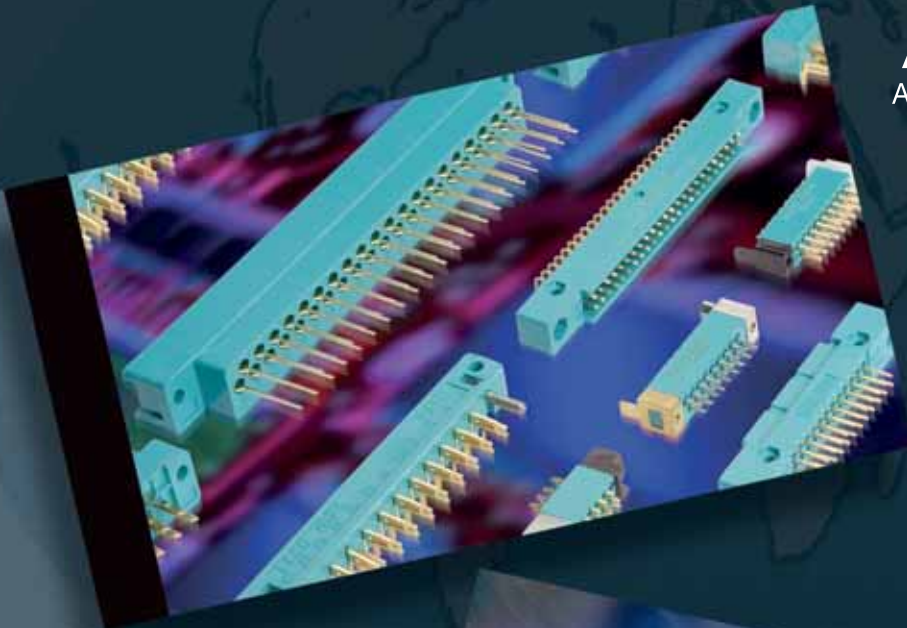


**AVX**  
A KYOCERA GROUP COMPANY



**AVX**  
**Varicon**

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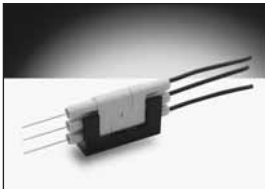
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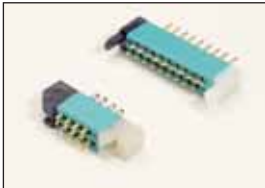
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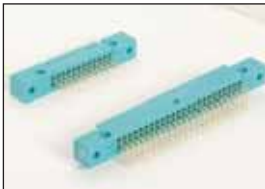
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**Contact Strips**  
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# The Varicon Range



Pitch	Number of Contacts	Body Style	Termination Types	Current Rating (Amps)	Series Number
0.050"	2 to 152	Plugs and Receptacles	Staggered, Fixed: Solder, Eyelet	5	8218
0.050"	18, 30, 36, 42, 54, 72	Plugs and Receptacles	Staggered, Fixed: Straight & Right Angle Solder, Eyelet	5	8219
0.075" x 0.130" & 0.075" x 0.150"	20, 38, 56, 90, 120	Plugs and Receptacles	Staggered, Removable: Taper Tab, Eyelet, Wire Wrap, Crimp	8	8016
	75, 100, 130				8017
0.100"	17, 23, 29, 35, 41	Receptacles	Same as series 7024	8	7008
0.100"	17, 23, 29, 35, 41, 47	Plugs	Staggered, Fixed: Solder	6	7022
0.100"	17, 23, 29, 35, 41, 47	Receptacles	Staggered, Fixed: Solder	6	7023
0.100"	17, 23, 29, 35, 41	Receptacles	Staggered, Fixed: Solder, Taper Tab, Eyelet, Wire Wrap, Bus Line	8	7024
0.100"	17, 23, 29, 35, 41, 47	Receptacles	Staggered, Removable: Taper Tab, Eyelet, Wire Wrap, Crimp	8	7038
0.100"	33, 75, 117, 165	Plugs and Receptacles	Wire Wrap, Crimp	5	8026
0.100"	24, 48, 72, 96	Plugs and Receptacles	Square Grid Dual Row, Fixed: Straight and Right Angle Solder, Eyelet, Wire Wrap, Crimp, Wrappable Removable	5	8223
0.200"	2, 3	Plugs and Receptacles	In-line Fixed: Solder, Crimp	8.5	8020

## Introduction

AVX's Varicon product range is available as two-piece input / output and board level connectors (intermateable plugs and receptacles). Varicon contacts are also available in strips, on disposable carriers, ready for staking to p.c. cards. They all use the famous, fork-like Varicon® (fixed) or Varilok® (insertable / removable) hermaphroditic contact design.

### VARICON DESIGN ADVANTAGES

AVX's hermaphroditic Varicon contact utilizes a fork-like design incorporating four large mating surfaces that are coined to achieve exceptional hardness and smoothness. The mating surfaces are wedged together by the spring-like design of the contact and by the innate properties of the contact material. The Varicon contact has proven its reliability in innumerable applications and with over one-million contacts being produced daily, billions of successful, trouble-free operating hours have been logged.

