

EB4

# Edgeboard Connectors, Dual Readout, 0.100" (2.54 mm) C-C, Standard and Right Angle Terminals





#### **ELECTRICAL SPECIFICATIONS**

#### Current Rating: 3 A

Test Voltage Between Contacts:

at sea level: 650  $V_{RMS}$ At 70 000 feet (21 336 meters): 275  $V_{RMS}$ 

Insulation Resistance: 5000  $M\Omega$  minimum at 500  $V_{DC}$  potential

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

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

**Humidity:** 96 h at 90 % relative humidity at +40 °C, dried at room temperature for 3 h minimum, insulation resistance was greater than 5000 M $\Omega$ 

**Durability:** after 500 cycles of insertion and withdrawal of a 0.070" (1.78 mm) thick steel test board, contact resistance less than 0.030 V at 3 A on gold plated contacts and individual contact pair separation force when measured with a 0.054" (1.37 mm) thick steel test blade was greater than  $\frac{1}{2}$  oz.

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

**Vibration:** 2 h in each of 3 mutually perpendicular planes, frequency sweep 10 cps to 55 cps at 0.06 double amplitude with no loss of continuity

## FEATURES

- Grid patterns: 0.100" C-C x 0.150" (2.54 mm x 3.81 mm) and 0.100" C-C x 0.200" (2.54 mm x 5.08 mm)
- Standard and right angle terminals
- Greater design latitude: body materials: glass-filled polyester and glass-filled polyphenylene sulfide
   7 contact termination styles - 3 standard, 4 right angle
   20 body sizes and 6 mounting styles
- · Selective gold plating
- Accepts PC board thickness of 0.054" to 0.071" (1.37 mm to 1.80 mm)
- Polarization between contact positions in all sizes. Between contact polarization permits polarizing without loss of contact position

## **APPLICATIONS**

For use with 0.0625" (1.59 mm) printed circuit boards requiring an edgeboard type connector on 0.100" (2.54 mm) centers

### **MATERIAL SPECIFICATIONS**

#### **Body Material:**

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

"5" thermoplastic polyphenylene sulfied, glass filled, brown, flame retardant (UL 94 V-0)

Contacts: phosphor bronze (see Ordering Information)

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

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Plating: gold (see Ordering Information)

ORDERING INFORMATION						
EB4	3	К	20	SG	Х	15
MODEL	BODY MATERIAL	STANDARD TERMINAL VARIATIONS	CONTACTS PER SIDE	CONTACT PLATING SG = selective gold plating (0.00003"	MOUNTING VARIATIONS	POLARIZING KEY POSITIONS
	3 = glass-filled polyester 5 = glass-filled polyphenylene sulfide	C, D, K, 1R, 2R, 3R, 4R	6, 10, 12, 15, 18, 20, 22, 25, 28, 30, 31, 35, 36, 40, 43, 44, 48, 49, 50, 60, and 65	<ul> <li>(0.000762 mm) minimum thick) on contact area with gold flash on terminal.</li> <li>SGF = selective gold plating (0.000010"</li> <li>(0.000254 mm) minimum thick) on contact area with gold flash on terminal.</li> <li>All gold plating over 0.00005"</li> <li>(0.00127 mm) minimum nickel underplate. Contact factory for additional plating options</li> </ul>		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.

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For technical questions, contact: connectors@vishay.com

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#### **DIMENSIONS** in inches (millimeters) 0.060 (1.52)0.342 0.287 0.050 (+)À Тур. (8.69) (1.27) (7.29)Ътур.́ Тур. Α 申 1 申 в · 🛉 ÷. 副伽 ---> + -申 + +申 前個 С + 0.100 + D (2.54) Typ. E + + J + .1 -申 + 申 ·����� •申 <u></u>ф-Ā +唧 申 + 申 0.060 (1.52) + Typ. See table for 0.365 contact and 0.250 Section J - J mounting variations (9.27) (6.35)Тур. 0.180 0.054 - 0.071 (1.37 - 1.80) (4.57)Card Thickness 0.430 Typ. (10.92)Тур. 0.125 (3.17) 0.300 (7.62) 0.610 (15.49) Point of Depth of Typ. Contact Insertion 0.150 (3.81) **Polarizing Key:** 0.295 When ordering polarizing keys individually, (7.49) specify by the Model Number: PK-4 between contacts. Hand insertion tool, 0.031 TPK-4, provided upon request. (0.787)0.096 ± 0.002 0.200 (2.44 ± 0.051) (5.08)**# OF CONTACT** в С D Е POSITIONS Α PER SIDE 0.700 (17.78) 0.860 (21.84) 1.435 (36.45) 1.175 (29.85) 0.750 (19.05) 6 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) 1.760 (44.70) 1.600 (40.64) 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 4.260 (108.20) 4.150 (105.41) 4.835 (122.81) 4.575 (116.20) 4.100 (104.14) 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)

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65

7.335 (186.31)

2

7.075 (179.70)

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6.650 (168.91)

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6.600 (167.64)

6.760 (171.70)

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#### **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, 0.025" (0.635 mm) square terminals, 0.175" (4.44 mm) nominal terminal length below standoffs

**Type "D"** - dip solder, 0.025" (0.635 mm) square terminals, 0.115" (2.92 mm) nominal terminal length below standoffs

**Type "K"** - Wire Wrap<sup>™</sup>, 0.025" (0.635 mm) square terminals, 0.570" (14.48 mm) nominal terminal length below standoffs

Contact Terminal Variation: Right angle terminals

**Type "1R"** - dip solder, 0.025" (0.635 mm) square terminals, 0.120" (3.05 mm) nominal terminal length x 0.150" (3.81 mm) nominal terminal row spacing

**Type "2R"** - dip solder, 0.025" (0.635 mm) square terminals, 0.120" (3.05 mm) nominal terminal length x 0.200" (5.08 mm) nominal terminal row spacing

**Type "3R"** - dip solder, 0.025" (0.635 mm) square terminals, 0.180" (4.57 mm) nominal terminal length x 0.150" (3.81 mm) nominal terminal row spacing

**Type "4R"** - dip solder, 0.025" (0.635 mm) square terminals, 0.180" (4.57 mm) nominal terminal length x 0.200" (5.08 mm) nominal terminal row spacing

Contact Spacing: 0.100" (2.54 mm) center to center

**Contact Terminal Row Spacing:** Standard - 0.200" (5.08 mm) nominal. Right angle - 0.200" (5.08 mm) nominal and 0.150" (3.81 mm) nominal

Card Thickness: 0.054" to 0.071" (1.37 mm to 1.80 mm)

Card Slot Depth: 0.300" (7.62 mm)

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

#### Note

 High temperature burn-in, edgeboard connectors, with 0.100" (2.54 mm) center to center are on <u>www.vishay.com/doc?36006</u>





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