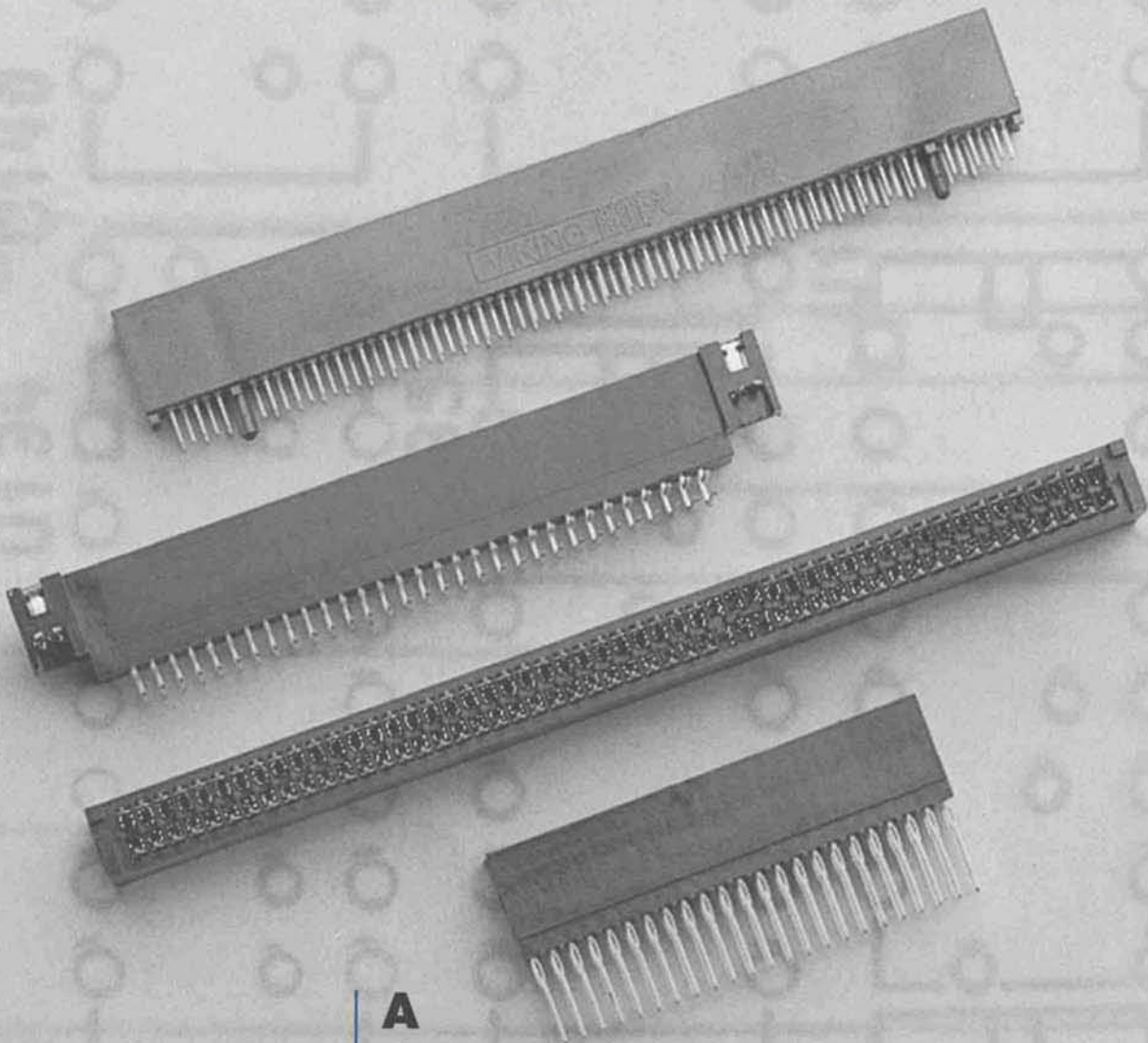




PRINTED

CIRCUIT

CONNECTORS



**A
Commitment
To
Service**

TABLE OF CONTENTS

HOW TO USE THIS CATALOG

This catalog is divided into two sections: card-edge and two-piece connectors. The card-edge line is organized in series by contact centers. Each series has the standard sizes and standard options indicated by ***bold italic type***. Standard items are readily available from local Viking distributors. Nonstandard items and custom products are manufactured to order and require a factory quotation for price and delivery.

CARD-EDGE

Grid	Type of Contact	
.050 (1.27) Contact Centers		
.050 x .225 (1.27 x 5.71)	Dip Solder	2
.100 (2.54) Contact Centers		
.100 x .145 (2.54 x 3.68)	Dip Solder and Pierced Eyelet	4
.100 x .200 (2.54 x 5.08)	Wire Wrap® and Round Tail Dip Solder	6
.100 x .200 (2.54 x 5.08)	Dip Solder	8
.100 x .200 (2.54 x 5.08)	Compliant Pin	10
.100 x .200 (2.54 x 5.08)	Tool-less Compliant Pin	12
.125 (3.18) Contact Centers		
.125 x .145 (3.18 x 3.68)	Dip Solder and Pierced Eyelet	14
.125 x .250 (3.18 x 6.36)	Wire Wrap® and Round Tail	16
Right Angle Options		
.100 (2.54) Contact Spacing	.025 Inch Square Tail	18
.125 (3.18) Contact Spacing	.025 Inch Square Tail	18
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.150 x .145 (3.81 x 3.68)	Dip Solder and Pierced Eyelet	19
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.156 (3.96) Contact Centers		
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.156 x .145 (3.96 x 3.68)	Dip Solder and Pierced Eyelet	22
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TWO-PIECE

.100 (2.54) Contact Centers		
.100 x .100 (2.54 x 2.54)	VSBX Series I	26
.100 x .100 (2.54 x 2.54)	VSBX Series II	28

Page Reference by Series Identifier

Series	Pages	Series	Pages	Series	Pages
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AE	22, 23	CNK	16, 17	JFA	8
AKC	22, 23	CPC	10, 11	JFB	8
AMD	24, 25	CPO	10, 11	JFF	8
AMK	24, 25	CPS	10, 11	JN	4
AN	22, 23	CV	14, 15	JND	6
AND	24, 25	HN	19	JNK	6
AV	22, 23	HNG	20	JV	4
CDD	14, 15	HC	12, 13	LV	2
CE	14, 15	HO	12, 13	LZ	2
CN	14, 15	HS	12, 13	VSBX I	26
		HV	19	VSBX II	28
		JDD	4		

MIL Specs

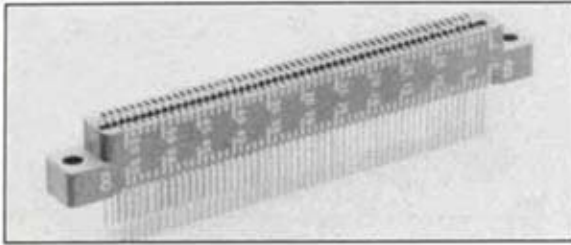
Connectors meet or exceed requirements of MIL-C-21097 for card-edge connectors.



All series shown in this catalog are listed under the component program of Underwriters Laboratories, Inc., File E74125.

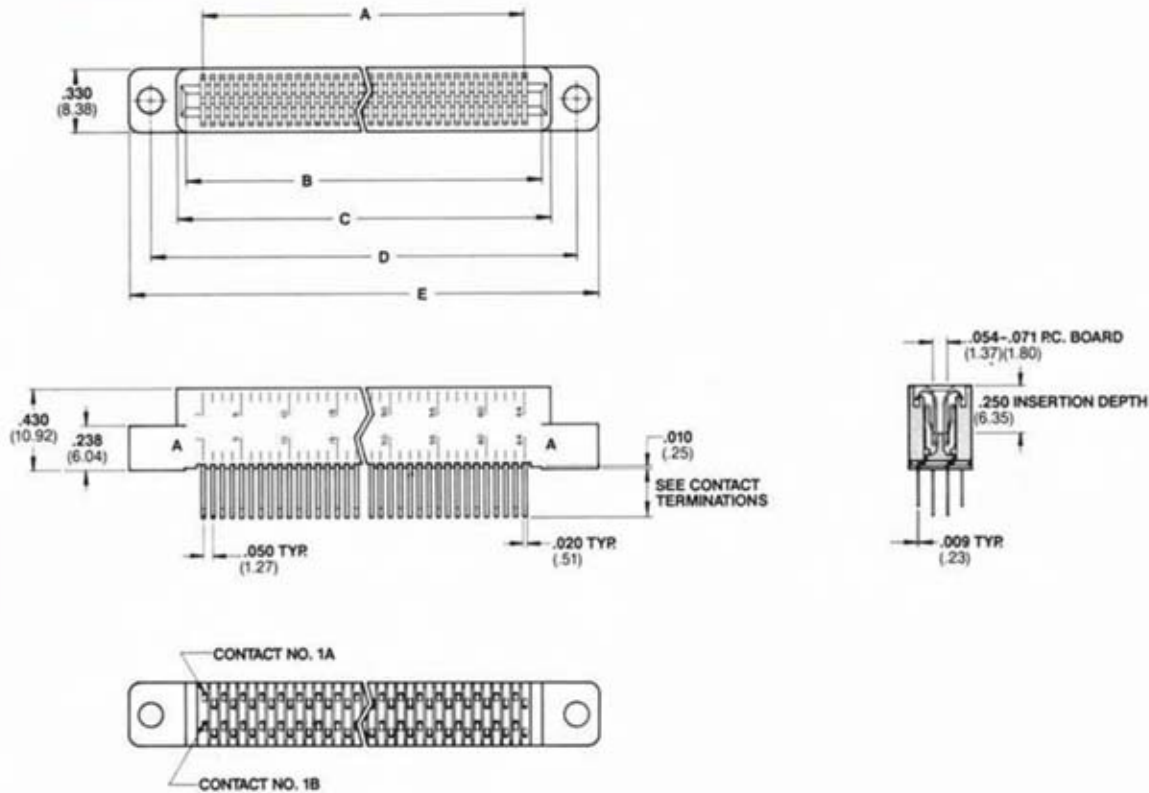
.050 Contact Centers (1.27mm)

.050 x .225 grid



These .050" contact center connectors offer an opportunity for greater contact density in the card-edge format. Up to 64 dual positions are available, with dip solder terminations configured in either 2 rows or 4 staggered rows to facilitate loading into the p.c. board. Note that the smaller contact dimensions reduce the ability of the connector to withstand mistreatment and also require tighter tolerances on mating p.c. board traces.

OUTLINE AND DIMENSIONS



Contact Identification:
 Numbers: 1, 5, 10, ... 64
 Letters: A Near side, B Far side

CONTACT POSITIONS	A ±.007 (±.18)	B ±.007 (±.18)	C ±.010 (±.25)	D ±.007 (±.18)	E ±.015 (±.38)
6/12	.250 (6.35)	.426 (10.82)	.520 (13.21)	.800 (20.32)	1.020 (25.91)
10/20	.450 (11.43)	.626 (15.90)	.720 (18.29)	1.000 (25.40)	1.220 (30.99)
15/30	.700 (17.78)	.876 (22.25)	.970 (24.64)	1.250 (31.75)	1.470 (37.34)
25/50	1.200 (30.48)	1.376 (34.95)	1.470 (37.34)	1.750 (44.45)	1.970 (50.04)
30/60	1.450 (36.83)	1.626 (41.30)	1.720 (43.69)	2.000 (50.80)	2.220 (56.39)
40/80	1.950 (49.53)	2.126 (54.00)	2.220 (56.39)	2.500 (63.50)	2.720 (69.09)
64/128	3.150 (80.01)	3.326 (84.48)	3.420 (86.87)	3.700 (93.98)	3.920 (99.57)

Note: Dimensions are in inches and (millimeters). Tolerance ±.010(.25) unless otherwise specified.

SPECIFICATIONS

ELECTRICAL

Operating Voltage:
 250 Vdc (sea level)
Current Rating: 0.5 amp max.
Dielectric Withstanding Voltage:
 375 Vrms min.
Insulation Resistance:
 5000 megohms min.
Voltage Drop:
 20 mV max.

TEMPERATURE RANGE

-65° C to +125° C
 (-85° F to +257° F)

MECHANICAL

Contact Retention:
 2.5 lbs. min.
Insertion Force:
 1 to 8 oz. per opposing contact pair when using .062 (1.57) steel test blade.
Withdrawal Force:
 .25 oz. min. per opposing contact pair when using .054(1.37) steel test blade.

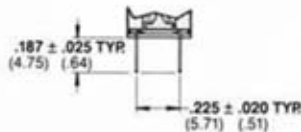
MATERIALS

INSULATOR:
 Diallyl Phthalate, per MIL-M-14, U.L. 94V-0 approved, color green
CONTACTS:
 Copper alloy, gold plated per MIL-G-45204, Type II, Grade C, over nickel.
NOTE:
 All tests are in accordance with requirements of MIL-C-21097.

CONTACT TERMINATIONS

NOTE:

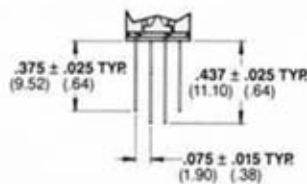
Code V grid spacing is .050 (1.27) x .225 (5.71).



DIP SOLDER
CODE V

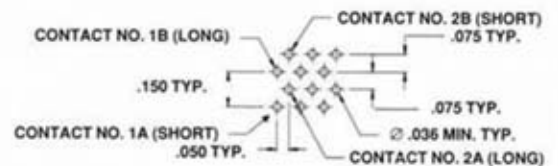
NOTE:

All dip solder terminations are .020 (.51) x .009 (.23) and fit .028 (.71) minimum diameter p.c. board hole.



DIP SOLDER
CODE Z

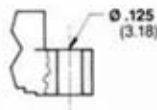
RECOMMENDED P.C.B. HOLE PATTERN



NOTE:

Code Z grid spacing is four staggered rows

MOUNTING STYLES



THRU HOLE
CODE 5



NO EARS
CODE 12

ORDERING INFORMATION

KH	25	/1	L	V	5
-----------	-----------	-----------	----------	----------	----------

CONTACT PLATING

KH: .000010 gold engagement and termination areas

VH: .000030 gold engagement and termination areas

NUMBER OF CONTACT PAIRS

6, 10, 15, 25, 30, 40, 64

INSULATOR MATERIAL

1: Diallyl Phthalate (green)

SERIES IDENTIFIER

L: .050 (1.27) Contact Centers; .062 (1.57) P.C. Board

CONTACT TERMINATIONS

V: Dip Solder

Z: Dip Solder Staggered Rows

MOUNTING STYLES

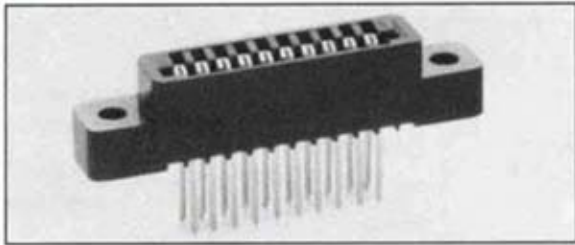
5: Thru Hole

12: No Ears

These series are nonstandard and require a factory quotation for price and delivery.

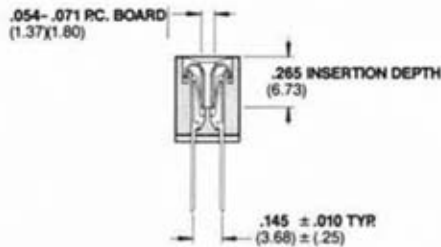
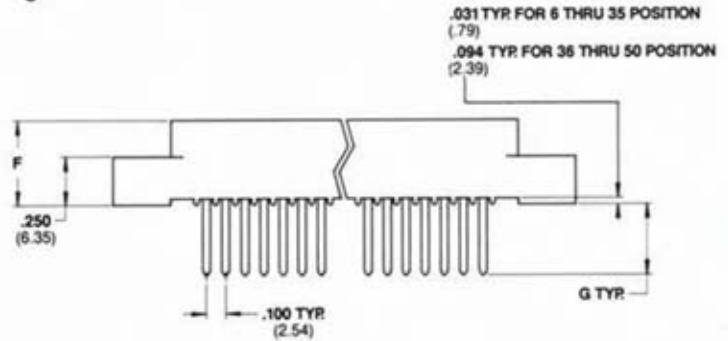
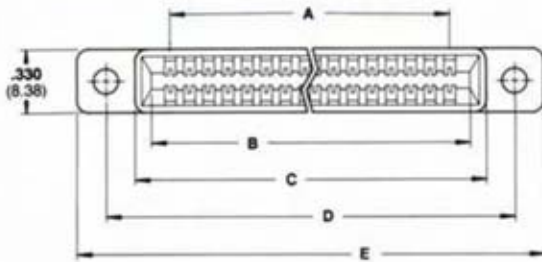
.100 Contact Centers (2.54 mm)

.100 x .145 grid



These low profile .100" contact center connectors accept 1/16" (.062") p.c. boards. All popular sizes from 6 to 50 positions are available with either pierced eyelet or dip solder terminations. The termination row spacing is .145". Bifurcated, full-bellows contacts give the best performance in conditions of repeated insertion and withdrawal of the p.c. board. The variety of possible material combinations allows a choice of emphasis on performance or cost savings.

OUTLINE AND DIMENSIONS



.031 TYR FOR 6 THRU 35 POSITION (.79)
.094 TYR FOR 36 THRU 50 POSITION (2.39)

Contact Identification:
Numbers: B 1, 2, 3,50 B
A 1, 2, 3,50 A

POLARIZATION



Between-Contacts
Polarizing Key
Part No. 091-0071-000

See page 34 for further information.

