.140±0.003] holes for connector mounting holes.

RIGHT ANGLE BOARD MOUNT CONNECTORS, FEMALE

STANDARD PART NUMBER
PCIC16W7F400A1

CONTACT HOLE PATTERN

CONNECTOR DIMENSIONS

Note: See below for suggested printed board hole sizes.

INVERTED PART NUMBER
PCIC16W7RF400A1

CONTACT HOLE PATTERN

CONNECTOR DIMENSIONS

SUGGESTED PRINTED BOARD HOLE SIZES:

Suggest Ø1.14 [0.045] holes for size 22 contact holes.
Suggest Ø2.03 [0.080] holes for size 16 contact holes.
Suggest Ø3.56±0.08 [0.140±0.003] holes for connector mounting holes.

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

STRAIGHT SOLDER CONNNECTOR, MALE

NEW!

STANDARD PART NUMBER
PCIC16W7M300A1

CONNECTOR DIMENSIONS

CONTACT HOLE PATTERN

SUGGESTED PRINTED BOARD HOLE SIZES:

Suggest Ø1.00 [0.039] holes for size 22 contact holes.
Suggest Ø1.60 [0.063] holes for size 16 contact holes.
Suggest Ø3.56±0.08 [0.140±0.003] holes for connector mounting holes.

STRAIGHT SOLDER CONNNECTOR AND WITH A.C. PASS-THROUGH, FEMALE

STANDARD PART NUMBER
PCIC16W7F300A1

CONNECTOR DIMENSIONS

CONTACT HOLE PATTERN

Note: See below for suggested printed board hole sizes.

LOW PROFILE PART NUMBER
PCIC16W7F300A1-246.2

CONNECTOR DIMENSIONS

CONTACT HOLE PATTERN

PCIC SERIES

SUGGESTED PRINTED BOARD HOLE SIZES:

Suggest Ø1.00 [0.039] holes for size 22 contact holes.
Suggest Ø1.60 [0.063] holes for size 16 contact holes.
Suggest Ø3.56±0.08 [0.140±0.003] holes for connector mounting holes.

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

COMPLIANT TERMINATION CONNECTOR , MALE AND FEMALE

NEW!

STANDARD PART NUMBER
PCIC16W7M9300A1
PCIC16W7M9400A1

CONNECTOR DIMENSIONS

CONTACT HOLE PATTERN

CONTACT TAIL LENGTH		
Code	**"L" Length**	**Board Thickness**
93	5.72 [0.225]	2.29 to 4.45 [0.090 to 0.175]
94	7.04 [0.277]	4.45 min. [0.175 min.]

SUGGESTED PRINTED BOARD HOLE SIZES:
Suggest Ø3.56±0.08 [0.140±0.003] holes for connector mounting holes.
Note: See page 95 for suggested printed board drill hole sizes, recommended plating and finished hole sizes.

STANDARD PART NUMBER
PCIC16W7F9300A1
PCIC16W7F9400A1

CONNECTOR DIMENSIONS

CONTACT HOLE PATTERN

CONTACT TAIL LENGTH		
Code	**"L" Length**	**Board Thickness**
93	5.72 [0.225]	2.29 to 4.45 [0.090 to 0.175]
94	7.04 [0.277]	4.45 min. [0.175 min.]

SUGGESTED PRINTED BOARD HOLE SIZES:
Suggest Ø3.56±0.08 [0.140±0.003] holes for connector mounting holes.
Note: See page 95 for suggested printed board drill hole sizes, recommended plating and finished hole sizes.

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

COMPLIANT TERMINATION CONNECTOR WITH A.C. PASS-THROUGH, FEMALE

LOW PROFILE PART NUMBER
PCIC16W7F9300A1-246.2
PCIC16W7F9400A1-246.2

CONNECTOR DIMENSIONS

CONTACT HOLE PATTERN

CONTACT TAIL LENGTH		
Code	**"L" Length**	**Board Thickness**
93	5.72 [0.225]	2.29 to 4.45 [0.090 to 0.175]
94	7.04 [0.277]	4.45 min. [0.175 min.]