### FEATURES

- Four intimate contact areas, electrically parallel
- High current carrying capability, excellent heat dissipation
- Self-cleaning, wiping action burnishes contacting surfaces reducing constrictive resistance
- Low contact resistance 3 to 4 milliohms
- Stable in vibration and adverse environments
- High contact normal pressure achieved at low stress levels

### HIGH RELIABILITY

The mating surfaces provide a gas-tight connection and resists corrosion caused by adverse environments. This seal is made possible by the spring-like properties of the Varicon contact and by the smoothness of the coined mating surfaces. After being mated for years, the contacts still retain clean, unoxidized mating surfaces.

### LOW RESISTANCE

Because of the spring-like properties of the Varicon contact, both sides of the contact are always under considerable pressure when mated. Their sliding and wiping action burnishes the surfaces in a self-cleaning action reducing any constrictive resistance. The low contact resistance remains a permanent feature of the Varicon contact even after thousands of mating and unmating cycles.

### HIGH CURRENT CAPACITY

The low contact resistance contributes substantially to Varicon's high current-carrying capacity. Also, its heat-dissipating characteristics are enhanced by its flat configuration.



### SHOCK AND VIBRATION RESISTANCE

Should external forces cause any decrease in contact pressure between two of the four mating surfaces, it is automatically compensated by redistributing the contact pressure between the other two mating surfaces.

### ECONOMY

Varicon contacts are stamped from sheet stock instead of screw-machined. Consequently, this production method not only increases the production capacity but decreases production cost as there is little waste.

### VERSATILITY

The Varicon concept can be used in a card-mounted plug that mates with a receptacle, or Varicon contacts can be staked directly to a pc board and soldered into place. This latter method eliminates the need for a conventional plug reducing the cost of the connection system while retaining the proven reliability of the Varicon interconnection.

### CONTACT TYPES

Two basic sizes of our Varicon contact are available: standard and miniature Varicon. And each size has two major variations: the fixed Varicon contact and the Varilok insertable / removable version. The standard size is rated at 8 amps and has a withdrawal force range of 2 to 16 ounces per contact. The miniature size is specifically for high density applications and is rated at 5 amps with a withdrawal force of 2 to 8 ounces per contact. (For exact specifications, check the individual series listing.)



**Miniature Varicon®**



**Standard Varicon®**



## Introduction

### CONTACT MATERIAL

The primary contact material used is phosphor bronze. The electrical conductivity of copper alloys are extremely good. Within the Varicon concept, the contacts must also perform as springs and these alloys offer the elastic properties and the endurance required by today's rugged applications.

### CONTACT PLATING

A nickel underplate of 50 to 100 microinches, followed by a minimum of 10 microinches of gold plate is AVX's standard contact plating. The gold plate prevents the formation of insulating oxide films while the nickel plate provides a hard backing. It, in turn, reduces wear on the gold and prevents diffusion between the gold and base metal. Other plating thicknesses, such as those required by military specifications, can be supplied on request.

### VARILOK CRIMP-AND-INSERT CONTACTS

The crimp-termination, insertable / removable Varilok contact offers a solderless connection between wire and contact as well as strain relief for the wire. This contact snaps into the insulator quickly and easily. With our simple tool it can be removed without difficulty, yet it locks securely into place and cannot twist or bend out of alignment.



**Loose Varilok Contacts**



**Reel-Mounted Varilok Contacts**

Varilok contacts also are available with wire-wrappable, solder and taper-tab tail configurations. Available loose for small scale production and replacement purposes, the Varilok contact is also supplied on reels for use with fast, economical automatic crimping machines reducing man-hour requirements and production costs in medium and large-scale production runs. Because the contact can be crimped to the wire and installed into the insulator at any point during the manufacturing operation, it offers the user convenience and flexibility. Reels contain 1800 standard contacts or 3000 miniature contacts.

***All commercial Varicon products are RoHS compliant.***

## Introduction

### MINI-VARILOK

The Mini-Varilok is half the size of the standard Varilok contact. It's designed for hand or machine crimping to solid or stranded AWG #22 to #30 wire. Its basic features are identical to the standard Varilok however it also incorporates a decreased insertion force and is used for high density applications. Production methods for the Mini-Varilok are the same as the standard Varilok.

### CONTACT RETENTION

The Varilok contact, after undergoing five insertion / extraction cycles and being subjected to the vibration and shock tests of MIL-C-28731, still withstands an axial load in excess of 10 pounds (6 for mini-varilok).