CONTACT POSITIONS	A ±.005 (±.13)	B ±.007 (±.18)	C ±.010 (±.25)	D ±.005 (±.13)	E ±.015 (±.38)	E' FLOAT MTG ±.015 (±.38)	F	G CONTACT TERMINATIONS			
								"N" ±.025 (±.64)	"E" ±.025 (±.64)	"DD" ±.025 (±.64)	"V" ±.025 (±.64)
6/12	.500 (12.70)	.707 (17.96)	.868 (22.05)	1.175 (29.84)	1.475 (37.46)	1.538 (39.07)	.437 (11.10)	.250 (6.35)	.132 (3.35)	.195 (4.95)	.380 (9.65)
10/20	.900 (22.86)	1.107 (28.12)	1.268 (32.21)	1.575 (40.00)	1.875 (47.62)	1.938 (49.23)					
15/30	1.400 (35.56)	1.607 (40.82)	1.768 (44.91)	2.075 (52.70)	2.375 (60.32)	2.438 (61.93)					
18/36	1.700 (43.18)	1.907 (48.44)	2.068 (52.53)	2.375 (60.32)	2.675 (67.94)	2.738 (69.55)					
20/40	1.900 (48.26)	2.107 (53.52)	2.268 (57.61)	2.575 (65.40)	2.875 (73.02)	2.938 (74.63)					
22/44	2.100 (53.34)	2.307 (58.60)	2.468 (62.69)	2.775 (70.48)	3.075 (78.10)	3.138 (79.71)					
25/50	2.400 (60.96)	2.607 (66.22)	2.768 (70.31)	3.075 (78.10)	3.375 (85.72)	3.438 (87.33)					
28/56	2.700 (68.58)	2.907 (73.84)	3.068 (77.93)	3.375 (85.72)	3.675 (93.34)	3.738 (94.95)					
30/60	2.900 (73.66)	3.107 (78.92)	3.268 (83.01)	3.575 (90.80)	3.875 (98.42)	3.938 (100.03)					
35/70	3.400 (86.36)	3.607 (91.62)	3.768 (95.71)	4.075 (103.50)	4.375 (111.12)	4.438 (112.73)	.437 (11.10)	.250 (6.35)	.132 (3.35)	.195 (4.95)	.380 (9.65)
36/72	3.500 (88.90)	3.707 (94.16)	3.868 (98.25)	4.175 (106.04)	4.475 (113.66)	4.538 (115.27)	.500 (12.70)	.187 (4.75)	.132 (3.35)	.204 (5.18)	.317 (8.05)
40/80	3.900 (99.06)	4.107 (104.32)	4.268 (108.41)	4.575 (116.20)	4.875 (123.82)	4.938 (125.43)	.500 (12.70)	.187 (4.75)	.132 (3.35)	.204 (5.18)	.317 (8.05)
50/100	4.900 (124.46)	5.107 (129.72)	5.268 (133.81)	5.575 (141.60)	5.875 (149.22)	5.938 (150.83)	.500 (12.70)	.187 (4.75)	.132 (3.35)	.204 (5.18)	.317 (8.05)

Note: Dimensions are in inches and (millimeters). Tolerance ±.010(.25) unless otherwise specified.

For other sizes, please call the factory.

SPECIFICATIONS

ELECTRICAL

Operating Voltage: 600 Vdc (sea level)
Current Rating: 3 amp max.
Dielectric Withstanding voltage: 650 Vrms min.
Insulation Resistance: 5000 megohms min.
Voltage Drop: 30 mV max.

TEMPERATURE RANGE

Diallyl Phthalate & Phenolic:
 -65°C to +125°C (-85°F to +257°F)
Polyester:
 -55°C to +105°C (-67°F to +221°F)

MECHANICAL

Contact Retention: 3 lbs. min.
Insertion Force: 2 to 16 oz. per opposing contact pair when using .062 (1.57) steel test blade.
Withdrawal Force: 1 oz. min. per opposing contact pair when using .054 (1.37) steel test blade.

MATERIALS

INSULATOR:
Diallyl Phthalate, per MIL-M-14, U.L. 94V-0 approved, color green

Phenolic, glass reinforced per MIL-M-14, type MFH, U.L. 94V-0 approved, color black
Thermoplastic Polyester, glass reinforced, U.L. 94V-0 approved, color black

CONTACTS:

Copper alloy, gold plated per MIL-G-45204, Type II, Grade C, over nickel.

INSERTS:

Stainless steel, passivated

NOTE:

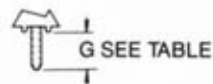
All tests are in accordance with requirements of MIL-C-21097

CONTACT TERMINATIONS



PIERCED EYELET
CODE N

Note: All dip solder terminations are .036 (.91) dia. and fit .042 (1.07) min. dia. p.c. board hole.



DIP SOLDER
CODES E, DD, V

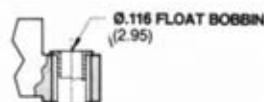
MOUNTING STYLES



THREADED INSERT
CODE 3



THRU HOLE
CODE 5



FLOAT MOUNT
CODE 8



NO EARS
CODE 12

ORDERING INFORMATION

3	VT	22	/1	J	N	5
----------	-----------	-----------	-----------	----------	----------	----------

OPTIONS

POLARIZATION

3: Between-Contacts

CONTACT PLATING CODES

KH:.000010 gold engagement and termination areas

KT:.000010 gold engagement area; .000100 min. tin lead termination area

VH:.000030 gold engagement and termination area

VN:.000030 gold engagement area; .000010 gold termination area

VT:.000030 gold engagement area; .000100 min. tin lead termination area

NUMBER OF CONTACT PAIRS

6, **10, 15, 18, 20, 22, 25,**
28, **30, 35, 36, 40, 50**

INSULATOR MATERIAL

1: Diallyl Phthalate (green)
Standard with VH, VN, and VT platings
 Not available with KT or KH plating

2: Polyester (black)
Standard with KH, KT, VN, and VT platings
 Not available with VH plating or with N termination

9: Phenolic (black)
Standard with code N termination

MOUNTING STYLES

3: Threaded Insert

5: Thru Hole

8: Floating Mount

12: No Ears

CONTACT TERMINATIONS

N: Pierced Eyelet
 Not available with polyester insulator

E: Short Dip Solder

DD: Medium Dip Solder

V: Long Dip Solder

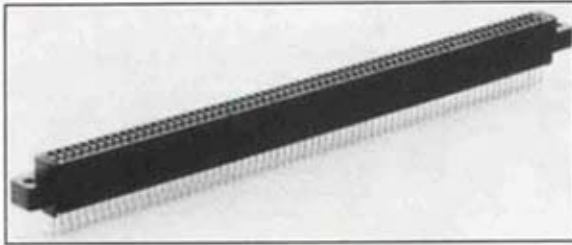
SERIES IDENTIFIER

J: .100 (2.54) Contact Centers
 .062 (1.57) P.C. Board

Standard options are indicated by **bold italic type**.
 Nonstandard items require a factory quotation for price and delivery.

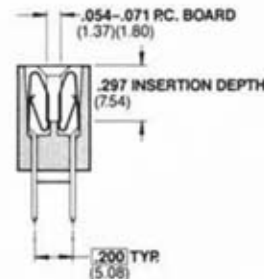
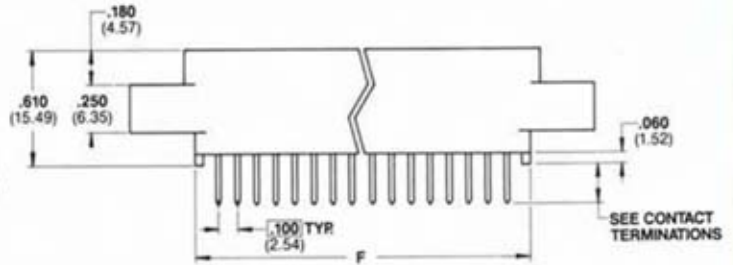
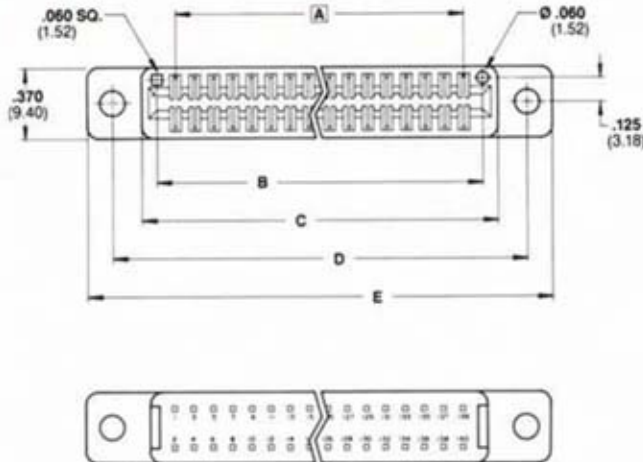
.100 Contact Centers (2.54 mm)

.100 x .200 grid



Viking's popular Wire Wrap® and round tail dip solder connectors feature cost-effective and reliable semi-bellows contacts. The .025" square wrap posts can be terminated on standard equipment to give a 3-level wrap. The .026" diameter dip solder terminations provide an even 360° solder fillet in a standard .035" diameter p.c. board hole. Termination grid spacing is .100" by .200". A wide range of sizes is available, together with various mounting options.

OUTLINE AND DIMENSIONS



POLARIZATION



Between-Contacts
Polarizing Key
Part No. 091-0071-000

See page 34 for further information.

Contact Identification:
Numbers: 1, 3, 5,139
2, 4, 6,140

CONTACT POSITIONS	A BSC	B ±.007 (±.18)	C ±.015 (±.38)	D ±.010 (±.25)	E ±.015 (±.38)	F ±.015 (±.38)
15/30	1.400 (35.56)	1.600 (40.64)	1.760 (44.70)	2.075 (52.70)	2.335 (59.31)	1.650 (41.91)
* 18/36	1.700 (43.18)	1.900 (48.26)	2.060 (52.32)	2.375 (60.32)	2.635 (66.93)	1.950 (49.53)
20/40	1.900 (48.26)	2.100 (53.34)	2.260 (57.40)	2.575 (65.40)	2.835 (72.01)	2.150 (54.61)
22/44	2.100 (53.34)	2.300 (58.42)	2.460 (62.48)	2.775 (70.48)	3.035 (77.09)	2.350 (59.69)
25/50	2.400 (60.96)	2.600 (66.04)	2.760 (70.10)	3.075 (78.10)	3.335 (84.71)	2.650 (67.31)
30/60	2.900 (73.66)	3.100 (78.74)	3.260 (82.80)	3.575 (90.80)	3.835 (97.41)	3.150 (80.01)
* 31/62	3.000 (76.20)	3.200 (81.28)	3.360 (85.34)	3.675 (93.34)	3.935 (99.95)	3.250 (82.55)
35/70	3.400 (86.36)	3.600 (91.44)	3.760 (95.50)	4.075 (103.50)	4.335 (110.11)	3.650 (92.71)
36/72	3.500 (88.90)	3.700 (93.98)	3.860 (98.04)	4.175 (106.04)	4.435 (112.65)	3.750 (95.25)
40/80	3.900 (99.06)	4.100 (104.14)	4.260 (108.20)	4.575 (116.20)	4.835 (122.81)	4.150 (105.41)
43/86	4.200 (106.68)	4.400 (111.76)	4.560 (115.82)	4.875 (123.82)	5.135 (130.43)	4.450 (113.03)
50/100	4.900 (124.46)	5.100 (129.54)	5.260 (133.60)	5.575 (141.60)	5.835 (148.21)	5.150 (130.81)
55/110	5.400 (137.16)	5.600 (142.24)	5.760 (146.30)	6.075 (154.30)	6.335 (160.91)	5.650 (143.51)
60/120	5.900 (149.86)	6.100 (154.94)	6.260 (159.00)	6.575 (167.00)	6.835 (173.61)	6.150 (156.21)
70/140	6.900 (175.26)	7.100 (180.34)	7.260 (184.40)	7.575 (192.40)	7.835 (199.01)	7.150 (181.61)

* 49/98 version combines 31 position and 18 position into one connector. Consult Factory for dimensions.

Note: Dimensions are in inches and (millimeters). Tolerance ±.010(.25) unless otherwise specified.

For other sizes, please call the factory.

JND, JNK, Series

Wire Wrap® and Round Tail Dip Solder Terminations

SPECIFICATIONS

ELECTRICAL

Operating Voltage: 600 Vdc (sea level)
Current Rating: 3 amp max.
Dielectric Withstanding Voltage: 650 Vrms min.
Insulation Resistance: 5000 megohms min.
Voltage Drop: 30 mV max.

TEMPERATURE RANGE

Diallyl Phthalate & Phenolic:
 -65°C to +125°C (-85°F to +257°F)
Polyester:
 -55°C to +105°C (-67°F to +221°F)

MECHANICAL

Contact Retention: Wire Wrap® 8 lbs. min.; Dip Solder 3 lbs min.
Insertion Force: 2 to 10 oz. per opposing contact pair when using .062 (1.57) steel test blade
Withdrawal Force: 1 oz. min. per opposing contact pair when using .054 (1.37) steel test blade

MATERIALS

INSULATOR:

Diallyl Phthalate, per MIL-M-14, U.L. 94V-0 approved, color green

Phenolic, glass reinforced per MIL-M-14, type MFH, U.L. 94V-0 approved, color black
 Thermoplastic Polyester, glass reinforced, U.L. 94V-0 approved, color black

CONTACTS:

Copper alloy, gold plated per MIL-G-45204, Type II, Grade C, over nickel

INSERTS:

Stainless steel, passivated

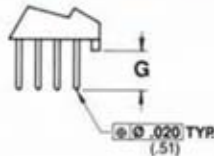
NOTE:

All tests are in accordance with requirements of MIL-C-21097.

CONTACT TERMINATIONS

DIP SOLDER

Dip Solder Terminations are .026 (.66) ± .002 (.05) diameter and fit .035 (.89) min. diameter p.c. board hole.



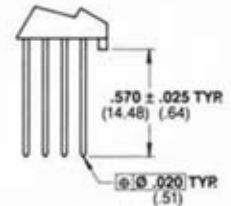
CODE NK

"G" DIMENSIONS	
Std.	.200 ± .025 (5.08) (.64)
Mod Code [081]	.165 ± .025 (5.08) (.64)

WRAP POST

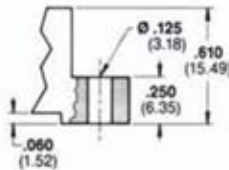
Wrap posts are .025(.64) square.

NOTE: See page 21 for right angle and card extender terminations.

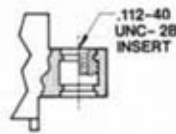


CODE ND

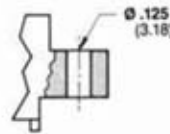
MOUNTING STYLES



FLUSH MOUNT
CODE 1



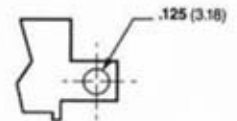
THREADED INSERT
CODE 3



THRU HOLE
CODE 5



NO EARS
CODE 12



TRANSVERSE THRU HOLE
CODE 15

ORDERING INFORMATION

3	VT	25	/2	J	NK	5	[]
---	----	----	----	---	----	---	-----

POLARIZATION

3: Between-Contacts (Internal)

CONTACT PLATING

KH: .000010 gold engagement and termination areas
KT: .000010 gold engagement area; .000100 min. tin lead termination area
VH: .000030 gold engagement and termination areas
VN: .000030 gold engagement area; .000010 gold termination area
VT: .000030 gold engagement area; .000100 min. tin lead termination area

NUMBER OF CONTACT PAIRS

15, **18**, 20, **22**, **25**, **30**, **31**, 35, **36**, **40**, **43**, **50**, 55, 60, 70

INSULATOR MATERIAL

1: Diallyl Phthalate (green); **Standard with VH, VN, and VT platings**
 Not available with KT plating
2: Polyester (black); **Standard with KH, KT, VN, and VT platings**
 Not available with VH plating or sizes above 50 contact positions
9: Phenolic (black) Not available with KT plating in sizes under 50 contact positions

TERMINATION MODIFIERS

(081): Dip Solder .165
 See page 21 for right angle and card extender terminations.

MOUNTING STYLES

1: Flush Mount; **Standard with NK termination only**
3: Threaded Insert
5: Thru Hole
12: No Ears; **Standard with NK termination only**
15: Transverse Thru Hole

CONTACT TERMINATIONS

ND: Wrap Post
NK: Dip solder

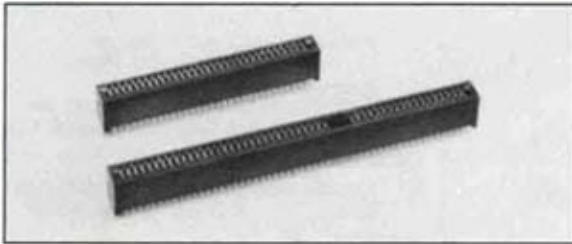
SERIES IDENTIFIER

J: .100 (2.54) Contact Centers
 .062 (1.57) P.C. Board.

Standard options are indicated by **bold italic type**.
 Nonstandard items require a factory quotation for price and delivery.