SUGGESTED PRINTED BOARD HOLE SIZES:

Suggest Ø3.56±0.08 [0.140±0.003] holes for connector mounting holes.
Note: See page 95 for suggested printed board drill hole sizes, recommended plating and finished hole sizes.

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

FEMALE PANEL MOUNT CRIMP CONTACT CONNECTOR DIMENSIONS

REMOVABLE CRIMP CONTACTS MUST BE ORDERED SEPARATELY

CONNECTOR DIMENSIONS

STANDARD PART NUMBER
PCIC16W7F8000

PANEL CUT OUT

FOR REMOVABLE CRIMP CONTACT ORDERING INFORMATION, SEE PAGE 93.

ORDERING INFORMATION - CODE NUMBERING SYSTEM

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

STEP	1	2	3	4	5	6	7	8		9
EXAMPLE	PCIC	16W7	F	93	0	0	A1	/AA	—	

STEP 1 - BASIC SERIES

PCIC – PCIC Series

STEP 2 - CONNECTOR VARIANTS

16W7 – 7 size 16 contacts and 9 size 22 contacts

16W7R – 7 size 16 contacts and 9 size 22 contacts. Inverted style, use with contact type “4”.

STEP 3 - CONNECTOR GENDER

M - Male
F - Female

STEP 4 - CONTACT TERMINATION TYPE

3 – Solder, Straight Printed Board Mount with 4.50 [0.177] tail extension for connection systems 1 and 2.

4 – Solder, Right Angle Printed Board Mount with 2.68 [0.106] tail extension for connection systems 1 and 4.

8 – Contacts must be ordered separately for Panel Mount Cable Connectors, connection system 3. Female connector only.

93 – Press–Fit, Compliant Termination size 16 and size 22 Straight Printed Board Mount for use with board thicknesses of 2.29 to 4.45 [0.090 to 0.175]. Connection system 1.

94 – Press–Fit, Compliant Termination size 16 and size 22 Straight Printed Board Mount for use with board thickness of 4.45 minimum [0.175 minimum]. Connection systems 1 and 2.

STEP 5 - MOUNTING STYLE

0 – Standard Option

See page 94 for mounting screw options.

STEP 6 - HOODS

0 – Not applicable

STEP 7 - CONTACT PLATING FOR PRINTED BOARD TYPE CONNECTORS

0 – Crimp contacts ordered separately

A1 – Gold flash over nickel on mating end and termination end.

A2 – Gold flash over nickel on mating end and 5.00 microns [0.000200 inch] tin-lead solder coat on termination end. Not available with code 93 or code 94 in step 4.

C1 – 0.76 microns [0.000030 inch] gold over nickel on mating end and termination end.

C2 – 0.76 microns [0.000030 inch] gold over nickel on mating end and 5.00 microns [0.000200 inch] tin-lead solder coat on termination end. Not available with code 93 or code 94 in step 4.

D1 – 1.27 microns [0.000050 inch] gold over nickel on mating end and termination end.

D2 – 1.27 microns [0.000050 inch] gold over nickel on mating end and 5.00 microns [0.000200 inch] tin-lead solder coat on termination end. Not available with code 93 or code 94 in step 4.

STEP 8 - ENVIRONMENTAL COMPLIANCE OPTIONS

/AA - Compliant per EU Directive 2002/95/EC (RoHS)

NOTE: If compliance to environmental legislation is not required, this step will not be used. Example: PCIC16W7F9300A1

STEP 9 - SPECIAL OPTIONS

FOR LISTING OF SPECIAL OPTIONS, SEE SPECIAL OPTIONS APPENDIX ON PAGE 92.

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-dimensional IGES file.

SK Drawing

3-dimensional model

Changes to printed catalog: In Step 4, we removed the asterisk (*) note from code 8.

