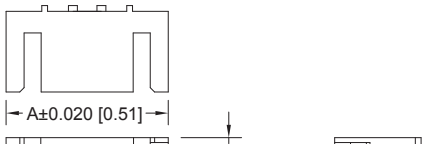
CUSTOMER SPECIFIED ARRANGEMENTS

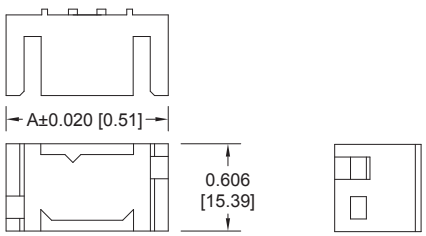
The design of Power Connection Systems Series connectors allows for the development of application specific contact arrangements in a timely manner and at a reasonable price. Thirteen connector housing sizes exist that may accommodate size 20, size 16, size 12, or size 8 contacts (see the Power Connection Systems catalog for connector housing dimensions). After reviewing the dimensions and the following basic information, contact Technical Sales with your current, voltage, and safety requirements. We look forward to working with you to develop a connector for your specific needs.

BASIC CONNECTOR DIMENSIONS

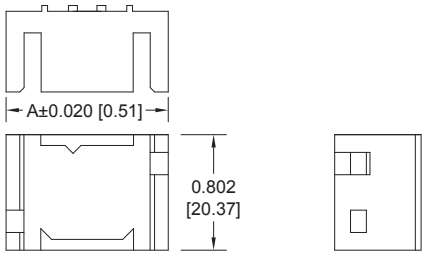
Male Connector Dimensions



PART NUMBER	A
PLA03**00A1 PLAH03**00A1	1.126 [28.60]
PLA04**00A1 PLAH04**00A1	1.324 [33.63]
PLA06**00A1 PLAH06**00A1	1.718 [43.64]
PLA08**00A1 PLAH08**00A1	2.112 [53.64]

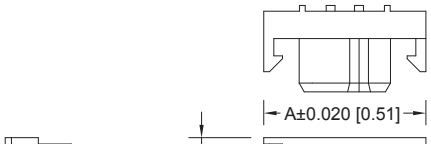


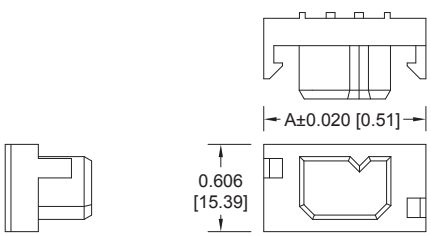
PART NUMBER	A
PLB06**00A1 PLBH06**00A1	1.126 [28.60]
PLB08**00A1 PLBH08**00A1	1.324 [33.63]
PLB12**00A1 PLBH12**00A1	1.718 [43.64]
PLB16**00A1 PLBH16**00A1	2.112 [53.64]
PLB20**00A1 PLBH20**00A1	2.506 [63.65]

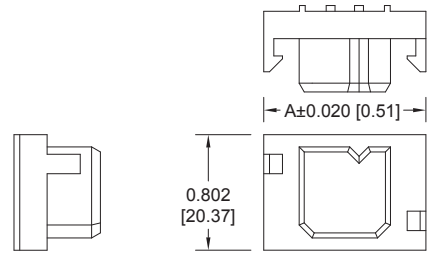


PART NUMBER	A
PLC09**00A1 PLCH09**00A1	1.126 [28.60]
PLC12**00A1 PLCH12**00A1	1.324 [33.63]
PLC18**00A1 PLCH18**00A1	1.718 [43.64]
PLC24**00A1 PLCH24**00A1	2.112 [53.64]
PLC30**00A1 PLCH30**00A1	2.506 [63.65]

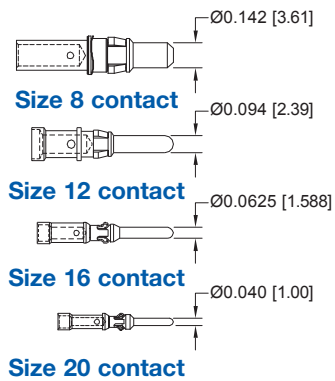
Female Connector Dimensions







Four Contact Sizes to Choose From



Many Termination Types Can Be Supplied

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

Popular Options

Sequential Mating
Selective Loading

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

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

TECHNICAL CHARACTERISTICS

MATERIALS AND FINISHES:

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

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

Mounting Clip: Beryllium copper with nickel plate.

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

Mounting Bracket: Brass with tin plate.

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

ELECTRICAL CHARACTERISTICS:

CONTACT CURRENT RATING:

Standard Contact Material: See page 9 for detail information.

High Conductivity Contact Material: See page 9 for detail information.

INITIAL CONTACT RESISTANCE:

Standard Contact Material: 0.0016 ohms max. per IEC 60512-2, test 2b.

High Conductivity Contact Material: 0.0007 ohms max. per IEC 60512-2, test 2b.

Insulation Resistance: 5 G ohms per IEC 60512-2, test 3a, method A.

Voltage Proof: 2000 V rms per IEC 60512-2, test 4a, method C.

Creepage Distance: 0.157 inch [4 mm] minimum.

Clearance Distance: 0.125 inch [3.2 mm] minimum.

Working Voltage: Designed to meet UL 600 VAC and CSA 600 VAC.

Working Temperature: -55°C to +125°C
Contact technical sales for availability of high temperature insulator material.

ELECTRICAL CHARACTERISTICS OF COMPLIANT PRESS-IN CONNECTION TO PLATED-THROUGH-HOLE OF PRINTED BOARD:

0.064 inch [1.63mm] diameter hole of a 0.125 inch [3.2mm] thick printed board

Initial Contact Resistance of Connection: Less than 1.0 milliohms per IEC 60512-2, test 2a.

Change in Contact Resistance of Connection After Mechanical, Electrical or Climactic Conditioning: Less than 0.5 milliohms increase per IEC 60512-2, test 2a.

Gas Tight Connections Test: Less than 0.2 milliohms increase in contact resistance after 1 hour per EIA 364, TP36, Method One.

SHIELDED CONTACT TECHNICAL CHARACTERISTICS:

See page 47.

MECHANICAL CHARACTERISTICS:

Removable Contacts: Insert contact to rear face of insulator, release from front face of insulator. Size 16, 0.0625 inch [1.588 mm] diameter male contact. Female contact "closed entry" design for highest reliability.

Removable Contact Retention in Insulator: 15 lbs. [67N] per IEC 60512-8, test 15a.

Fixed Contacts: Solder cup and printed board terminations. Size 16, 0.0625 inch [1.588 mm] diameter male contact. Female contact has "closed entry" design for highest reliability.

Fixed Contact Retention in Insulator: 6 lbs. [26N].

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

Contact Terminations: Crimp or solder removable contacts from wire sizes 12 AWG [4.0 mm^2] through 24 AWG [0.25 mm^2]. Straight and Right Angle (90°) solder printed board mount, 0.0625 inch [1.588 mm] tail diameter. Compliant termination press-in. Fixed contact solder cup termination, 18 AWG [1.0 mm^2] maximum.

Contact Insertion and Withdrawal Forces: 8 oz. [2.2N] nominal per contact.

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

Sequential Mating System: Cable and printed board mount connectors. Male contacts provide as many as three mating lengths.

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

Polarizations: Provided in insulator design. Further polarization in cable connectors can be provided by mixing male contacts in female insulators and female contacts in male insulators.

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

Mechanical Operations: 500 operations per IEC 60512-5.

MECHANICAL CHARACTERISTICS OF COMPLIANT PRESS-IN CONNECTORS:

Press-in Contact Bi-Spring Construction, Compliant Termination: 0.0695 inch [1.77mm] diameter with 0.050 inch [1.27mm] lead-in diameter. Offered with two termination lengths.

Contact Retention in Insulator and 0.125 inch [3.2mm] thick printed board: 5 lbs. [22N] minimum combined retention forces per MIL-STD-2166, Type III compliant contact classification, after third repair-replacement of contact in insulator and plated-through-hole, 0.064 inch [1.63mm] diameter in a 0.125 inch [3.2mm] thick printed board.

Vibration: No electrical discontinuity of 1µ second or greater when tested per MIL-STD-1344, Method 2005, Test conditioning.

Initial Press-In Force of Individual Contact into Plated-Through-Hole: 10 lbs. [44N] average when pushed into a 0.064 inch [1.63mm] Ø hole in a 0.125 inch [3.2mm] thick printed board.

Initial Push-Out Force of Individual Contact into Plated-Through-Hole: 8.5 lbs. [38N] average when pushed out of an 0.064 inch [1.63mm] Ø hole in a 0.125 inch [3.2mm] thick printed board.

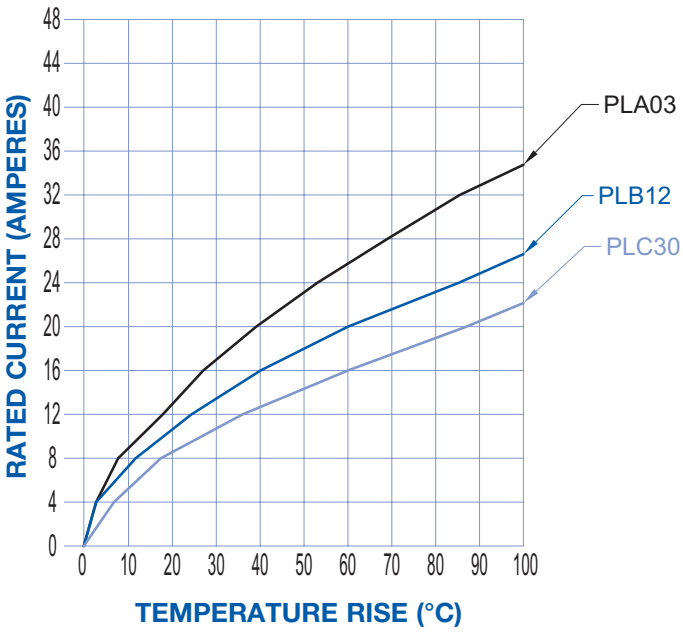
CUL Recognized*	TÜV Recognized*
File # E49351	Certificate # B 02 07 47415 002

***Note:** CUL and TÜV recognizes all sizes, except PLB20, consult Technical Sales for status.

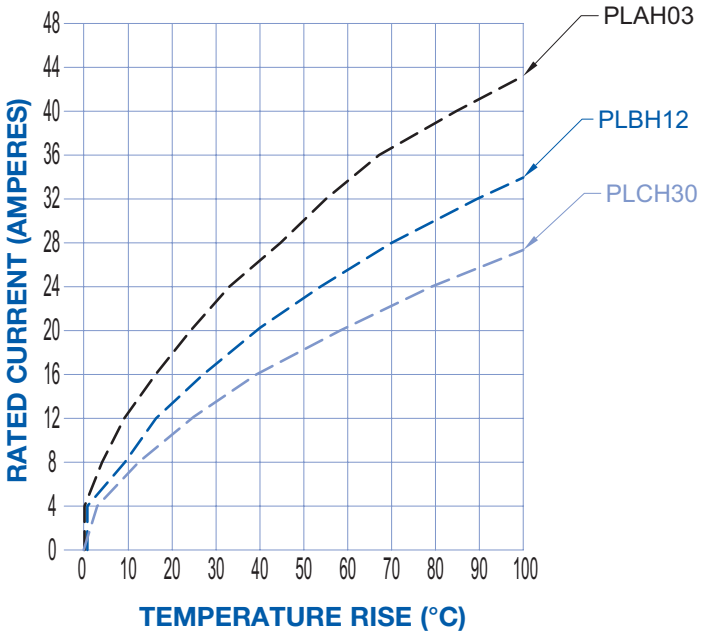
DIMENSIONS ARE IN INCHES [MILLIMETERS].
ALL DIMENSIONS ARE SUBJECT TO CHANGE.

