



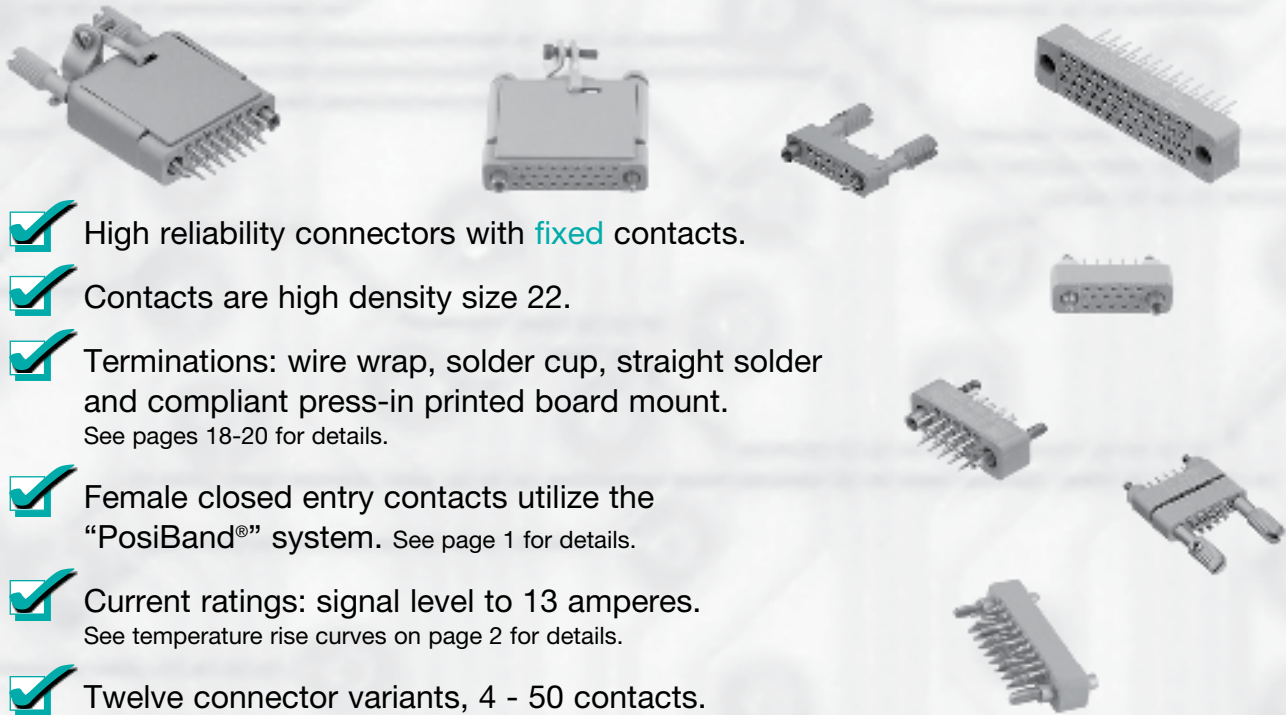
Positronic
connectpositronic.com

SGM SERIES

INDUSTRIAL / MILITARY QUALITY

FIXED STRAIGHT PCB MOUNT / SOLDER CUP

High
Density
Rectangular



- ✓ High reliability connectors with **fixed** contacts.
- ✓ Contacts are high density size 22.
- ✓ Terminations: wire wrap, solder cup, straight solder and compliant press-in printed board mount. See pages 18-20 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 SMPL series. See page 5 for SGMC series and page 23 for SMPL series.
- ✓ Thermocouple contact options available.
- ✓ A wide variety of options and accessories.

Qualified to:

- MIL-DTL-28748/7 & 28748/8

Telecommunication:

- UL File # E49351

TECHNICAL CHARACTERISTICS

MATERIALS AND FINISHES:

Connector Insert:	Glass filled DAP per ASTM-D-5948 type SDG-F. Grey color is standard, black or green available.
Fixed Contacts:	Precision machined copper alloy. 0.000015 inch [0.38 µ] gold over nickel. Other finishes available upon request, see page 41 for details.
Polarizing Guides:	Copper alloy with nickel plate or passivated stainless steel.
Jackscrew System:	Passivated stainless steel.
Connector Housing (Shells):	Aluminum with yellow anodize or black anodize.
Backshell:	Aluminum with yellow or black anodize.