PCIC SERIES

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

MODIFICATION OF STANDARD (MOS)

Specify complete connector by selecting a base part number from the desired series **Ordering Information Page**.
Once base part number is selected, add desired modification of standard (MOS) number below to the end of the part number.

Example part number: PCIH47F9300A1/AA-245.0

***(Ordering information pages* can be found at the end of each series)**

	CONNECTOR VARIANT SIZE	GENDER	TERMINATION TYPE AVAILABLE	MODIFICATION OF STANDARD (MOS) NUMBER	DESCRIPTION OF MODIFICATION
PCIH	38	F	3, 93, 94	**-245.0**	System 2, Straight Printed Board Mount 38 contact connector with 3 high profile A.C. pass–through contact positions.
	38	F	3, 93, 94	**-246.1**	System 2, Straight Printed Board Mount 38 contact connector with 3 low profile A.C. pass–through contact positions.
	47	F	3, 93, 94	**-246.0**	System 2, Straight Printed Board Mount 47 contact connector with 3 low profile A.C. pass–through contact positions.
	47 47R*	F	4	**-246.4**	System 5, Right Angle Board Mount 47 contact connector with 3 A.C. pass-through contact positions.
	47	***M***	***4***	***259.0***	***Selectively loaded right angle, 47 contact connector with ten total output contacts loaded in 1, 4, 5, 8, 9, 12, 13, 16, 19, 20.***
	47	***M***	***4***	***259.1***	***Selectively loaded right angle, 47 contact connector with six total output contacts loaded in 1, 5, 9,13, 19, 20.***
	47	***M***	***4***	***259.2***	***Selectively loaded right angle, 47 contact connector with sixteen total output contacts loaded in 1, 3, 4, 5, 6, 7, 8, 9, 11, 12, 13, 15, 16, 17, 19, 20.***
	47	M	3, 4, 93, 94	**-441.0**	System 1 & 4, allows for any 47 male contact connector to be supplied with two additional contact positions, 48 and 49, to be left vacant in order to accept keying plugs. See page 7.
	47	F	3, 4, 93, 94	**-442.0**	System 1 & 4, allows for any 47 female contact connector to be supplied with two additional contact positions, 48 and 49, to be left vacant in order to accept keying plugs. See page 7.
	49W25	F	3, 93, 94	**-246.3**	System 2, Straight Printed Board Mount 49 contact connector with 5 low profile A.C. pass-through contact positions.
	49W25	M	3, 4, 93, 94	**-378.0**	Allows contacts 45-49 to be sequentially mated as follows: Position 45 is first mate, positions 46,47,48, and 49 are second mate. Male connector mates with female connector using MOS number -379.0.
	49W25 *49W25R	F	3, 4, 93, 94	**-379.0**	Allows for contact positions 46, 47, 48 and 49 to have 5mm recess. Contact 45 to have 2mm recess. Female connector mates with male connector using MOS number -378.0.
PCIB	24W9	F	3, 93, 94	**-246.5**	System 2, Straight Printed Board Mount Connector with 3 low profile A.C pass-through contact positions.
	24W9 *24W9R	F	4	**-422.0**	System 1 and 4, Right Angle Printed Board Mount Connector with 3 low profile A.C pass-through contact positions.
	26W11	F	3, 93, 94	**-246.6**	System 2, Straight Printed Board Mount Connector with 5 low profile A.C pass-through contact positions.
	26W11	M	3, 93, 94	**-444.0**	Fixed jackscrew system. Male connector mates with female connector using MOS number -443.0
	26W11	F	8	**-443.0**	Rotating jackscrew system. Female connector mates with male connector using MOS number -444.0.
PCIC	16W7	F	3, 93, 94	**-246.2**	System 2, Straight Printed Board Mount Connector with 3 low profile A.C. Pass-Through contact positions.

CONTACT TECHNICAL SALES FOR ADDITIONAL SPECIAL OPTIONS

*Inverted connector available on connectors with code 4 termination only.

