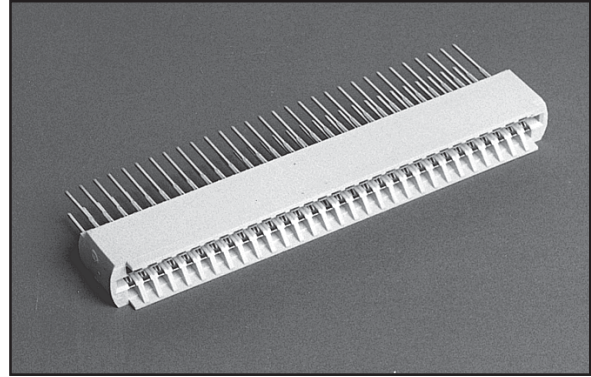
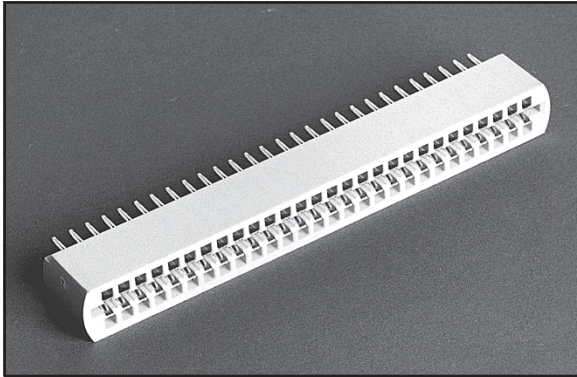


Edgecard Design Information



Winchester Electronics' pre-assembled Edgecard connectors, with C-Press® contacts, combine the reliability of a compliant contact and the advantage of easy assembly to the board.

Pre-assembled units are placed into the printed circuit board and the contacts are mass terminated, resulting in shorter manufacturing times and cost reductions.

Design features, such as removing housings and contacts (which are removed and replaced through the insulator) assure added flexibility in backplane packaging. Selective plating puts gold on the contact only where it is needed - an attractive, cost effective alternative for backplanes.

SPECIFICATIONS

INSULATORS

**Material:** Polyester thermoplastic glass reinforced, UL rated 94 V-O

**Color:** Natural

**Insulation Resistance:** 5,000 Megohms (min)

**Operating Temperature:** -55° to +105°C

CONTACTS

**Type:** See code ordering charts

**Material:** Copper Alloy 725

**Plating:** Selective plating. See code ordering charts

Current Rating:

1 amp at 70°C  
3 amps at 20°C

Contact Resistance:

11 Milliohms (max)  
Contact to daughter card  
2 milliohms (max)  
C-Section to P.T.H.

Insertion Force

(Compliant Area): 40 lbs. or less individual pin

Retention Force

(Compliant Area): 10 lbs. minimum, individual pin

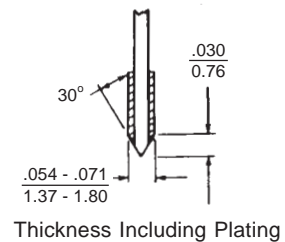
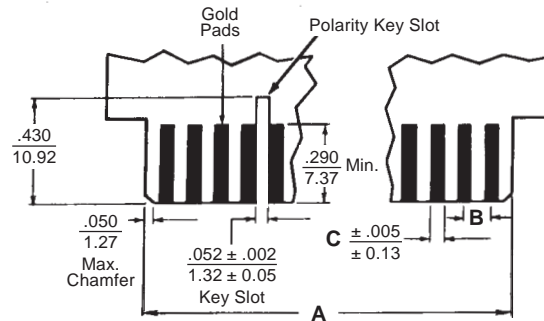
CSA Certified File No. LR34182

Recognized under the Component Program of Underwriters Laboratories Inc. File No. E31650

DAUGHTER CARD LAYOUT

Installation Tooling -

See end of product section



DIMENSIONS

NOTE: Finger pattern to be centered on daughter card. (each finger can deviate .003 (0.08) from true position.)

Connector Grid	Daughter Card		
	A Board Width	B Pad Spacing	C Pad Spacing
"A" .100 X .100	The Connector Card Slot	.100 (2.54)	.070 (1.78)
"C" .100 X .200		.100 (2.54)	.070 (1.78)
"B" .125 X .125	Min. Dimension -.001/-0.011	.125 (3.18)	.080 (2.03)
"D" .125 X .250		.125 (3.18)	.080 (2.03)
"E" .156 X .200		.156 (3.96)	.080 (2.03)

Edgecard .100" x .200" C Grid

C-Grid Edgecard Connectors are available with Bifurcated or non-bifurcated C-Press® Compliant Contacts and with Standard or Scoop Card Guide. Sizes available from 15 to 61 contact pairs plus end stackability using open end connectors for over 61 contact pair