.100 Contact Centers (2.54 mm)

.100 x .200 grid

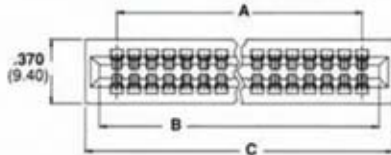


Viking's cantilever beam contact card-edge line offers one of the lowest cost card-edge connectors on a .100 x .200 grid size with solder tails.

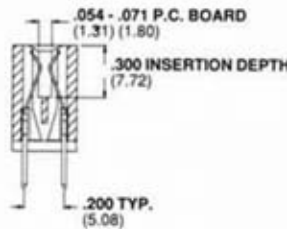
Viking also includes an 18 + 31 position, Dual Card Slot connector specifically designed for the motherboard I/O slots in the IBM PC AT™ computer or its compatible products.

OUTLINE AND DIMENSIONS

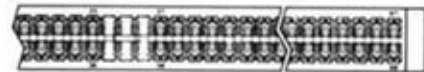
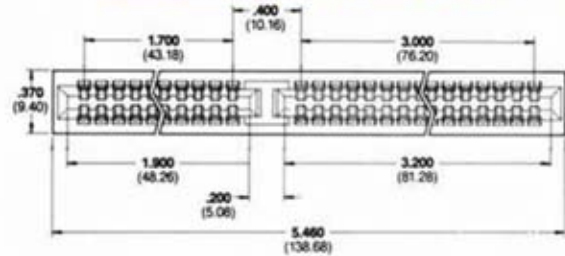
COST DRIVEN CARD-EDGE CONNECTOR



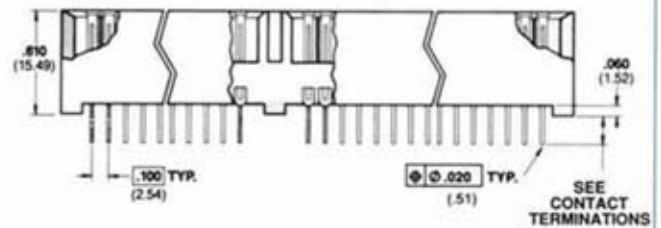
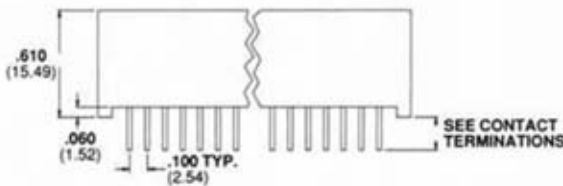
Contact Identification:
1, ..., 9, ..., 19, ..., 61
2, ..., 10, ..., 20, ..., 62



DUAL CARD SLOT CONNECTOR



Contact Identification:
1, .. 35, 37, ... 97
2, .. 36, 38, ... 98



POLARIZATION



Between contacts
Polarizing Key
Part No. 091-0071-000

See page 34 for further information.

CONTACT POSITIONS	A BSC	B ±.007 (±.18)	C ±.015 (±.38)
18/36	1.700 (43.18)	1.900 (48.26)	2.060 (52.32)
31/62	3.000 (76.20)	3.200 (81.28)	3.360 (85.34)

49/98 Dual Card Slot. See outline above for dimensions.

Note: Dimensions are in inches and (millimeters). Tolerance ±.010(.25) unless otherwise specified.

For other sizes, please call the factory.

SPECIFICATIONS

ELECTRICAL

Operating Voltage:
600 Vdc (sea level)
Current Rating: 3 amp max.
Dielectric Withstanding Voltage:
650 Vrms min.
Insulation Resistance:
5000 megohms min.
Voltage Drop: 30 mV max.

TEMPERATURE RANGE

-55°C to +105°C (-67°F to +221°F)

MECHANICAL

Contact Retention: 3 lbs. min.
Insertion Force:
6 to 10 oz. average per contact pair when tested with a .062" p.c. board
Withdrawal Force: 2 to 4 oz. average per contact pair when tested with a .062" p.c. board

MATERIALS

INSULATOR:
Thermoplastic Polyester, glass reinforced, U.L. 94V-0 approved, color black

CONTACTS:

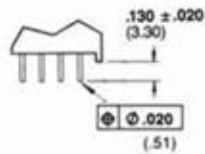
Copper alloy, gold plated per MIL-G-45204, Type II, Grade C, over nickel.

NOTE:

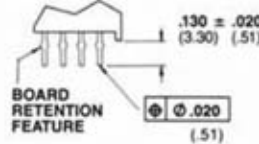
All tests are in accordance with requirements of MIL-C-21097

CONTACT TERMINATIONS

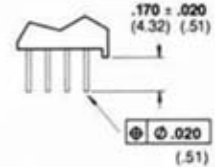
Note: dip solder terminations fit .042 (1.07) minimum diameter P.C. board hole.



SHORT DIP SOLDER
CODE FA



SHORT DIP SOLDER
WITH RETENTION
FEATURE
CODE FB



DIP SOLDER
CODE FF

ORDERING INFORMATION

3	VT	49	/2	J	FA	12	[DCS]
----------	-----------	-----------	-----------	----------	-----------	-----------	--------------

POLARIZATION

3: Between-Contacts

CONTACT PLATING CODES

KT: .000010 gold engagement area;
.000100 min. tin lead termination area

VT: .000030 gold engagement area;
.000100 min. tin lead termination area

NUMBER OF CONTACT PAIRS

18, 31 and 49 Dual Card Slot (18 + 31)

INSULATOR MATERIAL

2: Polyester (black)

SERIES IDENTIFIER

J: .100 (2.54) Contact Centers; .062 (1.57) P.C. Board

CONTACT TERMINATIONS

FA: Short Dip Solder

FB: Short Dip Solder with Retention Feature

FF: Dip Solder

MOUNTING STYLE

12: No Ears

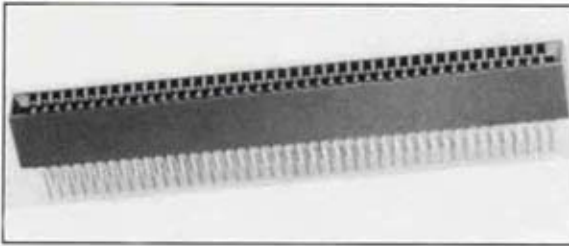
MODIFICATION

DCS: Dual Card Slot - only available with 49 position (18 + 31)

Standard options are indicated by **bold italic type**.
Nonstandard items require a factory quotation for price and delivery.

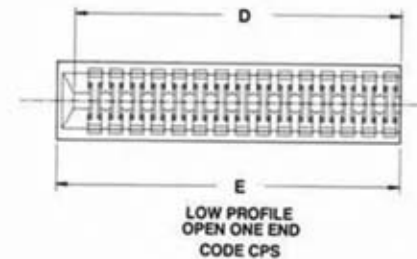
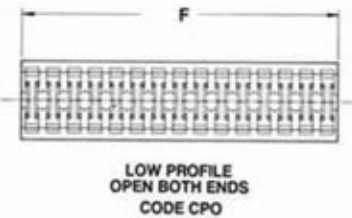
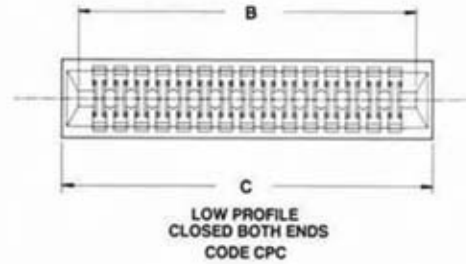
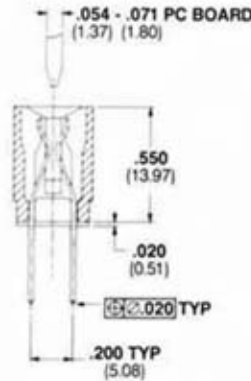
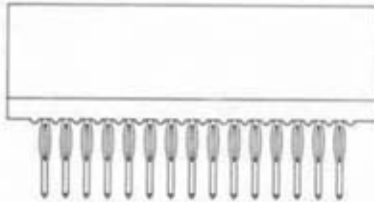
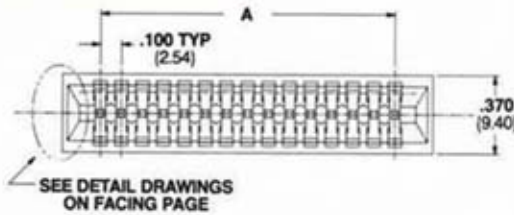
.100 Contact Centers (2.54 mm)

.100 x .200 grid



The Compliant Pin Card-Edge connector is ideal for use with multilayer backplane assemblies which require reliable, easy-to-fit connectors. By eliminating the need for soldering, the compliant pin series reduces assembly time and costs. The Viking Compliant Pin contact features the Eye of the Needle design (see next page). Individual contacts can be removed and replaced several times without affecting electrical or mechanical performance. These properties make the Eye of the Needle the preferred design in military and commercial applications.

OUTLINE AND DIMENSIONS



CONTACT POSITIONS	A BSC	B ±.010 (±.25)	C ±.015 (±.38)	D ±.010 (±.25)	E ±.015 (±.38)	F ±.010 (±.25)
15/30	1.400 (35.56)	1.604 (40.74)	1.760 (44.70)	1.544 (39.22)	1.624 (41.25)	1.488 (37.80)
18/36	1.700 (43.18)	1.904 (48.36)	2.060 (52.32)	1.844 (46.84)	1.924 (48.87)	1.788 (45.42)
22/44	2.100 (53.34)	2.304 (58.52)	2.460 (62.48)	2.244 (57.00)	2.324 (59.03)	2.188 (55.58)
25/50	2.400 (60.95)	2.604 (66.14)	2.760 (70.10)	2.544 (64.62)	2.624 (66.65)	2.488 (63.20)
31/62	3.000 (76.20)	3.204 (81.38)	3.360 (85.34)	3.144 (79.86)	3.224 (81.89)	3.088 (78.44)
35/70	3.400 (86.36)	3.604 (91.54)	3.760 (95.50)	3.544 (90.02)	3.624 (92.05)	3.488 (88.60)
36/72	3.500 (88.90)	3.704 (94.08)	3.860 (98.04)	3.644 (92.56)	3.724 (94.59)	3.588 (91.14)
40/80	3.900 (99.06)	4.104 (104.24)	4.260 (108.20)	4.044 (102.72)	4.124 (104.75)	3.988 (101.30)
43/86	4.200 (105.68)	4.404 (111.86)	4.560 (115.82)	4.344 (110.34)	4.424 (112.37)	4.288 (108.92)
50/100	4.900 (124.46)	5.104 (129.64)	5.260 (133.60)	5.044 (128.12)	5.124 (130.15)	4.988 (126.70)
60/120	5.900 (149.86)	6.104 (155.04)	6.260 (159.00)	6.044 (153.52)	6.124 (155.55)	5.988 (152.10)

Note: Dimensions are in inches and (millimeters). Tolerance ±.010(.25) unless otherwise specified.

SPECIFICATIONS

ELECTRICAL

Current Rating: 3 amps
Dielectric Withstanding Voltage: 650 Vrms min.
Insulation Resistance: 5000 megohms min.
Contact Resistance: 10 milliohms at 3 amps

TEMPERATURE RANGE

-55°C to +105°C
 (-67°F to +221°F)

MECHANICAL

Insertion Force: 6 to 10 oz. average per contact pair with .062" p.c. board
Withdrawal Force: 2 to 6 oz. average per contact pair with .062" p.c. board
Compliant Section Insertion Force: 40 lbs. max. with .062" p.c. board
Compliant Section Withdrawal Force: 10 lbs. min. with .062" p.c. board

MATERIALS

INSULATOR: Thermoplastic polyester, glass reinforced, UL94V-0 approved, color black.
CONTACTS: Phosphor bronze, gold plated per MIL-G-45204, Type II, Grade C, over nickel. Pre-loaded cantilever beam, "Eye Of The Needle" compliant section.

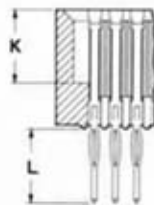
RECOMMENDED BOARD DIMENSIONS:

Mother board .062" to .135" thick
 Unplated thru-hole diameter .0453 ± .001
 Finished plated thru-hole diameter .040 ± .003

CONTACT TERMINATIONS AND CARD SLOT

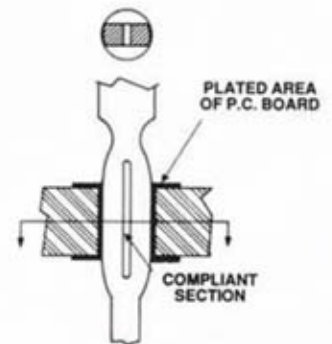
CARD SLOT DEPTH	
CODE	K
3	.350(8.89)
4	.415(10.54)

TERMINATION LENGTH	
CODE	L
S2	.375(9.53)
W2	.702(17.83)
W4	.475(12.07)



COMPLIANT PIN: EYE OF THE NEEDLE DESIGN

The Eye of the Needle contact design has been tested and accepted for all military and commercial applications. When inserted into a .040" ± .003" thru-hole, the compliant section provides a gas tight connection without stressing the hole. It can be used effectively in .062", .093" and .125" thick printed circuit boards. Contacts can be individually replaced without removing the entire connector. The seven pound minimum retention force of each contact eliminates any need for hold-down hardware.



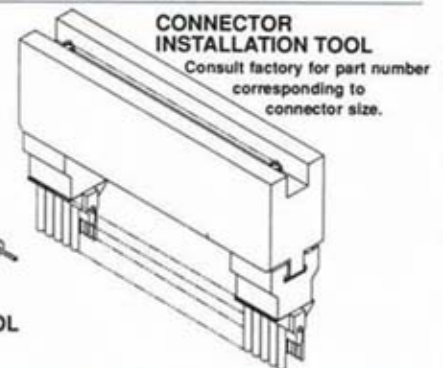
TOOLING

Viking offers two hand tools that allow the operator to easily remove and replace individual contacts. The connector installation tool varies with the number of positions of the connector. Please consult the factory for the tool part number corresponding to the selected connector size.



CONTACT INSERTION TOOL
 P/N 000407-0643

CONTACT EXTRACTION TOOL
 P/N 000407-0620



CONNECTOR INSTALLATION TOOL

Consult factory for part number corresponding to connector size.

ORDERING INFORMATION

CPC	25	CT	/2	J	3	S2
------------	-----------	-----------	-----------	----------	----------	-----------

CONNECTOR STYLES

CPC: Low profile closed both ends
CPO: Low profile open both ends
CPS: Low profile open one end

NUMBER OF CONTACT PAIRS

15, 18, 22, 25, 31, 35, 36, 40, 43, 50, 60

CONTACT PLATING

CT: .000015 gold engagement area; .000100 min. tin lead termination area
DT: .000030 gold engagement area; .000100 min. tin lead termination area.

INSULATOR MATERIAL

2: Polyester (black)

TAIL LENGTH

S2: .375(9.53)
W2: .702(17.83)
W4: .475(12.07)

CARD SLOT DEPTH

3: .350(8.89)
4: .415(10.54)
Available with low profile only.

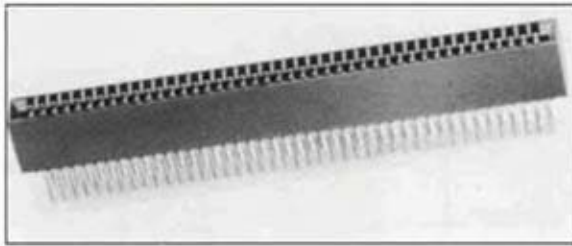
SERIES IDENTIFIER

J: .100(2.54) Contact Centers
 .062(1.57) p.c. board

Standard options are indicated by **bold italic type**. Nonstandard items require a factory quotation for price and delivery.

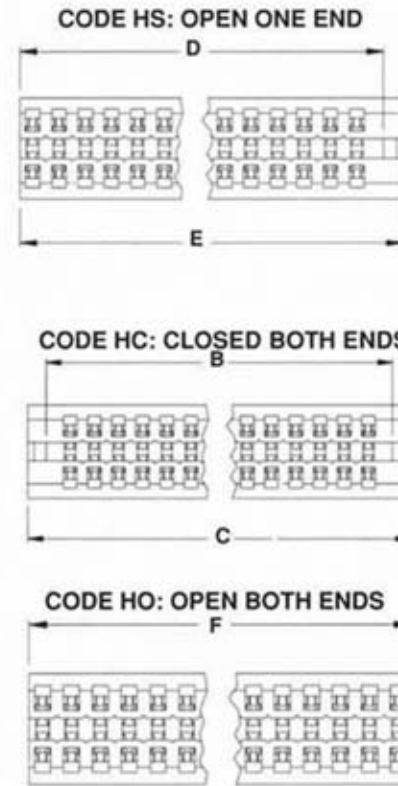
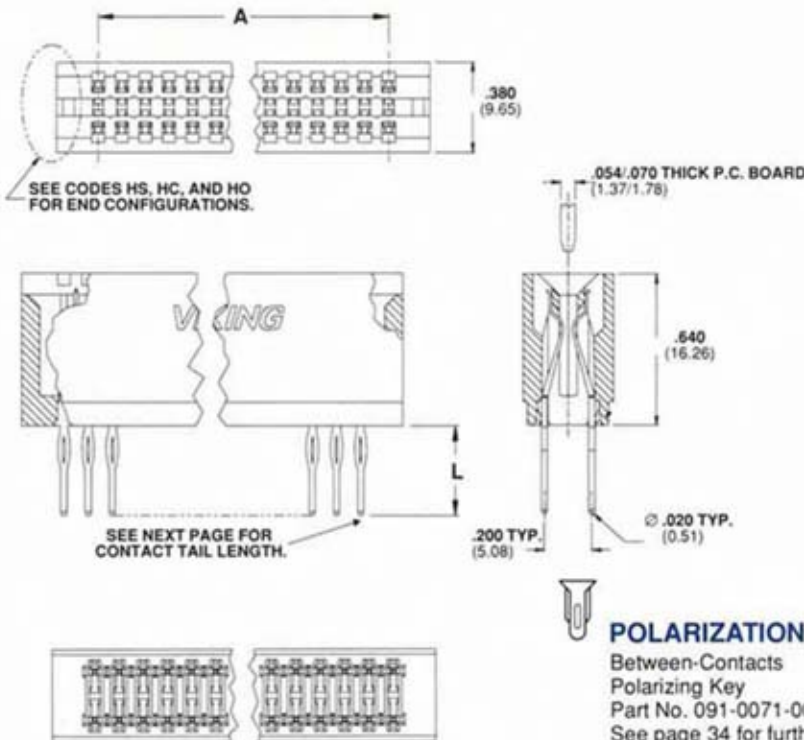
.100 Contact Centers (2.54 mm)

.100 x .200 grid



Viking's HS, HC, and HO Series Compliant Pin Card-Edge Connectors, like our CPC, CPO and CPS Series are ideal for use with multilayer backplane assemblies. This series, however, has been designed for installation without use of special tooling, making installation in certain applications even faster and easier. These connectors also feature the Eye of the Needle contact design and both closed and open-end insulators suitable for stacking.

