

## Safety Shrouded Connector to Prevent Unsafe Exposure to High Energy Circuits

- \* Size 12 Power Contacts
- \* Large Surface Area Mating System
- \* Discriminating Locking System
- \* Contact Current Rating to 40 Amperes
- \* Board - Cable / Cable - Cable



## TECHNICAL CHARACTERISTICS

### MATERIALS AND FINISHES:

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

### ELECTRICAL CHARACTERISTICS:

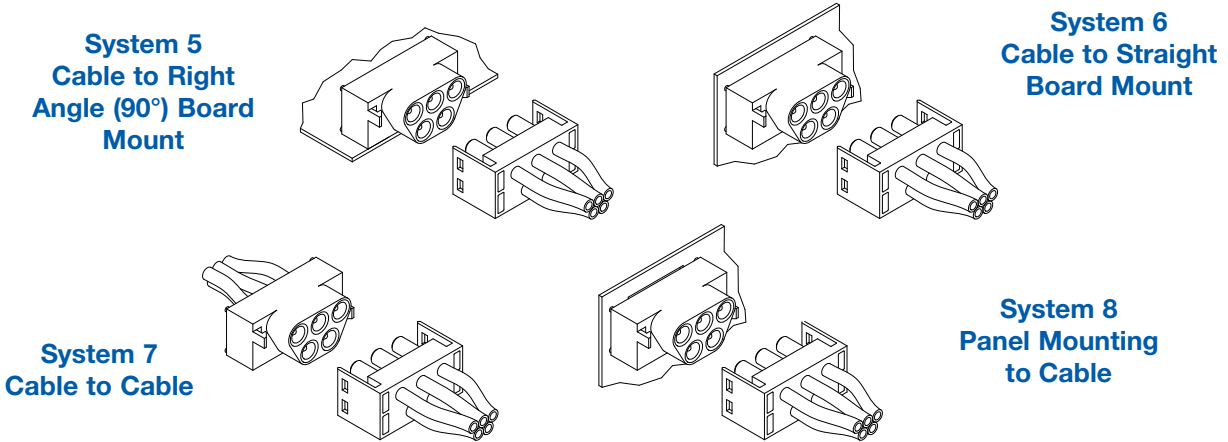
<b>Contact Current Rating:</b>	40 amperes continuous, derated per IEC 60512-3, test 5b. Higher currents available with high conductivity contacts, contact Technical Sales
<b>Initial Contact Resistance:</b>	0.001 ohms max. per IEC 60512-2, test 2b.
<b>Insulation Resistance:</b>	5 G ohms per IEC 60512-2, test 3a.
<b>Voltage Proof:</b>	3,000 minimum V r.m.s. per IEC 60512-2, test 4a, method A.
<b>Clearance and Creepage Distance:</b>	0.220 [5.60] minimum
<b>Working Voltage:</b>	600 minimum V. r.m.s.
<b>Hot Pluggable [50 couplings per UL 1977 paragraph 15]:</b>	250 VAC at 20 amperes
<b>Working Temperature:</b>	-55°C to +125°C Contact technical sales for availability of high temperature insulator material.

### MECHANICAL CHARACTERISTICS:

<b>Removable Contacts:</b>	Rear insertion/ front release. Female contact features "Closed Entry" design for highest reliability. 0.094 [2.39] diameter male contact.
<b>Removable Contact Retention in Insulator:</b>	15 lbs. [67N] per IEC 60512-8, test 15a.
<b>Fixed Contacts:</b>	Printed board terminations, both straight and 90°. Female contact features "Closed Entry" design for highest reliability. 0.094 [2.39] diameter male contact.
<b>Fixed Contact Retention in Insulator:</b>	15 lbs. [67N], minimum.
<b>Resistance to Soldering Iron Heat:</b>	500°F [260°C] for 10 seconds duration per IEC 60512-6, test 12e, 25 watt soldering iron.
<b>Contact Terminations:</b>	Crimp removable contacts for wire size 12 AWG [4.0 mm <sup>2</sup> ]. Straight and right angle (90°) solder printed board mount, 0.090 [2.29] tail diameter.
<b>Connection Systems:</b>	Cable to cable, cable to printed board and cable to panel mount.
<b>Locking System:</b>	Insulators provide locking between cable to cable, cable to printed board and cable to panel mount applications.
<b>Polarization:</b>	Provided in insulator design.
<b>Mounting to P.C. Board:</b>	Rapid installation push-on fasteners.
<b>Mechanical Operations:</b>	500 operations