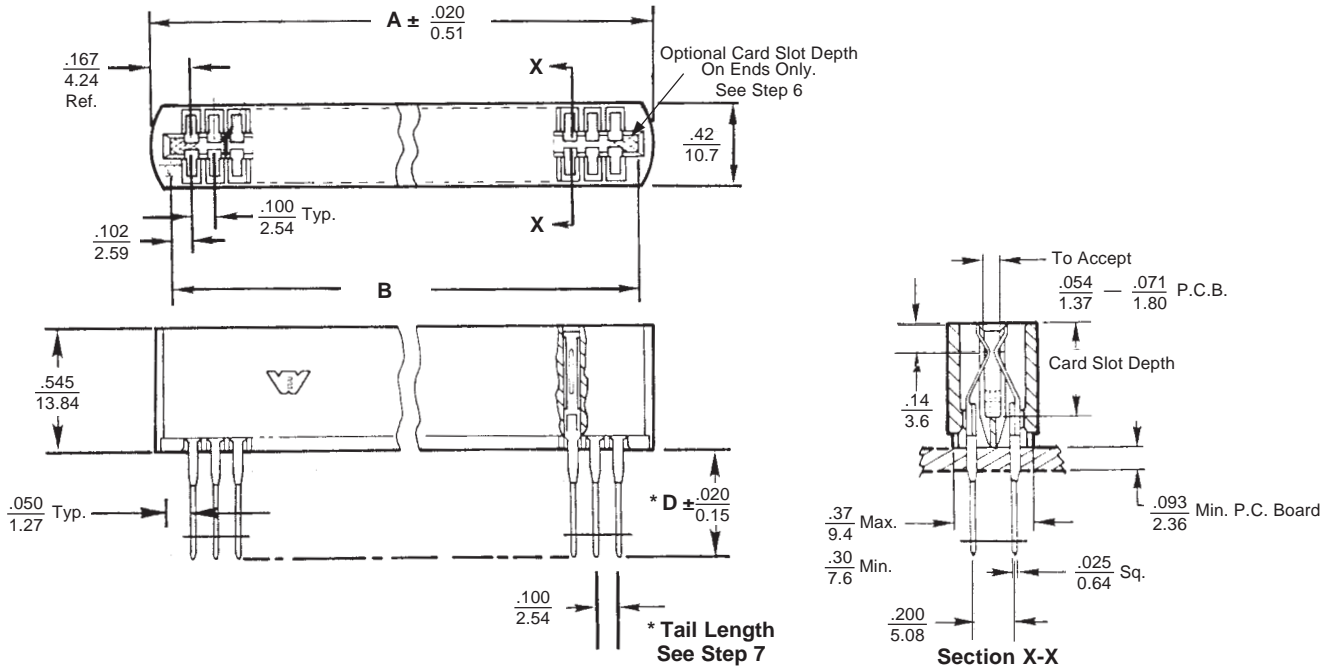
requirements. Additional options include switching contacts, isolation contacts, narrow body, polarization key.

CSA Certified File No.  LR34182

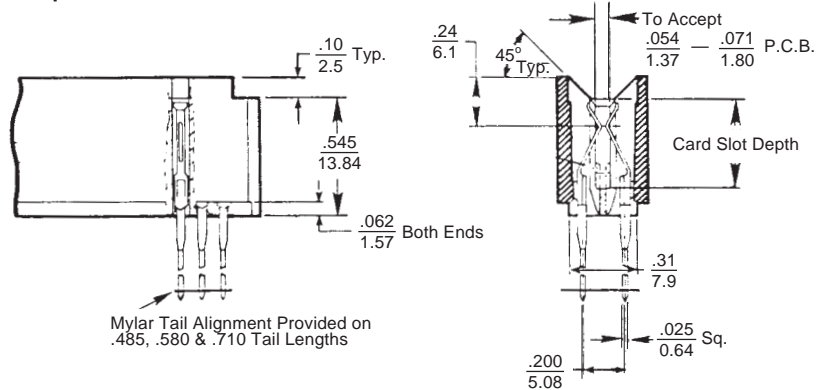
Recognized under the Component Program of Underwriters Laboratories Inc. File No. E31650 

OUTLINE

Standard Card Guide



Scoop Card Guide



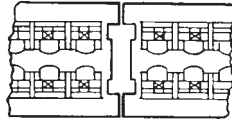
DIMENSIONS

To determine dimensions for sizes not shown in chart, each additional contact pair position added to positions shown increases dimensions by .100" (2.54).

Contact Pairs	A ± .020 (0.51)	B ± .007 (.178)
15	1.734 (44.04)	1.604 (40.74)
61	6.334 (160.88)	6.204 (157.58)

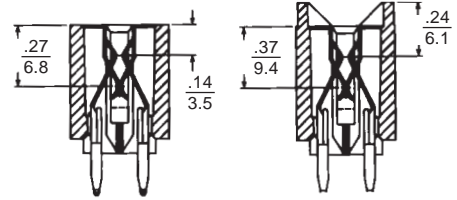
OPTIONS

End Stackable \*



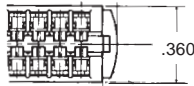
For sizes longer than Dual 61, two connectors are end stacked with contact omitted at butted section. (Using simple insertion tools, insert missing contact after both assemblies are press-fitted to backplane.) See ordering step 3.

Switching Contacts



Standard Card Guide Scoop Card Guide  
Contact Winchester for tail lengths and selective loading.

Narrow Body

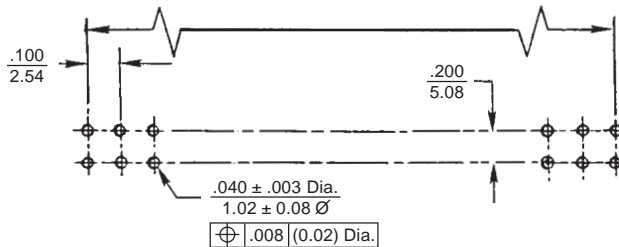


Contact Winchester for available sizes.

Polarization Key -  
Catalog Number 109 101665

BACKPANEL REQUIREMENTS

Hole pattern - .100" x .200  
Ref. CP/17



Hole Size & Plating -  
Standard C-Press®:  
Winchester illustration on page CP/4.