OUTLINE AND DIMENSIONS



CONTACT POSITIONS	A BSC	B ±.007 (±.18)	C ±.015 (±.38)	D ±.010 (±.25)	E ±.010 (±.25)	F ±.010 (±.25)
15/30	1.400 (35.56)	1.600 (40.64)	1.750 (44.45)	1.547 (39.29)	1.622 (41.20)	1.494 (37.95)
18/36	1.700 (43.18)	1.900 (48.26)	2.050 (52.07)	1.847 (46.91)	1.922 (48.82)	1.794 (45.57)
25/50	2.400 (60.96)	2.600 (66.04)	2.750 (69.85)	2.547 (64.69)	2.622 (66.60)	2.494 (63.35)
30/60	2.900 (73.66)	3.100 (78.74)	3.250 (82.55)	3.047 (77.39)	3.122 (79.30)	2.994 (76.05)
31/62	3.000 (76.20)	3.200 (81.28)	3.350 (85.09)	3.147 (79.93)	3.222 (81.84)	3.094 (78.59)
36/72	3.500 (88.90)	3.700 (93.98)	3.850 (97.79)	3.647 (92.63)	3.722 (94.54)	3.594 (91.29)
39/78	3.800 (96.52)	4.000 (101.60)	4.150 (105.41)	3.947 (100.25)	4.022 (102.16)	3.894 (98.91)
40/80	3.900 (99.06)	4.100 (104.14)	4.250 (107.95)	4.047 (102.79)	4.122 (104.70)	3.994 (101.45)
43/86	4.200 (106.68)	4.400 (111.76)	4.550 (115.57)	4.347 (110.41)	4.422 (112.32)	4.294 (109.07)
50/100	4.900 (124.46)	5.100 (129.54)	5.250 (133.35)	5.047 (128.19)	5.122 (130.10)	4.994 (126.85)
55/110	5.400 (137.16)	5.600 (142.24)	5.750 (146.05)	5.547 (140.89)	5.622 (142.80)	5.494 (139.55)
56/112	5.500 (139.70)	5.700 (144.78)	5.850 (148.59)	5.647 (143.43)	5.722 (145.34)	5.594 (142.09)
60/120	5.900 (149.86)	6.100 (154.94)	6.250 (158.75)	6.047 (153.59)	6.122 (155.50)	5.994 (152.25)

Note: Dimensions are in inches and (millimeters). Tolerance ±.010(.25) unless otherwise specified.

HS, HC and HO Series High Profile Compliant Pin Card-Edge Connectors

SPECIFICATIONS

ELECTRICAL

Current Rating: 3 amps
Dielectric Withstanding Voltage: 750 VAC min. at sea level
Insulation Resistance: 5000 megohms min. per MIL-STD-202
Contact Resistance: 10 milliohms max.

TEMPERATURE RANGE

-55°C to +105°C
 (-67°F to +221°F)

THERMAL SHOCK

No damage or electrical degradation when tested per MIL-STD-202, Method 107, Condition A.

MECHANICAL

Contact Insertion Force: 16 oz. max. per contact pair with a .070 thick blade per MIL-C-21097
Contact Withdrawal Force: 1.0 oz. min. per contact pair with a .054 thick blade per MIL-C-21097.
Compliant Section Insertion Force: 40 lbs. max. per MIL-STD-2166
Compliant Pin Withdrawal Force: 8 lbs. min. per MIL-STD-2166
Contact Retention: 1.0 lb. min.
Contact Normal Force: 3.0 oz. min. per contact

MATERIALS

INSULATOR:

Thermoplastic polyester, glass reinforced, UL94V-0 approved, color black.

CONTACTS:

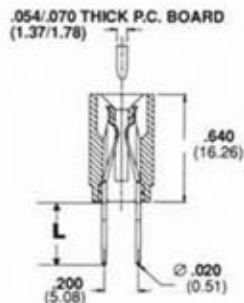
Phosphor bronze, gold plated per MIL-G-45205, Type II, Grade C, over nickel. Pre-loaded cantilever beam, "Eye Of The Needle" compliant section.

RECOMMENDED BOARD DIMENSIONS:

Mother board .062" to .135" thick
 Unplated thru-hole diameter .0453 ± .001
 Finished plated thru-hole diameter .040 ± .003

CONTACT TERMINATIONS

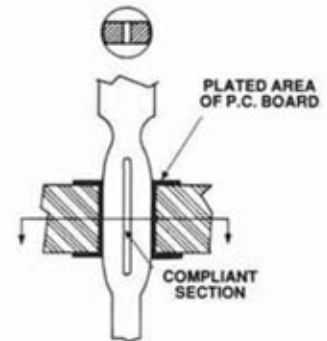
TERMINATION LENGTH	
CODE	L
	±.015(0.38)
S1	.190(4.83)
S2	.375(9.53)
W4	.475(12.07)
W1	.530(13.46)
W2	.702(17.83)



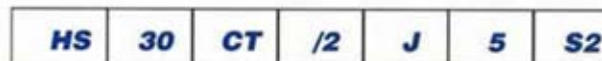
Note: for other tail lengths, please consult factory.

COMPLIANT PIN: EYE OF THE NEEDLE DESIGN

The Eye of the Needle contact design has been tested and accepted for all military and commercial applications. When inserted into a .040" ± .003" thru-hole, the compliant section provides a gas tight connection without stressing the hole. It can be used effectively in .062", .093" and .125" thick printed circuit boards.



ORDERING INFORMATION



CONNECTOR STYLES

HS: Open one end
HC: Closed both ends
HO: Open both ends

NUMBER OF CONTACT PAIRS

15, 18, 25, 30, 31, 36, 39, 40, 43, 50, 55, 56, 60

CONTACT PLATING

CT: .000015 gold engagement area; .000100 min. tin lead termination area
DT: .000030 gold engagement area; .000100 min. tin lead termination area.
CD: .000030 gold engagement area; .000015 min. selective gold termination area

INSULATOR MATERIAL

2: Polyester (black)

TAIL LENGTH

S1: .190(4.83)
S2: .375(9.53)
W4: .475(12.07)
W1: .530(13.46)
W2: .702(17.83)

CARD SLOT DEPTH

5: .515(13.08)

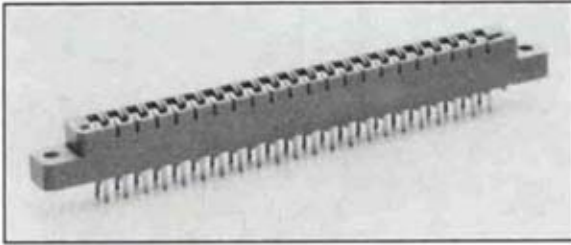
SERIES IDENTIFIER

J: .100(2.54) Contact Centers
 .062(1.57) p.c. board

Standard options are indicated by **bold italic type**. Nonstandard items require a factory quotation for price and delivery.

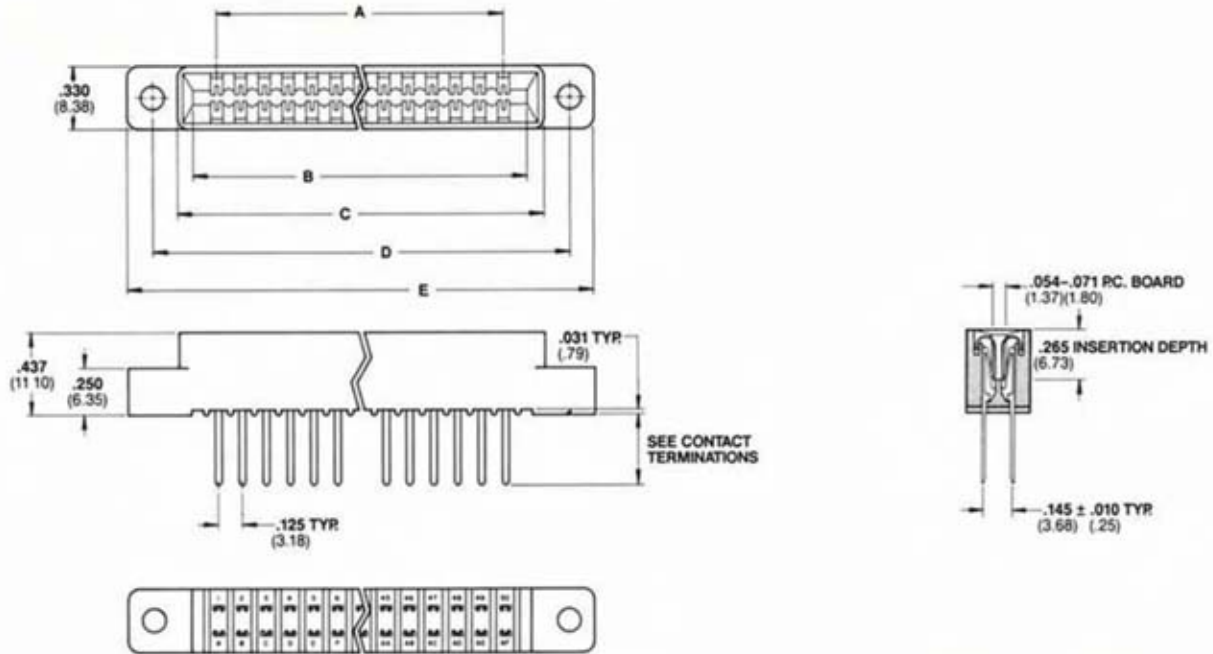
.125 Contact Centers (3.18 mm)

.125 x .145 grid



Available in all popular sizes from 10 to 50 positions, these low profile .125" contact center connectors accept 1/16" (.062") p.c. boards. Features include a choice of mounting styles, between-contact polarization, standoffs, and a chamfered lead-in guide for the mating p.c. board. The contacts are bifurcated, with dip solder or pierced eyelet terminations on .145" row spacing. The pierced eyelet type are individually replaceable using a simple hand tool.

OUTLINE AND DIMENSIONS



Contact Identification:

Numbers: 1, 2, 3, ... 22, 23, ... 44, 45, ... 50
 Letters: A, B, C, ... Z, a, ... z, AA, ... AF
 Omit: G, I, O, Q, g, i, o, q

POLARIZATION



Between-Contacts
 Polarizing Key
 Part No. 091-0071-000

See page 34 for further information.

CONTACT POSITIONS	A	B	C	D	E	E' FLOAT MTG
	±.005 (±.13)	±.007 (±.18)	±.010 (±.25)	±.005 (±.13)	±.015 (±.38)	±.015 (±.38)
10/20	1.125 (28.58)	1.375 (34.92)	1.535 (38.99)	1.795 (45.59)	2.055 (52.20)	2.118 (53.80)
15/30	1.750 (44.45)	2.000 (50.80)	2.160 (54.86)	2.420 (61.47)	2.680 (68.07)	2.743 (69.67)
18/36	2.125 (53.98)	2.375 (60.32)	2.535 (64.39)	2.795 (70.99)	3.055 (77.60)	3.118 (79.20)
22/44	2.625 (66.68)	2.875 (73.02)	3.035 (77.09)	3.295 (83.69)	3.555 (90.30)	3.618 (91.90)
28/56	3.375 (85.72)	3.625 (92.08)	3.785 (96.14)	4.045 (102.74)	4.305 (109.35)	4.368 (110.95)
31/62	3.750 (95.25)	4.000 (101.60)	4.160 (105.66)	4.420 (112.27)	4.680 (118.87)	4.743 (120.47)
35/70	4.250 (107.95)	4.500 (114.30)	4.660 (118.36)	4.920 (124.97)	5.180 (131.57)	5.243 (133.17)
36/72	4.375 (111.12)	4.625 (117.48)	4.785 (121.54)	5.045 (128.14)	5.305 (134.75)	5.368 (136.35)
40/80	4.875 (123.82)	5.125 (130.18)	5.285 (134.24)	5.545 (140.84)	5.805 (147.45)	5.868 (149.05)
50/100	6.125 (155.58)	6.375 (161.92)	6.535 (165.99)	6.795 (172.59)	7.055 (179.20)	7.118 (180.80)

Note: Dimensions are in inches and (millimeters). Tolerance ±.010(.25) unless otherwise specified.

SPECIFICATIONS

ELECTRICAL

Operating Voltage: 800 Vdc (sea level)
Current Rating: 3 amp max.
Dielectric Withstanding Voltage: 1500Vrms min.
Insulation Resistance: 5000 megohms min.
Voltage Drop: 30 mV max.

TEMPERATURE RANGE

Diallyl Phthalate & Phenolic:
 -65°C to +125°C (-85°F to +257°F)
Polyester:
 -65°C to +105°C (-85°F to +221°F)

MECHANICAL

Contact Retention: 3 lbs. min.
Insertion Force: 2 to 16 oz. per opposing contact pair when using .062 (1.57) steel test blade.
Withdrawal Force: 1 oz. min. per opposing contact pair when using .054 (1.37) steel test blade.

MATERIALS

INSULATOR:
Diallyl Phthalate, per MIL-M-14, U.L. 94V-0 approved, color green

Phenolic, glass reinforced per MIL-M-14, type MFH, U.L. 94V-0 approved, color black
Thermoplastic Polyester, glass reinforced, U.L. 94V-0 approved, color black

CONTACTS:

Copper alloy, gold plated per MIL-G-45204, Type II, Grade C, over nickel.

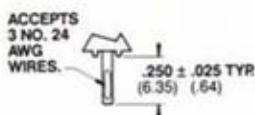
INSERTS:

Stainless steel, passivated

NOTE:

All tests are in accordance with requirements of MIL-C-21097

CONTACT TERMINATIONS



PIERCED EYELET
CODE N

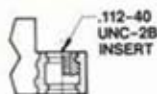
Note: All dip solder terminations are .036 (.91) dia. and fit .042 (1.07) min. dia. p.c. board hole.



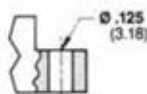
DIP SOLDER
CODES E, DD, V

CODE	"G" DIMENSION
E	.132 ± .025 (3.35 ± .64)
DD	.195 ± .025 (4.95 ± .64)
V	.380 ± .025 (9.65 ± .64)

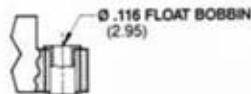
MOUNTING STYLES



THREADED INSERT
CODE 3



THRU HOLE
CODE 5



FLOAT MOUNT
CODE 8



NO EARS
CODE 12

ORDERING INFORMATION

3	VT	50	/9	C	N	5
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OPTIONS

POLARIZATION:

3: Between-Contacts

CONTACT PLATING CODES:

KH: .000010 gold engagement and termination areas
KT: .000010 gold engagement area; .000100 min. tin lead termination area
VH: .000030 gold engagement and termination areas
VN: .000030 gold engagement area; .000010 gold termination area
VT: .000030 gold engagement area; .000100 min. tin lead termination area

NUMBER OF CONTACT PAIRS:

10, 15, 18, 22, 28, 31, 35, 36, 40, 50

INSULATOR MATERIAL:

1: Diallyl Phthalate (green)
Standard with VH, VN, and VT platings
 Not available with KT plating
2: Polyester (black)
Standard with KH, KT, VN, and VT platings
 Not available with VH plating or Code N termination
9: Phenolic (black)
Standard with Code N termination

MOUNTING STYLES

3: Threaded Insert
5: Thru Hole
8: Floating Mount
12: No Ears

CONTACT TERMINATIONS:

N: Pierced Eyelet
E: Short Dip Solder
DD: Medium Dip Solder
V: Long Dip Solder

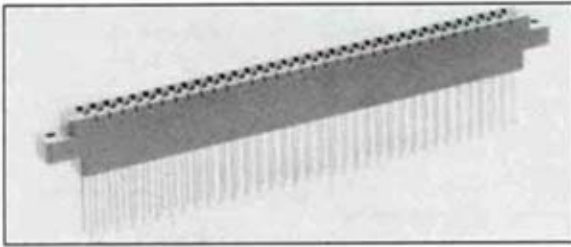
SERIES IDENTIFIER:

C: .125 (3.18) Contact Centers
 .062 (1.57) P.C. Board

Standard options are indicated by **bold italic type**.
 Nonstandard items require a factory quotation for price and delivery.

