

A.C. / D.C. INPUT CONNECTOR

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

TECHNICAL CHARACTERISTICS

MATERIALS AND FINISHES:

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

ELECTRICAL CHARACTERISTICS:

CONTACT CURRENT RATING:

Standard Contact Material:	40 amperes. See page 33 for details.
High Conductivity Contact Material:	55 amperes. See page 33 for details.

INITIAL CONTACT RESISTANCE:

Standard Contact Material:	0.001 ohms max. per IEC 512-2, Test 2b.
High Conductivity Contact Material:	0.00037 ohms max. per IEC 512-2, Test 2b.
Insulation Resistance:	5 G ohms per IEC 512-2, test 3a.
Voltage Proof:	3,750 V r.m.s. per IEC 512-2, test 4a, method A.
Clearance and Creepage Distance:	0.125 [3.18] minimum
Working Voltage:	1,250 V. r.m.s.
Hot Pluggable [50 couplings per UL 1977 paragraph 15]:	Contact technical sales
Working Temperature:	-55°C to +125°C Contact technical sales for availability of high temperature insulator material.

MECHANICAL CHARACTERISTICS:

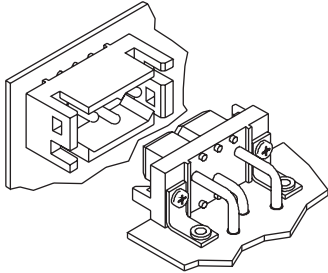
Removable Contacts:	Rear insertion/ front release. Female contact features "Closed Entry" design for highest reliability. 0.094 [2.39]
Removable Contact Retention in Insulator:	20 lbs. [89N] per IEC 512-8, test 15a.
Fixed Contacts:	Printed board terminations, both straight and right angle (90°). Female contact features "Closed Entry" design for highest reliability. 0.094 [2.39] diameter male contact.
Fixed Contact Retention in Insulator:	10 lbs. [44N], minimum.
Resistance to Soldering Iron Heat:	260°C [500°F] for 10 seconds duration per IEC 512-6, test 12e, 25 watt soldering iron.
Contact Terminations:	Crimp removable contacts and solder cup removable contacts for wire size 12 AWG [4.0 mm ²]. Straight and right angle (90°) solder printed board mount, 0.090 [2.29] tail diameter. Compliant termination press-fit.
Connection Systems:	Cable to cable, cable to printed board, cable to panel mount, and printed board to printed board.
Sequential Mating Systems:	Male contacts can provide two mating lengths.
Locking System:	Insulators provide locking between cable to cable, cable to printed board, and cable to panel mount applications.
Polarization:	Provided in insulator design.
Mounting to P.C. Board:	Rapid installation push-on fasteners.
Mechanical Operations:	500 operations



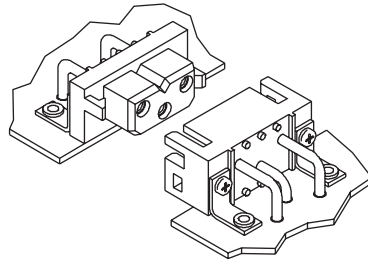


CONNECTION SYSTEMS

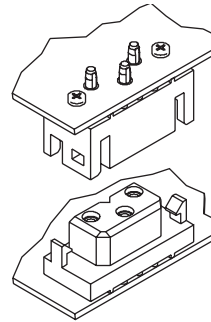
System 1
Mother Board -
Daughter Board



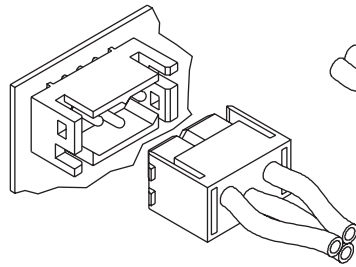
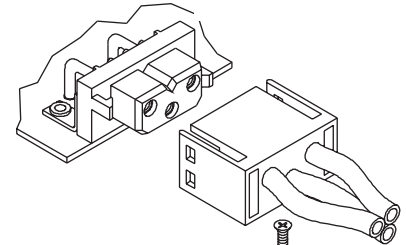
System 2
Side to Side
Board Mounting