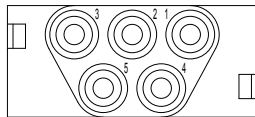


### CONNECTION SYSTEMS

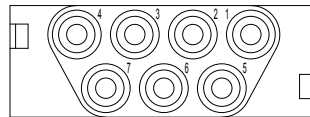


### CONNECTOR VARIANTS

FACE VIEW OF MALE OR REAR VIEW OF FEMALE CONNECTOR



PLS5W5

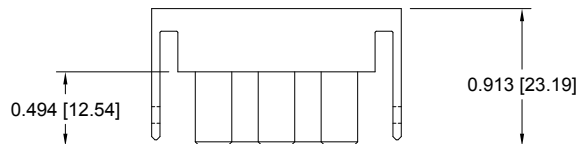


PLS7W7

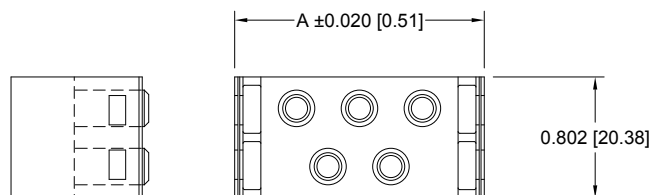
### FEMALE CABLE CONNECTOR FOR CABLE CONNECTORS WITH SIZE 12 REMOVABLE CONTACTS CODE 0

CONTACTS ARE NOT SUPPLIED WITH CONNECTOR AND MUST BE ORDERED SEPARATELY

PART NUMBER	A
PLS5W5F0000	1.655 [42.04]
PLS7W7F0000	2.072 [52.64]



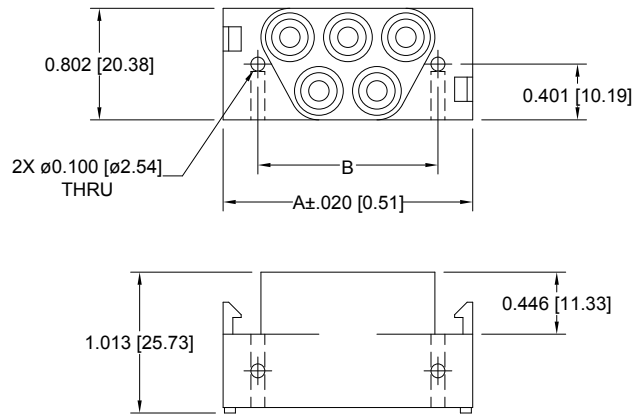
Typical part number:  
PLS5W5F00000



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

**MALE PANEL MOUNT CONNECTOR  
FOR PANEL MOUNT CONNECTORS WITH SIZE 12 REMOVABLE CONTACTS  
CODE 1**

CONTACTS ARE NOT SUPPLIED WITH CONNECTOR AND MUST BE ORDERED SEPARATELY



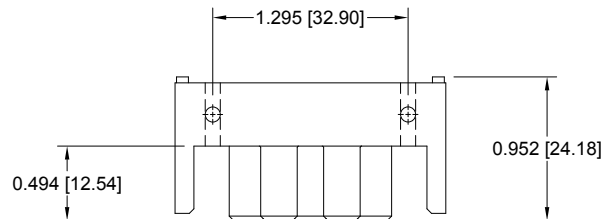
Typical part number:  
PLS5W5M10000

PART NUMBER	A	B
PLS5W5M10000	1.795 [45.60]	1.295 [32.90]
PLS7W7M10000	2.213 [56.20]	1.713 [43.50]

