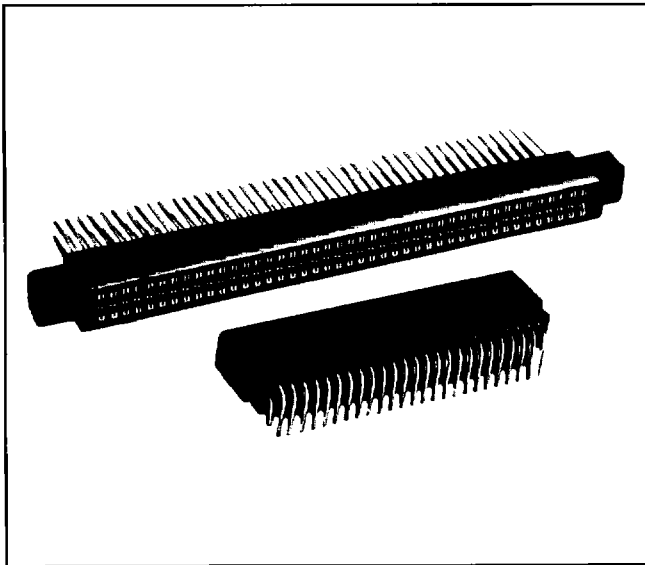


# MODEL EB4

## Edgeboard Connectors

### Dual Readout, .100" [2.54mm] C-C

### Standard and Right Angle Terminals



#### FEATURES

- Grid Patterns: .100" C-C x .150" [2.54mm x 3.81mm] and .100" C-C x .200" [2.54mm x 5.08mm]
- Standard and right angle terminals
- Greater design latitude
  - 3 body materials: Diallyl phthalate, phenolic and glass-filled polyester
  - 7 contact termination styles - 3 Standard, 4 Right Angle
  - 20 body sizes and 6 mounting styles
- Selective gold plating
- Accepts PC board thickness of .054" to .071" [1.37mm to 1.80mm]
- Polarization between contact positions in all sizes. Between contact polarization permits polarizing without loss of contact position.
- **Recognized under the Component Program of Underwriters Laboratories Inc. Listed under File E65524, Project 77CH3889.**

#### APPLICATIONS

For use with .0625" [1.59mm] printed circuit boards requiring an edgeboard type connector on .100" [2.54mm] centers.

#### ELECTRICAL SPECIFICATIONS

**Current Rating:** 3 amps.

**Test Voltage Between Contacts:**

At sea level: 650 V RMS.

At 70,000 feet [21,336 meters]: 275 V RMS.

**Insulation Resistance:** 5000 Megohm minimum at 500 VDC potential.

**Contact Resistance:** 30 millivolts maximum at rated current (with gold plating).

**Operating Temperature:** - 65°C to + 125°C.

**Humidity:** 96 hours at 90% relative humidity at + 40°C, dried at room temperature for 3 hours minimum, insulation resistance was greater than 5000 Megohm.

**Durability:** After 500 cycles of insertion and withdrawal of a .070" [1.78mm] thick steel test board, contact resistance less than .030 V at 3 amps on gold plated contacts and individual contact pair separation force when measured with a .054" [1.37mm] thick steel test blade was greater than 1/2 ounce.

**Shock:** Three 50 G shocks in each of 3 mutually perpendicular planes with no loss of continuity.

**Vibration:** 2 hours in each of 3 mutually perpendicular planes, frequency sweep 10 to 55 cps at .06 double amplitude with no loss of continuity.

#### MATERIAL SPECIFICATIONS

**Body Material:**

"1" glass-filled diallyl phthalate per MIL-M-14, Type SDG-F green, flame retardant (UL 94V-0).

"2" glass-filled phenolic per MIL-M-14, Type MFH dark green, flame retardant (UL 94V-0).

"3" thermoplastic polyester, glass-filled, black, flame retardant (UL 94V-0).