Quick Disconnect Locking Device:

Actuation lock lever and lock tab, copper alloy with nickel plate.

MECHANICAL CHARACTERISTICS:

Fixed Contacts:

Size 22, male contact 0.030 inch [0.76 mm] mating diameter. Female contact - PosiBand closed entry design, see page 1 for details.

Contact Retention in Connector Insert:

6 lbs. [26.5N] minimum.

Contact Termination:

Solder cup contacts - 0.037 inch [0.94 mm] internal hole diameter for 22 AWG [0.3 mm²] wire maximum.
Straight printed board mount - 0.025 inch [0.64 mm] termination diameter.

TECHNICAL CHARACTERISTICS, continued

continued from previous page. . . .

MECHANICAL CHARACTERISTICS, continued:

	Wire post - 0.025 inch [0.64 mm] square.
	Compliant press-in termination.
Locking Systems:	Friction, quick disconnect locking device and jackscrews.
Polarization:	Polarized guides and jackscrew system.
Coding (Keying) Device:	Pin and slot system; male and female guide system.
Mechanical Operations:	1000 operations per IEC 60512-5.
Jackscrews:	Standard threads, 2-56 UNC on all sizes, Metric threads, M2X0.4 and M3X0.5 available.

Initial Contact Resistance:	0.004 ohms, maximum.
Flash over Voltage:	2200 V.AC (rms)
Test Voltage:	1000 V.AC (rms)
Insulation Resistance:	5 G ohms, minimum.
Clearance and Creepage Distance:	0.028 inch [0.71 mm], minimum.
Working Temperature:	-55°C to 135°C
Working Voltage:	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.

THERMOCOUPLE CONTACTS:

Straight printed circuit board mount contacts are available, please contact Technical Sales for details.

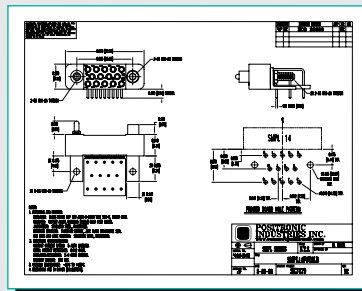
Right angle (90°) printed circuit board mount contacts are available in SMPL series, see page 24 for details.

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

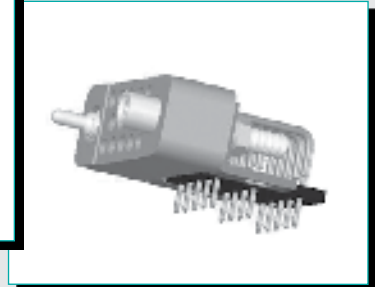
Visit our web site for the latest catalog updates and supplements at
<https://www.connectpositronic.com/catalogs/>

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 and use the search function.



2-D Drawing



3-D Model



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SGM SERIES

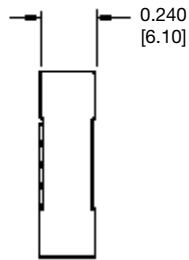
INDUSTRIAL / MILITARY QUALITY

FIXED STRAIGHT PCB MOUNT / SOLDER CUP

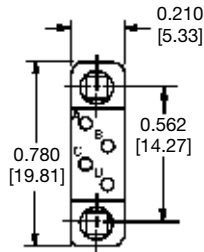
High
Density
Rectangular

CONNECTOR INSERT DIMENSIONS FOR SGM AND SMPL SERIES

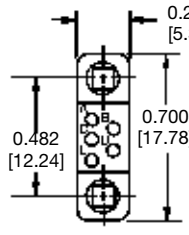
MATING FACE VIEW OF FEMALE OR REAR FACE VIEW OF MALE



