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# SMPL SERIES

## INDUSTRIAL / MILITARY QUALITY

### FIXED RIGHT ANGLE PCB MOUNT TERMINATION

High  
Density  
Rectangular



- ✓ High reliability connectors with fixed contacts.
- ✓ Contacts are high density size 22.
- ✓ Terminations: right angle (90°) solder printed board mount.  
See pages 25 for details.
- ✓ Female closed entry contacts utilize the “PosiBand®” system.  
See page 1 for details.
- ✓ Current ratings: signal level to 13 amperes.  
See temperature rise curves on page 2 for details.
- ✓ Twelve connector variants, 4 - 50 contacts.
- ✓ A multitude of polarization and connector coding (keying) options. See pages 30-34 for details.
- ✓ Intermateable with SGMC and SGM series.  
See page 5 for SGMC series and page 15 for SGM series.
- ✓ Thermocouple contact options available.
- ✓ A wide variety of options and accessories.



#### Conforms to:

- MIL-DTL-28748

#### Telecommunication:

- UL File # E49351

## TECHNICAL CHARACTERISTICS

### MATERIALS AND FINISHES:

<b>Connector insert:</b>	Glass filled DAP per ASTM-D-5948 type SDG-F. Grey color is standard, black or green available.
<b>Fixed Contacts:</b>	Precision machined copper alloy. 0.000015 inch [0.38 μ] gold over nickel. Other finishes available upon request, see page 41 for details.
<b>Polarizing Guides:</b>	Copper alloy with nickel plate or passivated stainless steel.
<b>Jackscrew System:</b>	Passivated stainless steel.
<b>Mounting Bracket:</b>	Phosphor bronze with zinc plate and chromate seal.

<b>Alignment Bar:</b>	Nylon, black.
<b>Quick Disconnect Locking Device:</b>	Actuation lock lever and lock tab, copper alloy with nickel plate.

### MECHANICAL CHARACTERISTICS:

<b>Fixed Contacts:</b>	Size 22, male 0.030 inch [0.76 mm] mating diameter. Female – PosiBand closed entry design, see page 1 for details.
<b>Contact Retention in Connector Insert:</b>	6 lbs. [26.5N] minimum.
<b>Contact Termination:</b>	0.020 inch [0.51 mm] termination diameter.
<b>Locking Systems:</b>	Friction, quick disconnect locking device and jackscrews.

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## TECHNICAL CHARACTERISTICS, continued

*continued from previous page. . . .*

### MECHANICAL CHARACTERISTICS, continued:

<b>Polarization:</b>	Polarized guides and jackscrew system.
<b>Coding (Keying) Device:</b>	Pin and slot system; male and female guide system.
<b>Mechanical Operations:</b>	1000 operations per IEC 60512-5.
<b>Jackscrews:</b>	Standard threads, 2-56 UNC. M2X0.4 metric threads available.

<b>Flash over Voltage:</b>	2200 V.AC (rms)
<b>Test Voltage:</b>	1000 V.AC (rms)
<b>Insulation Resistance:</b>	5 G ohms, minimum.
<b>Clearance and Creepage Distance:</b>	0.028 inch [0.71 mm], minimum.
<b>Working Temperature:</b>	-55°C to 135°C
<b>Working Voltage:</b>	250 V.AC (rms)

### ELECTRICAL CHARACTERISTICS:

#### Contact Current Rating, Tested per UL 1977:

- 13 amperes, 2 contacts energized.
- 10 amperes, 6 contacts energized.
- 6 amperes, 26 contacts energized.
- 5 amperes, 104 contacts energized

*See temperature rise curves on page 2 for details.*

**Initial Contact Resistance:** 0.004 ohms, maximum.

### THERMOCOUPLE CONTACTS:

Right angle (90°) printed board mount contacts are available, please contact Technical Sales for details.