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

REMOVABLE FEMALE CRIMP CONTACTS FOR USE WITH A.C. PASS–THROUGH AND PANEL MOUNT VERSIONS

CONTACTS ARE NOT SUPPLIED WITH CONNECTORS AND MUST BE ORDERED SEPARATELY

SIZE 16 CONTACT

PART NUMBER	WIRE SIZE mm² [AWG]	Ø "A"	Ø "B"
FC112N2S-1565.0	4.0 / [12]	2.49 [0.098]	n/a
To maintain current rating, FC112N2**S**-1565.0 must be used			
FC114N2-1565.0	2.5-1.5 / [14-16]	2.06 [0.081]	2.67 [0.105]
FC116N2-1565.0	1.5-1.0 / [16-18]	1.70 [0.067]	2.36 [0.093]
FC120N2-1565.0	0.5-0.3-0.25 / [20-22-24]	1.14 [0.045]	1.65 [0.065]

SIZE 20 CONTACT

Part Number: FC720N2
Wire size 0.5-0.3-0.25 mm² [20-22-24 AWG]

SIZE 22 CONTACT

Part Number: FC422N7
Wire size 0.3 mm² [22 AWG]

MATERIALS:
Contacts: Copper Alloy.

FINISH: Gold flash over nickel plate.
0.76µ [0.000030 inch] gold over nickel available by adding "-14" suffix onto part number.
Example: FC116N2-14-1565.0 or FC720N2-14.
1.27µ [0.000050 inch] gold over nickel available by adding "-15" suffix onto part number.
Example: MC720N-15.

CRIMP CONTACT TOOLING IS AVAILABLE FROM POSITRONIC INDUSTRIES. SEE PAGE 99 FOR DETAILS.

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

PRESS–FIT USER INFORMATION

When properly used, Positronic Industries Bi–Spring Power Press–Fit Terminations provide reliable service even under severe conditions.

Connectors utilizing this leading technology press–fit contact are easy to install:

1. Choose the proper tooling. Inexpensive insertion tooling and single contact repair tooling are available from Positronic. See page 96 - 97 for 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 number 4 self–tapping screws for plastic. Screws can be ordered separately; see below.

MOUNTING SCREWS

Stresses that occur during coupling and uncoupling of power supplies or through shock and vibration of systems can be transferred to backplanes or P.C. boards through press–fit 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.

Mounting Screw Ordering Information

Part Number	Thread Length
2076-16-1-16	7.92+0.00-0.76 mm [0.312+0.000-0.030 inch]
2076-16-2-16	9.53+0.00-0.76 mm [0.375+0.000-0.030 inch]
2076-16-3-16	11.10+0.00-0.76 mm [0.437+0.000-0.030 inch]
2076-16-4-16	12.70+0.00-0.76 mm [0.500+0.000-0.030 inch]

Screws are number 4 self tapping for plastic.

SUGGESTED PRINTED BOARD HOLE SIZES FOR COMPLIANT PRESS-FIT CONNECTORS

Traditionally, tin-lead has been a popular plating for PBC holes. However, many PCB hole platings must now be RoHS Compliant. Positronic is pleased to offer **PCB HOLE SIZE FOR RoHS** PCB plating as shown below.