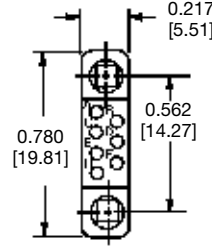
MALE AND FEMALE
PROFILE VIEW



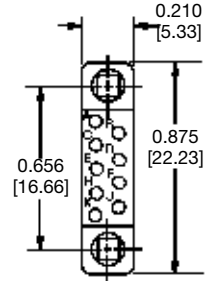
SGM 4
SMPL 4



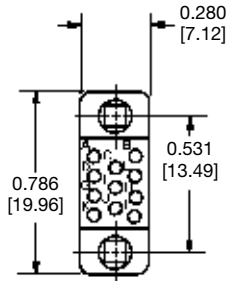
SGM 5
SMPL 5



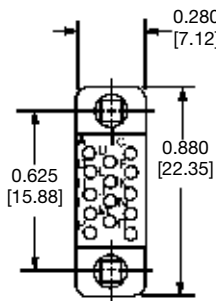
SGM 7
SMPL 7



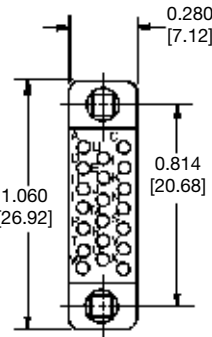
SGM 9
SMPL 9



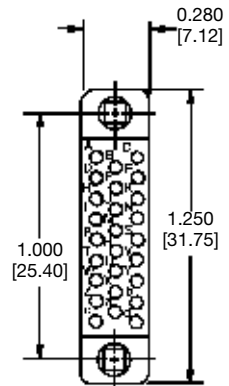
SGM 11
SMPL 11



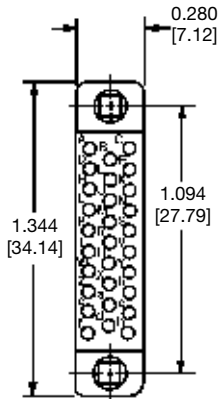
SGM 14
SMPL 14



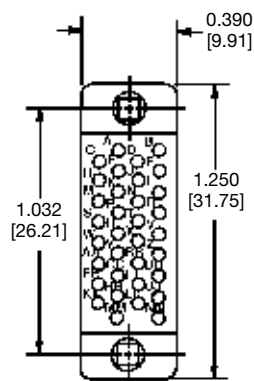
SGM 20
SMPL 20



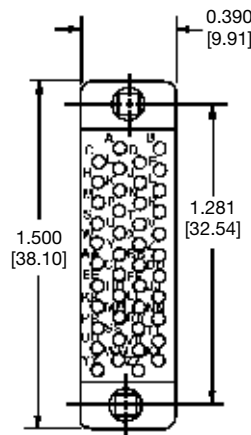
SGM 26
SMPL 26



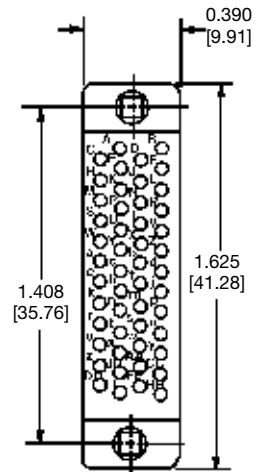
SGM 29
SMPL 29



SGM 34
SMPL 34



SGM 44
SMPL 44



SGM 50
SMPL 50

CONTACT HOLE PATTERNS:

For SGM series contact hole patterns, refer to page 21 in SGM series.
For SMPL series contact hole patterns, refer to page 26 in SMPL series.

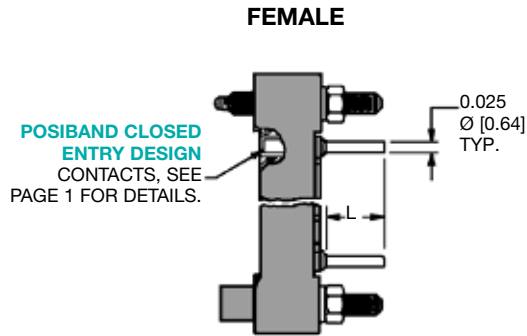
High
Density
Rectangular

SGM SERIES
INDUSTRIAL / MILITARY QUALITY
FIXED STRAIGHT PCB MOUNT / SOLDER CUP



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STRAIGHT SOLDER PRINTED BOARD MOUNT TERMINATION
CODE DS3, DS4, DS5 AND DS6



Typical Part Number:
SGM26SDS3T0000

CONTACT CODE	L
DS3	0.093 [2.36]
DS4	0.125 [3.18]
DS5	0.156 [3.96]
DS6	0.187 [4.75]

For straight solder contacts,
specify contact code in Step 4 of
ordering information.