### WIRE SIZE

The Varilok contact with its open crimp barrel conforms to practically all specifications written for screw-machined contacts with closed crimp barrels. The crimp barrel of the Varilok contact is designed to accommodate wire sizes AWG #18 to #26. It's also possible to crimp together two stranded #22 or smaller wires. The Mini-Varilok accommodates wire sizes AWG #22 to #30. Table I lists the various sizes of wire to which Varilok contacts can be crimped, and indicates the minimum conductor diameter and the maximum insulator diameter that can be accommodated by the contacts. The crimp barrel is also crimped to the wire's insulation for strain relief and the large, overlapping ears of the barrel accommodate a wide range of wire insulation sizes (Table I). For an optimum crimp connection, the insulation is stripped one-eighth inch from the end of the conductor.

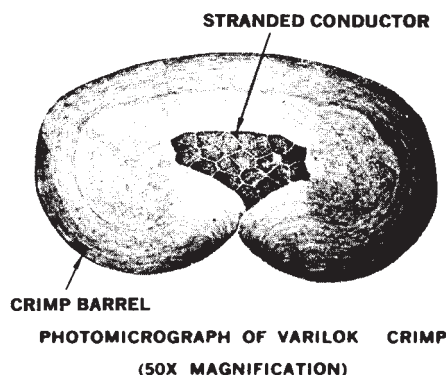
**Table I**  
**Wire Sizes**  
(AWG)

(Ref: MIL-W-16878/4 – Type E wire)

Single Wire	Varilok	Mini-Varilok	Conductor Diameter (Nominal)	Insulator Diameter (Max. Overall)
#18	Yes	No	.048	.074
#20	Yes	No	.038	.062
#22	Yes	Yes	.030	.054
#24	Yes	Yes	.024	.048
#26	Yes	Yes	.019	.043
#28	No	Yes	.015	.039
#30 (Stranded)	No	Yes	.012	.036

### CRIMP CHARACTERISTICS

The illustration shows an enlarged cross-section of a typical Varilok crimp on a #22 stranded wire. No significant voids are visible. The complete deformation of the wire strands indicates optimum contact between the contact barrel and the conductors.



### TENSILE STRENGTH

Table II lists the values, in pounds, of tensile strength (wire pull-out force) for Varilok and Mini-Varilok contacts crimped to stranded AWG #18 to #30 wires.

**Table II**  
**Tensile Strength**  
(In Pounds)

Wire Size (AWG)	#18	#20	#22	#24	#26	#28	#30
Stranded Wire	40	25	15	10	5	3	1.5

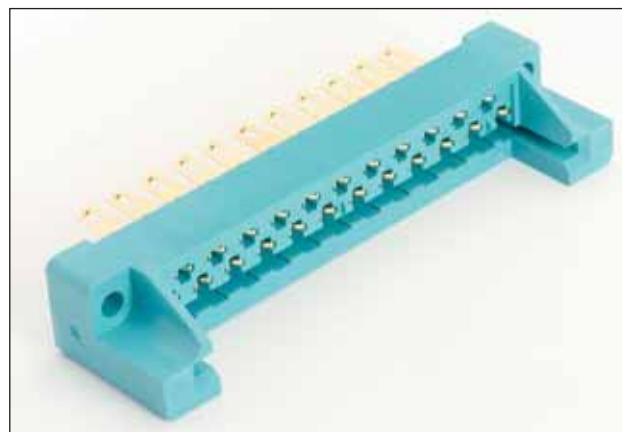
### CRIMPING EQUIPMENT

All equipment needed to crimp Varilok and Mini-Varilok contacts is normally available from stock. Crimping equipment for production crimping as well as hand-operated crimping pliers are designed to realize the full electrical, mechanical and economical advantages of the Varilok and Mini-Varilok contact.

## Series 7008 – 0.100" Staggered Dual Row

### FEATURES

- Available with or without card guides
- Sizes 17, 23, 29, 35, 41
- Wide range of contact terminations
- For 1/16" thick PCB
- Polarization insert
- Mates with Series 7000 and 7022 Plugs



### TECHNICAL SPECIFICATIONS

**Current Rating:**

10 amperes

**Contact Resistance:**

6 milliohms, maximum

**Contact Material and Plating:**

Phosphor Bronze per QQ-B-750, Composition A.

Gold, 10 microinches minimum, over nickel, 30 to 100 microinches

**Insulator Material:**

Diallyl phthalate, glass-filled, flame resistant, per MIL-M-14F, Type SDGF.

**Insulation Resistance:**

25,000 megohms, minimum

**Dielectric Withstanding Voltage:**

Sea Level: 2000 Volts rms

3.4" Hg: 675 Volts rms

**Insertion/Withdrawal Force:**

2 to 16 ounces per contact

**Operating Temperature:**

-40°C to +125°C

### ORDERING CODE

**00**

**7008**

**017**

**Number of Contacts**  
017, 023, 029, 035, 041

**146**

**Contact Code**  
See table.

**001**

**Variation Code**  
See table.

141 = 60 7001 06 33  
P.C. Termination for 1/8" Card



156 = 60 7001 18 13  
Wire wrapping (.026 x .062 x .600")