ORDERING INFORMATION

						<b>C</b>			
Step 1 <b>Contact Type:</b> M = bifurcated N = non-bifurcated	Step 2 <b>Card Guide:</b> K = standard J = scoop guide	Step 3 <b>End Configuration:</b> Blank = closed ends S = one open end	Step 4* <b>No. Contact Pairs:</b> 15 thru 61 See note below	Step 5 <b>Grid Spacing:</b> C = .100" x .200"	Step 6 <b>Card Slot Depth (C-Dim.):</b> 1 = .415" (10.54) standard 2 = .350" (8.89)* 3 = .300" (7.62)*	Step 7 <b>Tail Length (D-Dim.):</b> 1 = .190" (4.83) 2 = .485" (12.32) 3 = .580" (14.73) 4 = .710" (18.03) 6 = .375" (9.53)	Step 8 <b>Plating:</b> Standard - 192 = .000030" min. gold in contact area, .000050" min. tin lead in C-Section and tail and .000050" min. nickel under plate all over. Option - 195 = .000030" min. gold in contact area, gold flash in C-Section and tail and .000050" min. nickel under plate all over. Contact Winchester Electronics for additional plating options.	Step 9 4 digit code to be assigned for special loading of switching contacts	
		*Note: To accommodate 1/2 positions order extra pair		*Optional on shaded ends only					
		Example: To build a #MK68C, order + 1.MKS34C = 33 1/2 positions + 1.MKS35C = 34 1/2 positions = MKS68C = 68 positions							

Edgecard .125" x .250" D Grid

D Grid Edgecard Connectors are available with Bifurcated or non-bifurcated C-Press® Compliant Contacts and with Standard or Scoop Card Guide. Sizes available from 15 to 61 contact pairs plus end stackability using

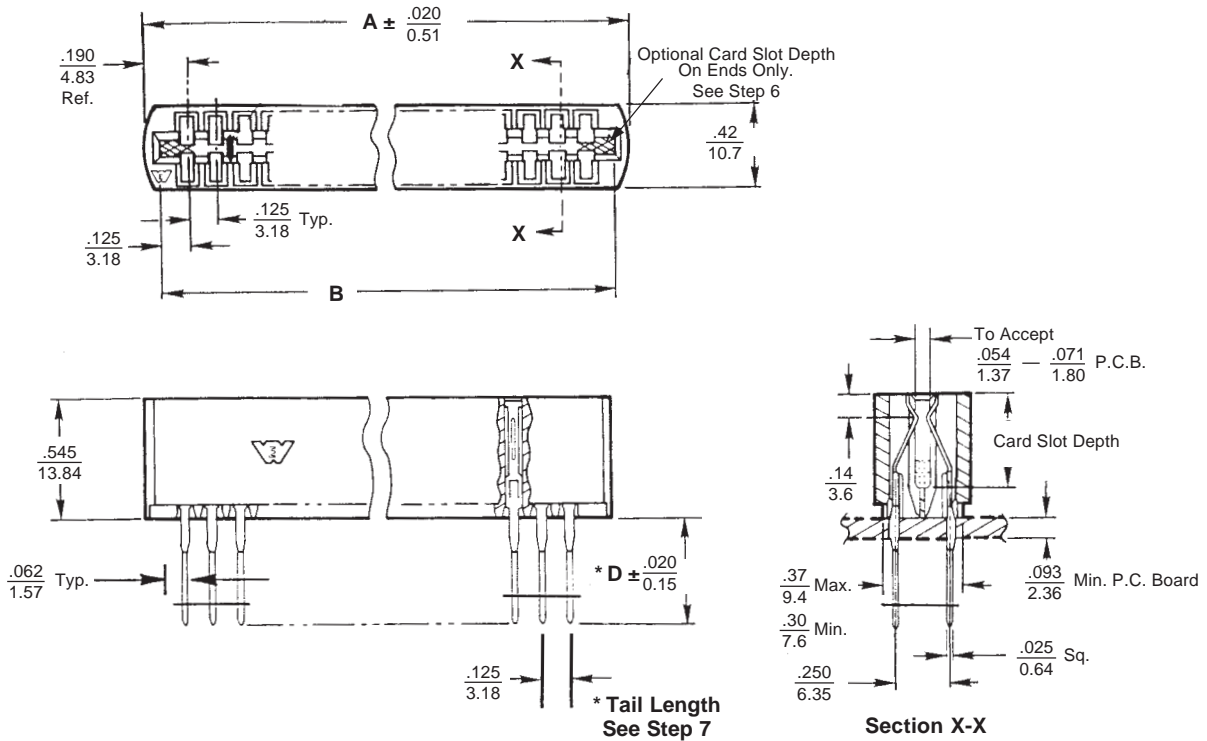
open end connectors for over 61 contact pair requirements. Additional options include isolation contacts and polarization key.

CSA Certified File No.  LR34182

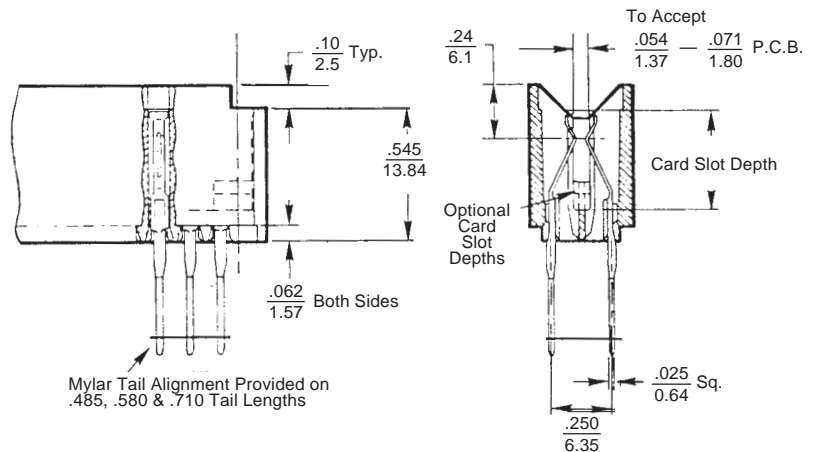
Recognized under the Component Program of Underwriters Laboratories Inc. File No. E31650 

OUTLINE

Standard Card Guide



Scoop Card Guide



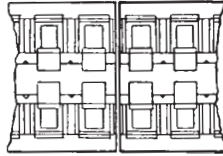
DIMENSIONS

To determine dimensions for sizes not shown in chart, each additional contact pair position added to positions shown increases dimensions by .125" (3.18).