TEMPERATURE RISE CURVE

STANDARD CONTACT MATERIALS
CONNECTORS WITH PL* PREFIX



HIGH CONDUCTIVITY CONTACT MATERIALS
CONNECTORS WITH PL*H PREFIX
OR "S" SUFFIX ON CRIMP CONTACTS



PCS SERIES

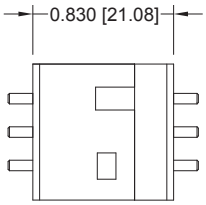
TEST DETAIL: Each curve was developed using individual connector bodies fully loaded with contacts. All power contacts energized through 12 awg wire. Temperature rise was measured in the contact mating area. Test was conducted with connectors in static air. Terminations of test connectors were straight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

CONTACT CURRENT RATINGS			
CONNECTOR VARIANT	**STANDARD CONTACTS**	**CONNECTOR VARIANT**	**HIGH CONDUCTIVITY CONTACTS**
PLA03	32 amperes	**PLAH03**	42 amperes
PLB12	25 amperes	**PLBH12**	32 amperes
PLC30	18 amperes	**PLCH30**	24 amperes

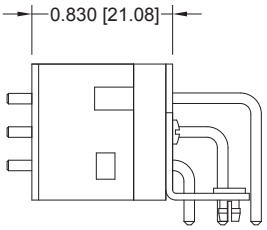
Temperature rise curves and contact current ratings were developed for the specific connector variants shown when tested in accordance with UL1977.

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

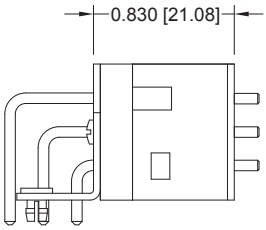
MATING DIMENSIONS (FULLY MATED)



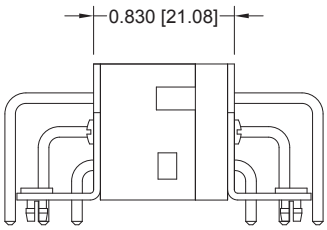
Straight Board Mount Male to Straight Board Mount Female



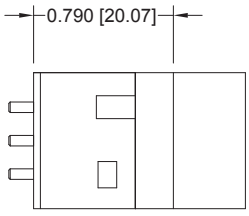
Straight Board Mount Male to Right Angle (90°) Board Mount Female



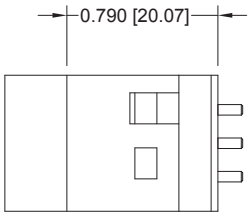
Right Angle (90°) Board Mount Male to Straight Board Mount Female



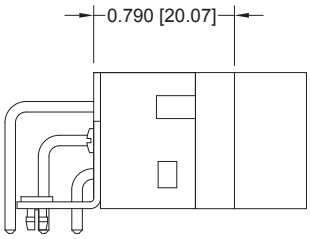
Right Angle (90°) Board Mount Male to Right Angle (90°) Board Mount Female



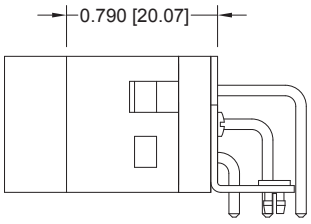
Straight Board Mount Male to Panel Mount Female



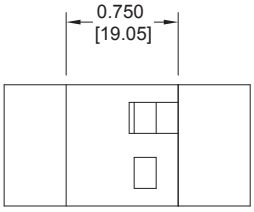
Panel Mount Male to Straight Board Mount Female



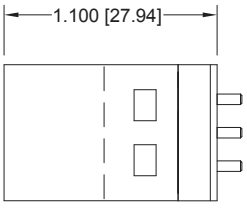
Right Angle (90°) Board Mount Male to Panel Board Mount Female



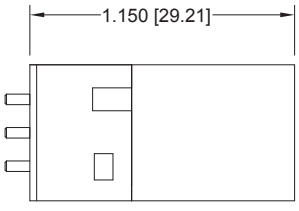
Panel Mount Male to Right Angle (90°) Board Mount Female



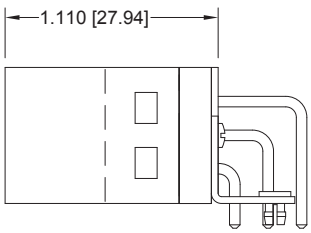
Panel Mount Male to Panel Mount Female



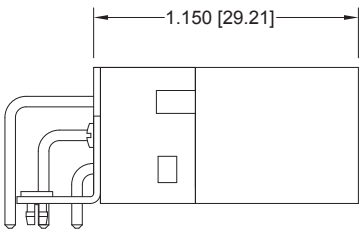
Cable Mount Male to Straight Board Mount Female



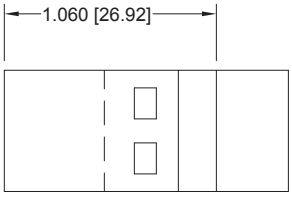
Straight Board Mount Male to Cable Mount Female



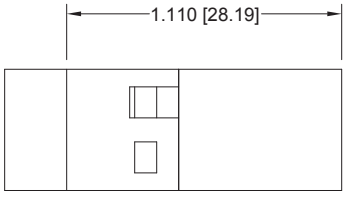
Cable Mount Male to Right Angle (90°) Board Mount Female



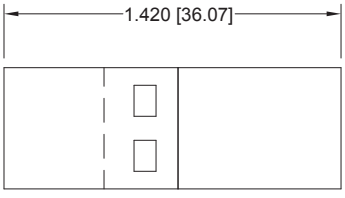
Right Angle (90°) Board Mount Male to Cable Mount Female



Cable Mount Male to Panel Mount Female



Panel Mount Male to Cable Mount Female



Cable Mount Male to Cable Mount Female

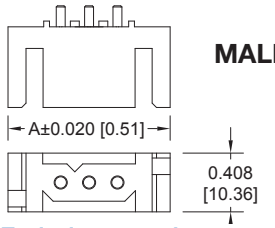
STRAIGHT SOLDER PRINTED BOARD CONNECTOR

PLA STRAIGHT PRINTED BOARD MOUNT CONNECTORS

CODE 3, 0.146 [3.71] CONTACT EXTENSION

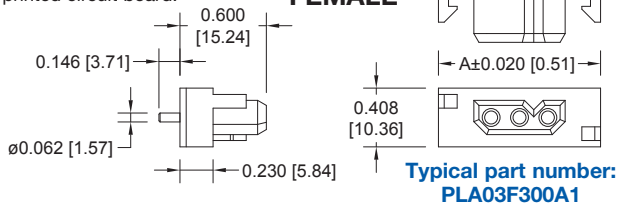
Positronic recommends the practice of using mounting hardware to secure connector to printed circuit board.

MALE



Typical part number:
PLA03M300A1
PLAH03M300A1

FEMALE



Typical part number:
PLA03F300A1
PLAH03F300A1

PART NUMBER	A	PART NUMBER	A
PLA03*300A1 PLAH03*300A1	1.126 [28.60]	PLA06*300A1 PLAH06*300A1	1.718 [43.64]
PLA04*300A1 PLAH04*300A1	1.324 [33.63]	PLA08*300A1 PLAH08*300A1	2.112 [53.64]

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

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

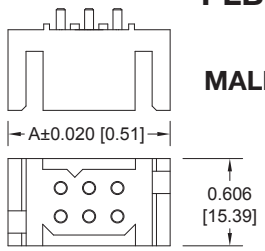
Plating- See ordering information for contact plating options.

For connection systems 1, 4 and 6.

PLB STRAIGHT PRINTED BOARD MOUNT CONNECTORS

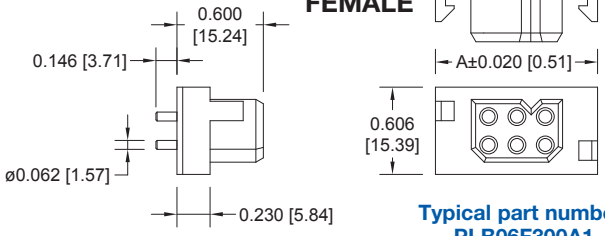
CODE 3, 0.146 [3.71] CONTACT EXTENSION

MALE



Typical part number:
PLB06M300A1
PLBH06M300A1

FEMALE



Typical part number:
PLB06F300A1
PLAH06F300AI

PART NUMBER	A	PART NUMBER	A
PLB06*300A1 PLBH06*300A1	1.126 [28.60]	PLB16*300A1 PLBH16*300A1	2.112 [53.64]
PLB08*300A1 PLBH08*300A1	1.324 [33.63]	PLB20*300A1 PLBH20*300A1	2.506 [63.65]
PLB12*300A1 PLBH12*300A1	1.718 [43.64]		

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

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

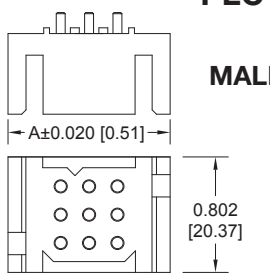
Plating- See ordering information for contact plating options.

For connection systems 1, 4 and 6.

PLC STRAIGHT PRINTED BOARD MOUNT CONNECTORS

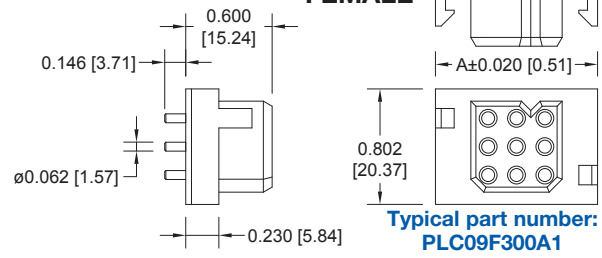
CODE 3, 0.146 [3.71] CONTACT EXTENSION

MALE



Typical part number:
PLC09M300A1
PLCH09M300A1

FEMALE



Typical part number:
PLC09F300A1
PLCH09F300A1

PART NUMBER	A	PART NUMBER	A
PLC09*300A1 PLCH09*300A1	1.126 [28.60]	PLC24*300A1 PLCH24*300A1	2.112 [53.64]
PLC12*300A1 PLCH12*300A1	1.324 [33.63]	PLC30*300A1 PLCH30*300A1	2.506 [63.65]
PLC18*300A1 PLCH18*300A1	1.718 [43.64]		

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

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

Plating- See ordering information for contact plating options.

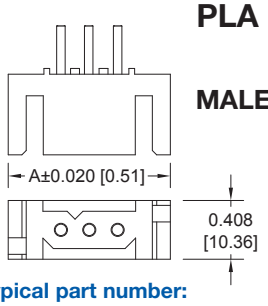
For connection systems 1, 4 and 6.

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

PLA STRAIGHT PRINTED BOARD MOUNT CONNECTORS

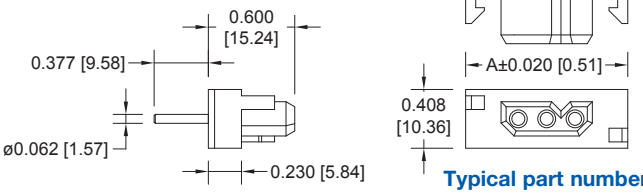
CODE 32, 0.377 [9.58] CONTACT EXTENSION

MALE



Typical part number:
PLA03M3200A1
PLAH03M3200A1

FEMALE



Typical part number:
PLA03F3200A1
PLAH03F3200A1

PART NUMBER	A	PART NUMBER	A
PLA03*3200A1 PLAH03*3200A1	1.126 [28.60]	PLA06*3200A1 PLAH06*3200A1	1.718 [43.64]
PLA04*3200A1 PLAH04*3200A1	1.324 [33.63	PLA08*3200A1 PLAH08*3200A1	2.112 [53.64]

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

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

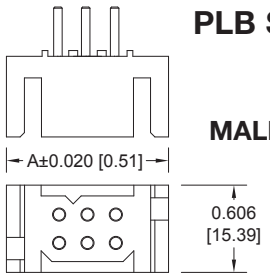
Plating- See ordering information for contact plating options.

For connection systems 1, 3, 4 and 6.