COMPLIANT PRESS-FIT CONTACT HOLE				
BOARD TYPE	**CONTACT SIZE**	**DRILL HOLE SIZE**	**RECOMMENDED PLATING**	**FINISHED HOLE SIZES**
TIN-LEAD SOLDER PCB	**16**	ø1.750±0.025 [ø0.0689±0.0010]	15µ [0.0006] minimum solder over 25µ [0.0010] min. copper	ø1.600+0.090-0.060 [ø0.0630+0.0035-0.0024]
	20	ø1.150±0.025 [ø0.0453±0.0010]		ø1.000+0.090-0.060 [ø0.0394+0.0035-0.0024]
	22			
RoHS PCB PLATING OPTIONS				
COPPER PCB	**16**	ø1.73±0.05 [ø0.068±0.002]	25µ [0.0010] min. copper	ø1.600+0.090-0.060 [ø0.0630+0.0035-0.0024]
	20	ø1.19±0.05 [ø0.047±0.002]		ø1.09±0.05 [ø0.043±0.002]
	22			
IMMERSION TIN PCB	**16**	ø1.73±0.05 [ø0.068±0.002]	0.85±0.15µ [0.000033±0.000006] immersion tin over 25µ [0.0010] min. copper	ø1.600+0.090-0.060 [ø0.0630+0.0035-0.0024]
	20	ø1.19±0.05 [ø0.047±0.002]		ø1.09±0.05 [ø0.043±0.002]
	22			
IMMERSION SILVER PCB	**16**	ø1.73±0.05 [ø0.068±0.002]	0.34±0.17µ [0.000013±0.000007] immersion silver over 25µ [0.0010] min. copper	ø1.600+0.090-0.060 [ø0.0630+0.0035-0.0024]
	20	ø1.19±0.05 [ø0.047±0.002]		ø1.09±0.05 [ø0.043±0.002]
	20			
ELECTROLESS NICKEL/ IMMERSION GOLD PCB	**16**	ø1.73±0.05 [ø0.068±0.002]	0.05µ [0.000002] min. immersion gold over 4.5±1.5µ [0.000177±0.000059] electroless nickel per IPC-4552over 25µ [0.0010] min. copper	ø1.600+0.090-0.060 [ø0.0630+0.0035-0.0024]
	20	ø1.19±0.05 [ø0.047±0.002]		ø1.09±0.05 [ø0.043±0.002]
	22			

PRESS-FIT CONTACT HOLE

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

Note: The PCIH38 variant contains size 16 and size 20 contacts. All other variants contain size 16 and size 22 contacts.

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

COMPLIANT PRESS–FIT TERMINATION CONNECTOR INSTALLATION TOOLS

SEATING TOOL

	CONNECTOR VARIANT	CONNECTOR SEATING TOOL WITH ARBOR PRESS SHAFT	CONNECTOR SEATING TOOL WITHOUT ARBOR PRESS SHAFT	REPLACEMENT PINS
PCIH	PCIH38F	9513-300-0-41	9513-300-20-41	Positions 1 through 20: 855-347-2-0 Positions 21 through 35: 855-916-26-0 Position 36: 855-916-12-0 Positions 37 and 38: 855-916-11-0
	PCIH38M	9513-300-13-41	9513-300-33-41	NONE
	PCIH47F	9513-300-3-41	9513-300-23-41	Positions 1 through 20: 855-347-2-0 Positions 21 through 44: 855-916-19-0 Position 45: 855-916-12-0 Positions 46 and 47: 855-916-11-0
	PCIH47M	9513-300-12-41	9513-300-32-41	NONE
	PCIH49W25F-379.0	9513-300-47-41	9513-300-67-41	Positions 1 through 20: 855-347-2-0 Positions 21 through 44: 855-916-12-0 Position 45: 855-916-12-0 Positions 46 through 49: 855-916-11-0
	PCIH49W25M-378.0	9513-300-12-41	9513-300-32-41	NONE
PCIA	PCIA60W36F	9513-300-9-41	9513-300-29-41	Positions 1 through 30: 855-347-2-0 Positions 31 through 54: 855-916-19-0 Position 55 and 56: 855-916-12-0 Positions 57 through 60: 855-916-11-0
	PCIA60W36M	9513-300-44-41	9513-300-64-41	NONE
PCIM	PCIM30W15F	9513-300-17-41	9513-300-37-41	Positions 1 through 12: 855-347-2-0 Positions 13 through 27: 855-916-19-0 Position 28: 855-916-12-0 Positions 29 and 30: 855-916-11-0
	PCIM30W15M	***9513-300-52-41***	***9513-300-72-41***	***NONE***
	PCIM33W18F	9513-300-40-41	9513-300-60-41	Positions 1 through 12 and Positions 28 through 33: 855-347-2-0 Positions 13 through 27: 855-916-19-0
	PCIM33W18M	***9513-300-53-41***	***9513-300-73-41***	***NONE***
	PCIM34W13F	9513-300-14-41	9513-300-34-41	Positions 1 through 10: 855-347-2-0 Positions 11 through 31: 855-916-19-0 Position 32: 855-916-12-0 Positions 33 and 34: 855-916-11-0
	PCIM34W13M	***9513-300-54-41***	***9513-300-74-41***	***NONE***
	PCIM37W16F	9513-300-41-41	9513-300-61-41	Positions 1 through 10 and Positions 32 through 37: 855-347-2-0 Positions 11 through 31: 855-916-19-0
	PCIM37W16M	***9513-300-55-41***	***9513-300-75-41***	***NONE***
PCIB	PCIB24W9F	9513-300-19-41	9513-300-39-41	Positions 1 through 6: 855-347-2-0 Positions 7 through 21: 855-916-19-0 Position 22: 855-916-12-0 Position 23 and 24: 855-916-11-0
	PCIB24W9M	9513-300-50-41	9513-300-70-41	NONE
	PCIB26W11F	9513-300-42-41	9513-300-62-41	Positions 1 through 6 and Positions 22 through 26: 855-347-2-0 Positions 7 through 21: 855-916-19-0
	PCIB26W11M	9513-300-49-41	9513-300-69-41	NONE
PCIC	PCIC16W7F	9513-300-43-41	9513-300-63-41	Positions 1 through 4: 855-347-2-0 Positions 5 through 13: 855-916-19-0 Position 14: 855-916-12-0 Positions 15 and 16: 855-916-11-0
	PCIC16W7M	9513-300-68-41	9513-300-48-41	NONE