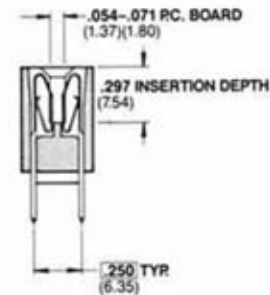
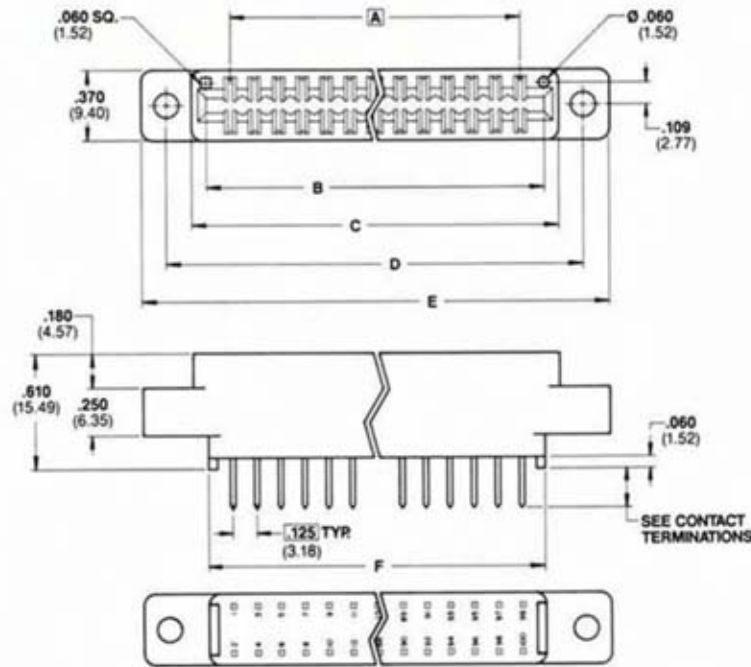
.125 Contact Centers (3.18 mm)

.125 x .250 grid



The .125" contact center version of Viking's Wire Wrap® and round tail dip solder connectors offers all the benefits of the reliable semi-bellows contact design with the cost effective options of selective gold plating and thermoplastic insulators. These dual row connectors accept a 1/16" (.062") p.c. board and have a termination row spacing of .250". A wide range of sizes from 10 to 50 positions is available, together with various mounting options.

OUTLINE AND DIMENSIONS



POLARIZATION



Between-Contacts
Polarizing Key
Part No. 091-0071-000

See page 34 for further information.

Contact Identification:
Numbers: 1, 3, 5,99
2, 4, 6, ...100

CONTACT POSITIONS	A BSC	B ±.007 (±.18)	C ±.015 (±.38)	D ±.010 (±.25)	E ±.015 (±.38)	F ±.015 (±.38)
10/20	1.125 (28.58)	1.375 (34.92)	1.535 (38.99)	1.795 (45.59)	2.055 (52.20)	1.375 (34.92)
14/28	1.625 (41.28)	1.875 (47.62)	2.035 (51.69)	2.295 (58.29)	2.555 (64.90)	1.875 (47.62)
15/30	1.750 (44.45)	2.000 (50.80)	2.160 (54.86)	2.420 (61.47)	2.680 (68.07)	2.000 (50.80)
18/36	2.125 (53.98)	2.375 (60.32)	2.535 (64.39)	2.795 (70.99)	3.055 (77.60)	2.375 (60.32)
22/44	2.625 (66.68)	2.875 (73.02)	3.035 (77.09)	3.295 (83.69)	3.555 (90.30)	2.875 (73.02)
28/56	3.375 (85.72)	3.625 (92.08)	3.785 (96.14)	4.045 (102.74)	4.305 (109.35)	3.625 (92.08)
30/60	3.625 (92.08)	3.875 (98.42)	4.035 (102.49)	4.295 (109.09)	4.555 (115.70)	3.875 (98.42)
31/62	3.750 (95.25)	4.000 (101.60)	4.160 (105.66)	4.420 (112.27)	4.680 (118.87)	4.000 (101.60)
35/70	4.250 (107.95)	4.500 (114.30)	4.660 (118.36)	4.920 (124.97)	5.180 (131.57)	4.500 (114.30)
36/72	4.375 (111.12)	4.625 (117.48)	4.785 (121.54)	5.045 (128.14)	5.305 (134.75)	4.625 (117.48)
40/80	4.875 (123.82)	5.125 (130.18)	5.285 (134.24)	5.545 (140.84)	5.805 (147.45)	5.125 (130.18)
44/88	5.375 (136.52)	5.625 (142.88)	5.785 (146.94)	6.045 (153.54)	6.305 (160.15)	5.625 (142.88)
50/100	6.125 (155.58)	6.375 (161.92)	6.535 (165.99)	6.795 (172.59)	7.055 (179.20)	6.375 (161.92)

Note: Dimensions are in inches and (millimeters). Tolerance ±.010(.25) unless otherwise specified.

SPECIFICATIONS

ELECTRICAL

Operating Voltage: 800 Vdc (sea level)
Current Rating: 3 amp max.
Dielectric Withstanding Voltage: 1500 Vrms min.
Insulation Resistance: 5000 megohms min.
Voltage Drop: 30 mV max.

TEMPERATURE RANGE

Diallyl Phthalate & Phenolic:
 -65°C to +125°C (-85°F to +257°F)
Polyester:
 -55°C to +105°C (-67°F to +221°F)

MECHANICAL

Contact Retention: Wrap Post® 8 lbs. min.; Dip Solder 3 lbs. min.
Insertion Force: 2 to 10 oz. per opposing contact pair when using .062 (1.57) steel test blade
Withdrawal Force: 1 oz. min. per opposing contact pair when using .054 (1.37) steel test blade

MATERIALS

INSULATOR:

Diallyl Phthalate, per MIL-M-14, U.L. 94V-0 approved, color green

Phenolic, glass reinforced per MIL-M-14, type MFH, U.L. 94V-0 approved, color black
Thermoplastic Polyester, glass reinforced, U.L. 94V-0 approved, color black

CONTACTS:

Copper alloy, gold plated per MIL-G-45204, Type II, Grade C, over nickel

INSERTS:

Stainless steel, passivated

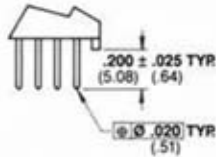
NOTE:

All tests are in accordance with requirements of MIL-C-21097.

CONTACT TERMINATIONS

DIP SOLDER

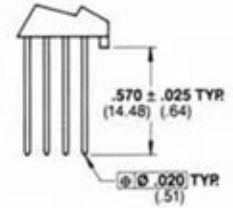
Dip Solder Terminations are .026 (.66) ± .002 (.05) diameter and fit .035 (.89) minimum diameter p.c. board hole.



CODE NK

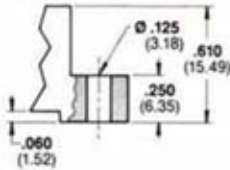
WRAP POST

Wrap posts are .025 (.64) square.

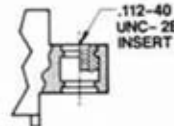


CODE ND

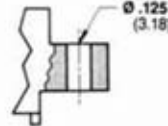
MOUNTING STYLES



FLUSH MOUNT
CODE 1



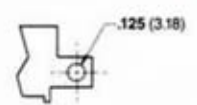
THREADED INSERT
CODE 3



THRU HOLE
CODE 5



NO EARS
CODE 12



TRANSVERSE
THRU HOLE CODE 15

ORDERING INFORMATION

3	VN	50	/1	C	ND	5	[]
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POLARIZATION

3: Between-Contacts

CONTACT PLATING

KH: .000010 gold engagement and termination area

KT: .000010 gold engagement area; .000100 min. tin lead termination area

VH: .000030 gold engagement and termination area

VN: .000030 gold engagement area; .000010 gold termination area

VT: .000030 gold engagement area; .000100 min. tin lead termination area

NUMBER OF CONTACT PAIRS

10, 14, 15, **18**, 22, **28**, 30, 31, 35, 36, **40**, 44, **50**

INSULATOR MATERIAL

1: Diallyl Phthalate (green);

Standard with VH, VN, and VT platings

Not available with KT plating

2: Polyester (black);

Standard with KH, KT, VN, and VT platings

Not available with VH plating

9: Phenolic (black); Not available with KT plating

TERMINATION MODIFIERS

(083), (095) Right Angle Termination Modifiers (See page 21 for details.)

MOUNTING STYLES

1: Flush Mount; *Standard with NK termination only*

3: Threaded Insert

5: Thru Hole

12: No Ears; *Standard with NK termination only*

15: Transverse Thru Hole

CONTACT TERMINATIONS

ND: Wrap Post

NK: Dip solder

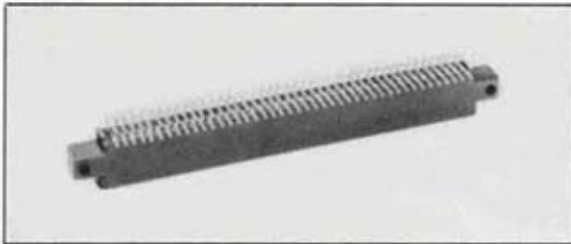
SERIES IDENTIFIER

C: .125 (3.18) Contact Centers .062 (1.57) P.C. Board.

Standard options are indicated by **bold italic type**. Nonstandard items require a factory quotation for price and delivery.

Right Angle Terminations

.100(2.54) and .125 (3.18) Contact Centers

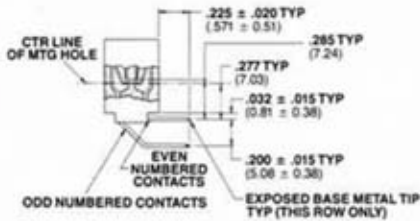


Viking is offering a variety of right angle termination modifications on its popular JND and CND Series. These connector series utilize the reliable and cost effective semi-bellows contact with right angle bend .025 square contact tails. There is a wide variety of right angle versions available together with various mounting styles. In addition, the JND Series offers a card-extender termination option.

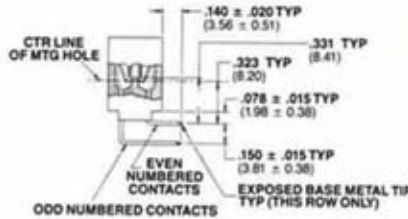
NOTE: Contacts are .025 square. For additional insulator dimensions see JND Series (page 9) and CND Series (page 19).

CONTACT TERMINATIONS

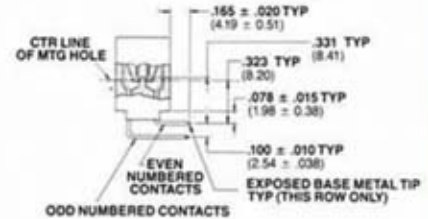
.100 CENTERS (2.54MM) JND SERIES



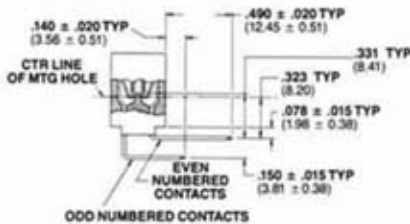
CODE 104



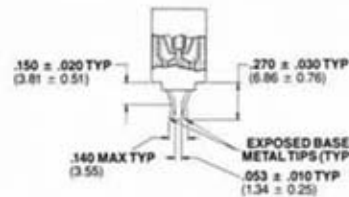
CODE 095



CODE 105

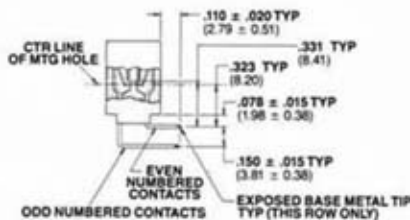


CODE 083

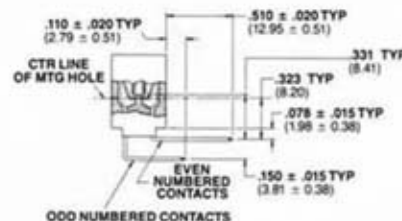


CARD EXTENDER
CODE 100

.125 CENTERS (3.18MM) CND SERIES



CODE 095



CODE 083

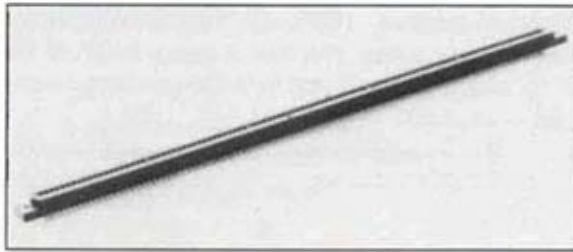
Note: Dimensions are in inches and (millimeters). Tolerance $\pm 0.10(.25)$ unless otherwise specified.

.150 Contact Centers

.150 x .145 grid

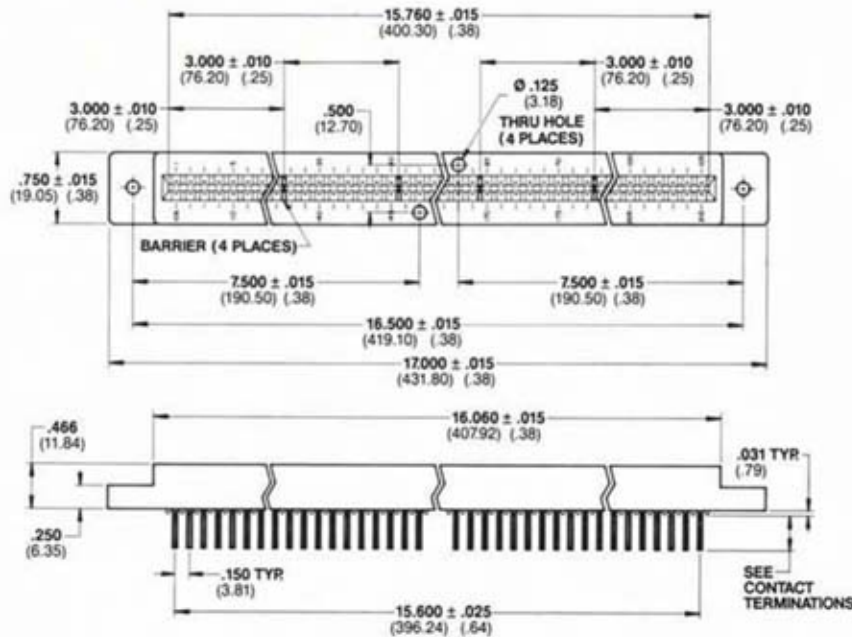
HN, HV Series

Dip Solder and Pierced Eyelet Terminations



This dual readout, 105 position connector on .150" contact centers is particularly suited for use on burn-in systems. For this reason a high temperature diallyl phthalate insulator with beryllium copper contacts is used. Either pierced eyelet or dip solder termination types are offered, the pierced eyelets being individually replaceable. The insulator has four molded-in barriers positioned at 3.00" and 6.00" from each end of the card slot.

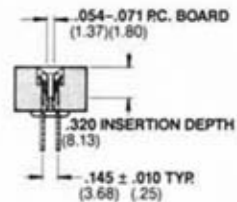
OUTLINE AND DIMENSIONS



POLARIZATION

In-Contact Polarizing Key (copper)
Part No. 091-0020-012
To use this polarizing key you must remove contacts.

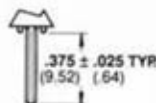
See page 34 for further information.



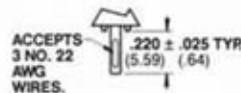
Contact Identification:
Numbers: 106110210
1 5.....105

CONTACT TERMINATIONS

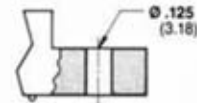
Dip solder terminations are .045 (1.14) diameter and fit .051 (1.29) min. dia. p.c. board hole.



DIP SOLDER
CODE V



PIERCED EYELET
CODE N



THRU HOLE
CODE 5

MOUNTING STYLE

SPECIFICATIONS

ELECTRICAL

Operating Voltage:
1500 Vdc (sea level)
Current Rating: 5 amp max.
Dielectric Withstanding Voltage:
1800 Vrms min.
Insulation Resistance:
5000 megohms min.
Voltage Drop:
30 mV max.

TEMPERATURE RANGE

-65°C to +150°C (-85°F to +302°F)

MECHANICAL

Contact Retention:
3 lbs. min.
Insertion Force:
2 to 16 oz. per opposing contact pair when using .062 (1.57) steel test blade.
Withdrawal Force:
1 oz. min. per opposing contact pair when using .054 (1.37) steel test blade.

MATERIALS

INSULATOR:

Diallyl Phthalate, high temperature per MIL-M-14, U.L. 94V-0 approved, color brown

CONTACTS:

Copper alloy, gold plated per MIL-G-45204, Type II, Grade C, over nickel.

CONTACT FINISH:

.000030 gold all over

NOTE:

All tests are in accordance with requirements of MIL-C-21097.