PLB STRAIGHT PRINTED BOARD MOUNT CONNECTORS

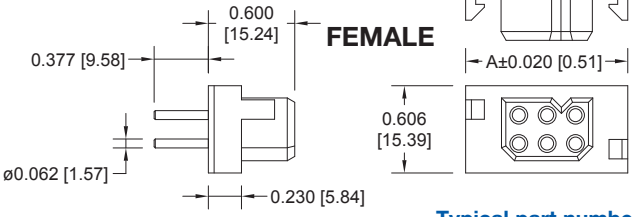
CODE 32, 0.377 [9.58] CONTACT EXTENSION

MALE



Typical part number:
PLB06M3200A1
PLBH06M3200A1

FEMALE



Typical part number:
PLB06F3200A1
PLBH06F3200A1

PART NUMBER	A	PART NUMBER	A
PLB06*3200A1 PLBH06*3200A1	1.126 [28.60]	PLB16*3200A1 PLBH16*3200A1	2.112 [53.64]
PLB08*3200A1 PLBH08*3200A1	1.324 [33.63]	PLB20*3200A1 PLBH20*3200A1	2.506 [63.65]
PLB12*3200A1 PLBH12*3200A1	1.718 [43.64]		

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

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

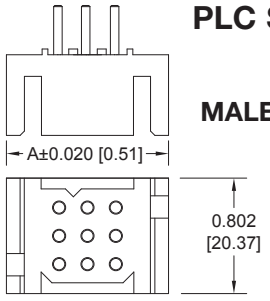
Plating- See ordering information for contact plating options.

For connection systems 1, 3, 4 and 6.

PLC STRAIGHT PRINTED BOARD MOUNT CONNECTORS

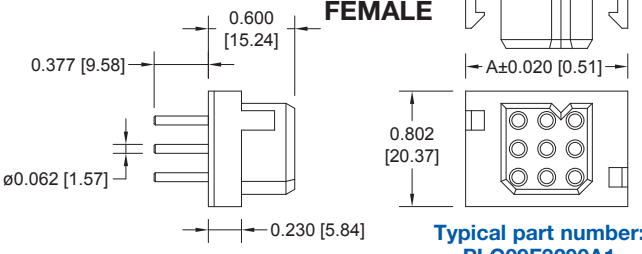
CODE 32, 0.377 [9.58] CONTACT EXTENSION

MALE



Typical part number:
PLC09M3200A1
PLCH09M3200A1

FEMALE



Typical part number:
PLC09F3200A1
PLCH09F3200A1

PART NUMBER	A	PART NUMBER	A
PLC09*3200A1 PLCH09*3200A1	1.126 [28.60]	PLC24*3200A1 PLCH24*3200A1	2.112 [53.64]
PLC12*3200A1 PLCH12*3200A1	1.324 [33.63]	PLC30*3200A1 PLCH30*3200A1	2.506 [63.65]
PLC18*3200A1 PLCH18*3200A1	1.718 [43.64]		

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

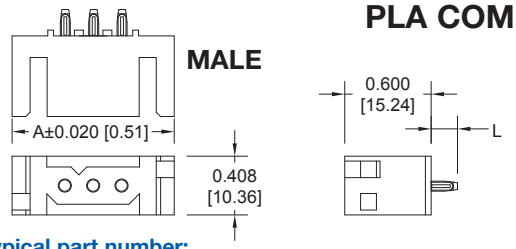
NOTE: MOUNTING SCREWS CAN BE SUPPLIED WITH CONNECTORS USING STEP 5 IN ORDERING INFORMATION ON PAGE 26. MOUNTING SCREWS CAN ALSO BE ORDERED SEPARATELY BY PART NUMBER. SEE PAGE 59.

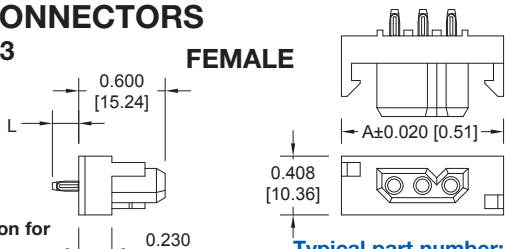
Plating- See ordering information for contact plating options.

For connection systems 1, 3, 4 and 6.

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

PLA COMPLIANT PRESS-IN CONNECTORS
CODE 92 OR CODE 93





See page 56 for Installation Tooling.

Plating- See ordering information for contact plating options.

0.230
[5.84]

For connection systems 1, 4 and 6.

Typical part number:
PLA03M93ST30A1
PLAH03M93ST30A1

Typical part number:
PLA03F93ST30A1
PLAH03F93ST30A1

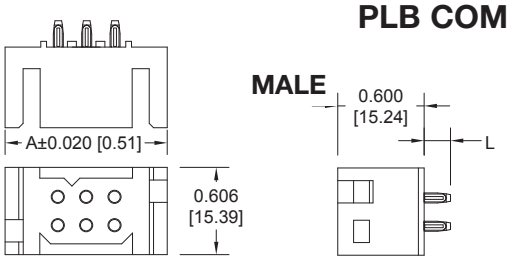
**Asterisks determine gender of connector, M for male, F for female and contact code 92 or 93.

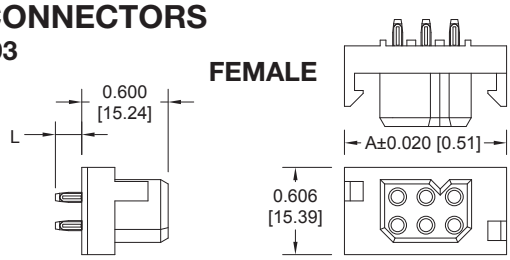
PART NUMBER	A
PLA03**00A1 PLAH03**00A1	1.126 [28.60]
PLA04**00A1 PLAH04**00A1	1.324 [33.63]
PLA06**00A1 PLAH06**00A1	1.718 [43.64]
PLA08**00A1 PLAH08**00A1	2.112 [53.64]

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

CONTACT CODE	L	PCB THICKNESS
92	0.183 [4.65]	0.093 [2.36]
93	0.218 [5.54]	0.125 [3.18]

PLB COMPLIANT PRESS-IN CONNECTORS
CODE 92 OR CODE 93





See page 56 for Installation Tooling.

Plating- See ordering information for contact plating options.

0.230
[5.84]

For connection systems 1, 4 and 6.

Typical part number:
PLB06M93ST30A1
PLBH06M93ST30A1

Typical part number:
PLB06F93ST30A1
PLBH06F93ST30A1

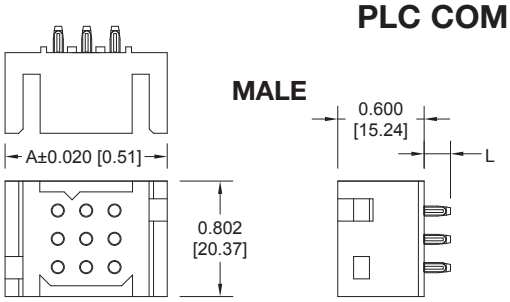
**Asterisks determine gender of connector, M for male, F for female and contact code 92 or 93.

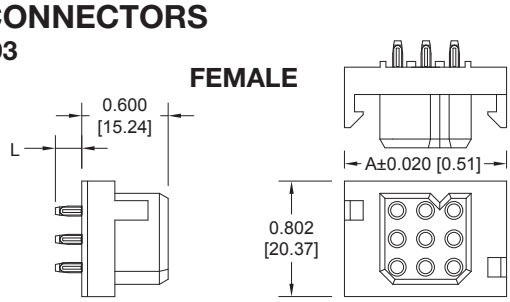
PART NUMBER	A
PLB06**00A1 PLBH06**00A1	1.126 [28.60]
PLB08**00A1 PLBH08**00A1	1.324 [33.63]
PLB12**00A1 PLBH12**00A1	1.718 [43.64]
PLB16**00A1 PLBH16**00A1	2.112 [53.64]
PLB20**00A1 PLBH20**00A1	2.506 [63.65]

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

CONTACT CODE	L	PCB THICKNESS
92	0.183 [4.65]	0.093 [2.36]
93	0.218 [5.54]	0.125 [3.18]

PLC COMPLIANT PRESS-IN CONNECTORS
CODE 92 OR CODE 93





See page 56 for Installation Tooling.

Plating- See ordering information for contact plating options.

0.230
[5.84]

For connection systems 1, 4 and 6.

Typical part number:
PLC09M93ST30A1
PLCH09M93ST30A1

Typical part number:
PLC09F93ST30A1
PLCH09F93ST30A1

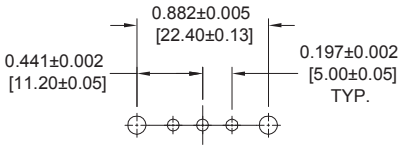
**Asterisks determine gender of connector, M for male, F for female and contact code 92 or 93.

PART NUMBER	A
PLC09**00A1 PLCH09**00A1	1.126 [28.60]
PLC12**00A1 PLCH12**00A1	1.324 [33.63]
PLC18**00A1 PLCH18**00A1	1.718 [43.64]
PLC24**00A1 PLCH24**00A1	2.112 [53.64]
PLC30**00A1 PLCH30**00A1	2.506 [63.65]

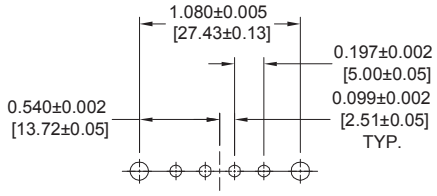
NOTE: Positronic recommends the practice of using mounting hardware to secure connector to printed circuit board. Mounting screws can be supplied with connectors using step 5 in ordering information on page 26. Mounting screws can also be ordered separately by part number. See page 59.

CONTACT CODE	L	PCB THICKNESS
92	0.183 [4.65]	0.093 [2.36]
93	0.218 [5.54]	0.125 [3.18]

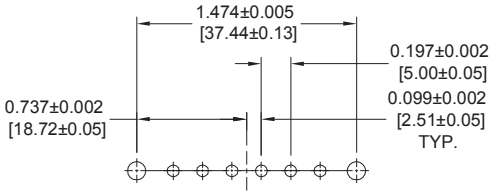
PCS SERIES



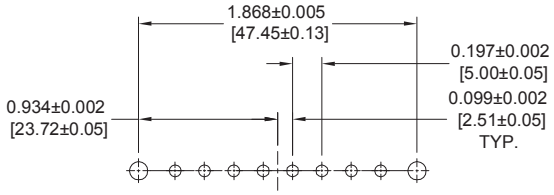
PLA 03



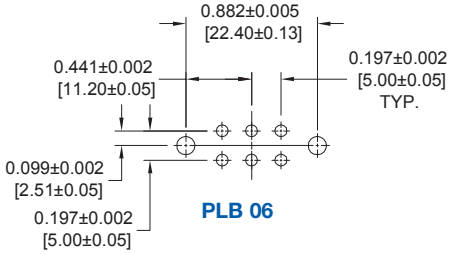
PLA 04



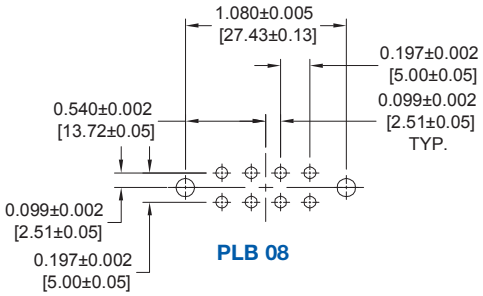
PLA 06



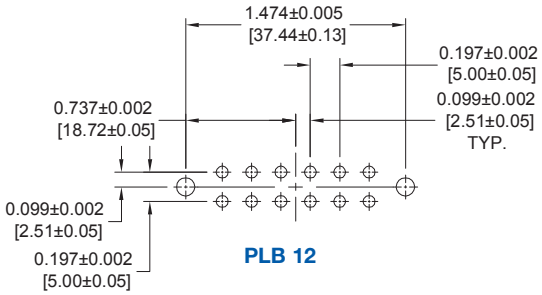
PLA 08



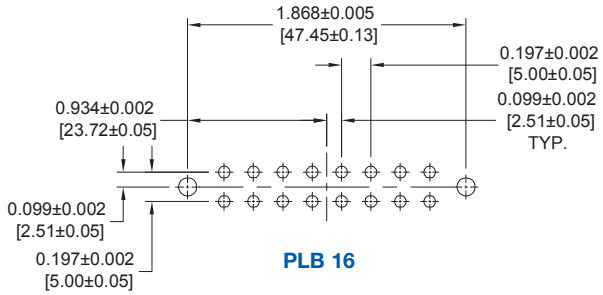
PLB 06



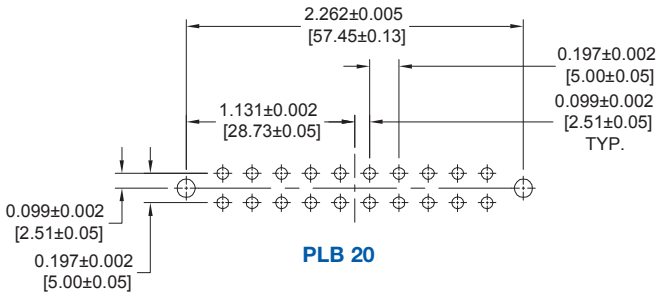
PLB 08



PLB 12



PLB 16



PLB 20

SUGGESTED PRINTED BOARD HOLE SIZES:

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

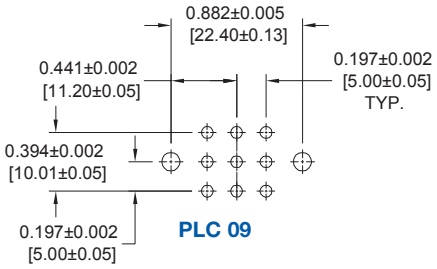
Suggest 0.100 [2.54] Ø holes in printed board when mounting connectors with # 2 thread forming screws.