Contact Pairs	A± $\begin{smallmatrix} .020 \\ (0.51) \end{smallmatrix}$	B± $\begin{smallmatrix} .007 \\ (.178) \end{smallmatrix}$
15	2.130 (54.10)	2.000 (50.80)
61	7.880 (200.15)	7.750 (196.85)

#### OPTIONS

#### End Stackable

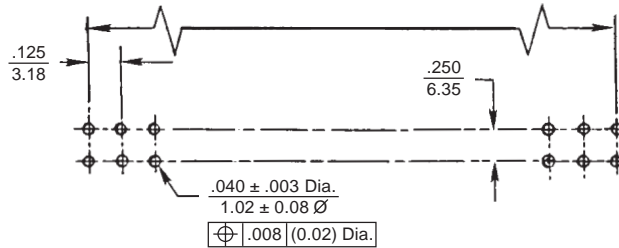


For sizes longer than Dual 61, two connectors are end stacked with 1/2 molding barrier butting together. (No loss of contact location.) See Ordering Step 3

#### Polarization Key - Catalog Number 109 101665

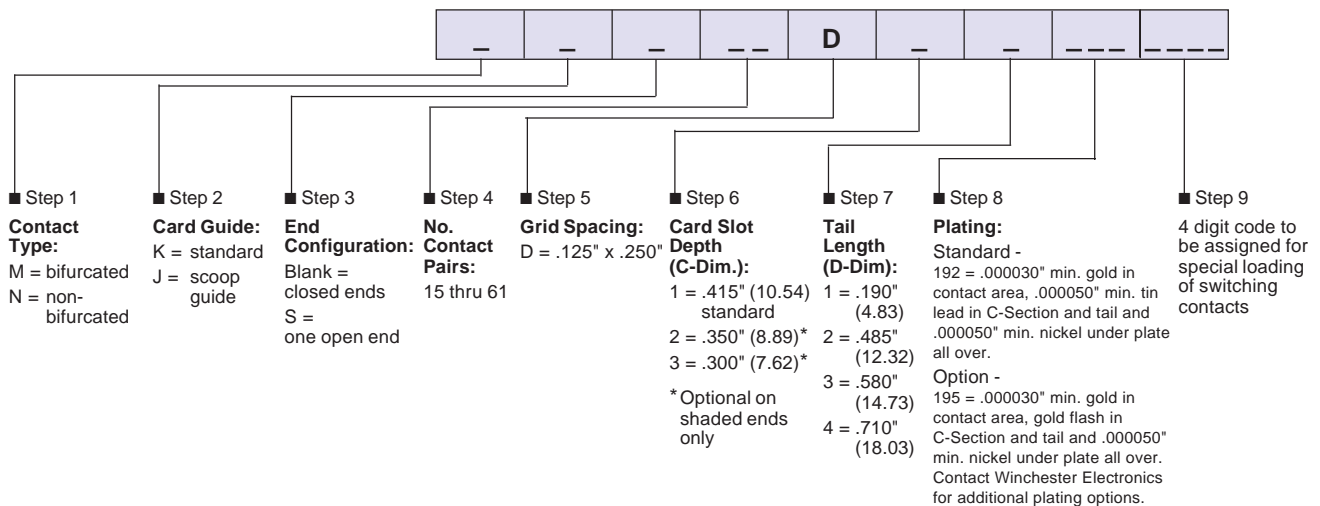
#### BACKPANEL REQUIREMENTS

Hole pattern - .125" x .250"  
Ref. CP/17




**Hole Size & Plating -**  
Standard C-Press®:  
Winchester illustration on page CP/4.


#### ORDERING INFORMATION



A Grid Edgecard Connectors are available with non-bifurcated C-Press® Compliant Contacts and with Standard or Scoop Card Guide. Sizes available from 15 to 61 contact pairs plus end stackability using open end