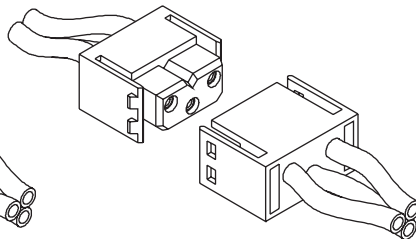
System 4
Sandwich Board
Mounting



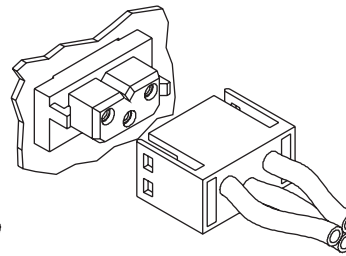
System 5
Cable to Right
Angle (90°)
Board Mount



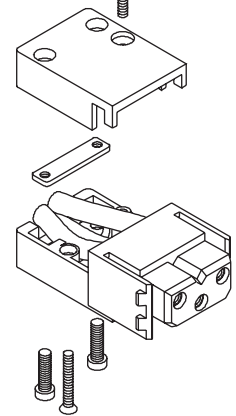
System 6
Cable to Straight
Board Mount



System 7
Cable to Cable



System 8
Panel Mounting
to Cable

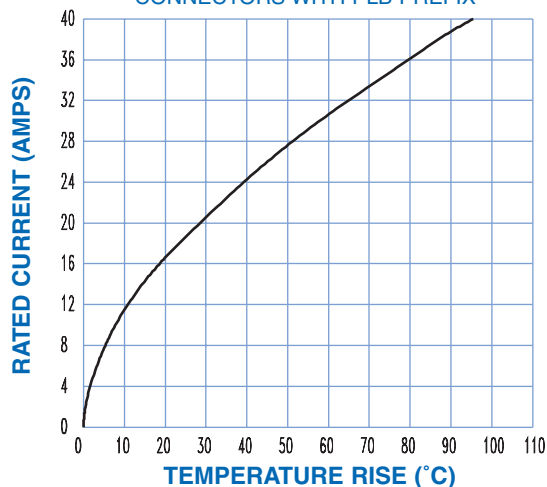


System 9
Cable Connector with
Cable Adapter

TEMPERATURE RISE CURVE

STANDARD CONTACT MATERIALS

CONNECTORS WITH PLB PREFIX



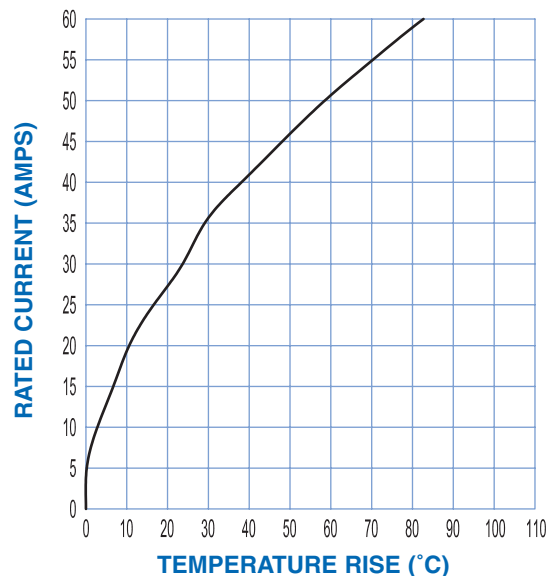
Test conducted per IEC Publication 512-3, Test 5a.
All power contacts under load.

Standard Density: Curve developed using PLB3W3M4BN0A1 and PLB3W3F300A1 mated connector terminated to 12 AWG wire.

High Conductivity: Curve developed using PLBH3W3M9300A1 and PLBH3W3F9300A1 mated connector terminated to 12 AWG wire