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

PRESS–FIT TERMINATION CONNECTOR INSTALLATION TOOLS

SUPPORT TOOL

	CONNECTOR VARIANT	CONNECTOR SUPPORT TOOL
PCIH	PCIH38F	9513-400-0-41
	PCIH38M	9513-400-0-41
	PCIH47F	9513-400-0-41
	PCIH47M	9513-400-0-41
	PCIH49W25M-378.0	9513-400-0-41
	PCIH49W25F-379.0	9513-400-0-41
PCIA	PCIA60W36F	9513-400-2-41
	PCIA60W36M	9513-400-2-41
PCIM	PCIM30W15F	9513-400-3-41
	PCIM30W15M	9513-400-3-41
	PCIM33W18F	9513-400-3-41
	PCIM33W18M	9513-400-3-41
	PCIM34W13F	9513-400-3-41
	PCIM34W13M	9513-400-3-41
	PCIM37W16F	9513-400-3-41
	PCIM37W16M	9513-400-3-41
PCIB	PCIB24W9F	9513-400-4-41
	PCIB24W9M	9513-400-4-41
	PCIB26W11F	9513-400-4-41
	PCIB26W11M	9513-400-4-41
PCIC	PCIC16W7F	9513-400-5-41
	PCIC16W7M	9513-400-5-41

Positronic offers expert assistance in adapting application tooling to your manufacturing environment. Contact our application tooling specialist for assistance.

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

CRIMPING INFORMATION FOR COMPACT POWER CONNECTOR CRIMP CONTACTS

USE INDICATED POSITRONIC TOOLS FOR BEST RESULTS

Step 1: Strip wire to indicated length.

Take care not to:
- **Damage or remove strands.**
- **Untwist or overtwist strands.**
- **Leave insulation particles on strands.**
- **Damage insulation.**

Correctly Stripped Wire:

CONTACT SIZE	"L" ±0.51[0.020]
16	5.84 [0.230]
20	5.84 [0.230]
22	3.18 [0.125]

Examples of Stripping Faults

Step 2: Crimp wire to contact.