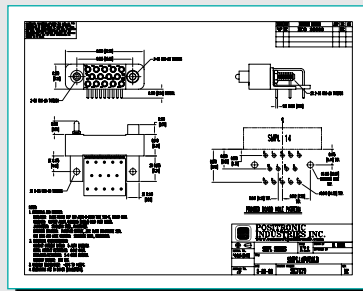
Straight printed board mount contacts are available in SGM series, see page 16 for details.

Size 22 removable crimp contacts are available in SGMC series, see page 12 for details.

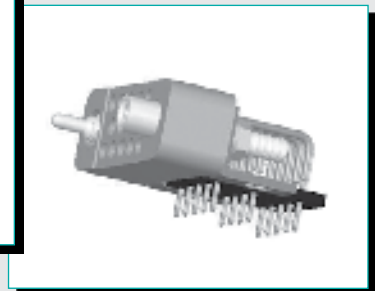
*Visit our web site for the latest catalog updates and supplements at  
<https://www.connectpositronic.com/catalogs/>*

## Do you need 2-D drawings or 3-D models?

*Once you have made a connector selection, contact Technical Sales if you would like a 2-D drawing or 3-D model. If we do not have your specific part number on file, we can create one for you. Or, please visit [www.connectpositronic.com](http://www.connectpositronic.com) and use the search function.*



2-D Drawing



3-D Model



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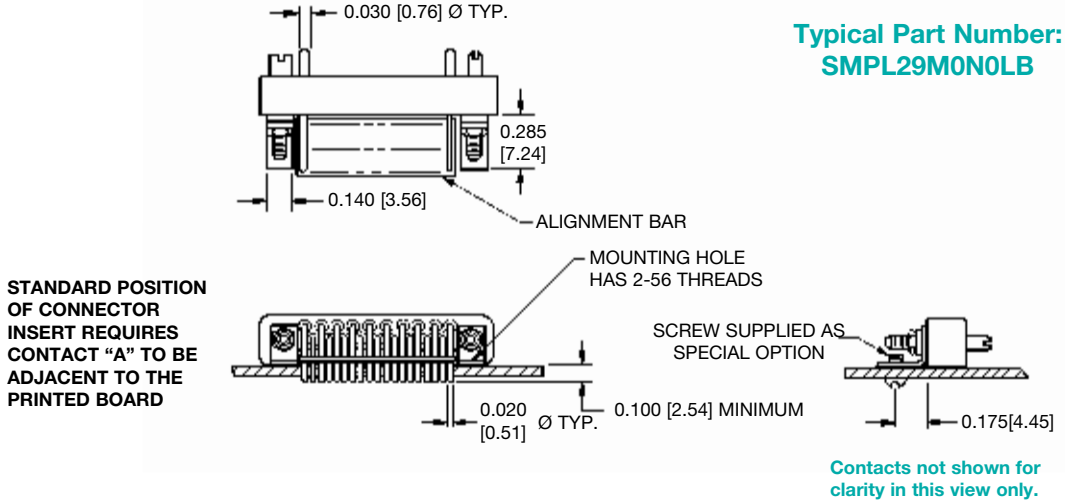
# SMPL SERIES

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## RIGHT ANGLE (90°) SOLDER PRINTED BOARD MOUNT TERMINATION CODE 0



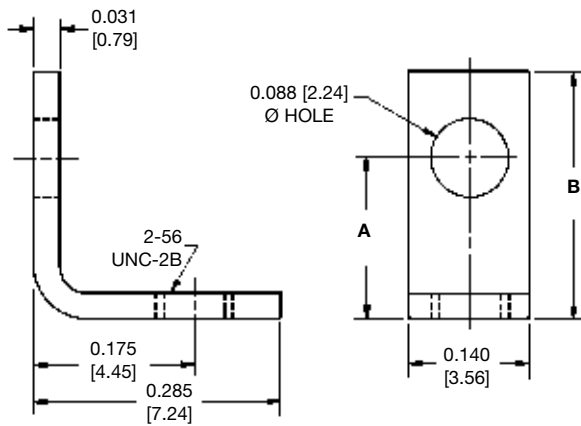
**NOTE:**

Add 0.030 [0.76] to the hole location dimension 0.175 [4.48] when mounting bracket (Code LB) and locking tab (Code V) are used in combination on connector.