163 = 60 7001 19 13  
.098" Base Taper Tab w/Wire Hole



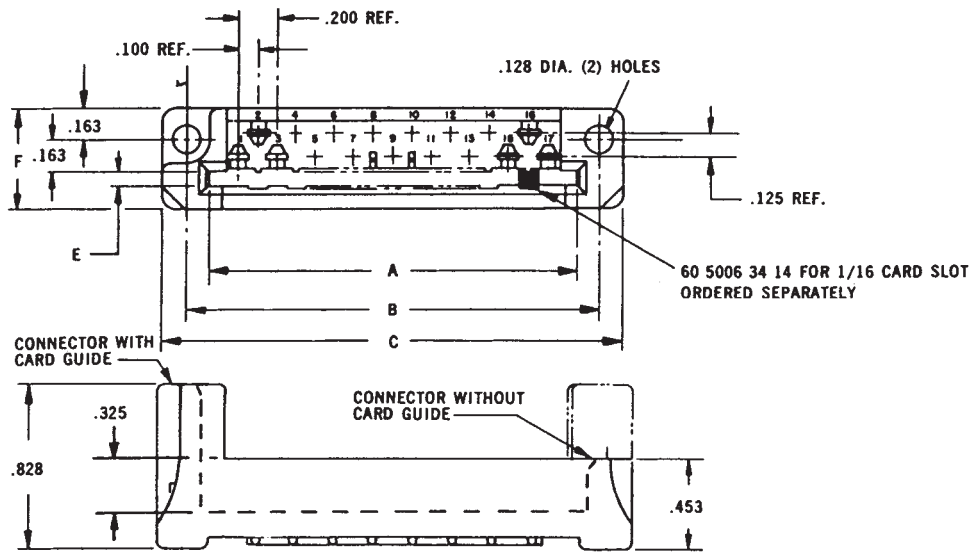
166 = 60 7001 20 23  
Dual Solder Termination for 2 Wires or Bus Line  
(.056 x .125" Slot)



Card Slot	Card Guides	Code
1/16"	Yes	001
	No	002

Connector Description	Availability				
	No. of Contacts				
	17	23	29	35	41
With Guides – for 1/16" Card	X	X	X	X	X
Without Guides – for 1/16" Card	X	X	X	X	X

## Series 7008 – 0.100" Staggered Dual Row



### DIMENSIONS:

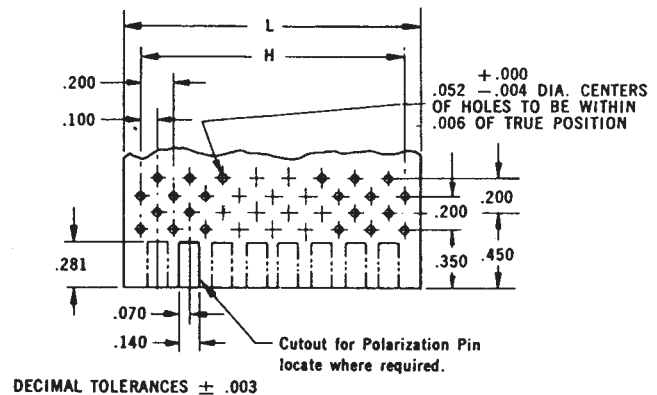
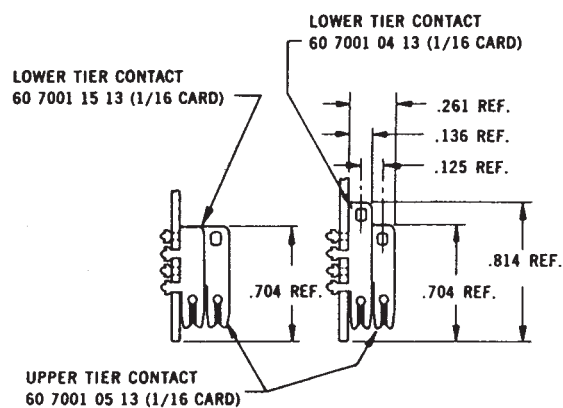
millimeters (inches)

Number of Contacts	A Bottom	B	C	D	E 1/16" Card	F	G*		H ±.003	L +.010 -.000	N*	
							Con.	N-Con.			Con.	N-Con.
17	1.920 (0.076)	2.134 (0.084)	2.40 (0.094)	1.835 (0.072)	.074 (0.003)	.531 (0.021)	.468 (0.018)	.343 (0.014)	1.600 (0.063)	1.900 (0.075)	.210 (0.008)	.148 (0.006)
23	2.520 (0.099)	2.734 (0.108)	3.00 (0.118)	2.435 (0.096)	.074 (0.003)	.531 (0.021)	.468 (0.018)	.343 (0.014)	2.200 (0.087)	2.500 (0.098)	.210 (0.008)	.148 (0.006)
29	3.120 (0.123)	3.334 (0.131)	3.60 (0.142)	3.035 (0.119)	.074 (0.003)	.531 (0.021)	.468 (0.018)	.343 (0.014)	2.800 (0.110)	3.100 (0.122)	.210 (0.008)	.148 (0.006)
35	3.270 (0.129)	3.934 (0.134)	4.20 (0.165)	3.635 (0.143)	.074 (0.003)	.531 (0.021)	.468 (0.018)	.343 (0.014)	3.400 (0.134)	3.700 (0.146)	.210 (0.008)	.148 (0.006)
41	4.320 (0.170)	4.534 (0.179)	4.80 (0.190)	4.235 (0.167)	.074 (0.003)	.531 (0.021)	.468 (0.018)	.343 (0.014)	4.000 (0.157)	4.300 (0.169)	.210 (0.008)	.148 (0.006)