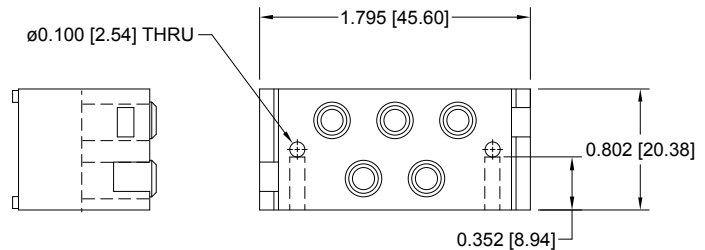
**FEMALE PANEL MOUNT CONNECTOR  
FOR PANEL MOUNT CONNECTORS WITH SIZE 12 REMOVABLE CONTACTS  
CODE 1**

CONTACTS ARE NOT SUPPLIED WITH CONNECTOR AND MUST BE ORDERED SEPARATELY

Typical part number:  
PLS5W5F10000



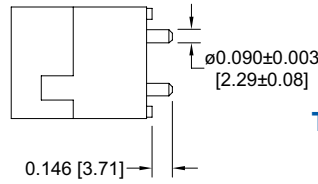
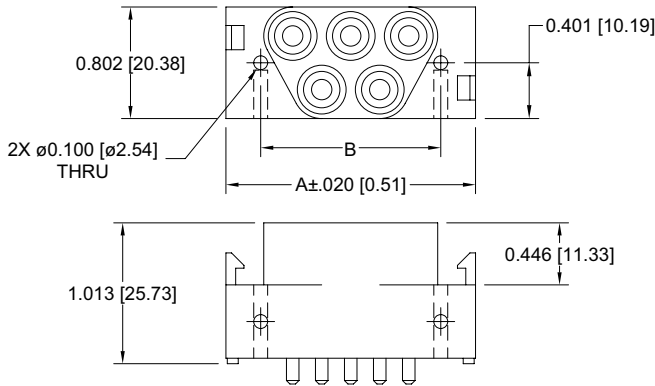
\*CONTACT TECHNICAL SALES  
FOR AVAILABILITY OF 7W7 VARIANT.



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



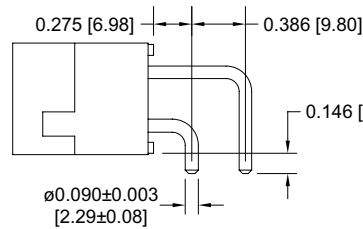
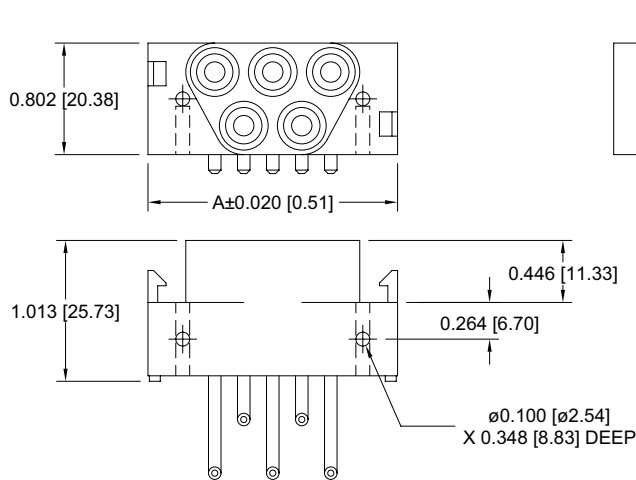
### MALE STRAIGHT PRINTED BOARD MOUNT CONNECTOR CODE 3, 0.146 [3.71] CONTACT EXTENSION



Typical part number:  
**PLS5W5M300A1**

PART NUMBER	A	B
PLS5W5M300A1	1.795 [45.60]	1.295 [32.90]
PLS7W7M300A1	2.213 [56.20]	1.713 [43.50]

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

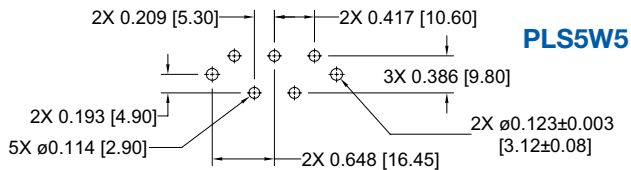


Typical part number:  
**PLS5W5M400A1**

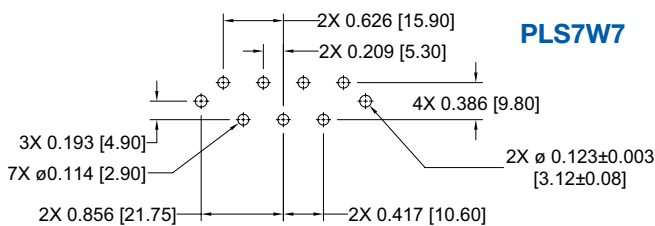
PART NUMBER	A	B
PLS5W5M400A1	1.795 [45.60]	1.295 [32.90]
PLS7W7M400A1	2.213 [56.20]	1.713 [43.50]