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

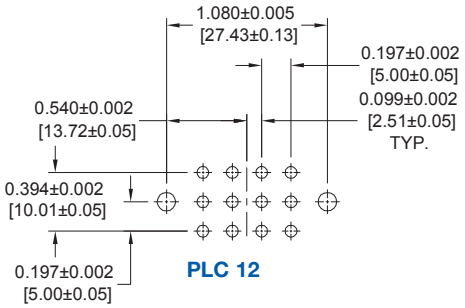
NOTE: See page 57 for suggested printed board drill hole sizes, recommended plating and finished hole sizes for compliant contact termination positions.

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

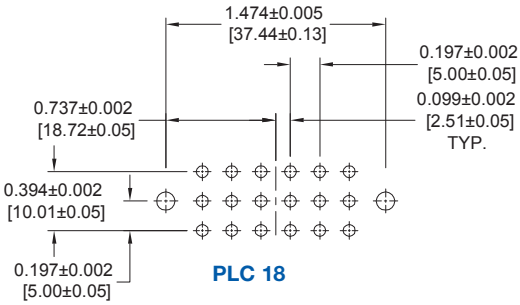
STRAIGHT SOLDER AND COMPLIANT CONTACT HOLE PATTERN



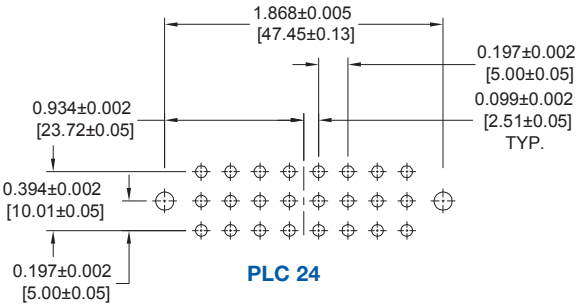
PLC 09



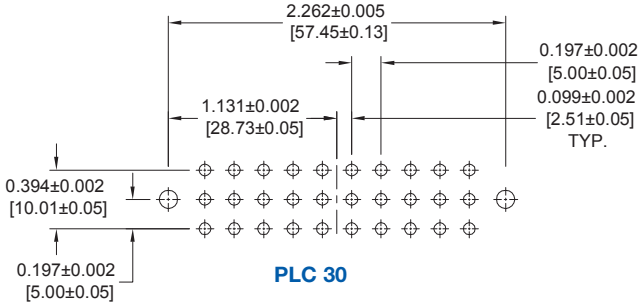
PLC 12



PLC 18



PLC 24



PLC 30

SUGGESTED PRINTED BOARD HOLE SIZES:

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

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

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

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

Connectors Designed To Customer Specifications

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

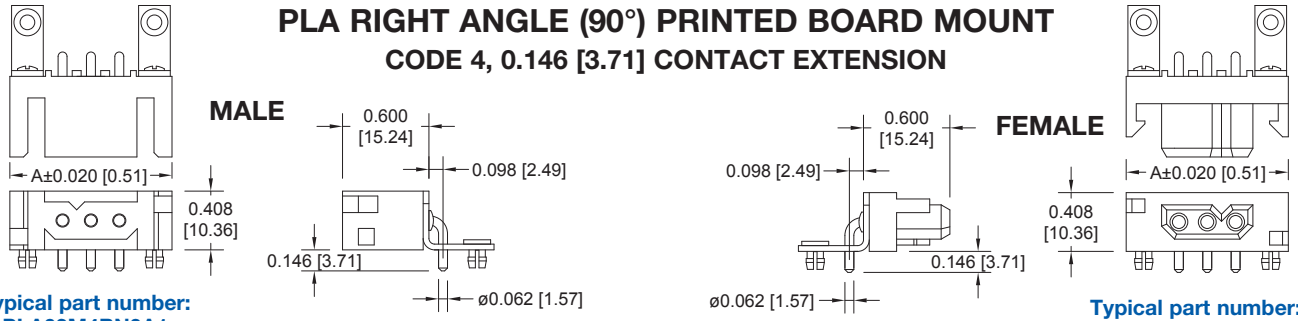
Examples: select loading of contacts for cost savings or to gain creepage and clearance distances; longer printed circuit board terminations; customer specified hardware.

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

Contact Technical Sales with your particular requirements.

PLA RIGHT ANGLE (90°) PRINTED BOARD MOUNT

CODE 4, 0.146 [3.71] CONTACT EXTENSION



Typical part number:
PLA03M4BN0A1
PLAH03M4BN0A1

Typical part number:
PLA03F4BN0A1
PLAH03F4BN0A1

PART NUMBER	A	PART NUMBER	A
PLA03*400A1 PLAH03*400A1	1.126 [28.60]	PLA06*400A1 PLAH06*400A1	1.718 [43.64]
PLA04*400A1 PLAH04*400A1	1.324 [33.63	PLA08*400A1 PLAH08*400A1	2.112 [53.64]

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

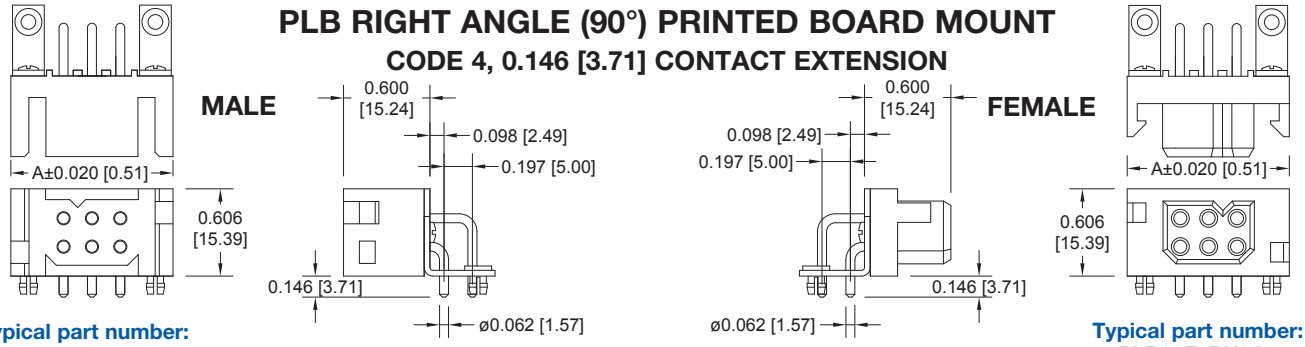
NOTE: MOUNTING SCREWS CAN BE ORDERED SEPARATELY BY PART NUMBER WHEN CHOOSING B3 BRACKETS. SEE PAGE 59.

Plating- See ordering information for contact plating options.

For connection systems 1, 2 and 5.

PLB RIGHT ANGLE (90°) PRINTED BOARD MOUNT

CODE 4, 0.146 [3.71] CONTACT EXTENSION



Typical part number:
PLB06M4BN0A1
PLBH06B4BN0A1

Typical part number:
PLB06F4BN0A1
PLBH06F4BN0A1

PART NUMBER	A	PART NUMBER	A
PLB06*400A1 PLBH06*400A1	1.126 [28.60]	PLB16*400A1 PLBH16*400A1	2.112 [53.64]
PLB08*400A1 PLBH08*400A1	1.324 [33.63]	PLB20*400A1 PLBH20*400A1	2.506 [63.65]
PLB12*400A1 PLBH12*400A1	1.718 [43.64]		

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

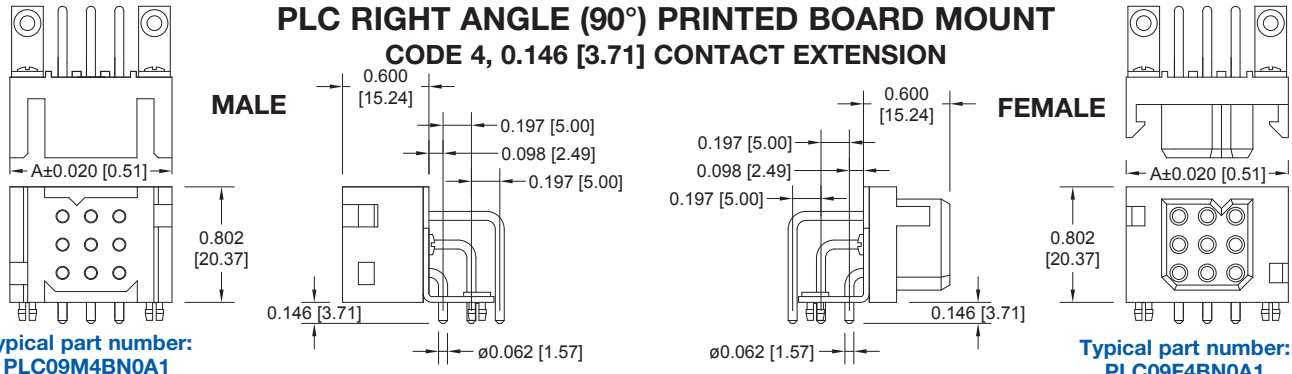
NOTE: MOUNTING SCREWS CAN BE ORDERED SEPARATELY BY PART NUMBER WHEN CHOOSING B3 BRACKETS. SEE PAGE 59.

Plating- See ordering information for contact plating options.

For connection systems 1, 2 and 5.

PLC RIGHT ANGLE (90°) PRINTED BOARD MOUNT

CODE 4, 0.146 [3.71] CONTACT EXTENSION



Typical part number:
PLC09M4BN0A1
PLCH09M4BN0A1

Typical part number:
PLC09F4BN0A1
PLCH09F4BN0A1

PART NUMBER	A	PART NUMBER	A
PLC09*400A1 PLCH09*400A1	1.126 [28.60]	PLC24*400A1 PLCH24*400A1	2.112 [53.64]
PLC12*400A1 PLCH12*400A1	1.324 [33.63]	PLC30*400A1 PLCH30*400A1	2.506 [63.65]
PLC18*400A1 PLCH18*400A1	1.718 [43.64]		

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

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

Plating- See ordering information for contact plating options.

For connection systems 1, 2 and 5.

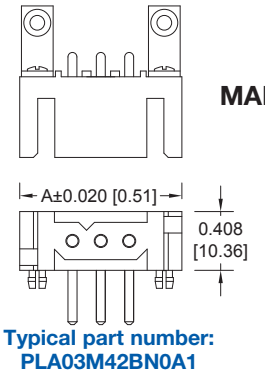
DIMENSIONS ARE IN INCHES [MILLIMETERS].
ALL DIMENSIONS ARE SUBJECT TO CHANGE.