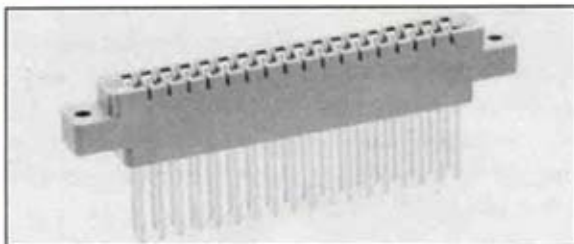
ORDERING INFORMATION

SERIES	PART NUMBER TO ORDER
HN with Pierced Eyelet Termination	VH105/7HN5
HV with Dip Solder Termination	VH105/7HV5

Dimensions are in inches and (millimeters). Tolerance ± .010(.25) unless otherwise specified.

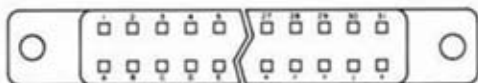
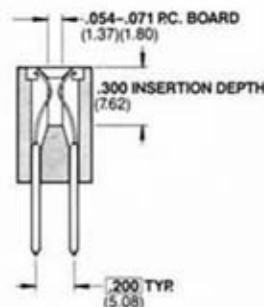
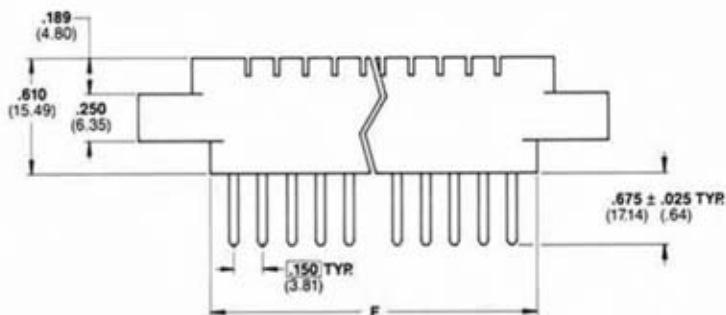
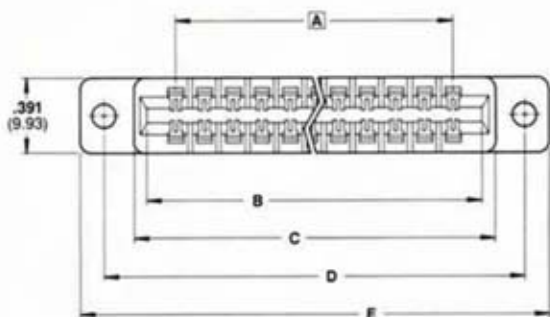
.150 Contact Centers (3.81 mm)

.150 x .200 grid



The HNG Series is a dual-readout, .150" contact center Wire Wrap® connector with .045" square posts. The row spacing is .200". The bifurcated, cantilever beam contacts are individually replaceable. The connectors will accept p.c. boards between .054" and .071" thick. The insulator body is molded in thermoset materials. A choice of thru hole or threaded insert mounting styles is offered. Polarization is between contacts.

OUTLINE AND DIMENSIONS



POLARIZATION



Between-Contacts
Polarizing Key
Part No. 091-0024-000

See page 34 for further information.

Contact Identification:

Numbers: 1, 2, 3,22, 23,43

Letters: A, B, C,Z, a,y

Omit: G, I, O, Q, g, i, o, q

CONTACT POSITIONS	A ±.007 (±.18)	B ±.007 (±.18)	C ±.015 (±.38)	D ±.010 (±.25)	E ±.015 (±.38)	F ±.015 (±.38)
18/36	2.550 (64.77)	2.850 (72.39)	2.988 (75.90)	3.301 (83.85)	3.551 (90.20)	2.800 (71.12)
28/56	4.050 (102.87)	4.350 (110.49)	4.488 (114.00)	4.801 (121.95)	5.051 (128.30)	4.300 (109.22)
31/62	4.500 (114.30)	4.800 (121.92)	4.938 (125.43)	5.251 (133.38)	5.501 (139.73)	4.750 (120.65)
43/86	6.300 (160.02)	6.600 (167.64)	6.738 (171.15)	7.051 (179.10)	7.301 (185.45)	6.550 (166.37)

Note: Dimensions are in inches and (millimeters). Tolerance ±.010(.25) unless otherwise specified.

SPECIFICATIONS

ELECTRICAL

Operating Voltage:
1500 Vdc (sea level)
Current Rating: 5 amp max.
Dielectric Withstanding Voltage:
1800Vrms min.
Insulation Resistance:
5000 megohms min.
Voltage Drop:
30 mV max.

TEMPERATURE RANGE

-65° C to +125° C
(-85° F to +257° F)

MECHANICAL

Contact Retention:
8 lbs. min.
Insertion Force:
2 to 16 oz. per opposing contact pair when using .062 (1.57) steel test blade.
Withdrawal Force:
1 oz. min. per opposing contact pair when using .054 (1.37) steel test blade.

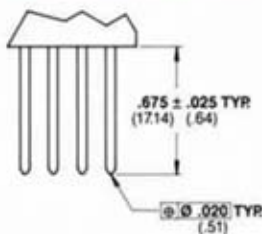
MATERIALS

INSULATOR:
Diallyl Phthalate, per MIL-M-14, U.L. 94V-0 approved, color green

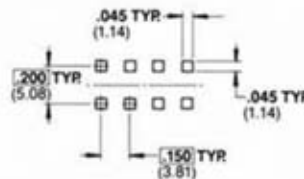
Phenolic, glass reinforced per MIL-M-14, type MFH, U.L. 94V-0 approved, color black
CONTACTS:
Copper alloy, gold plated per MIL-G-45204, Type II, Grade C, over nickel.
INSERTS:
Stainless steel, passivated
NOTE:
All tests are in accordance with requirements of MIL-C-21097.

CONTACT TERMINATIONS

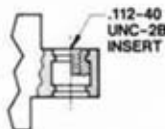
Note:
Wrap posts are .045 (1.14) square.



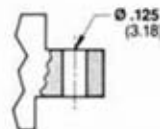
WRAP POST
CODE NG



MOUNTING STYLES



THREADED INSERT
CODE 3



THRU HOLE
CODE 5

ORDERING INFORMATION

2	VH	31	/1	H	NG	5
----------	-----------	-----------	-----------	----------	-----------	----------

POLARIZATION

2: Between-Contacts

CONTACT PLATING

VH: .000030 gold all over
VN: .000030 gold engagement area
.000010 gold termination area

NUMBER OF CONTACT PAIRS

18, 28, 31, 43

INSULATOR MATERIAL

1: Diallyl Phthalate (green)

SERIES IDENTIFIER

H: .150 (3.81) Contact Centers; .062(1.57) P.C. Board

CONTACT TERMINATIONS

NG: Wrap Post

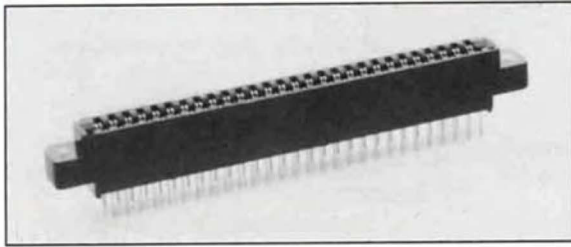
MOUNTING STYLES

3: Threaded Insert
5: Thru Hole

This series is nonstandard and requires a factory quotation for price and delivery.

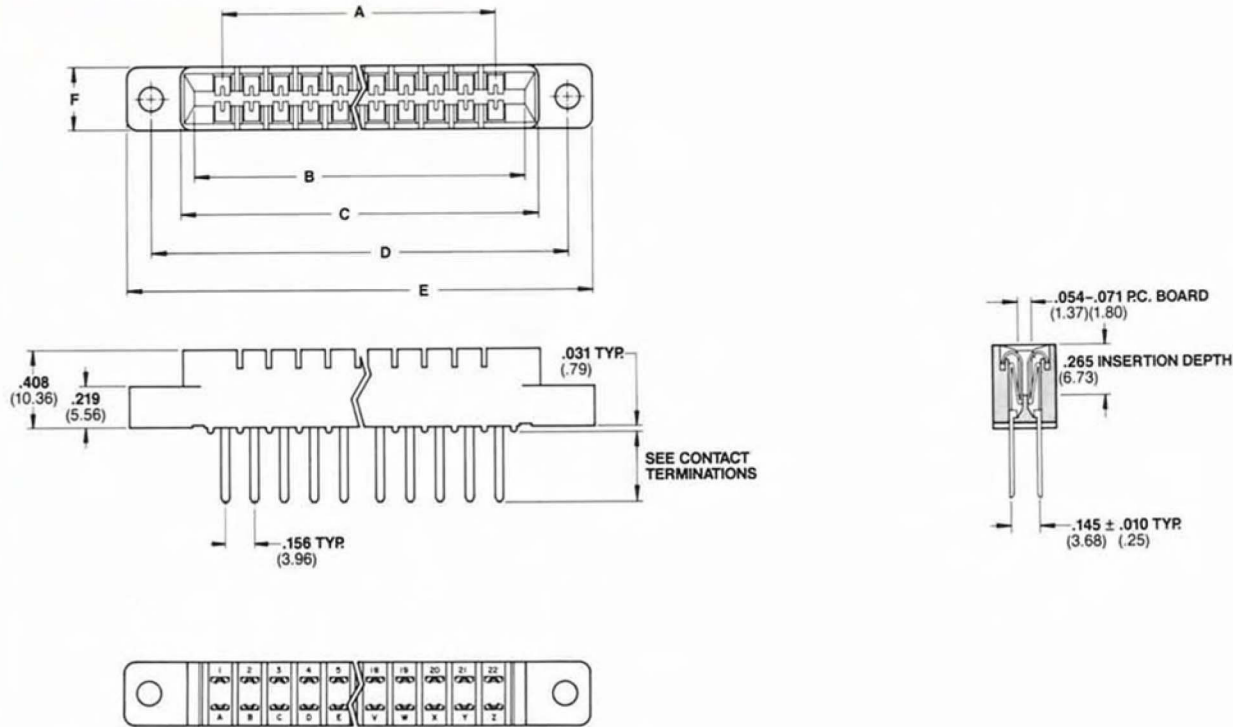
.156 Contact Centers (3.96 mm)

.156 x .145 grid



Viking's full-bellows contact withstands repeated insertion and withdrawal of the mating p.c. board. Either pierced eyelet or dip solder terminations are available, with a .145" row spacing. Pierced eyelet contacts accommodate three #22 AWG wires and are replaceable using a simple hand tool. The low profile connector bodies feature between-contacts polarization, thermoset or thermoplastic materials, and a variety of mounting styles.

OUTLINE AND DIMENSIONS



Contact Identification for
6 thru 22 positions:

Numbers: 1, 2, 3,.....22

Letters: A, B, C,.....Z

Omit: G, I, O, Q

Contact Identification for
36 thru 43 positions:

Letters: A, B, C,.....Z, \bar{A} ,..... \bar{Y}

Numbers: 1, 2, 3,.....22,23.....43

Omit: G, I, O, Q, \bar{G} , \bar{I} , \bar{O} , \bar{Q}

POLARIZATION



Between-Contacts
Polarizing Key
Part No. 091-0024-000

See page 34 for further
information.

CONTACT POSITIONS	A	B	C	D	E	E' FLOAT MTG ONLY	F
	±.005 (±.13)	±.007 (±.18)	±.010 (±.25)	±.005 (±.13)	±.015 (±.38)	±.015 (±.38)	±.005 (±.13)
6/12	.780 (19.81)	1.080 (27.43)	1.220 (30.99)	1.533 (38.94)	1.783 (45.29)	1.846 (46.89)	.330 (8.38)
10/20	1.404 (35.66)	1.704 (43.28)	1.844 (46.84)	2.157 (54.79)	2.407 (61.14)	2.470 (62.74)	.330 (8.38)
15/30	2.184 (55.47)	2.484 (63.09)	2.624 (66.65)	2.937 (74.60)	3.187 (80.95)	3.250 (82.55)	.330 (8.38)
18/36	2.652 (67.36)	2.952 (74.98)	3.092 (78.54)	3.405 (86.49)	3.655 (92.84)	3.718 (94.44)	.330 (8.38)
22/44	3.276 (83.21)	3.576 (90.83)	3.716 (94.39)	4.029 (102.34)	4.280 (108.71)	4.342 (110.29)	.330 (8.38)
36/72	5.460 (138.68)	5.760 (146.30)	5.900 (149.86)	6.213 (157.81)	6.463 (164.16)	6.526 (165.76)	.438 (11.13)
43/86	6.552 (166.42)	6.802 (172.77)	6.992 (177.60)	7.305 (185.55)	7.555 (191.90)	7.618 (193.50)	.500 (12.70)

Note: Dimensions are in inches and (millimeters). Tolerance ±.010(.25) unless otherwise specified.

ADD, AE, AKC, AN, AV Series

Dip Solder and Pierced Eyelet Terminations

SPECIFICATIONS

ELECTRICAL

Operating Voltage: 1800 Vdc (sea level)
 Current Rating: 5 amp max.
 Dielectric Withstanding Voltage: 1800 Vrms min.
 Insulation Resistance: 5000 megohms min.
 Voltage Drop: 30 mV max.

TEMPERATURE RANGE

Diallyl Phthalate & Phenolic:
 -65°C to +125°C (-85°F to +257°F)
 Polyester:
 -55°C to +105°C (-67°F to +221°F)

MECHANICAL

Contact Retention: 3 lbs. min.
 Insertion Force: 2 to 16 oz. per opposing contact pair when using .062 (1.57) steel test blade
 Withdrawal Force: 1 oz. min. per opposing contact pair when using .054 (1.37) steel test blade

MATERIALS

INSULATOR:

Diallyl Phthalate, per MIL-M-14, U.L. 94V-0 approved, color green

Phenolic, glass reinforced per MIL-M-14, type MFH, U.L. 94V-0 approved, color black
 Thermoplastic Polyester, glass reinforced, U.L. 94V-0 approved, color black

CONTACTS:

Copper alloy, gold plated per MIL-G-45204, Type II, Grade C, over nickel

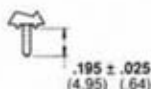
INSERTS:

Stainless steel, passivated

NOTE:

All tests are in accordance with requirements of MIL-C-21097.

CONTACT TERMINATIONS

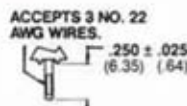


DIP SOLDER CODES E, DD, V

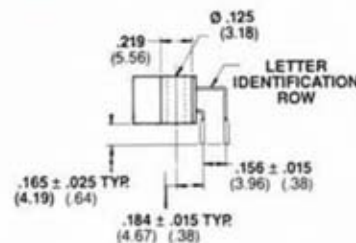
CODE	DIMENSION
E	.132 ± .025 (3.35 ± .64)
DD	.195 ± .025 (4.95 ± .64)
V	.380 ± .025 (9.65 ± .64)

NOTE:

All Dip Solder Terminations are .045 (1.14) diameter and fit .051 (1.29) minimum diameter board hole.

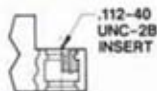


PIERCED EYELET CODE N

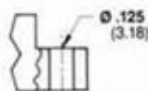


RIGHT ANGLE DIP SOLDER CODE KC

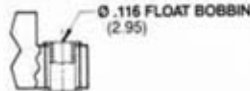
MOUNTING STYLES



THREADED INSERT CODE 3



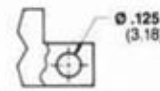
THRU HOLE CODE 5



FLOAT MOUNT CODE 8



NO EARS CODE 12



TRANSVERSE THRU HOLE CODE 15

ORDERING INFORMATION

2	KT	43	/2	A	DD	5
----------	-----------	-----------	-----------	----------	-----------	----------

POLARIZATION

2: Between-Contacts (Slotted)

CONTACT PLATING

KH: .000010 gold engagement and termination areas

KT:* .000010 gold engagement area; .000100 min. tin lead termination area

VH: .000030 gold engagement and termination areas

VN:* .000030 gold engagement area; .000010 gold termination area

VT:* .000030 gold engagement area; .000100 min. tin lead termination area

*Not available on codes E and KC terminations.

NUMBER OF CONTACT PAIRS

6, 10, 15, 18, 22, 36, 43

INSULATOR MATERIAL

1: Diallyl Phthalate (green); **Standard with VH, VN, and VT platings**
 Not available with KT or KH plating

2: Polyester (black); **Standard with KH, KT, VN, and VT platings**
 Not available with VH plating N terminations

9: Phenolic (black); Not available with KT plating
Standard with code N termination

SERIES IDENTIFIER

A: .156 (3.96) Contact Centers; .062 (1.57) P.C. Board

MOUNTING STYLES

3: Threaded Insert

5: Thru Hole

8: Floating Mount

12: No Ears

15: Thru Hole Side Mount

CONTACT TERMINATIONS

N: Pierced Eyelet

E: Short Dip Solder

DD: Medium Dip solder

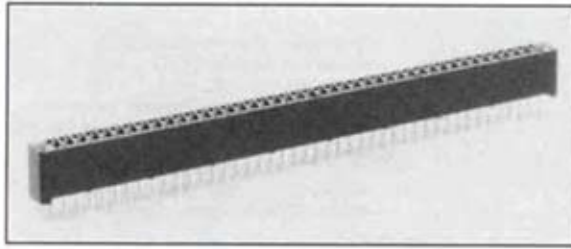
V: Long Dip Solder

KC: Right-Angle Dip Solder

Standard options are indicated by **bold italic type**.
 Nonstandard items require a factory quotation for price and delivery.