### PRINTED BOARD CONTACT HOLE PATTERNS

#### STRAIGHT SOLDER

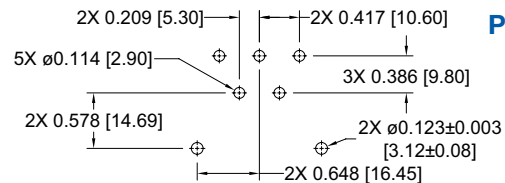


**PLS5W5**

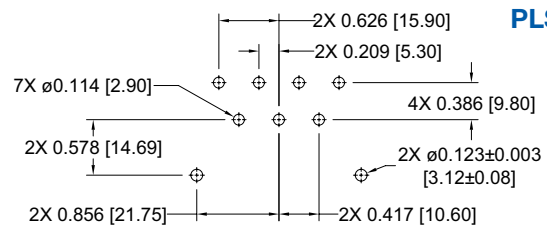


**PLS7W7**

#### RIGHT ANGLE (90°)



**PLS5W5**



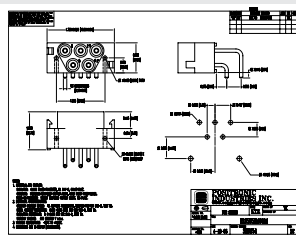
**PLS7W7**

## 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	PLS	5W5	M	4	0	0	A1	/AA	—
<b>STEP 1 - BASIC SERIES</b> PLS - PLS Series PLSH - High conductivity contacts									<b>STEP 9 - SPECIAL OPTIONS</b> CONTACT TECHNICAL SALES FOR SPECIAL OPTIONS
<b>STEP 2 - CONNECTOR VARIANTS</b> 5W5 - Five size 12 contacts 7W7 - Seven size 12 contacts									<b>STEP 8 - ENVIRONMENTAL COMPLIANCE OPTIONS</b> /AA - RoHS Compliant  <b>NOTE:</b> If compliance to environmental legislation is not required, this step will not be used. Example: PLS5W5M400A1
<b>STEP 3 - CONNECTOR GENDER</b> M - Male F - Female									<b>STEP 7 - CONTACT PLATING FOR PRINTED BOARD CONNECTORS</b> 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. C1 - 0.00030 inch [0.76µ] gold over nickel on mating end and termination end. C2 - 0.00030 inch [0.76µ] gold over nickel on mating end and 0.00020 inch [5.00µ] tin-lead solder coated termination end. D1 - 0.00050 inch [1.27µ] gold over nickel on mating end and termination end. D2 - 0.00050 inch [1.27µ] gold over nickel on mating end and 0.00020 inch [5.00µ] tin-lead solder coated termination end.
<b>STEP 4 - CONTACT TERMINATION TYPE</b> 0 - Order contacts separately for cable connectors for connection systems 5, 6, 7 and 8, see pages 47-53. Female connectors only. ** 1 - Order contacts separately for Panel Mount connectors for connection system 7, see pages 47-53. For 7W7 female variant consult technical sales. 3 - Solder, Straight Printed Board Mount with 0.146 [3.71] tail extension for connection system 6. Male connectors only. *** 4 - Solder, Right Angle (90°) Printed Board Mount with 0.146 [3.71] tail extension for connection system 5. Male connectors only. ***									
<b>STEP 5 - MOUNTING STYLE</b> 0 - None. N - Push-on Fastener for Straight Printed Board Mount Connectors									

**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

### STEP 6 - CABLE ADAPTER

- 0 - None
- 5 - Top Opening Hood, see accessories section page 60.

\*\* Consult technical sales for availability of male version of contact type 0.

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