# **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:**

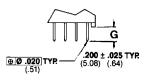
Stainless steel, passivated

### NOTE:

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

# **CONTACT TERMINATIONS**

DIP SOLDER

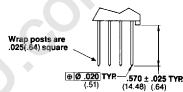


CODE MK

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

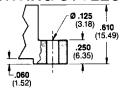
Dip Solder Terminations are  $.026(.66) \pm .002(.05)$  diameter and fit .035(.89) min. diameter board hole.

## **WRAP POST**



WITH STANDOFF: CODE MD WITHOUT STANDOFF: CODE ND

# **MOUNTING STYLES**



FLUSH MOUNT CODE 1



THREADED INSERT

43

/2

A

KT

2



THRU HOLE CODE 5

12

I I

MK



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**

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

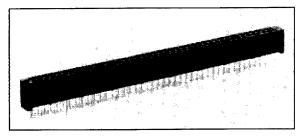
# SERIES IDENTIFIER

**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.

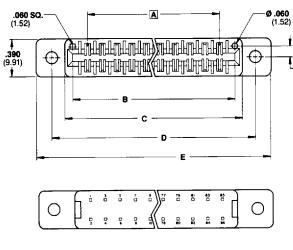
# .156 Contact Centers (3.96 mm)

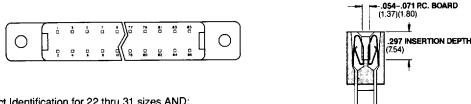
.156 x .200 grid



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 

Omit:

Contact Identification for 36 thru 43 size AND: Letters: A, B, C, ......Z,  $\overline{A}$ , ..... $\overline{Y}$ 

Numbers; 1, 2, 3,.....22, 23,......43 Omit:  $G, I, O, Q, \overline{G}, \overline{I}, \overline{O}, \overline{Q}$ 

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.

SEE CONTACT TERMINATIONS

# **AMD, AMK SERIES**

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

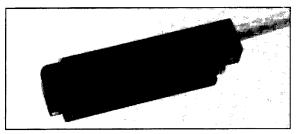
STANDOFFS -PROVIDED ON

## **AND SERIES**

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

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

# **Hoods with Cable Clamp**

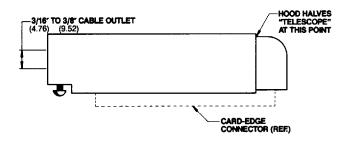


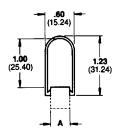
Hoods are available for most Viking card-edge connectors with style 5 mounts and suitable contact termination lengths. They are molded in thermoplastic and feature an integral cable clamp for a right-angle cable outlet. The cable clamp has a screw adjustment and accommodates cable sizes from 3/16"(4.76)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

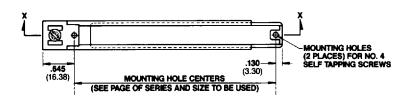
A hood assembly consists of two main parts, one of which "telescopes" into the other, thus fitting various lengths of connectors. Three different widths (Dim. "A") are available to suit the various connector series. The

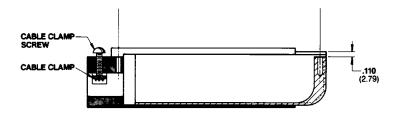
hood is secured with two self-tapping screws which are provided. Consult the table to find the correct hood part number for your connector series and size.

# **OUTLINE AND DIMENSIONS**









**SECTION X-X** 

Connector Series	Dim. A	Contacts Per Row	Hood Assembly Part No.						
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  $\pm .010(.25)$  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)



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

### 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

## SLOT DIMENSIONS

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

cavities.

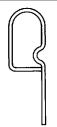


JDD, JE, JN, JV Series CDD, CE, CN, CV Series

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)

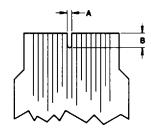


ADD, AE, AKC, AN, AV Series HN, HV Series

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.
- Insert a replacement contact into the empty cavity from the front of the connector until the tail protrudes on the termination side.
- 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.

- Using the cut-off tool, cut off the tail at the "dimpled" area and remove the damaged contact.
- Insert a replacement contact into the empty cavity from the front of the connector until it is completely seated.
- 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.

Replacement Contact	Cut-Off Tool	Dimple Tool
018-0906-002	115-0109-000	115-0108-000
018-0905-002	115-0531-000	115-0532-000
018-0028-002	115-0109-000	115-0108-000
018-0905-002	115-0533-000	115-0534-000
	018-0906-002 018-0905-002 018-0028-002	Contact         Tool           018-0906-002         115-0109-000           018-0905-002         115-0531-000           018-0028-002         115-0109-000