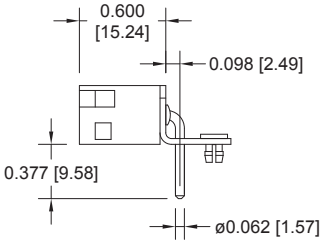
RIGHT ANGLE (90°) SOLDER PRINTED BOARD CONNECTOR

PLA RIGHT ANGLE (90°) PRINTED BOARD MOUNT

CODE 42, 0.377 [9.58] CONTACT EXTENSION

MALE





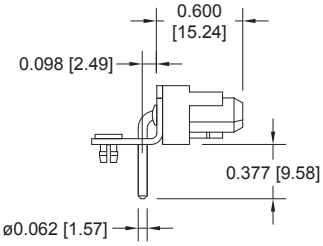
Typical part number:
PLA03M42BN0A1
PLAH03M42BN0A1

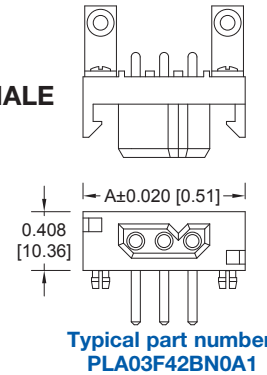
NOTE: MOUNTING SCREWS CAN BE ORDERED SEPARATELY BY PART NUMBER WHEN CHOOSING B3 BRACKETS. SEE PAGE 59.

PART NUMBER	A
PLA03*4200A1 PLAH03*4200A1	1.126 [28.60]
PLA04*4200A1 PLAH04*4200A1	1.324 [33.63]

PART NUMBER	A
PLA06*4200A1 PLAH06*4200A1	1.718 [43.64]
PLA08*4200A1 PLAH08*4200A1	2.112 [53.64]

FEMALE





Typical part number:
PLA03F42BN0A1
PLAH03F42BN0A1

Plating- See ordering information for contact plating options.

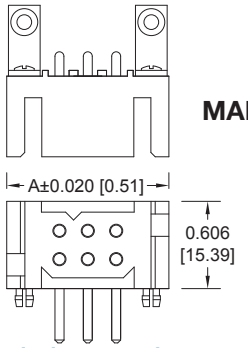
For connection systems 1, 2, 3 and 5.

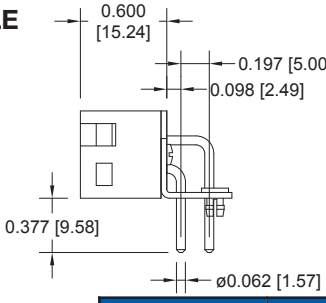
***Asterisk determines gender of connector, M for male, F for female.**

PLB RIGHT ANGLE (90°) PRINTED BOARD MOUNT

CODE 42, 0.377 [9.58] CONTACT EXTENSION

MALE





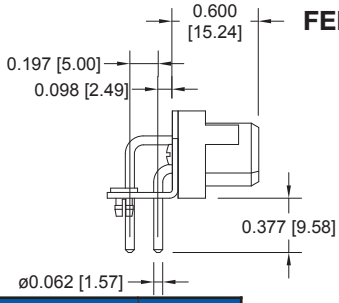
Typical part number:
PLB06M42BN0A1
PLBH06M42BN0A1

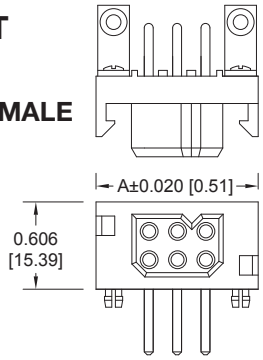
NOTE: MOUNTING SCREWS CAN BE ORDERED SEPARATELY BY PART NUMBER WHEN CHOOSING B3 BRACKETS. SEE PAGE 59.

PART NUMBER	A
PLB06*4200A1 PLBH06*4200A1	1.126 [28.60]
PLB08*4200A1 PLBH08*4200A1	1.324 [33.63]
PLB12*4200A1 PLBH12*4200A1	1.718 [43.64]

PART NUMBER	A
PLB16*4200A1 PLBH16*4200A1	2.112 [53.64]
PLB20*4200A1 PLBH20*4200A1	2.506 [63.65]

FEMALE





Typical part number:
PLB06F42BN0A1
PLBH06F42BN0A1

Plating- See ordering information for contact plating options.

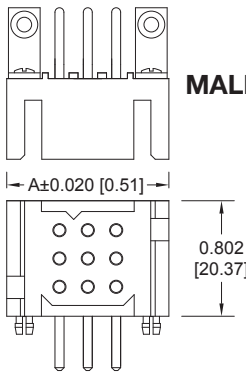
For connection systems 1, 2, 3 and 5.

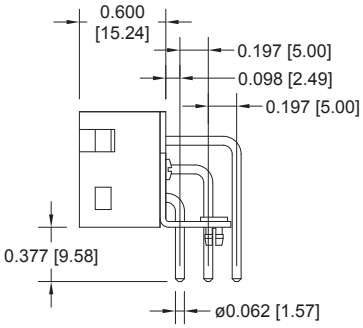
***Asterisk determines gender of connector, M for male, F for female.**

PLC RIGHT ANGLE (90°) PRINTED BOARD MOUNT

CODE 42, 0.377 [9.58] CONTACT EXTENSION

MALE





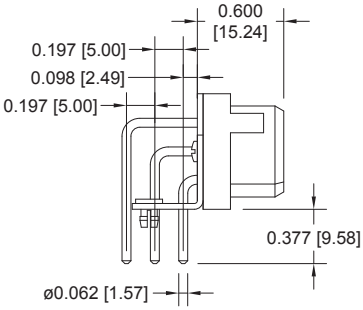
Typical part number:
PLC09M42BN0A1
PLCH09M42BN0A1

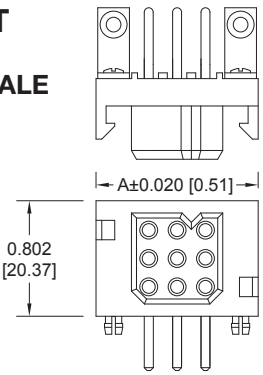
NOTE: MOUNTING SCREWS CAN BE ORDERED SEPARATELY BY PART NUMBER WHEN CHOOSING B3 BRACKETS. SEE PAGE 59.

PART NUMBER	A
PLC09*4200A1 PLCH09*4200A1	1.126 [28.60]
PLC12*4200A1 PLCH12*4200A1	1.324 [33.63]
PLC18*4200A1 PLCH18*4200A1	1.718 [43.64]

PART NUMBER	A
PLC24*4200A1 PLCH24*4200A1	2.112 [53.64]
PLC30*4200A1 PLCH30*4200A1	2.506 [63.65]

FEMALE





Typical part number:
PLC09F42BN0A1
PLCH09F42BN0A1

Plating- See ordering information for contact plating options.

For connection systems 1, 2, 3 and 5.

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

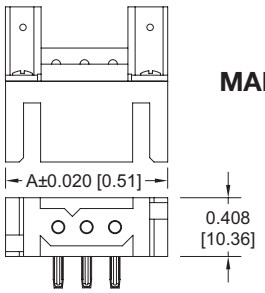
DIMENSIONS ARE IN INCHES [MILLIMETERS].
ALL DIMENSIONS ARE SUBJECT TO CHANGE.

PLA RIGHT ANGLE (90°) PRESS-IN CONNECTOR

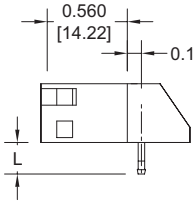
CODE 62 OR CODE 63

For connection systems 1, 2 and 5.

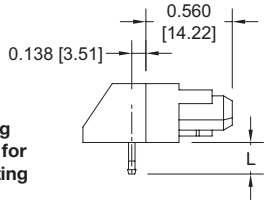
MALE



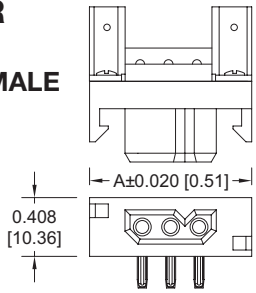
Typical part number:
PLA03M63B30A1
PLAH03M63B30A1



Plating- See ordering information for contact plating options.



FEMALE



Typical part number:
PLA03F63B30A1
PLAH03F63B30A1

PART NUMBER	A	PART NUMBER	A
PLA03**B30A1 PLAH03**B30A1	1.126 [28.60]	PLA06**B30A1 PLAH06**B30A1	1.718 [43.64]
PLA04**B30A1 PLAH04**B30A1	1.324 [33.63]	PLA08**B30A1 PLAH08**B30A1	2.112 [53.64]

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

CONTACT CODE	L	PCB THICKNESS
62	0.183 [4.65]	0.093 [2.36]
63	0.219 [5.56]	0.125 [3.18]

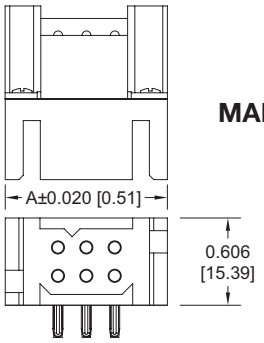
NOTE: Positronic recommends the practice of using mounting hardware to secure connector to printed circuit board. Mounting screws are ordered separately by part number. See page 59.

PLB RIGHT ANGLE (90°) PRESS-IN CONNECTOR

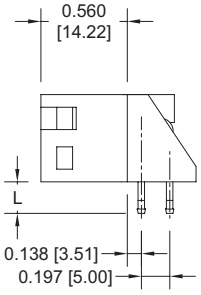
CODE 62 OR CODE 63

For connection systems 1, 2 and 5.

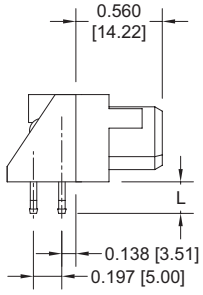
MALE



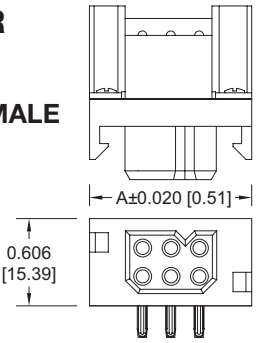
Typical part number:
PLB06M63B30A1
PLBH06M63B30A1



Plating- See ordering information for contact plating options.



FEMALE



Typical part number:
PLB06F63B30A1
PLBH06F63B30A1

PART NUMBER	A	PART NUMBER	A
PLB06**B30A1 PLBH06**B30A1	1.126 [28.60]	PLB12**B30A1 PLBH12**B30A1	1.718 [43.64]
PLB08**B30A1 PLBH08**B30A1	1.324 [33.63]	PLB16**B30A1 PLBH16**B30A1	2.112 [53.64]

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

CONTACT CODE	L	PCB THICKNESS
62	0.183 [4.65]	0.093 [2.36]
63	0.219 [5.56]	0.125 [3.18]

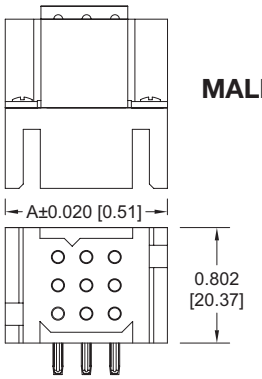
NOTE: Positronic recommends the practice of using mounting hardware to secure connector to printed circuit board. Mounting screws are ordered separately by part number. See page 59.

PLC RIGHT ANGLE (90°) PRESS-IN CONNECTOR

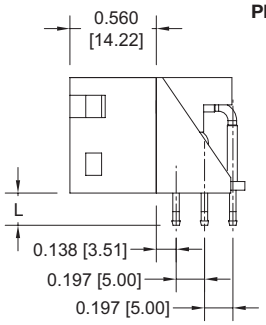
CODE 62 OR CODE 63

For connection systems 1, 2 and 5.

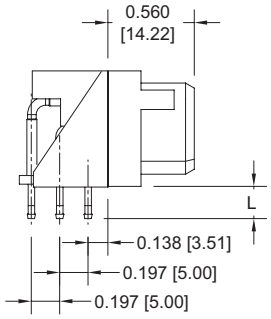
MALE



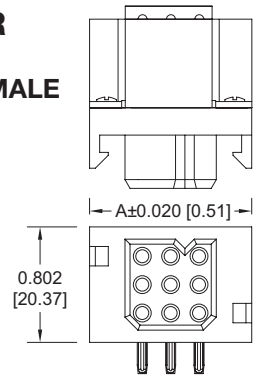
Typical part number:
PLC09M63B30A1
PLCH09M63B30A1



Plating- See ordering information for contact plating options.



