

## 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<sub>RMS</sub>

At 70 000 feet (21 336 meters): 275 V<sub>RMS</sub>

**Insulation Resistance:** 5000 MΩ minimum at 500 V<sub>DC</sub> 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 MΩ

**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 ½ 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:  
4 body materials: Diallyl phthalate, phenolic, glass-filled polyester and glass-filled polyphenylene sulfied  
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.
- **Recognized under the Component Program of Underwriters Laboratories, Inc. listed under file E65524, project 77CH3889**

### 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:

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

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

"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)

**Plating:** Gold (See Ordering Information)

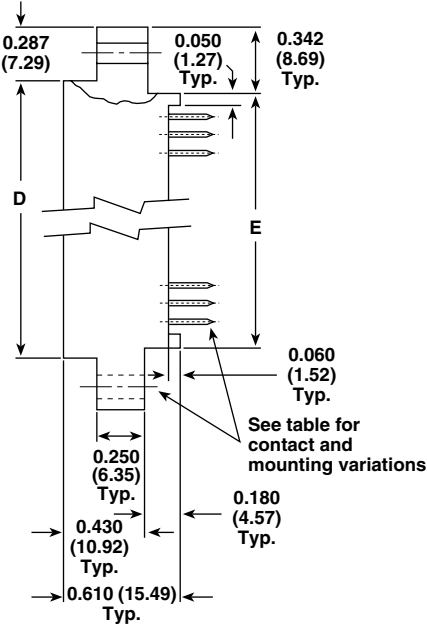
### ORDERING INFORMATION

| EB4   | 3                                      | K                            | 20                | SG                                                                                                                | X                   | 15                                                                                                                                                                                                                                                        |
|-------|----------------------------------------|------------------------------|-------------------|-------------------------------------------------------------------------------------------------------------------|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| MODEL | BODY MATERIAL                          | STANDARD TERMINAL VARIATIONS | CONTACTS PER SIDE | CONTACT PLATING                                                                                                   | MOUNTING VARIATIONS | POLARIZING KEY POSITIONS                                                                                                                                                                                                                                  |
|       | 1 = Diallyl Phthalate                  | C, D, K,                     | 6, 10, 12,        | SG = Selective gold plating (0.00003" (0.000762 mm) minimum thick) on contact area with gold flash on terminal.   |                     | 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.<br><b>Note:</b> To order polarizing keys individually, specify model PK-4. |
|       | 2 = Phenolic                           | 1R, 2R,                      | 15, 18, 20,       | SGF = Selective gold plating (0.000010" (0.000254 mm) minimum thick) on contact area with gold flash on terminal. |                     |                                                                                                                                                                                                                                                           |
|       | 3 = Glass-filled Polyester             | 3R, 4R                       | 22, 25, 28,       | All gold plating over 0.00005" (0.00127 mm) minimum nickel underplate.                                            |                     |                                                                                                                                                                                                                                                           |
|       | 5 = Glass-filled Polyphenylene Sulfied |                              | 30, 31, 35,       | Contact factory for additional plating options.                                                                   |                     |                                                                                                                                                                                                                                                           |
|       |                                        |                              | 36, 40, 43,       |                                                                                                                   |                     |                                                                                                                                                                                                                                                           |
|       |                                        |                              | 44, 48, 49,       |                                                                                                                   |                     |                                                                                                                                                                                                                                                           |
|       |                                        |                              | 50, 60,           |                                                                                                                   |                     |                                                                                                                                                                                                                                                           |
|       |                                        |                              | and 65            |                                                                                                                   |                     |                                                                                                                                                                                                                                                           |

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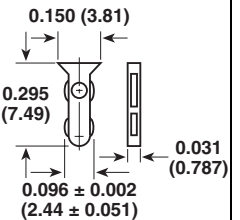
Vishay Dale

## DIMENSIONS in inches (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              |
|---------------------------------|----------------|----------------|----------------|----------------|----------------|
| 6                               | 1.435 (36.45)  | 1.175 (29.85)  | 0.700 (17.78)  | 0.860 (21.84)  | 0.750 (19.05)  |
| 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) |

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

## 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™, 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 [www.vishay.com/doc?36006](http://www.vishay.com/doc?36006)

## MOUNTING VARIATIONS in inches (millimeters)



## TERMINAL VARIATIONS in inches (millimeters)





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