**CONNECTOR INSERT DIMENSIONS:**

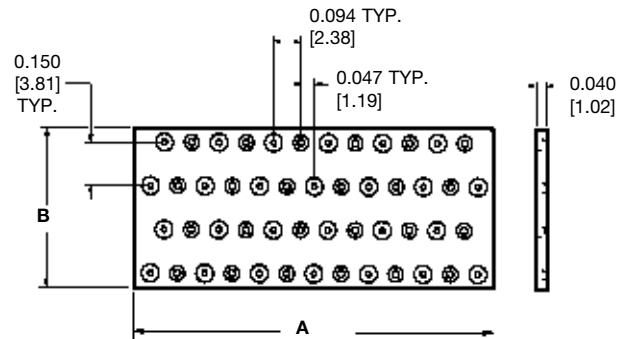
For SMPL series connector insert dimensions, refer to page 17 in SGM series.

### MOUNTING BRACKET CODE LB



PART NUMBER	A	B	CONNECTOR VARIANTS
80213-0	0.105 [2.67]	0.205 [5.21]	4, 5, 7, 9
80213-1	0.140 [3.56]	0.240 [6.10]	11, 14, 20, 26, 29
80213-2	0.195 [4.95]	0.295 [7.49]	34, 44, 50

### ALIGNMENT BAR DIMENSIONS

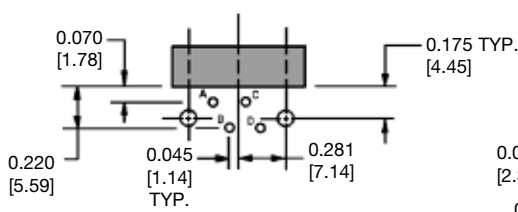


SIZE	A	B
5	0.314 [7.98]	0.290 [7.37]
7	0.394 [10.01]	0.290 [7.37]
9	0.488 [12.40]	0.290 [7.37]
11	0.364 [9.25]	0.415 [10.54]
14	0.456 [11.58]	0.415 [10.54]
20	0.646 [16.41]	0.415 [10.54]
26	0.832 [21.13]	0.415 [10.54]
29	0.926 [23.52]	0.415 [10.54]
34	0.864 [21.95]	0.550 [13.97]
44	1.112 [28.24]	0.550 [13.97]
50	1.240 [31.50]	0.550 [13.97]

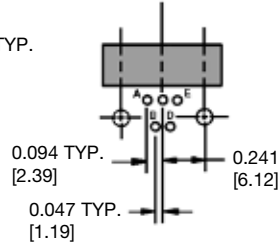


**RIGHT ANGLE (90°) PRINTED BOARD HOLE PATTERN**

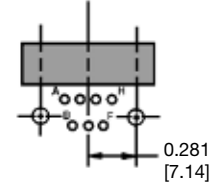
HOLE IDENTIFICATION SHOWN FOR MALE CONNECTOR; USE MIRROR IMAGE FOR FEMALE CONNECTOR.