**Contacts:** Phosphor bronze. (See How to Order.)

**Polarizing Key:** Glass reinforced nylon, flame retardant (UL 94H-B).

**Plating:** Gold. (See How to Order.)

#### PHYSICAL SPECIFICATIONS

**Contact Type:** Bifurcated Cantilever Beam.

**Number of Contacts:** 10, 12, 15, 18, 20, 22, 25, 28, 30, 31, 35, 36, 40, 43, 44, 48, 49, 50, 60 and 65 per side.

**Contact Terminal Variation:** Standard Terminals.

**Type "C"** - Dip Solder, .025" [.635mm] square terminals, .175" [4.44mm] nominal terminal length below standoffs.

**Type "D"** - Dip Solder, .025" [.635mm] square terminals, .115" [2.92mm] nominal terminal length below standoffs.

**Type "K"** - Wire Wrap™, .025" [.635mm] square terminals, .570" [14.48mm] nominal terminal length below standoffs.

**Contact Terminal Variation:** Right Angle Terminals.

**Type "1R"** - Dip Solder, .025" [.635mm] square terminals, .120" [3.05mm] nominal terminal length x .150" [3.81mm] nominal terminal row spacing.

**Type "2R"** - Dip Solder, .025" [.635mm] square terminals, .120" [3.05mm] nominal terminal length x .200" [5.08mm] nominal terminal row spacing.

**Type "3R"** - Dip Solder, .025" [.635mm] square terminals, .180" [4.57mm] nominal terminal length x .150" [3.81mm] nominal terminal row spacing.

**Type "4R"** - Dip Solder, .025" [.635mm] square terminals, .180" [4.57mm] nominal terminal length x .200" [5.08mm] nominal terminal row spacing.

**Contact Spacing:** .100" [2.54mm] center to center.

**Contact Terminal Row Spacing:**

Standard - .200" [5.08mm] nominal.

Right Angle - .200" [5.08mm] nominal and .150" [3.81mm] nominal.

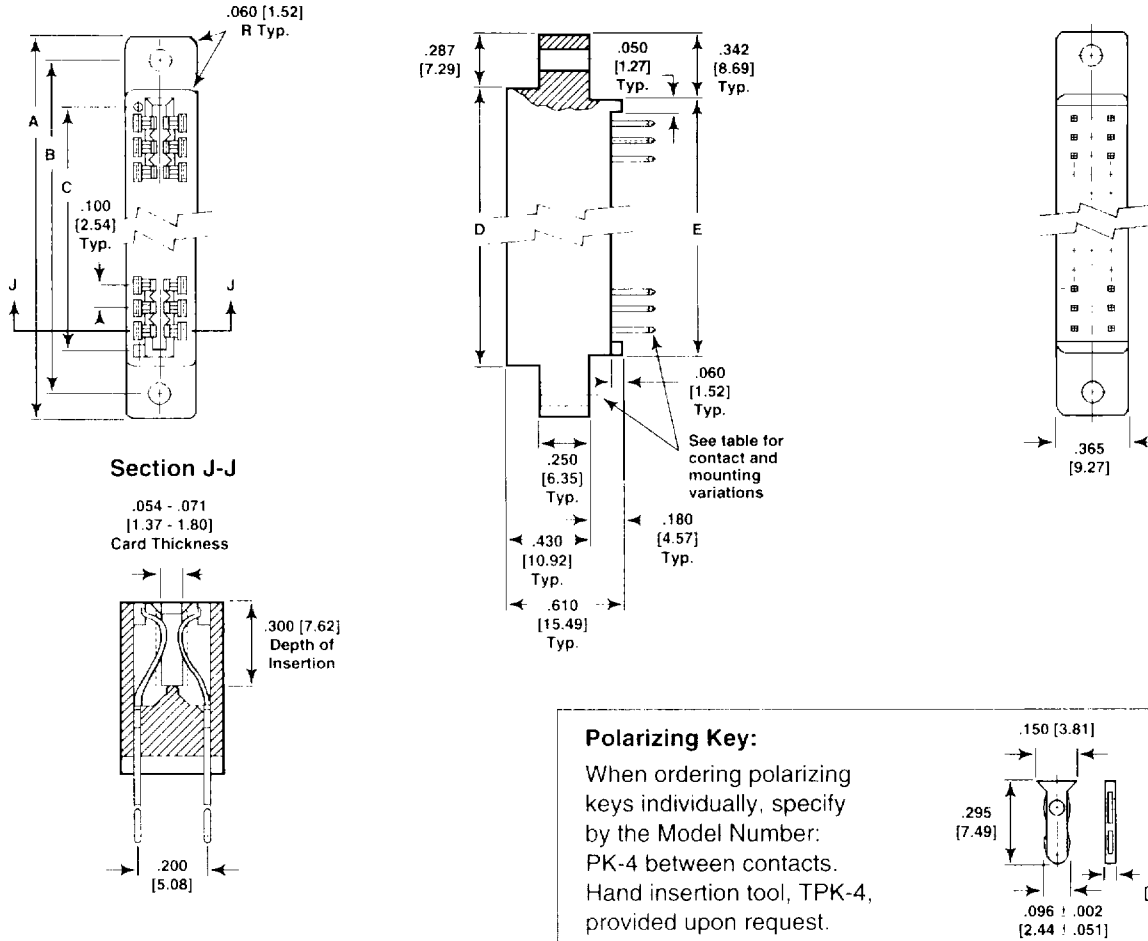
**Card Thickness:** .054" to .071" [1.37mm to 1.80mm].