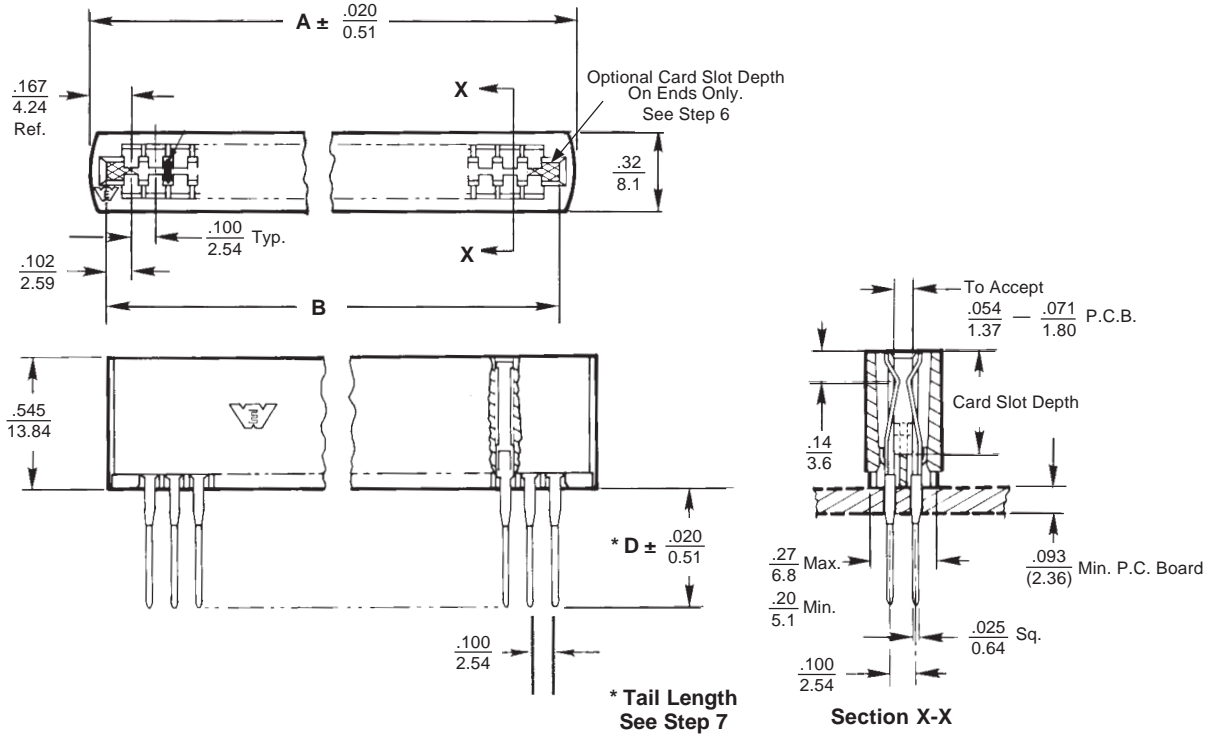
connectors for over 61 contact pair requirements. Additional options include isolation contacts and polarization key.

CSA Certified File No.  LR34182

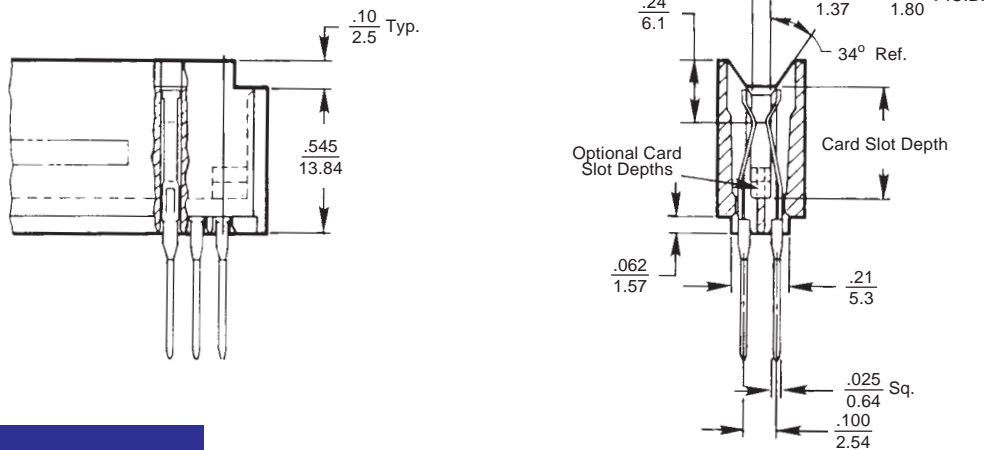
Recognized under the Component Program of Underwriters Laboratories Inc. File No. E31650 

OUTLINE

Standard Card Guide



Scoop Card Guide



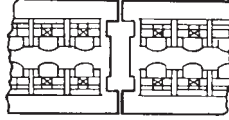
DIMENSIONS

To determine dimensions for sizes not shown in chart, each additional contact pair position added to positions shown increases dimensions by .100" (2.54).

Contact Pairs	A ± .020 (0.51)	B ± .007 (.178)
15	1.734 (44.04)	1.604 (40.74)
61	6.334 (160.88)	6.204 (157.58)

OPTIONS

End Stackable \*

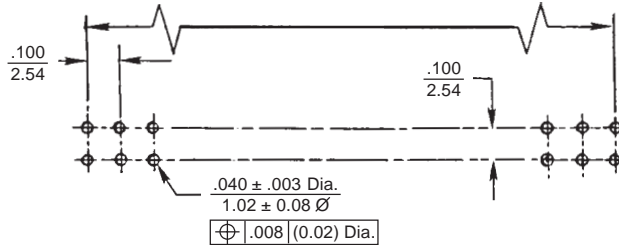


For sizes longer than Dual 61, two connectors are end stacked with contact omitted at butted section. (Using simple insertion tools, insert missing contact after both assemblies are press-fitted into backplane.) See Ordering Step 3