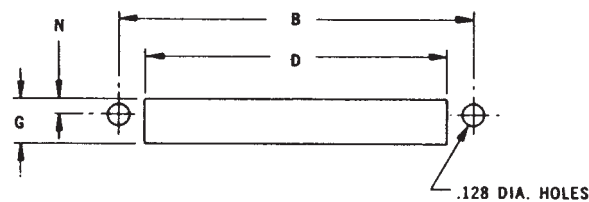
\*N-CON = Non-Conductive Chassis  
(1/16" Clearance Around Contacts)

CON = Conductive Chassis  
(1/8" Clearance Around Contacts)

### P.C. CARD LAYOUT



### CHASSIS MOUNTING

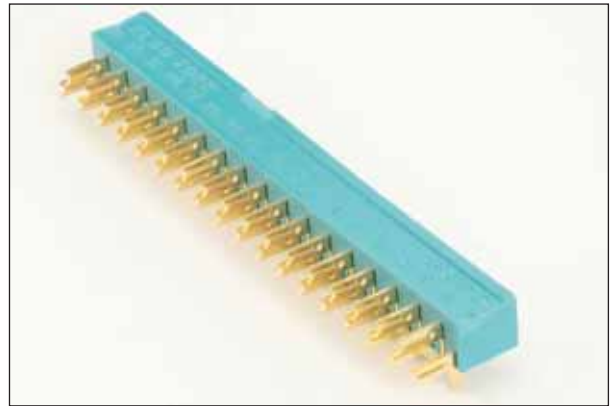




## Series 7022 – 0.100" Staggered Dual Row

### FEATURES

- Insulator rigidity reduces p.c. card warp
- Insulator maintains exact spacing between contacts
- Reduces cost of card punching operation (fewer holes)
- Reduces cost of contact staking operation (one operation instead of two)
- Reduces assembly time (no plastic strip to remove)
- For 1/16" or 3/32" p.c. card
- Mates with Series 7000 Receptacles with or without card guides



### TECHNICAL SPECIFICATIONS

**Current Rating:**  
10 amperes

**Contact Resistance:**  
6 milliohms, maximum

**Contact Material and Plating:**  
Phosphor Bronze per QQ-B-750,  
Composition A.

Gold, 10 microinches minimum,  
over nickel, 30 to 100 microinches

**Insulator Material:**  
Diallyl phthalate, glass-filled, per  
MIL-M-14F, Type SDGF.  
Variation 001/002  
Thermoplastic Polycarbonate  
Variation 003

**Insulation Resistance:**  
25,000 megohms, minimum

**Dielectric Withstanding Voltage:**  
Sea Level: 2000 Volts rms  
3.4" Hg: 675 Volts rms

**Insertion/Withdrawal Force:**  
2 to 16 ounces per contact

**Operating Temperature:**  
-40°C to +125°C

### ORDERING CODE

00

7022

023

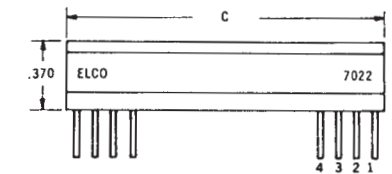
**Number of Contacts**  
017, 023, 029, 035, 041  
For Series 7008 receptacle

000

001

#### Variation Code

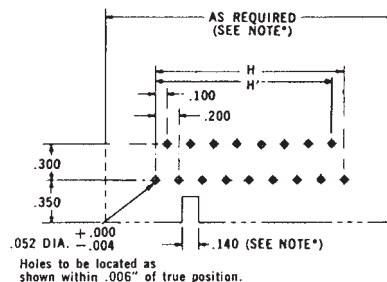
001 = 1/16" Module Card Thickness  
002 = 3/32" Module Card Thickness