**Card Slot Depth:** .300" [7.62mm].

**Connector Polarization:** Between contact polarization key(s) are located to the right of the contact position(s) designated.

High temperature burn-in, edgeboard connectors, with .100" [2.54mm] center to center are on page 392 of this catalog.

**DIMENSIONAL CONFIGURATIONS [Numbers in brackets indicate millimeters]**



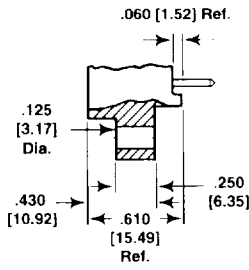
**Polarizing Key:**

When ordering polarizing keys individually, specify by the Model Number:  
 PK-4 between contacts.  
 Hand insertion tool, TPK-4,  
 provided upon request.

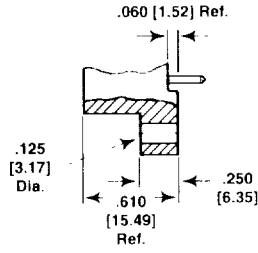
# OF CONTACT POSITIONS PER SIDE	A	B	C	D	E
10	1.835 [46.61]	1.575 [40.00]	1.100 [27.94]	1.260 [32.00]	1.150 [29.21]
12	2.035 [51.69]	1.775 [45.08]	1.300 [33.02]	1.460 [37.08]	1.350 [34.29]
15	2.335 [59.31]	2.075 [52.70]	1.600 [40.64]	1.760 [44.70]	1.650 [41.91]
18	2.635 [66.93]	2.375 [60.32]	1.900 [48.26]	2.060 [52.32]	1.950 [49.53]
20	2.835 [72.01]	2.575 [65.40]	2.100 [53.34]	2.260 [57.40]	2.150 [54.61]
22	3.035 [77.09]	2.775 [70.48]	2.300 [58.42]	2.460 [62.48]	2.350 [59.69]
25	3.335 [84.71]	3.075 [78.10]	2.600 [66.04]	2.760 [70.10]	2.650 [67.31]
28	3.635 [92.33]	3.375 [85.72]	2.900 [73.66]	3.060 [77.72]	2.950 [74.93]
30	3.835 [97.41]	3.575 [90.80]	3.100 [78.74]	3.260 [82.80]	3.150 [80.01]
31	3.935 [99.95]	3.675 [93.34]	3.200 [81.28]	3.360 [85.34]	3.250 [82.55]
35	4.335 [110.11]	4.075 [103.50]	3.600 [91.44]	3.760 [95.50]	3.650 [92.71]
36	4.435 [112.65]	4.175 [106.04]	3.700 [93.98]	3.860 [98.04]	3.750 [95.25]
40	4.835 [122.81]	4.575 [116.20]	4.100 [104.14]	4.260 [108.20]	4.150 [105.41]
43	5.135 [130.43]	4.875 [123.82]	4.400 [111.76]	4.560 [115.82]	4.450 [113.03]
44	5.235 [132.97]	4.975 [126.36]	4.500 [114.30]	4.660 [118.36]	4.550 [115.57]
48	5.635 [143.13]	5.375 [136.52]	4.900 [124.46]	5.060 [128.52]	4.950 [125.73]
49	5.735 [145.67]	5.475 [139.06]	5.000 [127.00]	5.160 [131.06]	5.050 [128.27]
50	5.835 [148.21]	5.575 [141.60]	5.100 [129.54]	5.260 [133.60]	5.150 [130.81]
60	6.835 [173.61]	6.575 [167.00]	6.100 [154.94]	6.260 [159.00]	6.150 [156.21]
65	7.335 [186.31]	7.075 [179.70]	6.600 [167.64]	6.760 [171.70]	6.650 [168.91]