Polarization Key -  
Catalog Number 109 101665

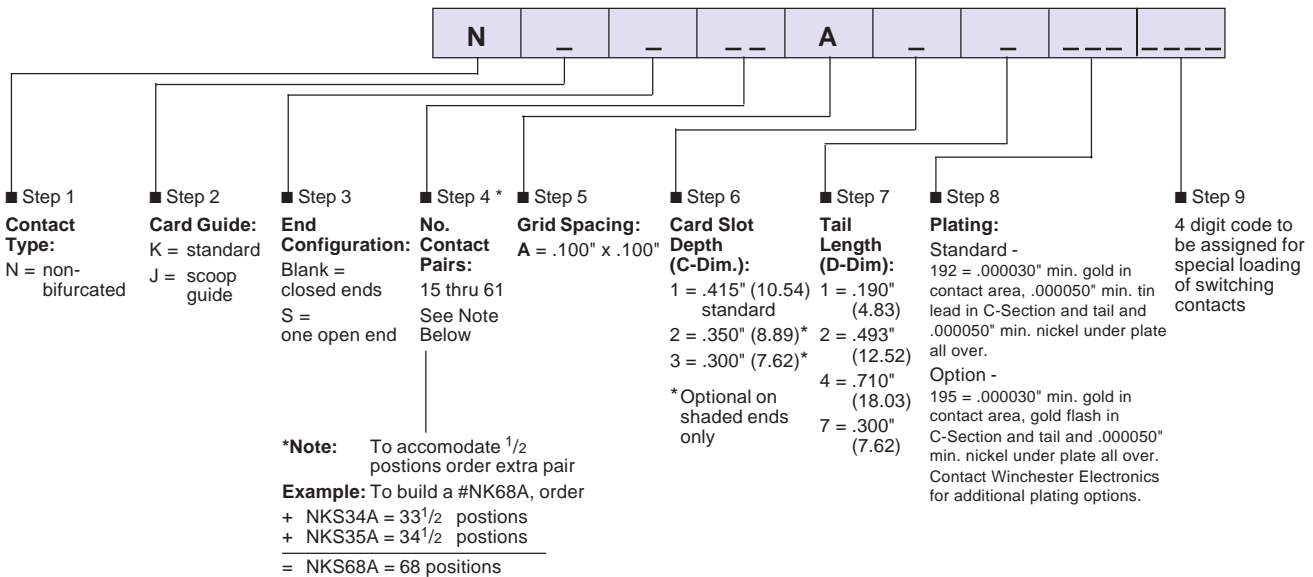
BACKPANEL REQUIREMENTS

Hole pattern - .100" x .100  
Ref. CP/17



Hole Size & Plating -  
Standard C-Press®:  
Winchester illustration on page CP/4.

ORDERING INFORMATION



Edgecard .156" x .200" E Grid

E Grid Edgecard Connectors are available with bifurcated or non-bifurcated C-Press® Compliant Contacts and with Standard or Scoop Card Guide. Sizes available from 10 to 43 contact pairs plus end stackability using open end

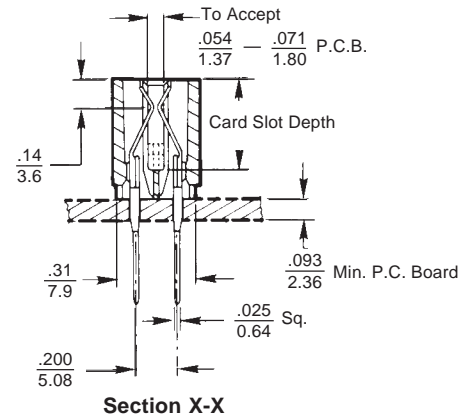
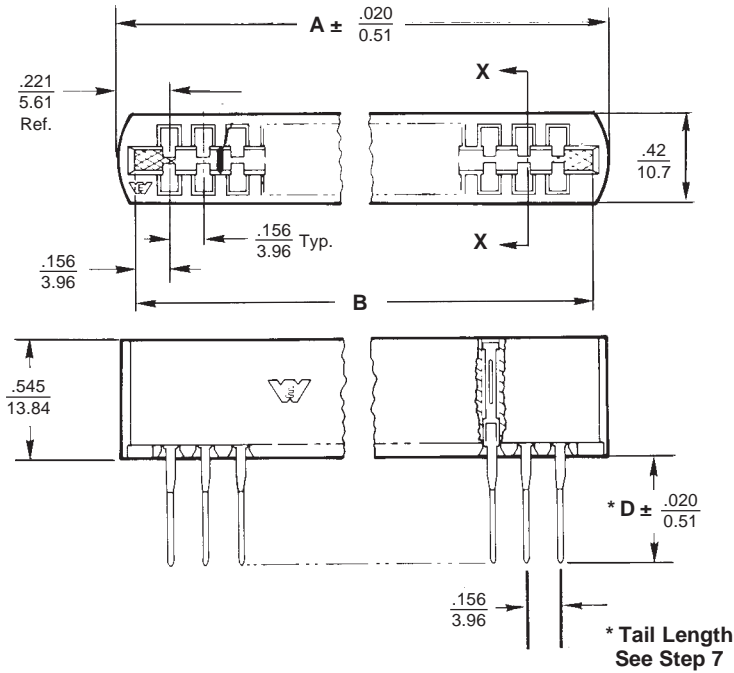
connectors for over 43 contact pair requirements. Additional options include switching contacts, isolation contacts and polarization key.

CSA Certified File No.  LR34182

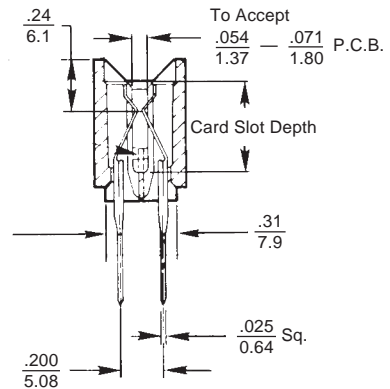
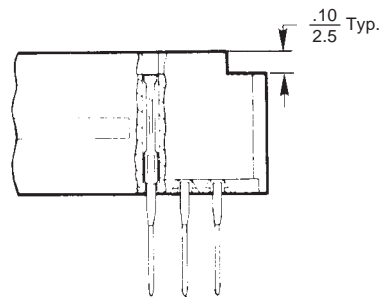
Recognized under the Component Program of Underwriters Laboratories Inc. File No. E31650 

OUTLINE

Standard Card Guide



Scoop Card Guide



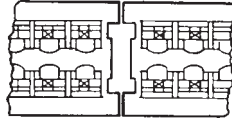
DIMENSIONS

To determine dimensions for sizes not shown in chart, each additional contact pair position added to positions shown increases dimensions by .156" (3.96).