HIGH CONDUCTIVITY CONTACT MATERIALS

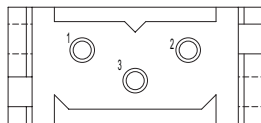
CONNECTORS WITH PLBH PREFIX OR "S" SUFFIX ON CRIMP CONTACTS



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



CONNECTOR VARIANT FACE VIEW OF MALE CONNECTOR

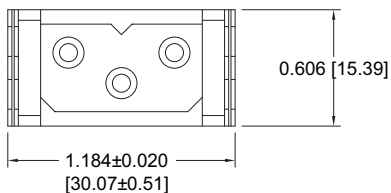


PLB3W3

CABLE CONNECTOR FOR USE WITH SIZE 12 REMOVABLE CONTACTS CODE 0

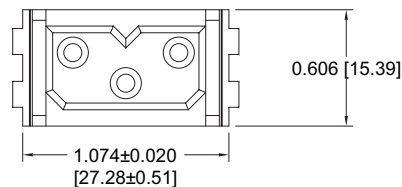
CONTACTS ARE NOT SUPPLIED WITH CONNECTOR AND MUST BE ORDERED SEPARATELY

MALE

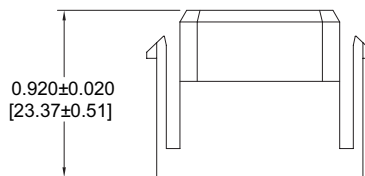
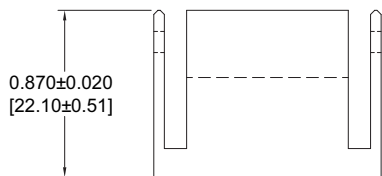


Part Number: PLB3W3M0000

FEMALE



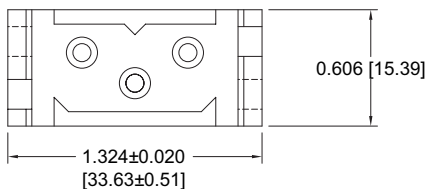
Part Number: PLB3W3F0000



PANEL MOUNT CONNECTOR FOR USE WITH SIZE 12 REMOVABLE CONTACTS CODE 1

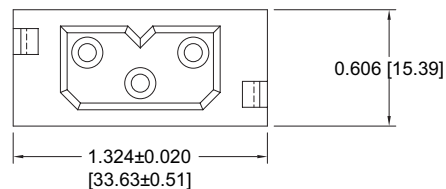
CONTACTS ARE NOT SUPPLIED WITH CONNECTOR AND MUST BE ORDERED SEPARATELY

MALE

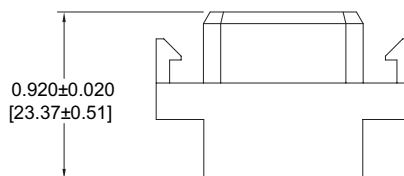
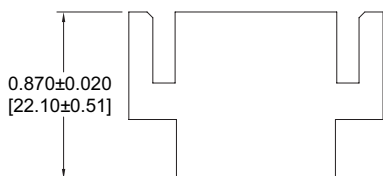


Part Number: PLB3W3M1000

FEMALE

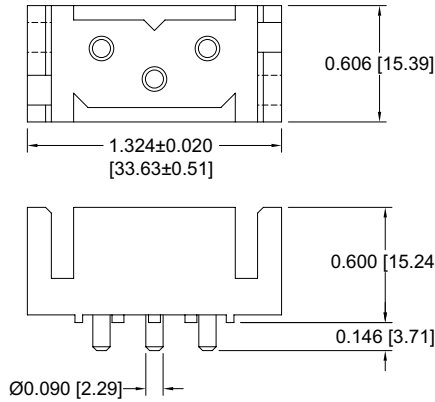


Part Number: PLB3W3F1000

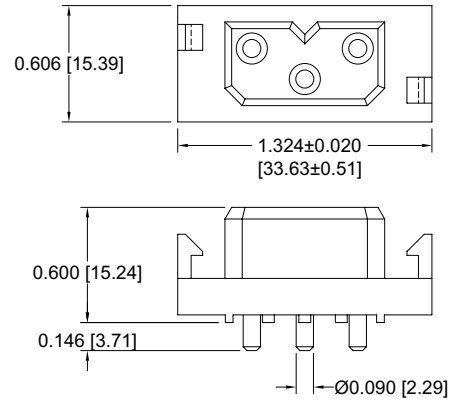


For information regarding size 12 removable contacts, see Removable Contact section, pages 47-53.