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SGM SERIES

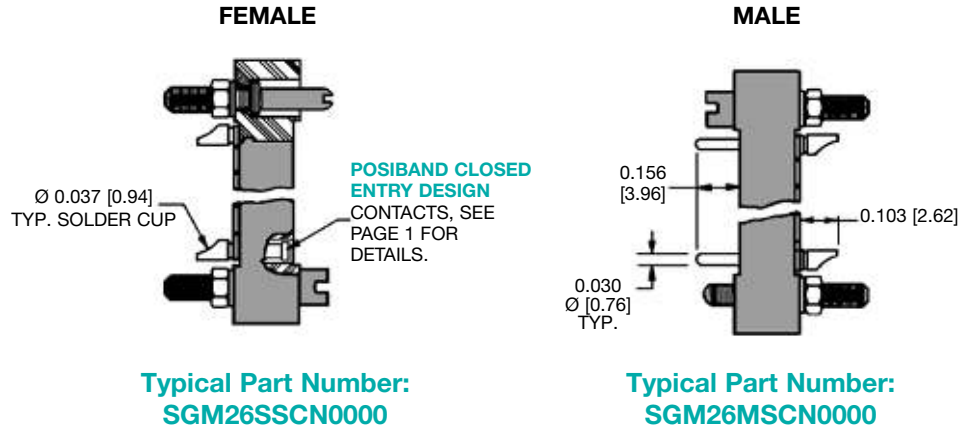
INDUSTRIAL / MILITARY QUALITY

FIXED STRAIGHT PCB MOUNT / SOLDER CUP

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Rectangular

SOLDER CUP TERMINATION CODE SC

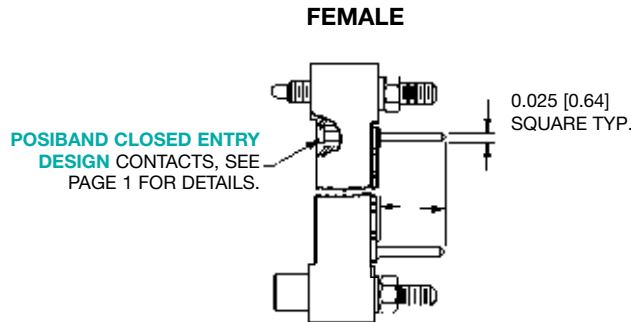
For solder cup contacts, specify contact code "SC" in Step 4 of ordering information.



SGM SERIES



WRAP POST TERMINATION
CODE WW1 OR CODE WW2



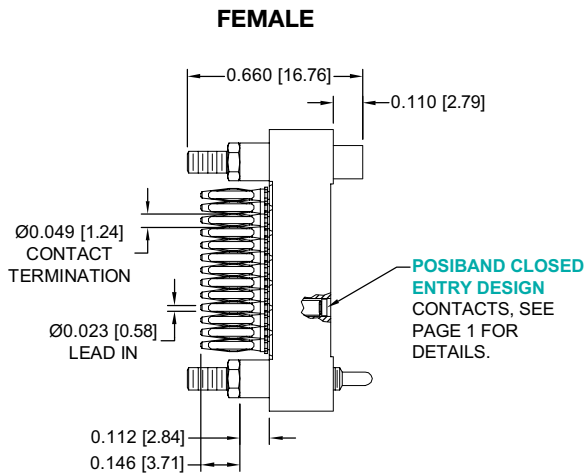
CONTACT CODE	L
WW1	0.225 [5.72]
WW2	0.355 [9.02]

For wrap post contacts, specify contact code in Step 4 of ordering information.

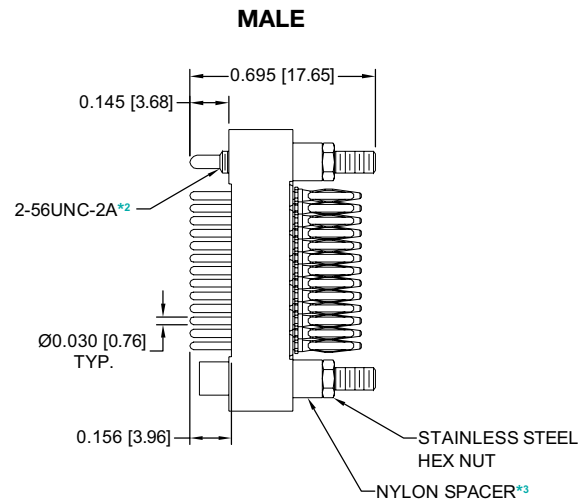
Typical Part Number:
SGM26SWW1T0000

COMPLIANT PRESS-IN PRINTED BOARD MOUNT TERMINATION*1
CODE 98

For compliant press-in contacts, specify contact code "98" in Step 4 of ordering information.