60 7001 2913 for 1/16" Card  
60 7001 2923 for 3/32" Card

60 7001 2813 for 1/16" Card  
60 7001 2823 for 3/32" Card

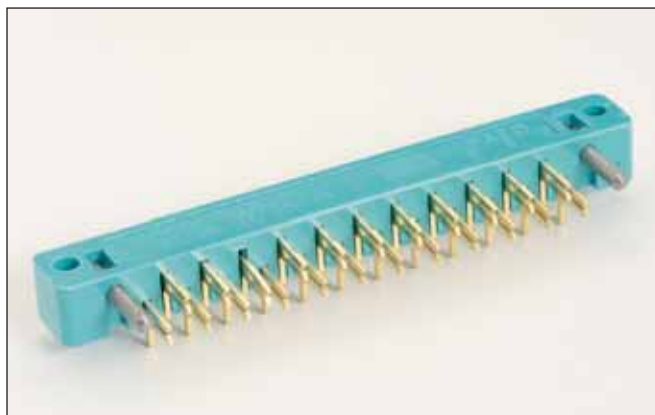
### MOUNTING LAYOUT



## Series 7023 – 0.100" Staggered Dual Row

### FEATURES

- Guide pins facilitate mating, ensure correct alignment
- Insulator rigidity reduces p.c. card warp
- Insulator maintains exact spacing between contacts
- Reduces cost of card punching operation (fewer holes)
- Reduces cost of contact staking operation (one operation instead of two)
- Reduces assembly time (no plastic strip to remove)
- For 1/16" or 3/32" p.c. card
- Mates with Series 7024 and 7038 Receptacles



### TECHNICAL SPECIFICATIONS

**Current Rating:**  
10 amperes

**Contact Resistance:**  
6 milliohms, maximum

**Contact Material and Plating:**  
Phosphor Bronze per QQ-B-750,  
Composition A.

Gold, 10 microinches minimum,  
over nickel, 30 to 100 microinches

**Insulator Material:**

Diallyl phthalate, glass-filled, flame resistant  
per MIL-M-14F, Type SDGF.

Variation 001/002/110/111

Thermoplastic Polycarbonate

Variation 003

**Insulation Resistance:**

25,000 megohms, minimum

**Dielectric Withstanding Voltage:**

Sea Level: 1800 Volts rms

3.4" Hg: 675 Volts rms

**Insertion/Withdrawal Force:**

2 to 16 ounces per contact

**Operating Temperature:**

-40°C to +125°C

### ORDERING CODE

00

7023

023

000

001

**Number of Contacts**

017, 023, 029, 035, 041, 047

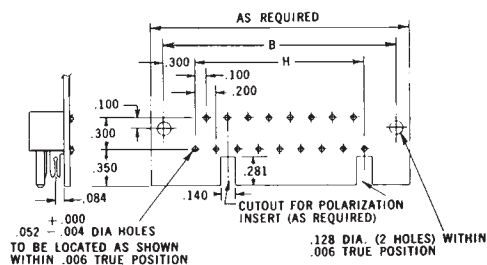
**Contacts used in this connector:**

Card	Upper Card Contacts	Lower Card Contacts
1/16"	60 7001 29 13	60 7001 28 13
3/32"	60 7001 29 23	60 7001 28 23

**Diallyl Phthalate  
Glass Filled**

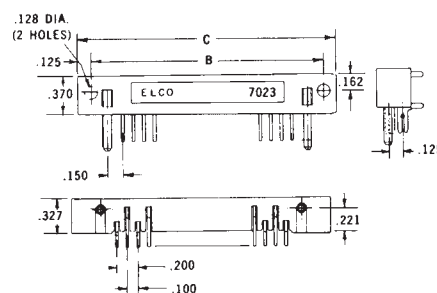
1/16" Card	3/32" Card
001	002
110	111

### MOUNTING LAYOUT



### DIMENSIONS: millimeters (inches)

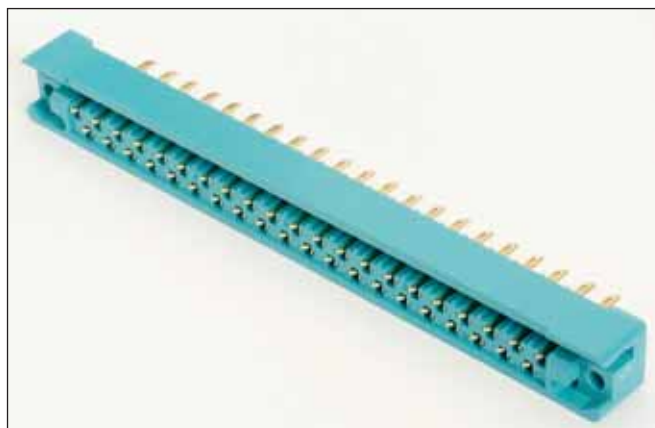
Number of Contacts	B	C Max.	H
17	2.200 (0.087)	2.470 (0.097)	1.600 (0.063)
23	2.800 (0.110)	3.070 (0.121)	2.200 (0.087)
29	3.400 (0.134)	3.670 (0.144)	2.800 (0.110)
35	4.000 (0.157)	4.270 (0.168)	3.400 (0.134)
41	4.600 (0.181)	4.870 (0.192)	4.000 (0.157)
47	5.200 (0.205)	5.470 (0.215)	4.600 (0.181)



## Series 7024 – 0.100" Staggered Dual Row

### FEATURES

- Guide sockets facilitate mating, ensure correct alignment
- Open-ended card slot; use with p.c. card of any width
- Wide range of contact terminations
- Sizes 17, 23, 29, 35, 41
- For 1/16" or 3/32" p.c. card
- Mates with Series 7023 Plug