For hand crimp tool:
- **Place contact into crimping tool.**
- **Insert wire into contact.**
- **Center contact by slowly closing crimping tool until crimp indenters make contact with crimp barrel.**
- **Complete the cycle of the crimping tool in one smooth motion.**
- **Remove the crimped contact.**

For automatic crimp tool:
- **Insert wire into the contact, positioned in the crimp tool by the plastic carrier.**
- **Depress the activating device of the crimping tool to start crimping cycle.**
- **Remove the crimped contact.**

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

CRIMPING INFORMATION FOR COMPACT POWER CONNECTOR CRIMP CONTACTS

Step 3: Inspect crimp.

For All Tools:
- **Strands to be visible through the inspection hole.**
- **Strands not to be visible beyond the insulation support.**
- **Crimped contact to meet recommended conductor tensile force shown in chart (below, left).**
- **Check for peeled gold and bent contact.**

Correctly Crimped Contact

Cross-section of Correctly Crimped Contact

Examples of Crimping Faults

POSITRONIC RECOMMENDED CONDUCTOR TENSILE STRENGTH	
WIRE SIZE	**AXIAL LOAD**
4.0 mm²(12 AWG)	489N(110 lbs.)
2.5 mm²(14 AWG)	311N(70 lbs.)
1.5 mm²(16 AWG)	222N(50 lbs.)
1.0 mm²(18 AWG)	125N(28 lbs.)
0.5 mm²(20 AWG)	89N(20 lbs.)
0.3 mm²(22 AWG)	53N(12 lbs.)
0.25 mm²(24 AWG)	36N(8 lbs.)
0.12 mm²(26 AWG)	22N(5 lbs.)

POSITRONIC RECOMMENDED TOOLS			
TOOL DESCRIPTION	**SIZE 16 CONTACT**	**SIZE 20 CONTACT**	**SIZE 22 CONTACT**
Hand crimp tool	**See Below	9501-0-0-0 with 9502-1-0-0 positioner for female contact	9507-0-0-0 with 9502-23-0-0 positioner for female contact
Pneumatically crimp tool	9550-0-0-0	9550-1-0-0	9550-1-0-0
Crimp contact insertion tool	9099-0-0-0	9099-4-0-0	9099-1-0-0
Crimp contact extraction tool	9081-4-0-0	9081-2-0-0	9081-3-0-0

**For FC114N2-1565.0 and FC116N2-1565.0 contacts use part number 9501-0-0-0 crimp tool and 9502-1-0-0 positioner. For FC112N2S-1565.0 contacts use part number 9509-3-0-0 crimp tool

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

Positronic Products

Power

Contact Sizes: 0, 8, 12, 16, 20 and 22
Current Ratings: To 100 amperes
Terminations: Crimp, wire solder, straight solder, right angle solder, straight press-fit and right angle press-fit
Configurations: Multiple variants in a variety of package sizes
Compliance: PICMG 2.11, PICMG 3.0, VITA 41

FEATURES: 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

D-Subminiature

Contact Sizes: 8, 20 and 22
Current Ratings: To 40 amperes nominal
Terminations: Crimp, wire solder, straight solder, right angle solder and straight press-fit
Configurations: Multiple variants in both standard and high densities
Qualifications: MIL-DTL-24308, Goddard Space Flight 311P, SAE AS 39029, IP65, IP67

FEATURES: Three performance levels available: professional quality, military quality and space-flight quality provide multiple performance-to-cost choices • Options include thermocouple contacts, environmentally sealed and dual port package including mixed density • Broad selection of accessories

Rectangular

Contact Sizes: 16, 20 and 22
Current Ratings: To 13 amperes
Terminations: Crimp, wire solder, straight solder and right angle solder
Configurations: Multiple variants in both standard and high densities
Qualifications: MIL-DTL-28748, SAE AS 39029, CCITT V.35

FEATURES: Two performance levels available: industrial quality and military quality provide two performance to cost choices • Large surface area contact mating system • A wide variety of accessories • Broad selection of contact variants and package sizes

Circular

Contact Sizes: 12, 16, 20 and 22
Current Ratings: To 25 amperes nominal
Terminations: Crimp, wire solder, straight solder and right angle solder
Configurations: Multiple variants in two package sizes
Qualifications: Environmental protection to IP67

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

Cable

All Positronic connector products can be supplied as part of cable assemblies whose technical characteristics would reflect those of the connectors being used within the assembly.