FEMALE



Typical part number:
PLC09F63B30A1
PLCH09F63B30A1

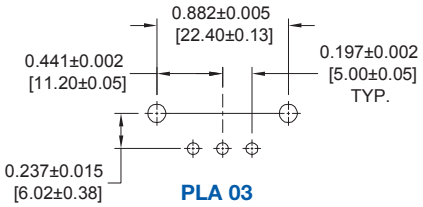
PART NUMBER	A	PART NUMBER	A
PLC09**B30A1 PLCH09**B30A1	1.126 [28.60]	PLC24**B30A1 PLCH24**B30A1	2.112 [53.64]
PLC12**B30A1 PLCH12**B30A1	1.324 [33.63]	PLC30**B30A1 PLCH30**B30A11	2.506 [63.65]
PLC18**B30A1 PLCH18**B30A1	1.718 [43.64]		

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

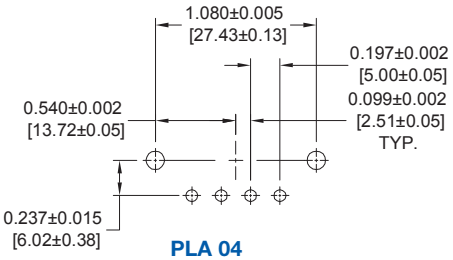
CONTACT CODE	L	PCB THICKNESS
62	0.183 [4.65]	0.093 [2.36]
63	0.219 [5.56]	0.125 [3.18]

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

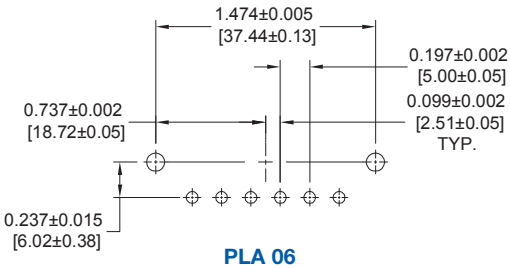
RIGHT ANGLE (90°) PRINTED BOARD CONTACT HOLE PATTERN



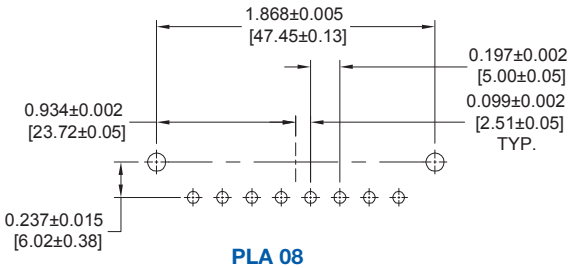
PLA 03



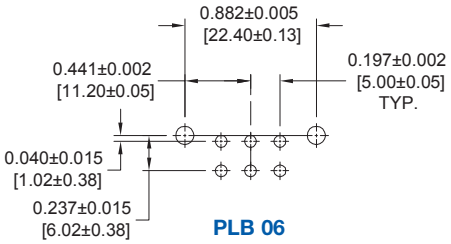
PLA 04



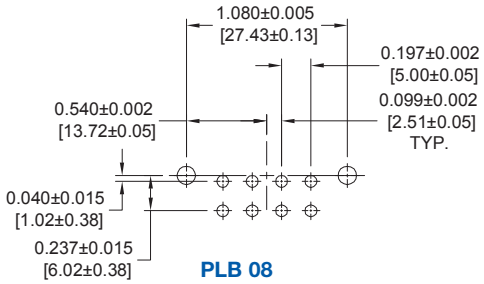
PLA 06



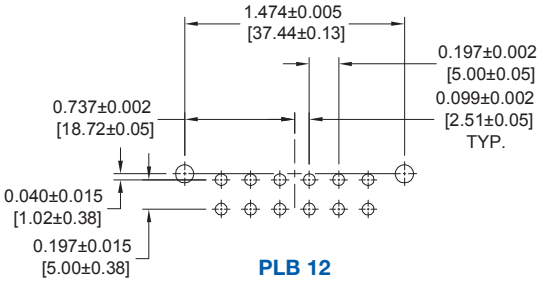
PLA 08



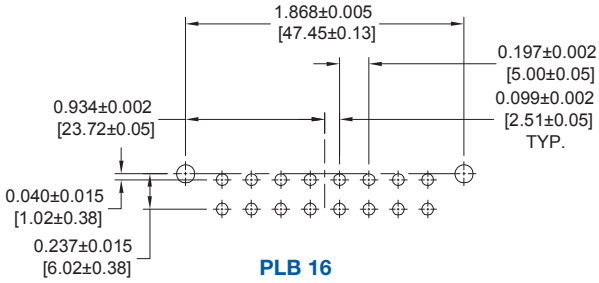
PLB 06



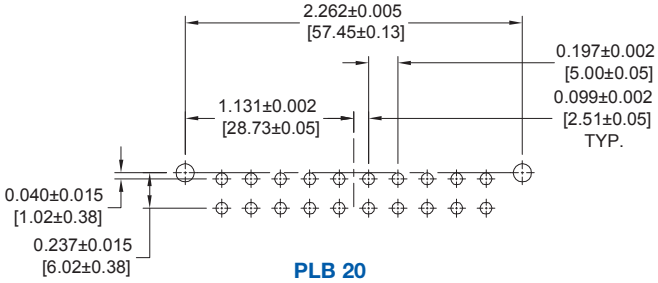
PLB 08



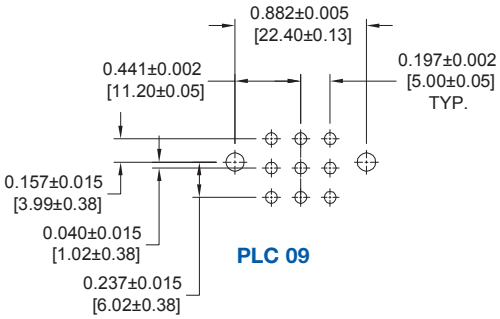
PLB 12



PLB 16



PLB 20

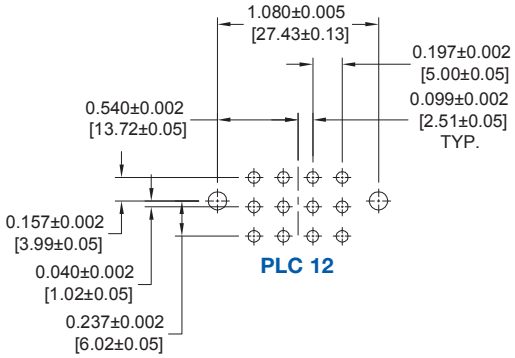


PLC 09

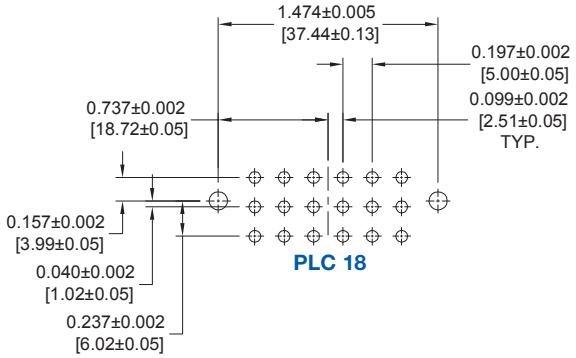
See page 20 for suggested printed board hole sizes.

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

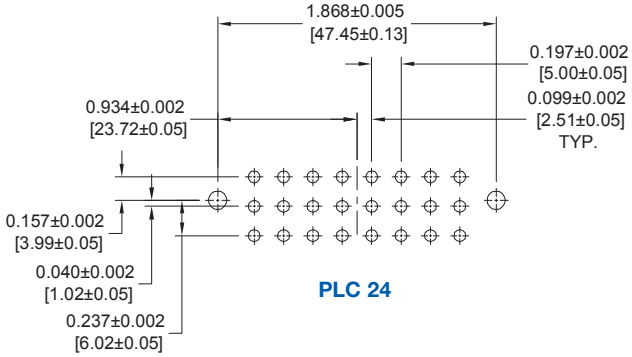
RIGHT ANGLE (90°) PRINTED BOARD CONTACT HOLE PATTERN AND PANEL MOUNT CONNECTOR WITH SOLDER CUP CONTACTS



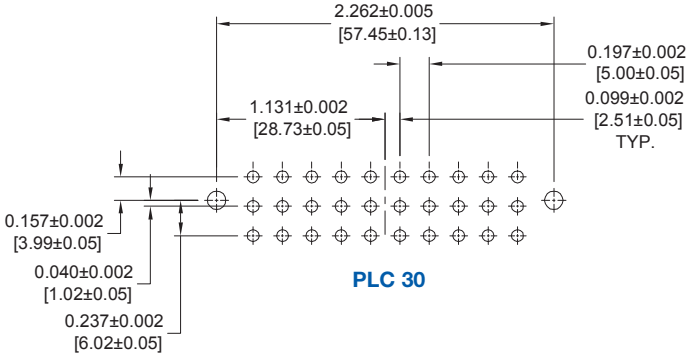
PLC 12



PLC 18



PLC 24



PLC 30

SUGGESTED PRINTED BOARD HOLE SIZES:

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

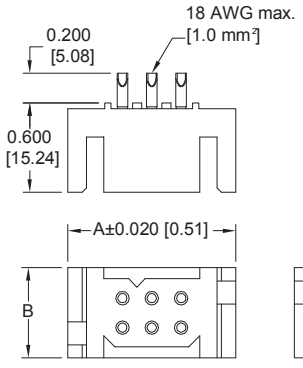
Suggest 0.123±0.003 [3.15±0.08] Ø holes in printed board when mounting connector with push-on fasteners.

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

PANEL MOUNT CONNECTORS WITH SOLDER CUP CONTACTS

CODE 2, 18 AWG [1.00mm²] MAX.

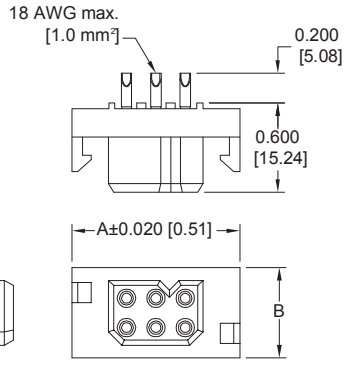
MALE



TYPICAL PART NUMBER:
PLB06M200A1

For connection system 8.

FEMALE



TYPICAL PART NUMBER:
PLB06F200A1

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

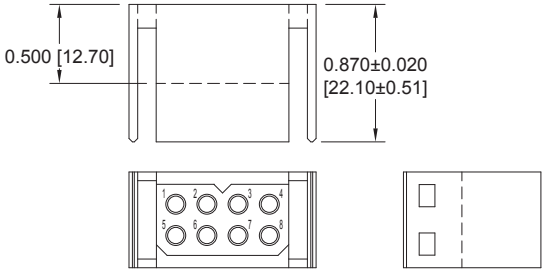
CONNECTOR VARIANTS	A	B
PLA03	1.126 [28.60]	0.408 [10.36]
PLA04	1.324 [33.63]	0.408 [10.36]
PLA06	1.718 [43.64]	0.408 [10.36]
PLA08	2.112 [53.64]	0.408 [10.36]
PLB06	1.126 [28.60]	0.606 [15.39]
PLB08	1.324 [33.63]	0.606 [15.39]
PLB12	1.718 [43.64]	0.606 [15.39]
PLB16	2.112 [53.64]	0.606 [15.39]
PLB20	2.506 [63.65]	0.606 [15.39]
PLC09	1.126 [28.60]	0.802 [30.37]
PLC12	1.324 [33.63]	0.802 [30.37]
PLC18	1.718 [43.64]	0.802 [30.37]
PLC24	2.112 [53.64]	0.802 [30.37]
PLC30	2.506 [63.65]	0.802 [30.37]

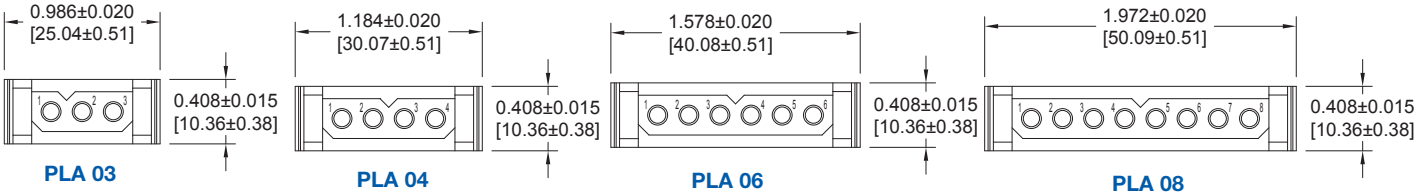
DIMENSIONS ARE IN INCHES [MILLIMETERS]. ALL DIMENSIONS ARE SUBJECT TO CHANGE.