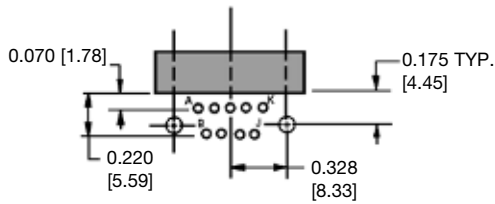
**SMPL 4**



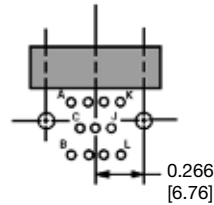
**SMPL 5**



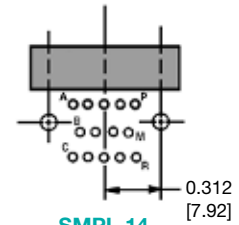
**SMPL 7**



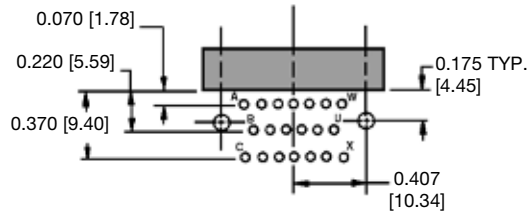
**SMPL 9**



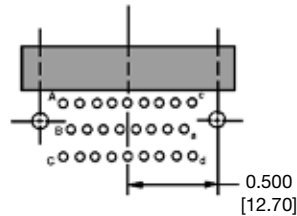
**SMPL 11**



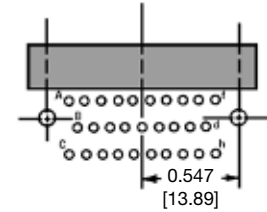
**SMPL 14**



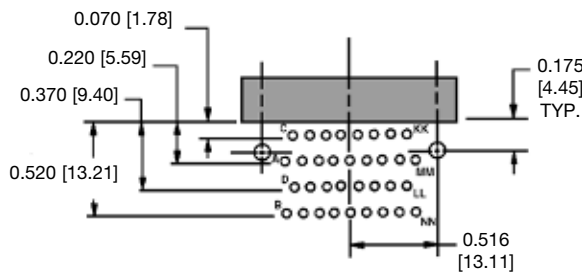
**SMPL 20**



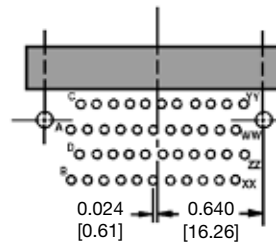
**SMPL 26**



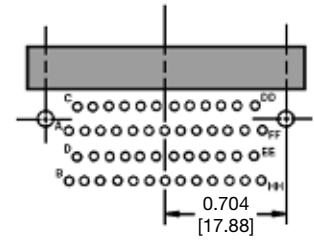
**SMPL 29**



**SMPL 34**



**SMPL 44**



**SMPL 50**

**SUGGESTED PRINTED BOARD HOLE SIZES:**

Suggest 0.105 [2.66] Ø holes in printed board for connector mounting holes  
Suggest 0.040 [1.01] Ø holes in printed board for contact terminations  
Add 0.030 [0.76] to the hole location dimension 0.175 [4.48] when mounting bracket (Code LB) and locking tab (Code V) are used in combination on connector.



## 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
EXAMPLE	SMPL	14	S	0	T	0	LB	-14

### STEP 1 - BASIC SERIES

SMPL series.

### STEP 2 - CONNECTOR VARIANTS

4, 5, 7, 9, 11, 14, 20, 26,  
29, 34, 44, 50

### STEP 3 - CONNECTOR GENDER

M - Male  
S - Female - PosiBand closed entry contacts, see  
*page 1 for more information.*

### STEP 4 - CONTACT TERMINATION TYPE

0 - Standard termination, right angle (90°).

### \*1 STEP 5 - POLARIZING GUIDES AND JACKSCREW SYSTEMS

N - Polarizing guides.  
NSS - Stainless steel polarizing guides.  
T - Fixed jackscrews.  
0 - If no polarizing guides or jackscrews are required.

### STEP 8 - SPECIAL OPTIONS

**FOR SPECIAL OPTIONS, SEE SPECIAL  
OPTIONS APPENDIX ON PAGE 41.**

### STEP 7 - MOUNTING BRACKETS

LB - Mounting bracket.  
0 - If no mounting bracket is required.

### \*1 STEP 6 - QUICK DISCONNECT LOCKING DEVICES

V - Lock tab.  
VL - Actuation lock lever.  
0 - If no locking devices are required.

### NOTE:

\*1 For details of items listed in steps 5 through 6,  
see Accessories section on pages 30-36.

*Do you need 2-D drawings or 3-D models?*

See page 24 for more information!

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