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

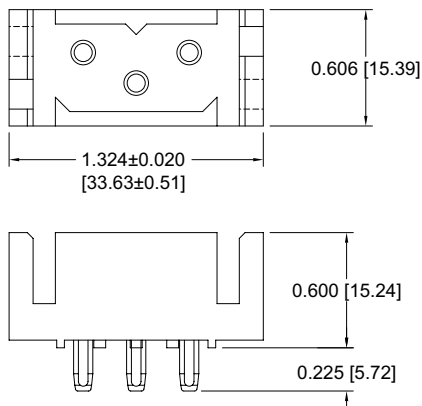


Part Number: PLB3W3M300A1



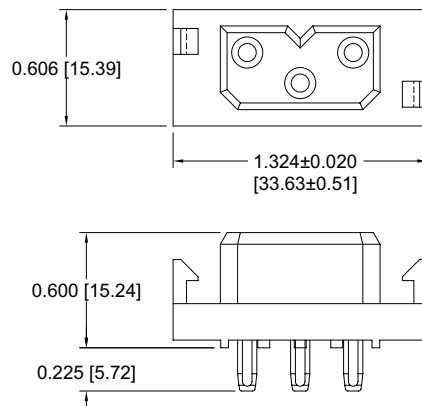
Part Number: PLB3W3F300A1

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



Part Number: PLB3W3M93ST30A1

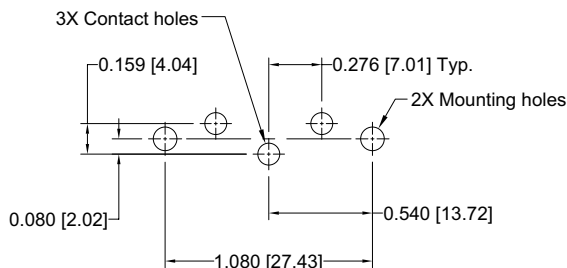
See page 57
for Installation
Tooling.



Part Number: PLB3W3F93ST30A1

CONTACT HOLE PATTERN

FOR STRAIGHT PRINTED BOARD MOUNT AND COMPLIANT PRESS-FIT CONNECTORS



SUGGESTED PRINTED BOARD HOLE SIZES:

Suggest Ø 0.114 [2.90] finished holes in printed board for straight solder printed board mount contacts.

Suggest Ø 0.123±0.003 [3.15±0.08] holes in printed board for mounting connector with push-on fasteners or 0.100 [2.54] for mounting connector with #2 screws.

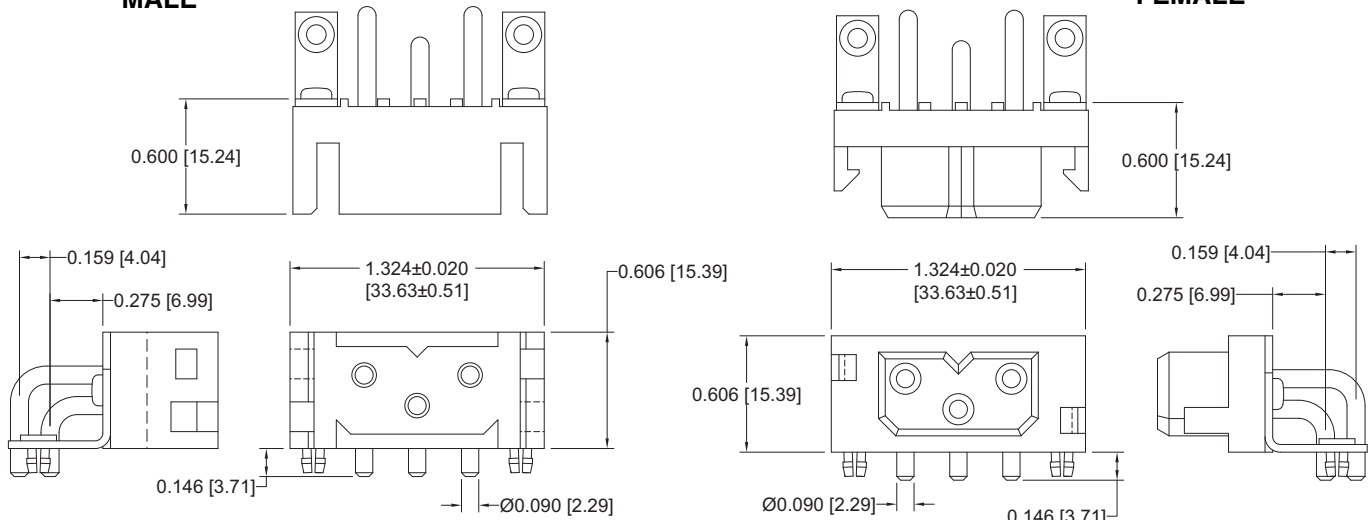
NOTE: See page 61 for suggested printed board drill hole sizes, recommended plating and finished hole sizes for compliant contact termination positions.