MALE INSULATOR DIMENSIONS FOR CABLE CONNECTORS WITH SIZE 16 REMOVABLE CONTACTS

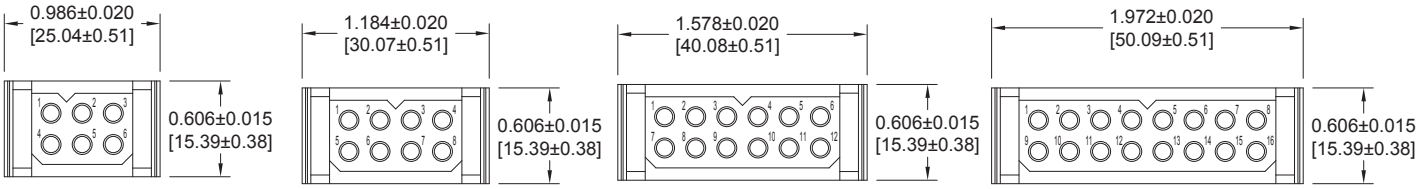
CODE 0 OR CODE 7

CONTACTS ARE NOT SUPPLIED WITH CONNECTOR AND MUST BE ORDERED SEPARATELY

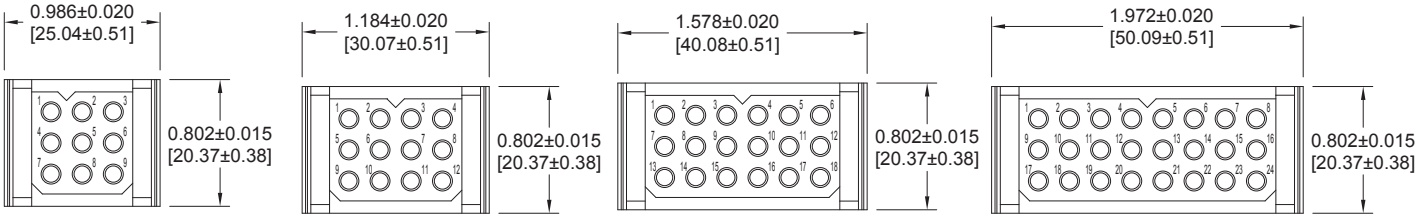




PLA 03 PLA 04 PLA 06 PLA 08

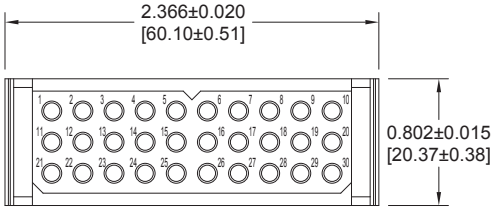


PLB 06 PLB 08 PLB 12 PLB 16



PLC 09 PLC 12 PLC 18 PLC 24

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

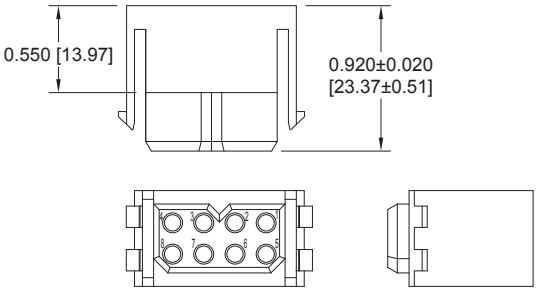


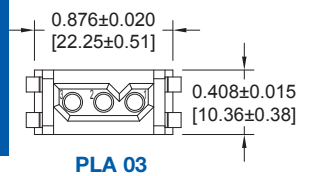
PLC 30

FEMALE INSULATOR DIMENSIONS FOR CABLE CONNECTORS WITH SIZE 16 REMOVABLE CONTACTS

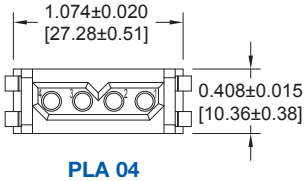
CODE 0 OR CODE 7

CONTACTS ARE NOT SUPPLIED WITH CONNECTOR AND MUST BE ORDERED SEPARATELY

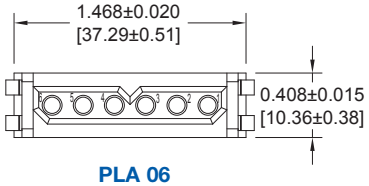




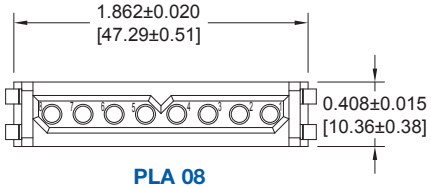
PLA 03



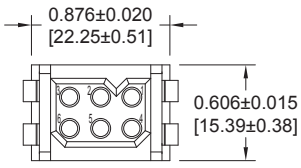
PLA 04



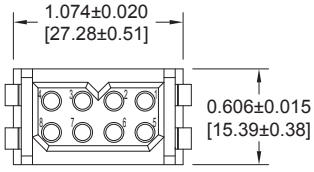
PLA 06



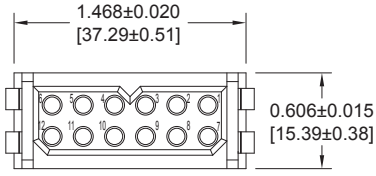
PLA 08



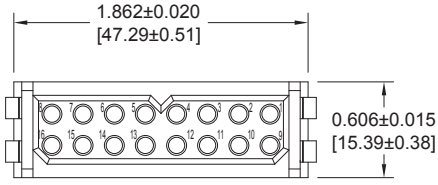
PLB 06



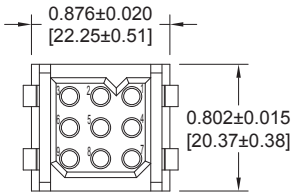
PLB 08



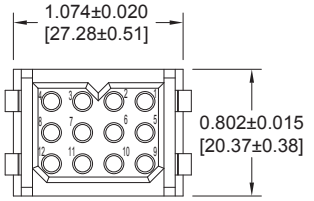
PLB 12



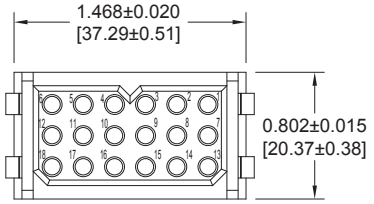
PLB 16



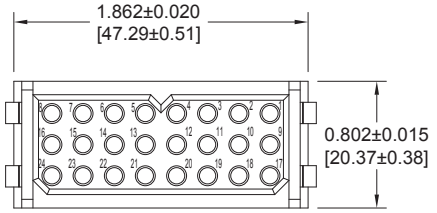
PLC 09



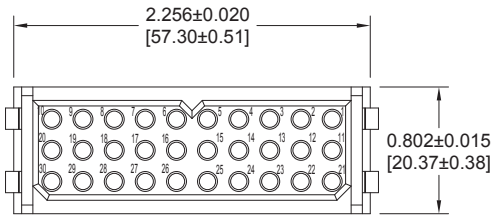
PLC 12



PLC 18



PLC 24



PLC 30

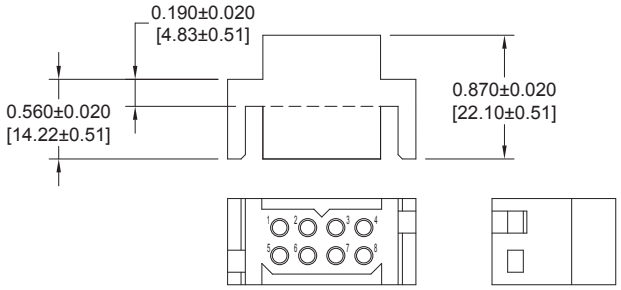
For information regarding size 16 removable contacts, see Removable Contact section, pages 47-53.

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

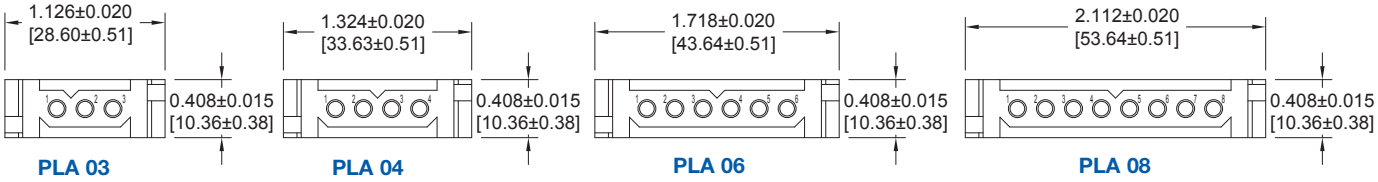
MALE INSULATOR DIMENSIONS FOR PANEL MOUNT CONNECTORS WITH SIZE 16 REMOVABLE CONTACTS

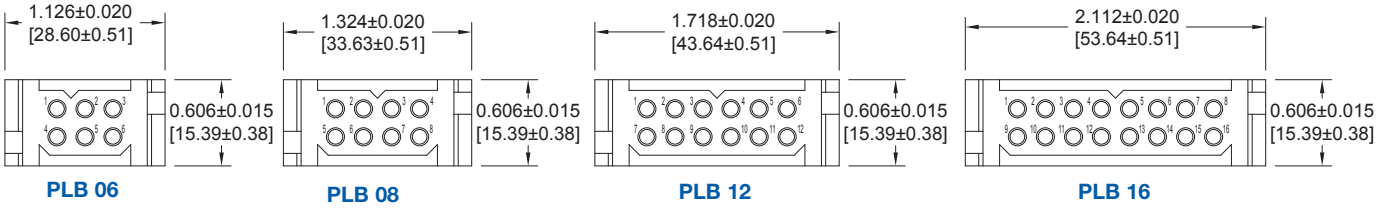
CODE 1 OR CODE 8

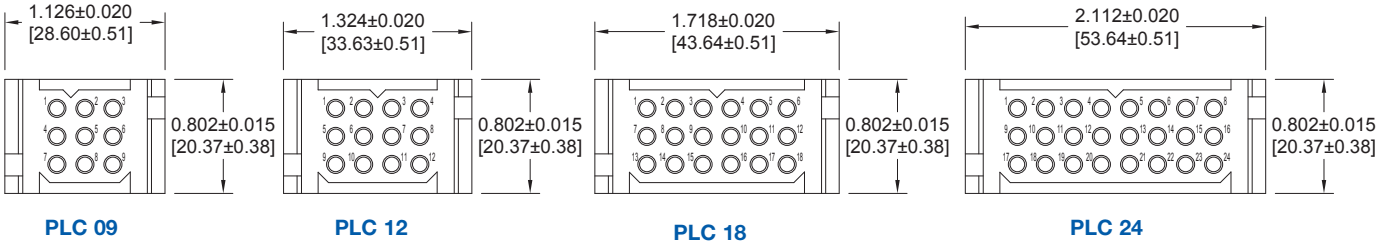
CONTACTS ARE NOT SUPPLIED WITH CONNECTOR AND MUST BE ORDERED SEPARATELY

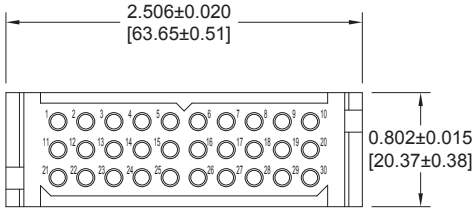


NOTE: MOUNTING SCREWS CAN BE SUPPLIED WITH CONNECTORS USING STEP 5 IN ORDERING INFORMATION ON PAGE 26. MOUNTING SCREWS CAN ALSO BE ORDERED SEPARATELY BY PART NUMBER. SEE PAGE 59.