**MOUNTING VARIATIONS** [Numbers in brackets indicate millimeters]

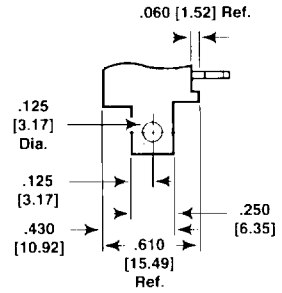
**Type "X"**  
Clearance Hole  
Raised Mounting Flange



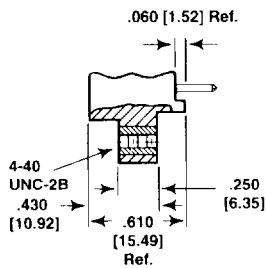
**Type "XF"**  
Clearance Hole  
Flush Mounting Flange



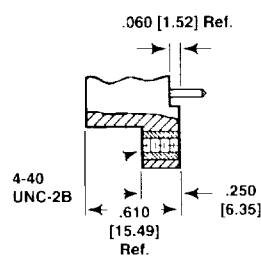
**Type "XS"**  
Right Angle  
Mounting Flange



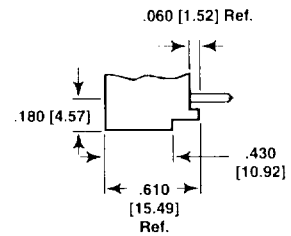
**Type "Y"**  
Threaded Insert  
Raised Mounting Flange



**Type "YF"**  
Threaded Insert  
Flush Mounting Flange

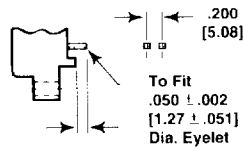


**Type "W"**  
No Mounting Flange



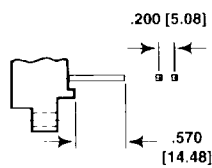
**TERMINAL VARIATIONS** [Numbers in brackets indicate millimeters]

**Type "C" and "D"**  
Solder Dip, Standard  
.025 [.635] Square Terminals

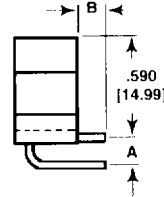


"C" = .175 [4.44]  
"D" = .115 [2.92]

**Type "K"**  
Wire Wrap™, Standard  
.025 [.635] Square Terminals



**Type "1R", "2R", "3R" and "4R"**  
Right Angle  
.025 [.635] Square Terminals



TYPE	A	B
1R	.150 [3.81]	.120 ± .030 [3.05 ± .762]
2R	.200 [5.08]	.120 ± .030 [3.05 ± .762]
3R	.150 [3.81]	.180 ± .030 [4.57 ± .762]
4R	.200 [5.08]	.180 ± .030 [4.57 ± .762]

**HOW TO ORDER**

EB4 MODEL	3 BODY MATERIAL	K STANDARD TERMINAL VARIATIONS	20 CONTACTS	SG CONTACT PLATING	X MOUNTING VARIATIONS	15 POLARIZING KEY POSITIONS
	<p>1 = Diallyl Phthalate 2 = Phenolic 3 = Glass-filled Polyester</p>	<p>C, D, K, 1R, 2R, 3R, 4R</p>	<p>10, 12, 15, 18, 20, 22, 25, 28, 30, 31, 35, 36, 40, 43, 44, 48, 49, 50, 60 and 65 per side.</p>	<p>SG = Selective Gold Plating (.00003" [.000762mm] minimum thick) on contact area with Gold Flash on terminal. SGF = Selective Gold Plating (.000010" [.000254mm] minimum thick) on contact area with Gold Flash on terminal. All Gold Plating over .00005" [.00127mm] minimum Nickel Underplate. Contact factory for additional plating options.</p>		<p>Key(s) are located to right of position(s) designated. Use odd-numbered contact for ordering: -1, -3, -5, etc. Required only when polarizing keys are to be factory installed. <b>Note:</b> To order polarizing keys individually, specify Model PK-4.</p>