FEATURES: Shorten the supply chain and reduce additional costs and delays by “cablizing” • Overmolding available • Shielded and environmentally sealed versions available • Power cables and access boxes which meet the SAE J2496 specification

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
Qualifications: Space-D32

FEATURES: Intended for use as an electrical feedthrough in high vacuum applications • Leakage rate: 5 x 10-9 mbar.l/s @ vacuum 1.5 x 10-5 atm • 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 as given on the back of this catalog.

NORTH AMERICAN LOCATIONS

UNITED STATES, Springfield, Missouri, Corporate Headquarters

Factory Sales and Engineering Offices	(800) 641-4054

PUERTO RICO, Ponce Factory

Factory Sales and Engineering Offices	(800) 641-4054

MEXICO

Factory Sales and Engineering Offices	(800) 872-7674

CANADA

Factory Sales and Engineering Offices	(800) 327-8272

ASIA/PACIFIC LOCATIONS

SINGAPORE, Asia/Pacific Headquarters

Factory Sales and Engineering Offices	(65) 6842-1419	singapore@connectpositronic.com

ASIA, Direct Sales Offices

China -Shenzhen Sales Office	(86) 755-2643-7578	shenzhen@connectpositronic.com
China -Shanghai Sales Office	(86) 21-5078-2096	shanghai@connectpositronic.com
Korea Sales Office	(82) 31-909-8047/8	korea@connectpositronic.com
Taiwan Sales Office	(88) 62-2937-8775	taiwan@connectpositronic.com

JAPAN, Direct Sales Offices

Sales and Engineering Offices	(81) 3-5812-7720	japan@connectpositronic.com

INDIA, Direct Sales Offices

Factory Sales and Engineering Offices	(91) 20-2439-4810	india@connectpositronic.com

ASIA/PACIFIC, Technical Agents

Technical Agents in Malaysia, Australia, New Zealand, Philippines, Hong Kong, Vietnam, Thailand

EUROPEAN LOCATIONS

FRANCE, Auch Factory, European Headquarters

Factory Sales and Engineering Offices	33 (0)5 62 63 44 91	contact@connectpositronic.com

EUROPE, Direct Sales Offices

Northern France Sales Office	33 (0)1 45 88 13 88	jchalaux@connectpositronic.com
Southern France Sales Office	33 (0)4 67 72 80 28	plafon@connectpositronic.com
Italy Sales Office	39 (0)2 54 116 106	rmagni@connectpositronic.com
Northern Germany Sales Office	49 (0)30 34 504 307	gzimmermann@connectpositronic.com
Southern Germany Sales Office	49 (0)2351 63 47 39	cbouche@connectpositronic.com

EUROPE, Technical Agents

Technical Agents in Austria, Benelux, Eastern Europe Countries, Greece, Ireland, Scandinavia, Spain, Switzerland and the United Kingdom

MIDEAST, Technical Agents

Technical Agents in Israel and Turkey

POSITRONIC INDUSTRIES, INC.
423 N Campbell Ave • PO Box 8247 • Springfield, MO 65801
Tel (417) 866-2322 • Fax (417) 866-4115 • Toll Free (800) 641-4054
info@connectpositronic.com

POSITRONIC INDUSTRIES, S.A.S.
Zone Industrielle d'Engachies • 46 Route d'Engachies
France 32020 Auch Cedex 9
Telephone 33 (0)5 62 63 44 91 • Fax 33 (0)5 62 63 51 17
contact@connectpositronic.com

POSITRONIC ASIA PTE LTD.
3014A Ubi Road 1 #07-01 • Singapore 408703
Telephone (65) 6842 1419 • Fax (65) 6842 1421
singapore@connectpositronic.com

WWW.CONNECTPOSITRONIC.COM