### TECHNICAL SPECIFICATIONS

**Current Rating:**  
10 amperes

**Contact Resistance:**  
6 milliohms, maximum

**Contact Material and Plating:**  
Phosphor Bronze per QQ-B-750, Composition A.

Gold, 10 microinches minimum, over nickel, 30 to 100 microinches

**Insulator Material:**  
Diallyl phthalate, glass-filled, flame resistant, per MIL-M-14F, Type SDGF.

**Insulation Resistance:**  
25,000 megohms, minimum

**Dielectric Withstanding Voltage:**  
Sea Level: 1800 Volts rms  
3.4" Hg: 675 Volts rms

**Insertion/Withdrawal Force:**  
2 to 16 ounces per contact

**Operating Temperature:**  
-40°C to +120°C

### ORDERING CODE

00

7024

023

**Number of Contacts**  
017, 023, 029, 035, 041

163

**Contact Code**  
See table.

001

**Variation Code**  
001 = 1/16" Thick Card  
002 = 3/32" Thick Card  
110 = 1/16" Thick Card 50 mil Gold  
111 = 3/32" Thick Card 50 mil Gold

141 = 60 7001 06 33  
P.C. Termination for 1/8" Card



156 = 60 7001 18 13  
Wire wrapping (.026 x .062 x .600")



163 = 60 7001 19 13  
.098" Base Taper Tab w/Wire Hole

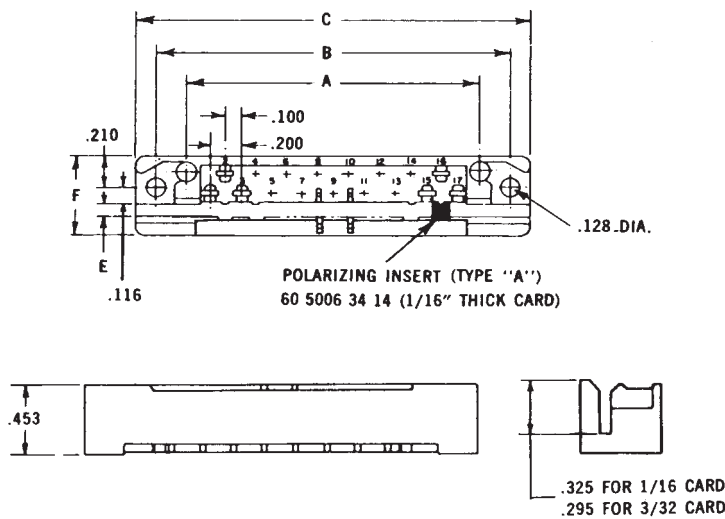


166 = 60 7001 20 23  
Dual Solder Termination for 2 Wires or Bus Line  
(.056 x .125" Slot)



Connector Description	Availability				
	17	23	29	35	41
For 1/16" Card	X	X	X	X	X
For 3/32" Card	X	X	X	X	X

## Series 7024 – 0.100" Staggered Dual Row



### DIMENSIONS:

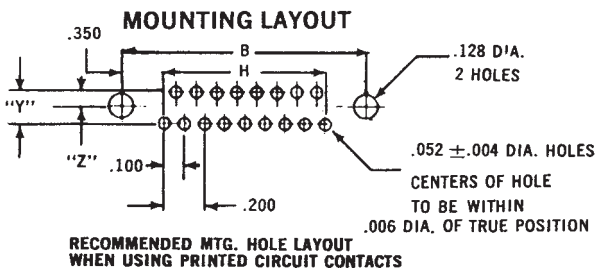
millimeters (inches)

Number of Contacts	A	B	C Max.	D	E $\pm .003$ $\pm .002$		F	G††		H	N††	
					1/16" Card	3/32" Card		Con.	N-Con.		Con.	N-Con.
17	1.900 (0.075)	2.300 (0.091)	2.570 (0.101)	1.185 (0.072)	.074 (0.003)	.105 (0.004)	17/32"	.468 (0.018)	.343 (0.014)	1.600 (0.063)	.208 (0.008)	.146 (0.006)
23	2.500 (0.098)	2.900 (0.114)	3.170 (0.125)	2.435 (0.096)	.074 (0.003)	.105 (0.004)	17/32"	.468 (0.018)	.343 (0.014)	2.200 (0.087)	.208 (0.008)	.146 (0.006)
29	3.100 (0.122)	3.500 (0.138)	3.770 (0.148)	3.035 (0.119)	.074 (0.003)	.105 (0.004)	17/32"	.468 (0.018)	.343 (0.014)	2.800 (0.110)	.208 (0.008)	.146 (0.006)
35	3.700 (0.146)	4.100 (0.161)	4.370 (0.172)	3.635 (0.143)	.074 (0.003)	.105 (0.004)	17/32"	.468 (0.018)	.343 (0.014)	3.400 (0.134)	.208 (0.008)	.146 (0.006)
41	4.300 (0.169)	4.700 (0.185)	4.970 (0.196)	4.235 (0.167)	.074 (0.003)	.105 (0.004)	17/32"	.468 (0.018)	.343 (0.014)	4.000 (0.157)	.208 (0.008)	.146 (0.006)