Typical Part Number:
SGM26S98T0000



Typical Part Number:
SGM26M98T0000

NOTES:

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

*2 M2X0.4 metric thread available.

*3 Stainless steel spacer available.

CONTACT HOLE PATTERNS:

For compliant press-in connector contact hole patterns, see page 21.

SUGGESTED PRINTED BOARD HOLE SIZES:

Suggest 0.105 [2.66] Ø hole in printed board for connector mounting holes.

NOTE: For suggested printed board recommended drill hole sizes, plating and finished hole sizes for compliant contact termination positions, see page 40.

For compliant press-in connector installation tools, see page 39.



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SGM SERIES

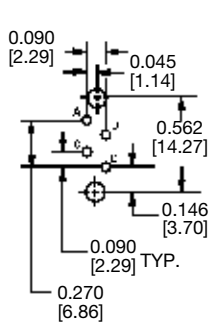
INDUSTRIAL / MILITARY QUALITY

FIXED STRAIGHT PCB MOUNT / SOLDER CUP

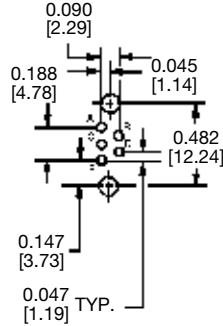
High
Density
Rectangular

CONTACT HOLE POSITION DIMENSIONS AND PRINTED BOARD HOLE PATTERN FOR SGM AND SGMC SERIES

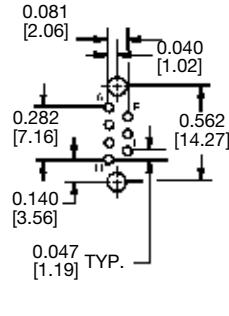
MATING FACE VIEW OF FEMALE OR REAR FACE VIEW OF MALE