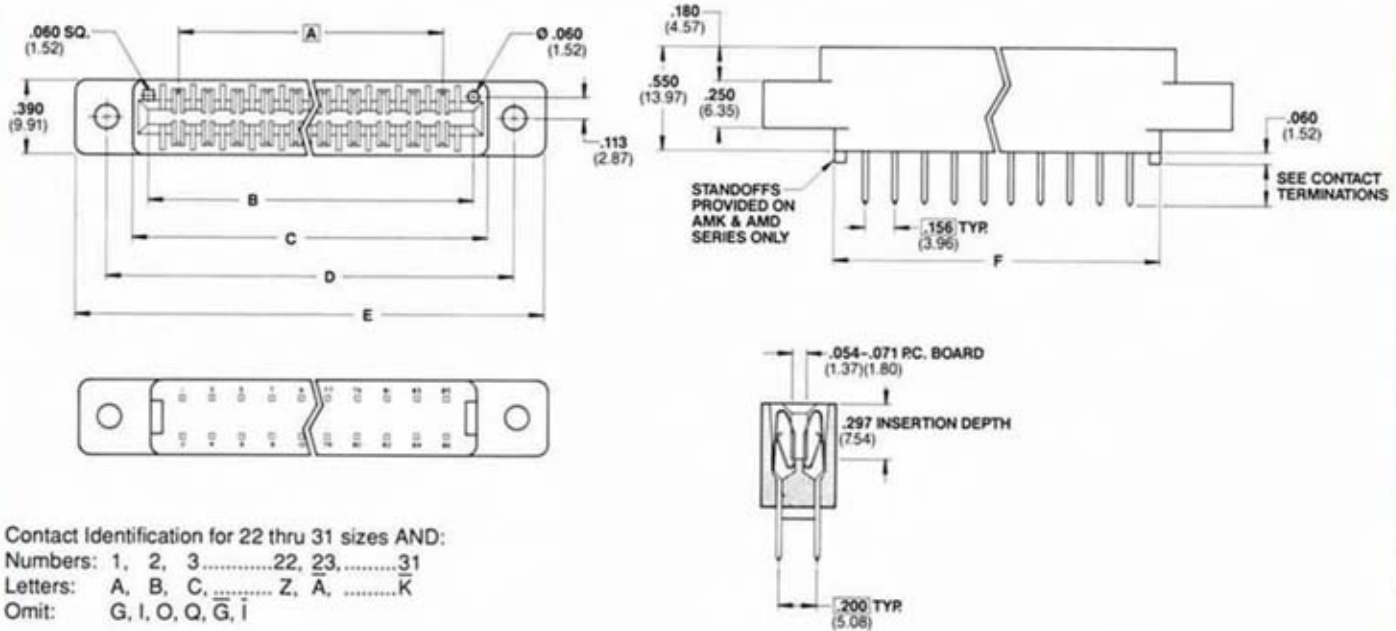
.156 Contact Centers (3.96 mm)

.156 x .200 grid



The popular 43 position connector used in Intel Multibus® I systems is included in the AMK Series. This round tail dip solder connector has the reliable and cost effective semi-bellows contact. The insulator body includes standoffs to facilitate cleaning after soldering. A 3 level Wire Wrap® termination is also available in the AMD Series. The AND Series is of identical design and construction with the exceptions that there are no standoffs and the card slot is smaller by .018".

OUTLINE AND DIMENSIONS



Contact Identification for 22 thru 31 sizes AND:
 Numbers: 1, 2, 3.....22, 23.....31
 Letters: A, B, C,.....Z, A,.....K
 Omit: G, I, O, Q, G, I

Contact Identification for 36 thru 43 size AND:
 Letters: A, B, C,.....Z, A,.....Y
 Numbers: 1, 2, 3.....22, 23.....43
 Omit: G, I, O, Q, G, I, O, Q

Contact Identification for 22 thru 43 size AMD, AMK:
 Numbers: 1, 3, 5.....85
 2, 4, 6.....86

POLARIZATION



Between-Contacts
 Polarizing Key
 Part No. 091-0024-000
 See page 34 for further information.

AMD, AMK SERIES

CONTACT POSITIONS	A BSC	B $\pm .007$ ($\pm .18$)	C $\pm .015$ ($\pm .38$)	D $\pm .010$ ($\pm .25$)	E $\pm .015$ ($\pm .38$)	F $\pm .015$ ($\pm .38$)
22/44	3.276 (83.21)	3.596 (91.34)	3.748 (95.20)	4.030 (102.36)	4.348 (110.44)	3.488 (88.60)
28/56	4.212 (106.98)	4.532 (115.11)	4.684 (118.97)	4.966 (126.14)	5.284 (134.21)	4.424 (112.37)
36/72	5.460 (138.68)	5.780 (146.81)	5.932 (150.67)	6.214 (157.84)	6.532 (165.91)	5.672 (144.07)
43/86	6.552 (166.42)	6.872 (174.55)	7.024 (178.41)	7.306 (185.57)	7.624 (193.65)	6.764 (171.81)

AND SERIES

CONTACT POSITIONS	A BSC	B $\pm .007$ ($\pm .18$)	C $\pm .015$ ($\pm .38$)	D $\pm .010$ ($\pm .25$)	E $\pm .015$ ($\pm .38$)	F $\pm .015$ ($\pm .38$)
22/44	3.276 (83.21)	3.578 (90.88)	3.717 (94.41)	4.030 (102.36)	4.280 (108.71)	3.526 (89.56)
28/56	4.212 (106.98)	4.514 (114.66)	4.653 (118.19)	4.966 (126.14)	5.216 (132.49)	4.462 (113.33)
36/72	5.460 (138.68)	5.762 (146.35)	5.901 (149.89)	6.214 (157.84)	6.464 (164.19)	5.710 (145.03)
43/86	6.552 (166.42)	6.854 (174.09)	6.993 (177.62)	7.306 (185.57)	7.556 (191.92)	6.802 (172.77)

Note: Dimensions are in inches and (millimeters). Tolerance $\pm .010$ (.25) unless otherwise specified.

SPECIFICATIONS

ELECTRICAL

Operating Voltage: 1800 Vdc (sea level)
Current Rating: 3 amp max.
Dielectric Withstanding Voltage: 1800 Vrms min.
Insulation Resistance: 5000 megohms min.
Voltage Drop: 30 mV max.

TEMPERATURE RANGE

Diallyl Phthalate & Phenolic:
 -65°C to +125°C (-85°F to +257°F)
Polyester:
 -65°C to +105°C (-85°F to +221°F)

MECHANICAL

Contact Retention: Wire Wrap® 8 lbs. min.; Dip Solder 3 lbs min.
Insertion Force: 2 to 10 oz. per opposing contact pair when using .062 (1.57) steel test blade
Withdrawal Force: 1 oz. min. per opposing contact pair when using .054 (1.37) steel test blade

MATERIALS

INSULATOR:
 Diallyl Phthalate, per MIL-M-14, U.L. 94V-0 approved, color green

Phenolic, glass reinforced per MIL-M-14, type MFH, U.L. 94V-0 approved, color black
 Thermoplastic Polyester, glass reinforced, U.L. 94V-0 approved, color black

CONTACTS:

Copper alloy, gold plated per MIL-G-45204, Type II, Grade C, over nickel

INSERTS:

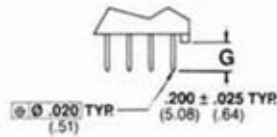
Stainless steel, passivated

NOTE:

All tests are in accordance with requirements of MIL-C-21097.

CONTACT TERMINATIONS

DIP SOLDER

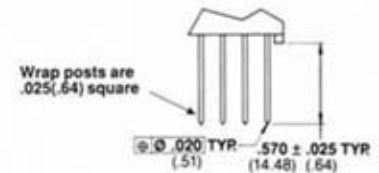


CODE MK

"G" DIMENSIONS	
Std.	.200 ± .025 (5.08) (.64)
Mod Code [081]	.165 ± .025 (4.19) (.64)

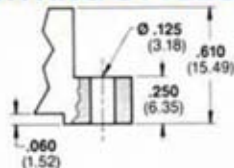
Dip Solder Terminations are .026(.66) ± .002(.05) diameter and fit .035(.89) min. diameter board hole.

WRAP POST

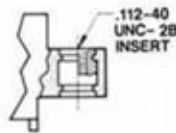


WITH STANDOFF: CODE MD
 WITHOUT STANDOFF: CODE ND

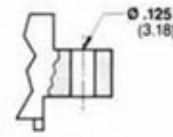
MOUNTING STYLES



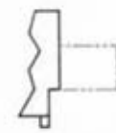
FLUSH MOUNT
CODE 1



THREADED INSERT
CODE 3



THRU HOLE
CODE 5



NO EARS
CODE 12

ORDERING INFORMATION



POLARIZATION

2: Between-Contacts

CONTACT PLATING

KH: .000010 gold engagement and termination area
KT: .000010 gold engagement area; .000100 min. tin lead termination area
VH: .000030 gold engagement area and termination area
VN: .000030 gold engagement area; .000010 gold termination area
VT: .000030 gold engagement area; .000100 min. tin lead termination area

NUMBER OF CONTACT PAIRS

22, 28, 36, 43

INSULATOR MATERIAL

1: Diallyl Phthalate (green);
 Standard with VH, VN, and VT platings
 Not available with KT plating
2: Polyester (black);
 Standard with KH, KT, VN, and VT platings
 Not available with VH plating
9: Phenolic (black); Not available with KT plating

TERMINATION MODIFIER

(081): Dip Solder .165 tail length

MOUNTING STYLES

1: Flush Mount;
 Standard with MK termination only
3: Threaded Insert
5: Thru Hole
12: No Ears;
 Standard with MK termination, 43 position only

CONTACT TERMINATIONS

MD: Wrap Post (Standoff)
ND: Wrap Post
MK: Dip solder

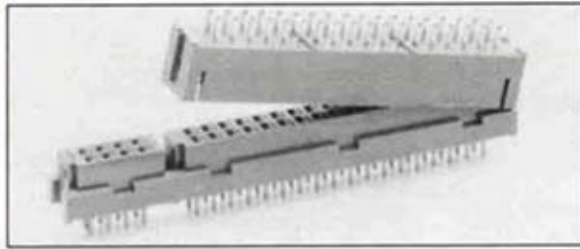
SERIES IDENTIFIER

A: .156 (3.96) Contact Centers
 .062 (1.57) P.C. Board.

Standard options are indicated by **bold italic type**.
 Nonstandard items require a factory quotation for price and delivery.

.100 Contact Centers (2.54 mm)

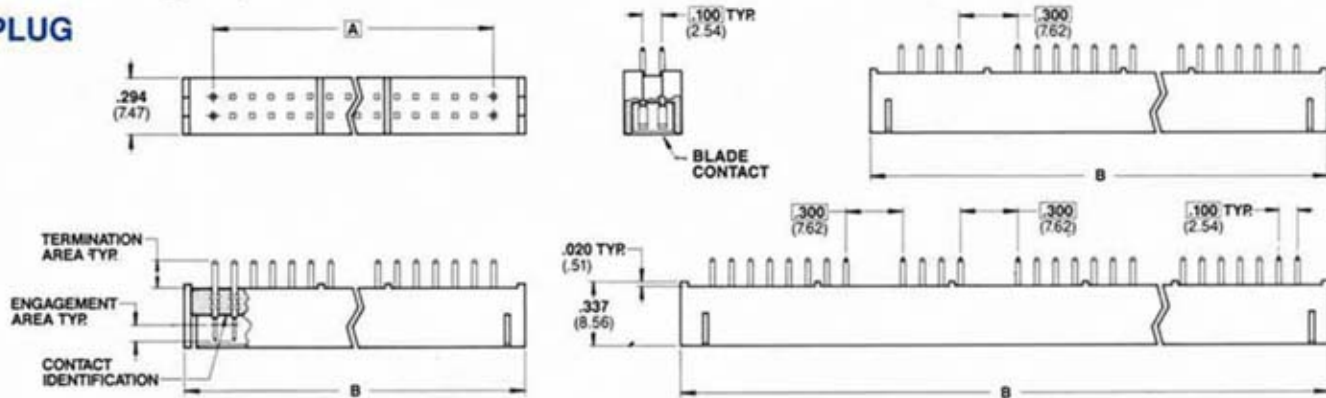
.100 x .100 grid



These two-piece stacking connectors have been particularly designed for I/O expansion between a mother board and a parallel mounted expansion card. IEEE specification P959 (based on Intel's® iSBX™ bus) describes an example system, which provides an easy low-cost method of adding a variety of special functions to a basic board. The shrouded, self-locking design of the connector provides full mechanical support to small expansion modules.

Three sizes are available and system versatility is further increased by the unique concept of the "bridge" connector. The "bridge" feature allows a smaller plug to be mated to a larger receptacle. For example, an 8 bit expansion module with a 36 contact plug can be mated to a 16 bit mother board having a 44 contact receptacle. Both 36 and 44 contact plugs will mate with the 60 contact receptacle. The advanced contact design gives an excellent electrical interface in microprocessor applications at low voltages, low currents, and high frequencies.

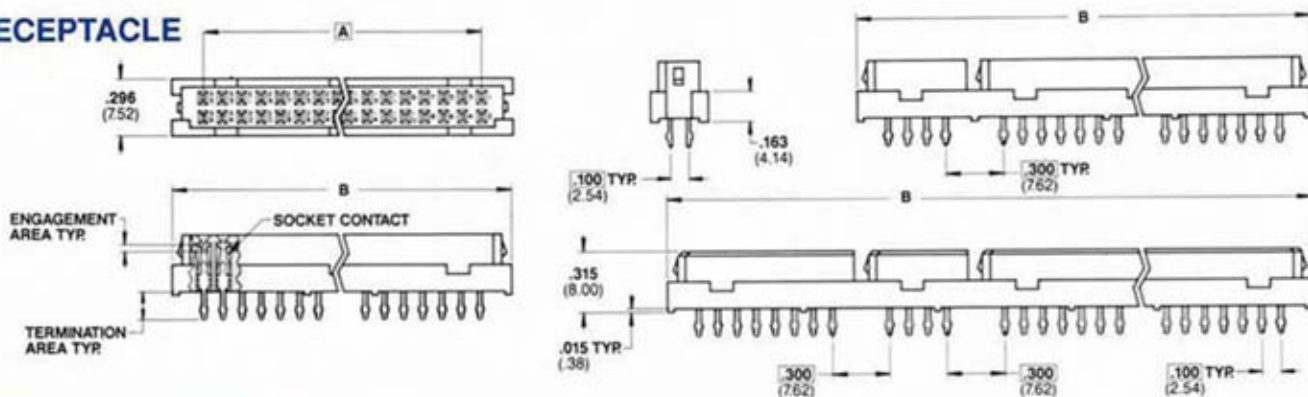
PLUG



ORDERING INFORMATION

CONTACT POSITIONS	A BSC	B ±.010 (±.25)	PART NUMBERS
			Dip Solder
DUAL 18:36 CONTACTS	1.700 (43.18)	2.025 (51.44)	VSP01VT18A01
DUAL 22 BRIDGE:44 CONTACTS	2.300 (58.42)	2.625 (66.68)	VSP01VT22A01
DUAL 30 BRIDGE:60 CONTACTS	3.300 (83.82)	3.625 (92.10)	VSP01VT30A01

RECEPTACLE



ORDERING INFORMATION

CONTACT POSITIONS	A BSC	B ±.010 (±.25)	PART NUMBERS	PART NUMBERS
			Dip Solder .125 Termination	Dip Solder .100 Termination
DUAL 18:36 CONTACTS	1.700 (43.18)	2.025 (51.44)	VSR01VT18A01	VSR01VT18B01
DUAL 22 BRIDGE:44 CONTACTS	2.300 (58.42)	2.625 (66.68)	VSR01VT22A01	VSR01VT22B01
DUAL 30 BRIDGE:60 CONTACTS	3.300 (83.82)	3.625 (92.10)	VSR01VT30A01	VSR01VT30B01

Note: Dimensions are in inches and (millimeters). Tolerance ±.010(.25) unless otherwise specified.

SPECIFICATIONS

ELECTRICAL

Current Rating: 3 amp max.
Dielectric Withstanding Voltage: 1000Vrms min.
Insulation Resistance: 1000 megohms min.
Contact Resistance: 10 milliohms max.

TEMPERATURE RANGE

-55°C to +125°C
 (-67°F to +257°F)

MECHANICAL

Durability, Mating and Unmating: 200 cycles min.
Mating Force Per Contact: 10 oz. max.
Unmating Force Per Contact: 1 oz. min.
Contact Retention: 3 lbs. min.

MATERIALS

INSULATOR: Nylon, glass reinforced, U.L. 94V-0 approved, color blue

CONTACTS:

Copper alloy

CONTACT FINISH:

.000030 gold engagement area;
 .000100 min. tin lead termination area

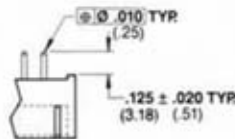
NOTE:

VSBX I Series is not intermateable with VSBX II Series (See next page)

CONTACT TERMINATIONS

PLUG

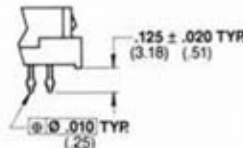
Note: Terminations fit .038 (.97) ± .003 (.08) dia. P.C. board hole.



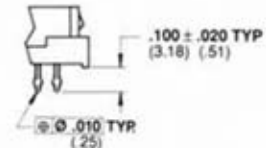
DIP SOLDER
CODE A

RECEPTACLE

NOTE: Receptacle terminations fit .041 (1.04) ± .003 (.08) dia. p.c. board hole.