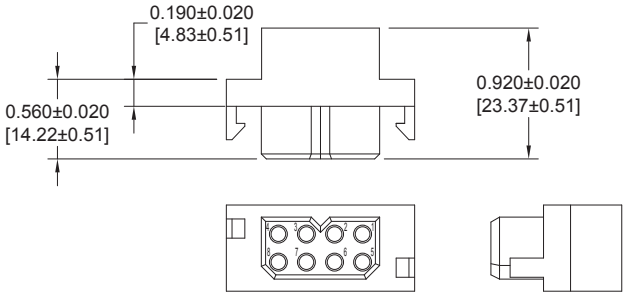
For information regarding panel cutouts, see page 63.

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

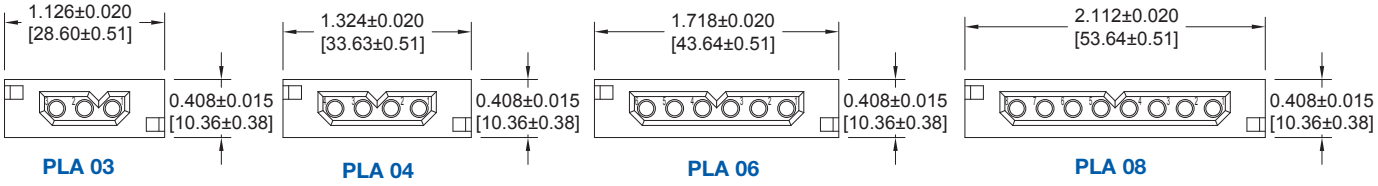
FEMALE INSULATOR DIMENSIONS FOR PANEL MOUNT CONNECTORS WITH SIZE 16 REMOVABLE CONTACTS

CODE 1 OR CODE 8

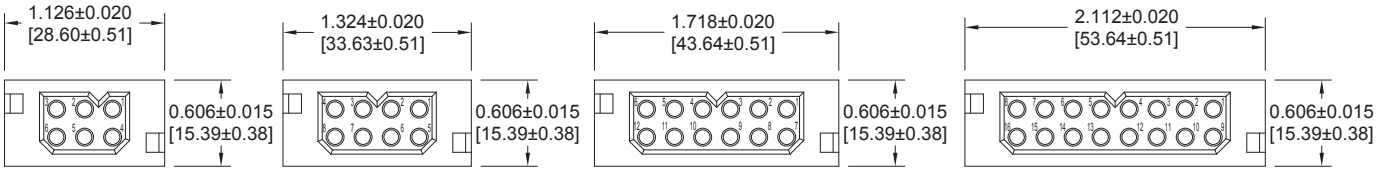
CONTACTS ARE NOT SUPPLIED WITH CONNECTOR AND MUST BE ORDERED SEPARATELY



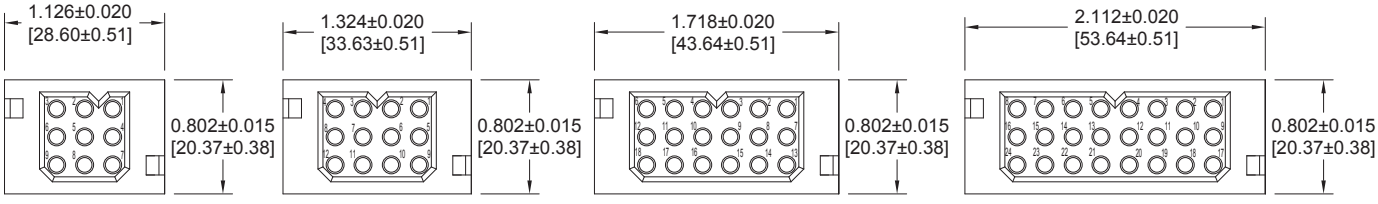
NOTE: MOUNTING SCREWS CAN BE SUPPLIED WITH CONNECTORS USING STEP 5 IN ORDERING INFORMATION ON PAGE 26. MOUNTING SCREWS CAN ALSO BE ORDERED SEPARATELY BY PART NUMBER. SEE PAGE 59.



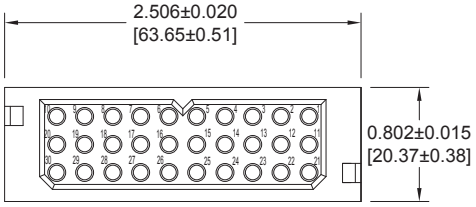
PLA 03 PLA 04 PLA 06 PLA 08



PLB 06 PLB 08 PLB 12 PLB 16



PLC 09 PLC 12 PLC 18 PLC 24



PLC 30

For information regarding panel cutouts, see page 63.

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

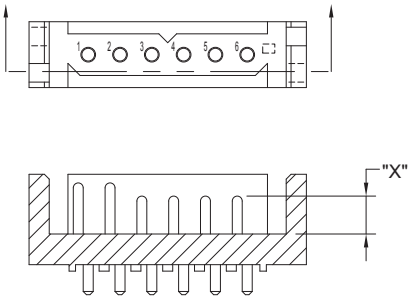
DIMENSIONS ARE IN INCHES [MILLIMETERS].
ALL DIMENSIONS ARE SUBJECT TO CHANGE.

SEQUENTIAL MATING SYSTEM

*REMOVABLE CONTACTS FOR CABLE CONNECTORS MUST BE ORDERED SEPARATELY

FOR CONTACT SELECTION, SEE SIZE 16 CONTACTS ON PAGE 49

EXAMPLE 1

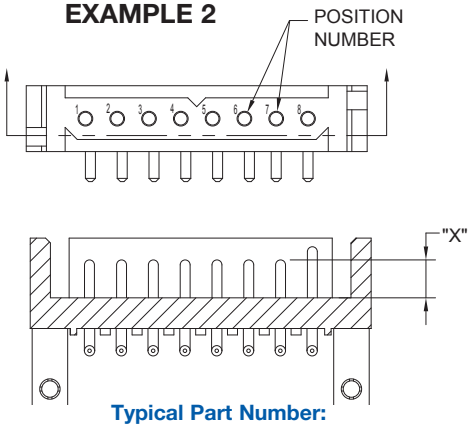


Typical Part Number:
PLA06M300A1-E1B2B

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

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

EXAMPLE 2



Typical Part Number:
PLA08M4B0C1-D8B

SEQUENTIAL MATING SYSTEM
CRIMP REMOVABLE CONTACT PART NUMBERS

WIRE SIZE AWG/[mm²]	LENGTH CODE "A"	LENGTH CODE "C"	LENGTH CODE "D"	LENGTH CODE "E"
12 - 14 [4.0 - 2.5]	MC112N-133.3	MC112N-133.2	MC112N-133.1	MC112N-133.0
16 - 18 - 20 [1.5 - 1.0 - 0.5]	MC116N-133.3	MC116N-133.2	MC116N-133.1	MC116N-133.0

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

SELECTION GUIDE FOR ORDERING DIFFERENT CONTACT LENGTHS
STEP 9 OF ORDERING INFORMATION

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

STEP	1	2	3	4	5	6	7	8	9
EXAMPLE	E	1	B	2	B	3	D	4	D

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

STEP 2
Position number for first special length contact.

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

STEP 4
Position number for second special length contact.

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

STEP 6
Position number for third special length contact.

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

STEP 8
Position number for fourth special length contact.

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

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	PLB	06	F	3	0	0	A1	/AA	—	

STEP 1 - BASIC SERIES

PLA - 1 Row
PLAH - 1 Row High conductivity contacts
PLB - 2 Row
PLBH - 2 Row High conductivity contacts
PLC - 3 Row
PLCH - 3 Row High conductivity contacts

STEP 2 - CONNECTOR VARIANTS

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

STEP 3 - CONNECTOR GENDER

M - Male
F - Female

STEP 4 - CONTACT TERMINATION TYPE

*[1]0 - Order contacts separately for cable connectors for connection systems 5, 6, 7, 8 and 9, see pages 47-53.
*[1]1 - Removable contact, panel mounted connector for connection system 8. Order contacts separately, see pages 47-53.
2 - Solder cup, 18 AWG [1.0mm²] max. for panel mount connector, for connection system 8. Not available as PL*H.
3 - Solder, Straight Printed Board Mount with 0.146 [3.71] tail extension for connection systems 1, 4 and 6.
32 - Solder, Straight Printed Board Mount with 0.377 [9.58] tail extension for connection system 3 and systems 1, 4 and 6.
4 - Solder, Right Angle (90°) Printed Board Mount with 0.146 [3.71] tail extension for connection systems 1, 2 and 5.
42 - Solder, Right Angle (90°) Printed Board Mount with 0.377 [9.58] tail extension for connection system 3 and systems 1,2 and 5.
62 - Press-in, compliant termination Right Angle (90°) Printed Board Mount, termination length 0.183 [4.65]. Must select "B3" in step 5.
63 - Press-in, compliant termination Right angle (90°) Printed Board Mount, termination length 0.219 [5.56]. Must select "B3" in step 5.
*[1]7 - Order contacts separately for cable connectors for connection systems 5, 6, 7, 8 and 9, see pages 47-53. Terminating side of insulator has 0.165 [4.19] ø c'bore for large wire sizes.
*[1]8 - Removable contact, panel mounted connector for connection system 8. Order contacts separately, see pages 47-53. Terminating side of insulator has 0.165 [4.19] ø c'bore for large wire sizes.
92 - Straight printed board mount, press-in, length 0.183 [4.65] for 0.093 inch [2.36] thick board.
93 - Straight printed board mount, press-in, length 0.218 [5.54] for 0.125 inch [3.18] thick board.

STEP 5 - MOUNTING STYLE

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

STEP 6 - HOODS AND PANEL MOUNT

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

STEP 7 - CONTACT PLATING FOR PRINTED BOARD CONNECTORS

0 - Crimp Contacts ordered separately, see pages 47-53.
A1 - Gold flash over nickel on mating end and termination end.
A2 - Gold flash over nickel on mating end and 0.00020 inch [5.00µ] tin-lead solder coat on termination end. Not available with code 62, 63, 92 or 93 in step 4.
C1 - 0.000030 inch [0.76µ] gold over nickel on mating end and termination end.
C2 - 0.000030 inch [0.76µ] gold over nickel on mating end and 0.00020 inch [5.00µ] tin-lead solder coated termination end. Not available with code 62, 63, 92 or 93 in step 4.
D1 - 0.000050 inch [1.27µ] gold over nickel on mating end and termination end.
D2 - 0.000050 inch [1.27µ] gold over nickel on mating end and 0.00020 inch [5.00µ] tin-lead solder coated termination end. Not available with code 62, 63, 92 or 93 in step 4.

STEP 8 - ENVIRONMENTAL COMPLIANCE OPTIONS

/AA - RoHS Compliant

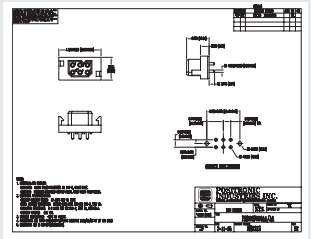
NOTE: If compliance to environmental legislation is not required, this step will not be used.
Example: PLB06F300A1

STEP 9 - SPECIAL OPTIONS

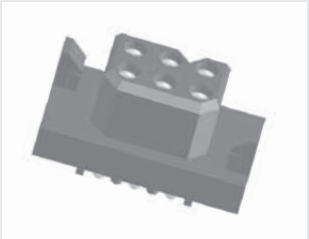
Sequential Mating Systems
refer to page 25.

CONTACT TECHNICAL SALES FOR SPECIAL OPTIONS

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



2-D Drawing



3-D Model

***[1] For high conductivity removable contact connectors, order PLA, PLB, or PLC connectors (in Step 1) and *C112N(2)S contacts found on pages 49-51.**
***[2] PLB20 variant available with code 2, 3, 32, 4, 42, 92, and 93 only in Step 4.**
***[3] Mounting screws are available with code 1, 2, 3, 32, 8, 92 and 93. To order mounting screws separately, see page 59 for part numbers.**

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