Contact Pairs	A ± $\frac{.020}{(0.51)}$	B ± $\frac{.007}{(1.78)}$
10	1.846 (46.88)	1.716 (43.58)
43	6.994 (177.65)	6.864 (174.35)

#### OPTIONS

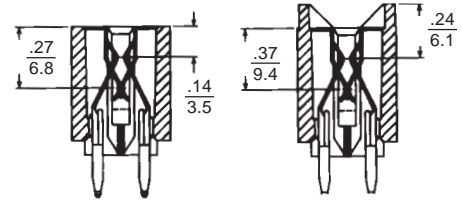
##### End Stackable



For sizes longer than Dual 43, two connectors are end stacked with 1/2 molding barrier butting together. (No loss of contact location.)

See Ordering Step 3

##### Switching Contacts



Standard Card Guide

Scoop Card Guide

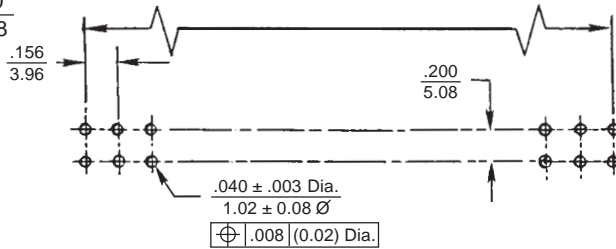
Contact Winchester for tail lengths and selective loading.

See page CP/21 for further information.

#### Polarization Key - Catalog Number 109-106498-2

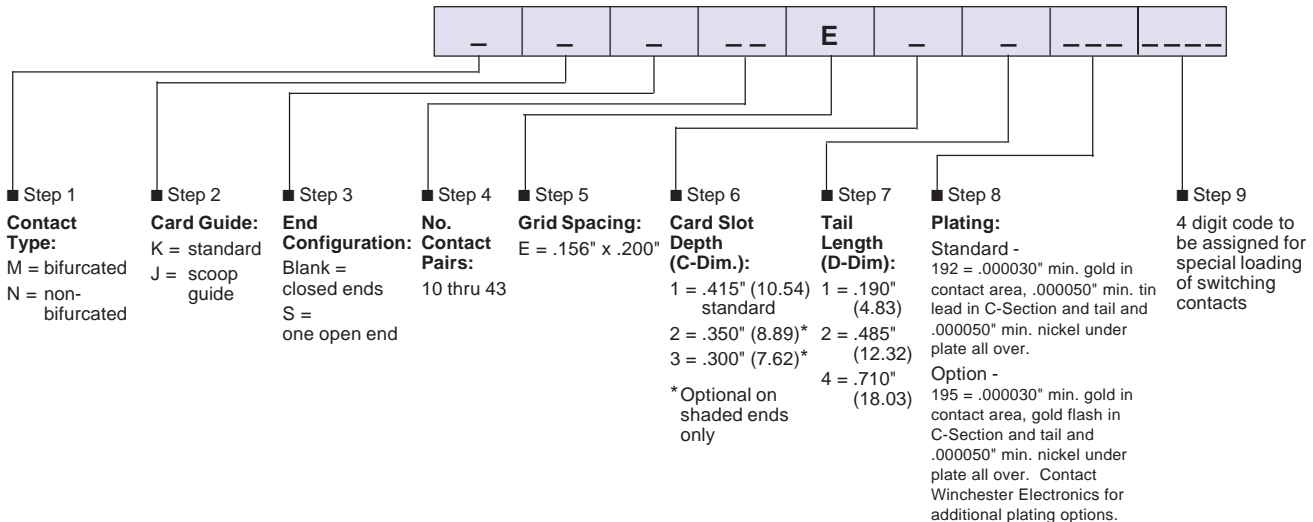
#### BACKPANEL REQUIREMENTS

Hole pattern -  $\frac{.156"}{3.96} \times \frac{.200"}{5.08}$   
Ref. CP/17



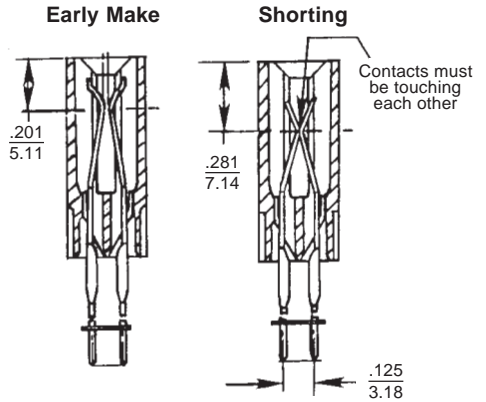
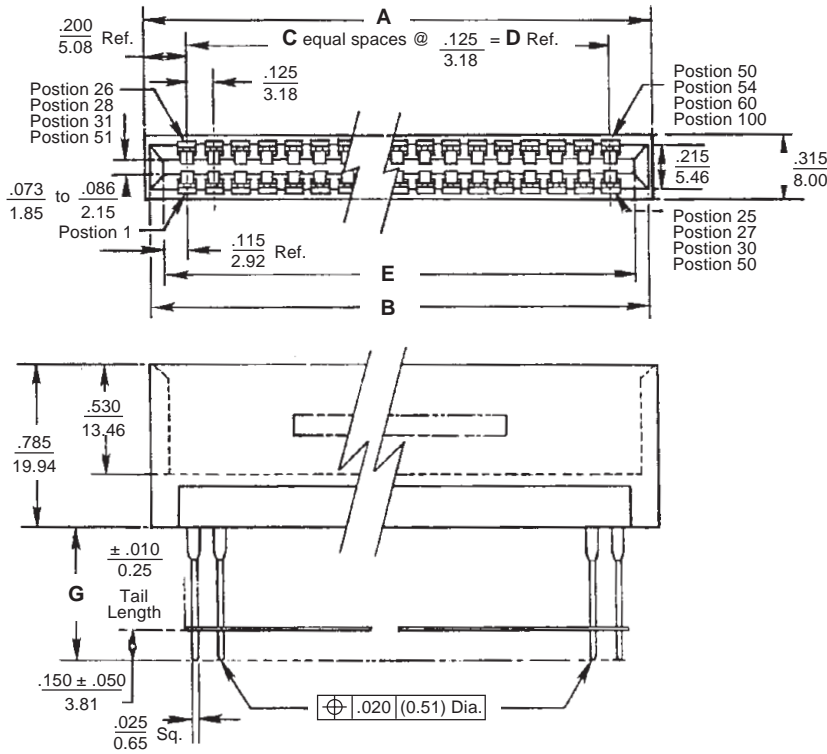
**Hole Size & Plating -**  
Standard C-Press®:  
Winchester illustration on page CP/4.