DIP SOLDER .125
CODE A



DIP SOLDER .100
CODE B

MOUNTING STYLES

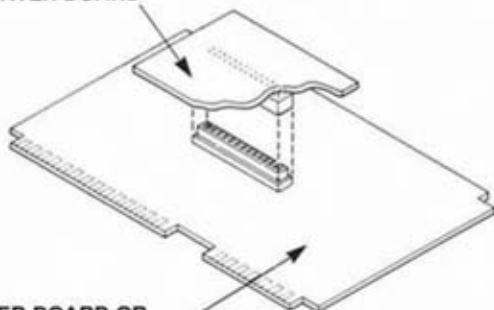


NO EARS
CODE 01

APPLICATION

With these two-piece stacking connectors, basic mother boards can be customized by simply connecting small personality boards that offer nonstandard functions.

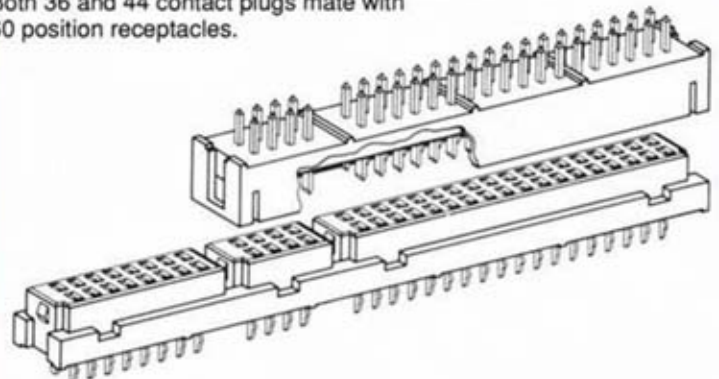
OPTIONAL OR DAUGHTER BOARD



MOTHER BOARD OR
SINGLE BOARD COMPUTER

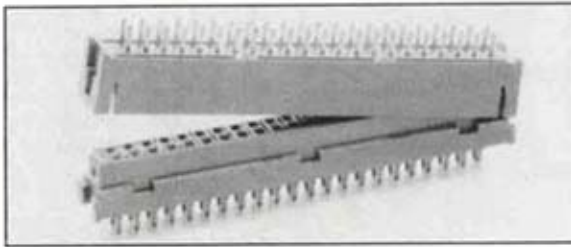
VERSATILITY

Smaller plugs mate with larger receptacles. For example, an 8 bit module with a 36 contact plug will mate with the 44 contact receptacle on a 16 bit mother board. Both 36 and 44 contact plugs mate with 60 position receptacles.



.100 Contact Centers (2.54 mm)

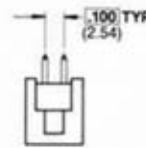
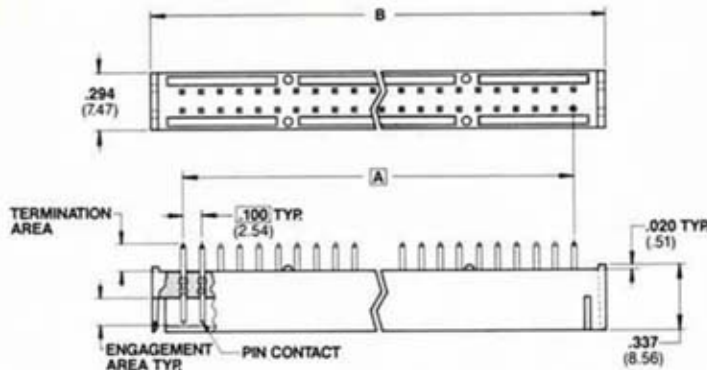
.100 x .100 grid



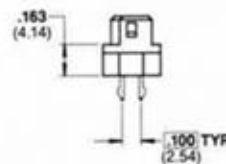
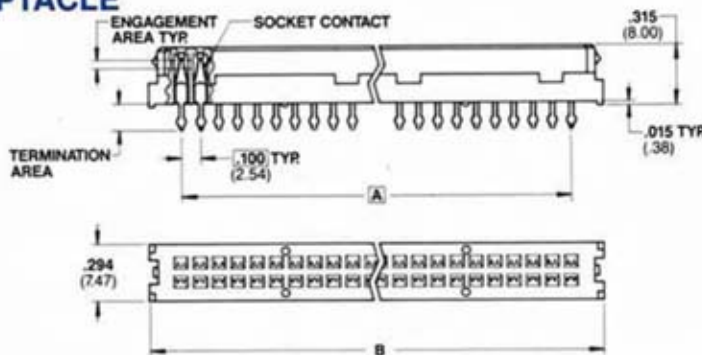
The VSBX II line of two-piece connectors is designed to meet today's packaging requirements for high-density, reliable interconnections in conditions of low currents, low voltages, and high frequencies. Both parallel and perpendicular mounting options are available. When used as a stacking connector, the VSBX design gives a board separation of only 0.5". A right-angle dip solder option on the plug half allows a perpendicular mounting configuration between mother and daughter boards.

OUTLINE AND DIMENSIONS

PLUG



RECEPTACLE



CODE 01
LOCKING

CODE 04
NO LOCK

Locking mechanism available on 22, 28 and 50 positions only.

CONTACT POSITIONS	A BSC	B $\pm .010$ ($\pm .25$)
5/10	.400 (10.16)	.725 (18.42)
8/16	.700 (17.78)	1.025 (26.04)
10/20	.900 (22.86)	1.225 (31.12)
12/24	1.100 (27.94)	1.425 (36.20)
15/30	1.400 (35.56)	1.725 (43.82)
18/36	1.700 (43.18)	2.025 (51.44)
20/40	1.900 (48.26)	2.225 (56.52)
22/44	2.100 (53.34)	2.425 (61.60)
28/56	2.700 (68.58)	3.025 (76.84)
50/100	4.900 (124.46)	5.225 (132.72)

Note: Dimensions are in inches and (millimeters). Tolerance $\pm .010$ (.25) unless otherwise specified.

SPECIFICATIONS

ELECTRICAL

Current Rating: 3 amp max.
Dielectric Withstanding Voltage: 1000 Vrms min.
Insulation Resistance: 1000 megohms min.
Contact Resistance: 10 milliohms max.

TEMPERATURE RANGE

-55°C to +125°C
 (-67°F to + 257°F)

MECHANICAL

Durability, Mating and Unmating: 200 cycles min.
Mating Force Per Contact: 10 oz. max.
Unmating Force Per Contact: 1 oz. min.
Contact Retention: Codes F and H: 3 lbs. min.
 Code G: 6 lbs. min.

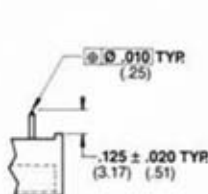
MATERIALS

INSULATOR: Nylon, glass reinforced, U.L. 94V-0 approved, color blue
CONTACTS: Copper alloy
NOTE: VSBX II Series is not intermateable with VSBX I Series.

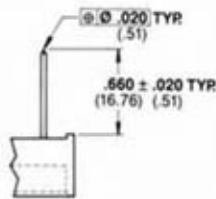
CONTACT TERMINATIONS

PLUG

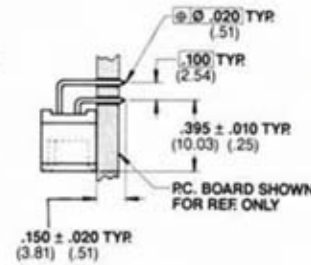
Note: All plug terminations fit .038 (.97) ± .003(.08) dia. P.C. board hole.



DIP SOLDER
CODE F



WRAP POST
CODE G



RIGHT ANGLE DIP SOLDER
CODE H

RECEPTACLE

NOTE: Receptacle terminations fit .041 (1.04) ± .003 (.08) dia. p.c. board hole.



DIP SOLDER
CODE F

ORDERING INFORMATION

LM	P	01	VT	22	F	01
-----------	----------	-----------	-----------	-----------	----------	-----------

SERIES IDENTIFIER

LM: VSBX II Series

PART IDENTIFIER

P: Plug

R: Receptacle

INSULATOR MATERIAL

01: Nylon (blue)

CONTACT PLATING

VN: .000030 gold engagement area;
 .000010 gold termination area. Plug only.

VT: .000030 gold engagement area;
 .000100 min. tin lead termination area.
 Not standard on contact termination Codes G and H.

NUMBER OF CONTACT PAIRS

5, 8, 10, 12, 15, 18, 20, 22, 28, 50

CONTACT TERMINATIONS

F: Dip Solder

G: Wrap Post - Not available on Receptacle

H: Right Angle Dip Solder - Not available on Receptacle

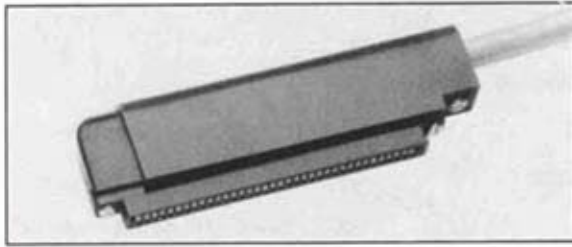
LOCKING STYLES

01: Locking available on 22, 28, 50 position only.

04: No Locking - Available on 5 through 20 position only.

Standard options are indicated by **bold italic type**.
 Nonstandard items require a factory quotation for price and delivery.

Hoods with Cable Clamp

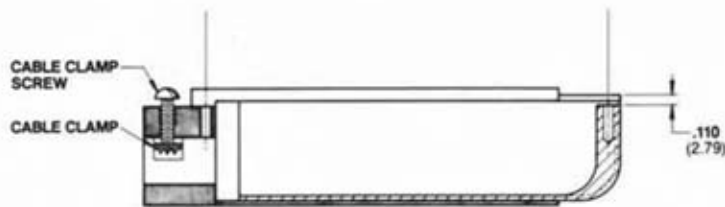
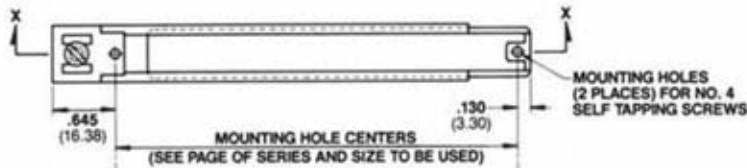
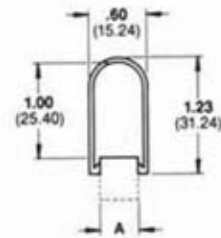
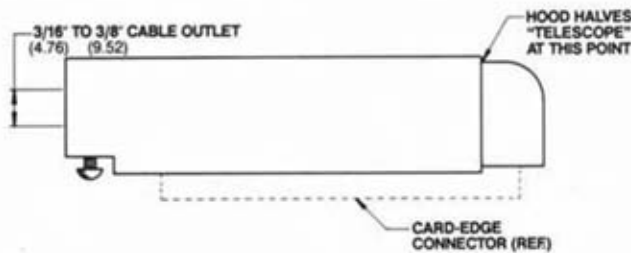


Hoods are available for most Viking card-edge connectors with style 5 mounts and suitable contact termination lengths. They are molded in thermoplastic and feature an integral cable clamp for a right-angle cable outlet. The cable clamp has a screw adjustment and accommodates cable sizes from 3/16" (4.76) diameter to 3/8" (9.52) diameter.

A hood assembly consists of two main parts, one of which "telescopes" into the other, thus fitting various lengths of connectors. Three different widths (Dim. "A") are available to suit the various connector series. The

hood is secured with two self-tapping screws which are provided. Consult the table to find the correct hood part number for your connector series and size.

OUTLINE AND DIMENSIONS



SECTION X-X

Connector Series	Dim. A	Contacts Per Row	Hood Assembly Part No.	Contacts Per Row	Hood Assembly Part No.	Contacts Per Row	Hood Assembly Part No.	Contacts Per Row	Hood Assembly Part No.
LV, LZ	.330	25-30	036-0097-004	40	036-0097-003	64	036-0097-002		
JDD, JE, JN, JV	.330	10	036-0097-004	15-25	036-0097-003	28-35	036-0097-002	36-50	036-0097-001
JND, JNK	.375	15-25	036-0098-003	28-36	036-0098-002	40-50	036-0098-001		
CDD, CE, CN, CV	.330	10-18	036-0097-003	22-28	036-0097-002	31-50	036-0097-001		
CND, CNK	.375	10-18	036-0098-003	22-30	036-0098-002	31-50	036-0098-001		
HNG	.400	18	036-0099-002	28-31	036-0099-001				
AB, ADD, AE, AK, AN, AV	.330	6	036-0097-004	10-15	036-0097-003	18-22	036-0097-002		
AMD, AMK, AND	.400	22	036-0099-002	28-43	036-0099-001				

Note: Dimensions are in inches and (millimeters). Tolerance $\pm 0.10(.25)$ unless otherwise specified.

Most Viking card-edge connectors have the option of "between-contacts" polarization or "in-contact" polarization.

Connectors with part number prefix "2" or "3" have grooves or slots between contacts into which the polarizing key is pressed. The appropriate "between-contacts" polarizing key is referenced on the data pages for each series. A Viking part number which

does not have a prefix of "2" or "3" does not have the "between-contacts" polarizing option.

If "in-contact" polarizing is desired, a pair of contacts must be removed and replaced by a key as detailed below. Therefore, two circuits are removed in the case of dual "readout" connectors and one circuit is removed in the case of single row connectors.

BETWEEN-CONTACTS



All .100", .125"
Contact Centers

Part Number: 091-0071-000
Material: Polyester
Key is pressed into grooves between contacts.

SLOT DIMENSIONS

A = .050(1.27)
B = .350(8.89)



All .156"
Contact Centers and HNG Series

Part Number: 091-0024-000
Material: GF Polyester
Key is pressed into slots between contacts.

SLOT DIMENSIONS

A = .050(1.27)
B = .350(8.89)

IN-CONTACT



JDD, JE, JN, JV Series
CDD, CE, CN, CV Series

Part Number: 091-0025-000
Material: GF Nylon
Key replaces two opposing contacts.
Key is pressed into empty contact cavities.

SLOT DIMENSIONS

A = .070(1.77)
B = .350(8.89)



JND, JNK Series
CND, CNK Series
AMD, AMK, AND Series

Part Number: 091-0051-000
Material: GF Nylon
Key replaces two opposing contacts.
Key is pressed into empty contact cavities.

SLOT DIMENSIONS

A = .070(1.77)
B = .350(8.89)



JDD, JE, JN, JV Series
CDD, CE, CN, CV Series

Part Number: 091-0114-012
Material: Copper, Gold Plated
Key replaces two opposing contacts.
Tail is bent 90° after installation.

SLOT DIMENSIONS

A = .070(1.77)
B = .350(8.89)

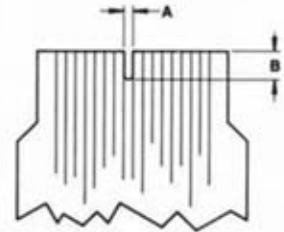


ADD, AE, AKC,
AN, AV Series
HN, HV Series

Part Number: 091-0020-012
Material: Copper, Gold Plated
Key replaces two opposing contacts.
Tail is bent 90° after installation.

SLOT DIMENSIONS

A = .100(2.54)
B = .350(8.89)



RECOMMENDED SLOT SIZE

Contact Replacement Tools

How To Replace Damaged Contacts

Wire Wrap, Round Tail Dip Solder and Pierced Eyelet Contacts Only

If a contact should become damaged and require replacement, special tools and replacement contacts are available. The technique and necessary tools are detailed below.

Wire Wrap and Round Tail Dip Solder Series AMD, AMK, AND, CND, CNK, HNG, JND, JNK

Viking's square wrap terminals and round tail dip solder terminals are retained in the insulator body by means of a press fit.

1. The use of an impact tool is suggested in removing the contact but other means can be used. Select the impact tool according to the chart. The impact tool slips over the tail of the damaged contact and is pushed firmly until the tool trips and drives the contact out.
2. Insert a replacement contact into the empty cavity from the front of the connector until the tail protrudes on the termination side.
3. Pull the tail using a pair of pliers until the contact is correctly seated and the tail is of equal length to the other contacts.

W/W Series	Replacement Contact	D/S Series	Replacement Contact	Impact Tool
AMD, AND	018-1140-002	AMK	018-1149-002	000407-0085
CND	018-1141-002	CNK	018-1151-002	000407-0085
HNG	018-0526-002			000407-0093
JND	018-1140-002	JNK	018-1149-002	000407-0085

Pierced Eyelet Series AN, CN, HN, JN

Viking's pierced eyelet terminals are retained in the insulator body by a dimple at the point where the tail enters the insulator.

1. Using the cut-off tool, cut off the tail at the "dimpled" area and remove the damaged contact.
2. Insert a replacement contact into the empty cavity from the front of the connector until it is completely seated.
3. While holding the contact in the seated position, place the dimple tool over the tail and squeeze to form a dimple on the flat metal at the base of the insulator. The dimple should preferably face out from the center of the connector. The dimple retains the contact in the insulator.

Pierced Series	Replacement Contact	Cut-Off Tool	Dimple Tool
AN	018-0906-002	115-0109-000	115-0108-000
CN	018-0905-002	115-0531-000	115-0532-000
HN	018-0028-002	115-0109-000	115-0108-000
JN	018-0905-002	115-0533-000	115-0534-000



FOR FURTHER INFORMATION



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(818) 341-4330
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- Card-Edge
- D-Subminiature
- Relay Sockets
- Mini-Circulars
- Stacking
- Specialty

<http://www.wpi-interconnect.com>

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