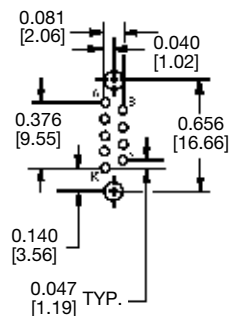
SGM 4
SGMC 4



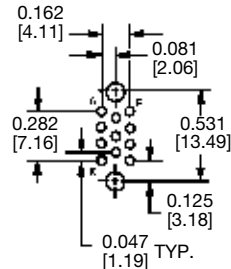
SGM 5



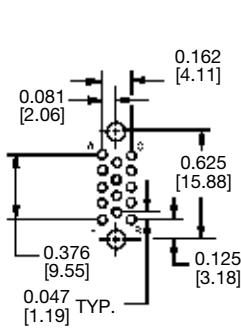
SGM 7
SGMC 7



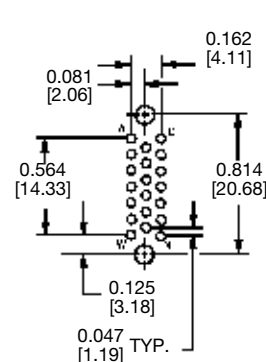
SGM 9
SGMC 9



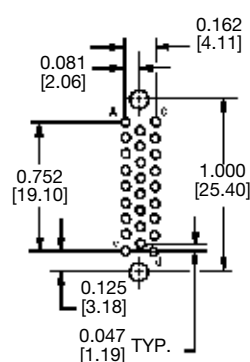
SGM 11



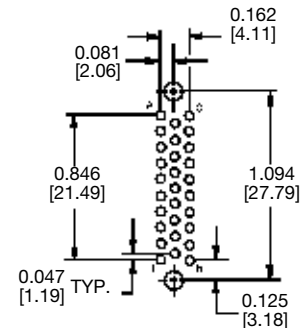
SGM 14
SGMC 14



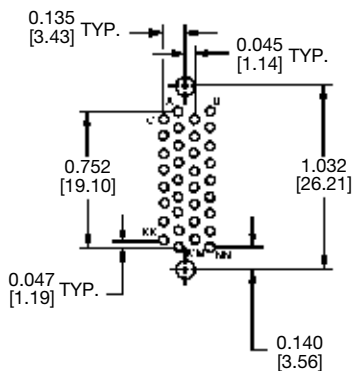
SGM 20
SGMC 20



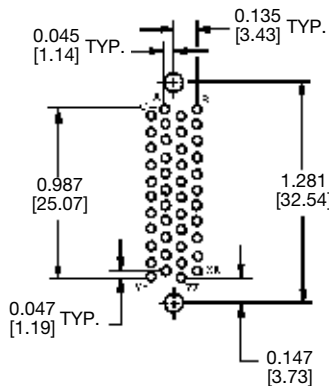
SGM 26
SGMC 26



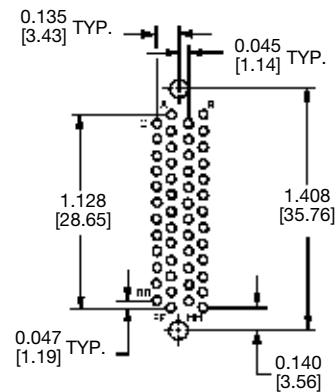
SGM 29



SGM 34
SGMC 34



SGM 44
SGMC 44



SGM 50
SGMC 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



ORDERING INFORMATION - CODE NUMBERING SYSTEM

Specify Complete Connector By Selecting An Option From Step 1 Through 9

STEP	1	2	3	4	5	6	7	8	9	10
EXAMPLE	SGM	26	S	SC	N	0	0	J	0	-14
STEP 1 - BASIC SERIES SGM series										STEP 10 - SPECIAL OPTIONS FOR SPECIAL OPTIONS, SEE SPECIAL OPTIONS APPENDIX ON PAGE 41.
STEP 2 - CONNECTOR VARIANTS 4, 5, 7, 9, 11, 14, 20, 26, 29, 34, 44, 50										*1 STEP 9 - ADDITIONAL FEATURES B – For black anodized aluminum parts. R – For yellow chromate coating on aluminum parts. *3 V – Lock tab. *3 VL – Actuation lock lever. M – Jackscrews with metric threads. 0 – If no additional options are required.
STEP 3 - CONNECTOR GENDER M - Male S - Female - PosiBand closed entry contacts, see page 1 for more information.										*1 STEP 8 - BACKSHELL J – Top opening backshell offered on all variants except 5 and 11. 0 – If no backshell are required.
STEP 4 - CONTACT TERMINATION TYPE All female contacts “closed entry” design DS3 – Straight solder 0.093 [2.36] DS4 – Straight solder 0.125 [3.18] DS5 – Straight solder 0.156 [3.96] DS6 – Straight solder 0.187 [4.75] SC – Solder cup WW1 – Wrap post 0.225 [5.72] WW2 – Wrap post 0.355 [9.02] 98 – Straight printed circuit board mount, compliant press-in.										*1 STEP 7 - CODING (KEYING) POSITIONS OF CONNECTOR HOUSING (SHELLS) Select letter to designate position of male pin or female slot for coding system. A, B, C, D, E, F, G 0 – If no coding is required or if no connector housings are required.
*1 STEP 5 - POLARIZING GUIDES AND JACKSCREW SYSTEMS N – Polarizing guides. NSS – Stainless steel polarizing guides. T – Fixed jackscrews. E – Rotating jackscrews with knobs. E1 – Rotating jackscrews used with backshell only. ESS – Short rotating jackscrews. 0 – If no polarizing guides or jackscrews are required.										*1 STEP 6 - CONNECTOR HOUSING (SHELLS) *2 P – Male shell. *2 R – Female shell. 0 – If no connector housings are required.
										NOTE: *1 For details of items listed in steps 5 through 9, see Accessories section on pages 30-36. *2 Contact Technical Sales for availability of 5, 11 and 29 connector variants. *3 Select ‘0’ in Step 6 when selecting ‘V’ and ‘VL’ options.

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

See page 16 for more information!