#### ORDERING INFORMATION

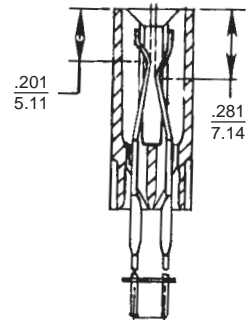


This .125" x .125" grid Edgecard connector features early make/late make and shorting contact options. It also has a mylar strip on the contact tails for improved tip alignment to the printed circuit board.

OUTLINE



Early/Late Make Contacts



DIMENSIONS

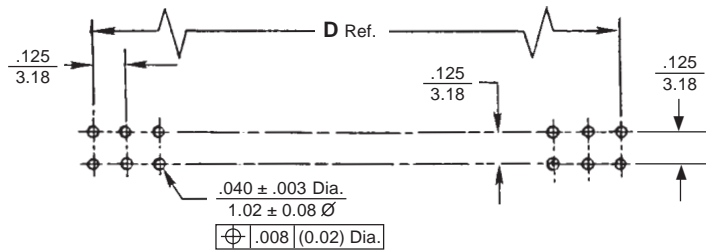
Catalog Number	A	B	C	D	E ± .007 (.178)	Shorting Contact Position	Contact QTY.	Early Make Contact Position	Contact QTY.	Late Make Contact Position	Contact QTY.	G Tail Length
276-25-30	3.400 (86.36)	3.360 (85.34)	24	3.000 (76.20)	3.230 (82.04)	None	—	1 thru 50	50	None	—	.634 (16.10)
276-25-46						None	—	1 thru 50	50	None	—	.425 (10.80)
276-27-06						None	—	1 thru 27	27	28 thru 54	27	.634 (16.10)
276-27-07	3.650 (92.71)	3.610 (91.69)	26	3.250 (82.55)	3.480 (88.39)	18, 22, 45, 49	4	1 thru 17 19 thru 21 23 thru 27	25	28 thru 44 46 thru 48 50 thru 54	25	.634 (16.10)
276-27-19						None	—	1 thru 54	54	None	—	.230 (5.84)
276-27-20						None	—	1 thru 27	27	28 thru 54	27	.425 (10.80)
276-50-05						None	—	1 thru 100	100	None	—	.230 (5.84)
276-50-31	6.525 (165.74)	6.485 (164.72)	49	6.125 (155.58)	6.355 (161.42)	None	—	1 thru 100	100	None	—	.634 (16.10)
276-50-47						None	—	1 thru 100	100	None	—	.425 (10.80)

BACKPANEL REQUIREMENTS

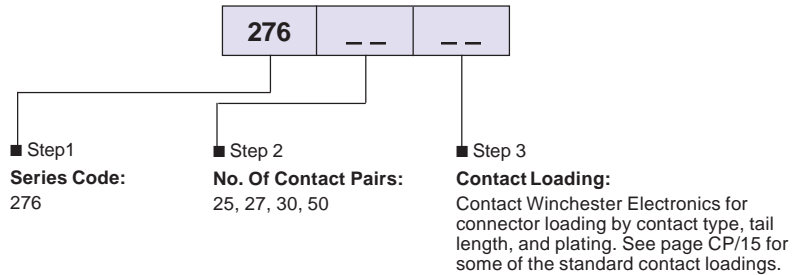
Hole Size & Plating —

Standard C-Press®: illustration on page CP/4.

Hole Pattern



ORDERING INFORMATION



## Edgecard Switching Contacts

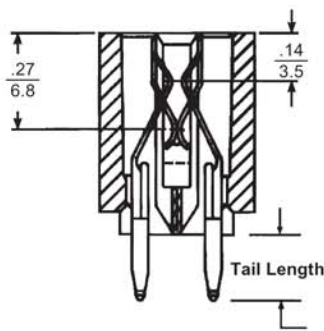
The switching contact maintains electrical continuity through the contact pair until the daughtercard is fully inserted.

This feature allows a multi-slot expandable backplane to connect signal, power and/or ground voltages through two or more slots on the backplane when daughtercards are not installed. Voltage is routed through the contact pair. When the card is inserted, electrical continuity between the contact pair is broken and voltage is routed through the card.

In telephone switching equipment, switch contacts allow daughtercard replacement without interference in telephone lines.

### SWITCHING CONTACTS

Standard Card Guide



Scoop Card Guide