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

MALE

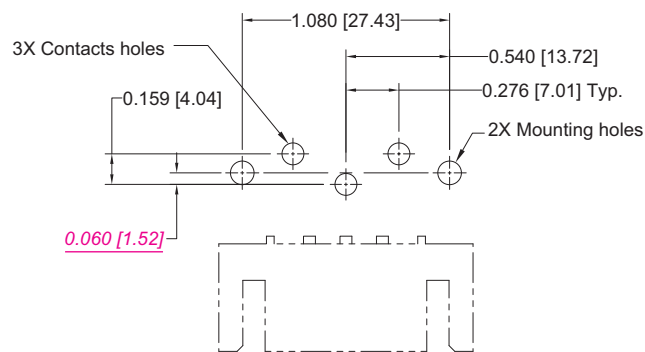
FEMALE



Part Number:
PLB3W3M4BN0A1

Part Number:
PLB3W3F4BN0A1

CONTACT HOLE PATTERN RIGHT ANGLE (90°) ANGLE PRINTED BOARD MOUNT CONNECTORS



SUGGESTED PRINTED BOARD HOLE SIZES:

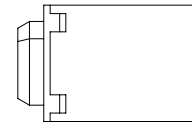
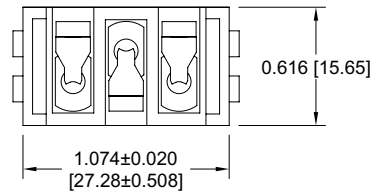
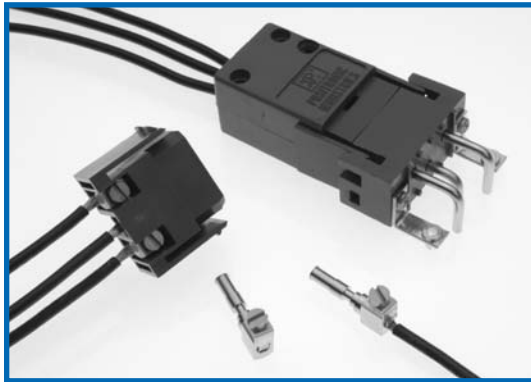
Suggest Ø 0.114 [2.90] finished holes in printed board for right angle (90°) solder printed board mount contacts.

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

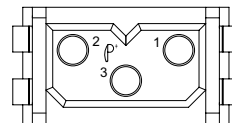
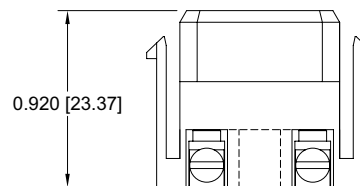
SCREW TERMINATION CONNECTOR

SCREW TERMINATIONS ALLOWS FOR CONVENIENT FIELD INSTALLATION WHEN REQUIRED
CODE 71

CONTACTS MAY BE SUPPLIED WITH CONNECTOR OR ORDERED SEPARATELY

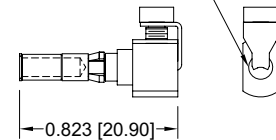


Typical Part Number:
PLB3W3F7100A1
supplied with 3 contacts



REPLACEMENT CONTACT

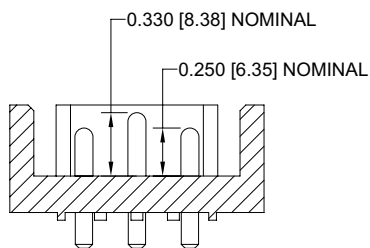
For use with wire
size 12 awg [4.0mm²]
or smaller



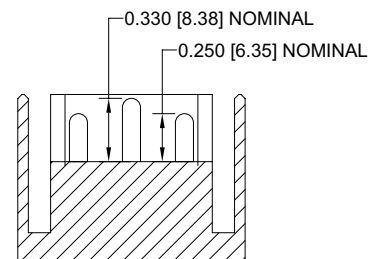
Typical Part Number:
FST612N2

SEQUENTIAL MATING CONTACTS

BOARD MOUNT CONNECTORS



CRIMP AND PANEL MOUNT CONNECTORS



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

Contact technical sales for additional sequencing options.

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