†† N-CON = Non-Conductive Chassis  
(1/16" Clearance Around Contacts)

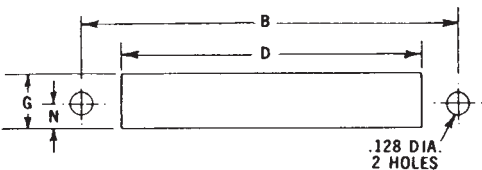
CON = Conductive Chassis  
(1/8" Clearance Around Contacts)

### MOUNTING LAYOUT



STANDARD CENTERS WHEN "Y" = .125; "Z" = .088

SPECIAL CENTERS WHEN "Y" = .150; "Z" = .100



# Varicon®

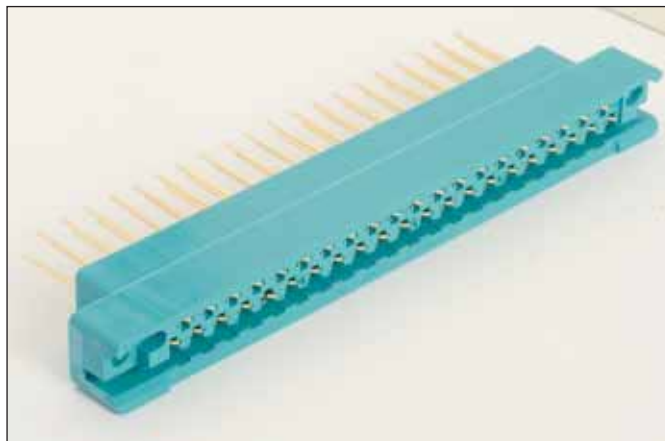
## Series 7038 – 0.100"

### Staggered Dual Row



## FEATURES

- Varilok® contacts are insertable and removable by user
- Crimp, solderless wrap, tapered tab, and wire hole terminations available
- All crimping, insertion, and extraction equipment available (see page 26)
- Guide sockets facilitate mating, ensure correct alignment
- Open-ended card slot; no p.c. card notching necessary
- Mates with Series 7023 Plug



## TECHNICAL SPECIFICATIONS

### Current Rating:

8 amperes

### Contact Resistance:

6 milliohms, maximum

### Contact Material and Plating:

Phosphor Bronze

Gold, 10 microinches minimum,  
over nickel, 50 to 100 microinches

### Insulator Material:

Diallyl phthalate, glass-filled,  
flame resistant, per MIL-M-14F,  
Type SDGF.

### Insulation Resistance:

5,000 megohms, minimum

### Dielectric Withstanding Voltage:

Sea Level: 1800 Volts rms  
3.4" Hg: 675 Volts rms

### Insertion/Withdrawal Force:

2 to 16 ounces per contact

### Operating Temperature:

-40°C to +120°C

## ORDERING CODE

00

7038

023

000

001

### Number of Contacts

017, 023, 029,  
035, 041

### Contact Code

See table.

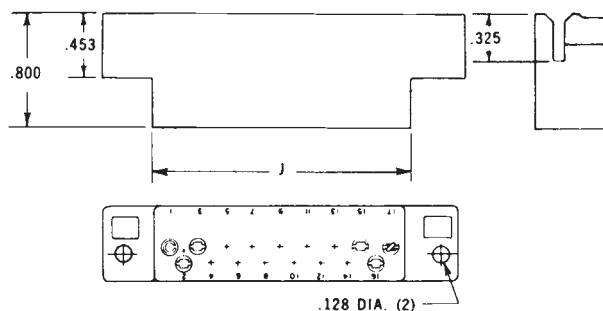
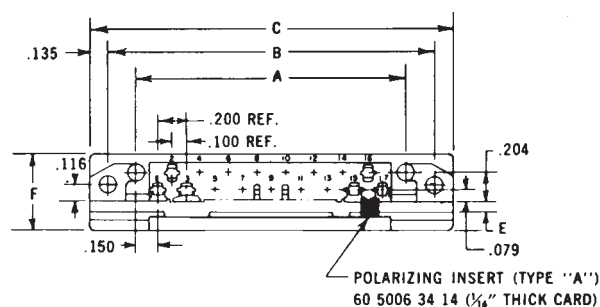
### Variation Code

001 = 1/16" Thick Card  
002 = 3/32" Thick Card  
110 = 1/16" Thick Card 50 mil Gold  
111 = 3/32" Thick Card 50 mil Gold

217 = 60 8017 05 13	
Wire Hole	
218 = 60 8017 06 13	
Solderless Wrap Tail – .025" x .050" x .567"	
750 = 60 8017 06 23	
Solderless Wrap Tail – .025" x .050" x .760"	
296 = 60 8017 06 33	
Solderless Wrap Tail – .025" x .025" x .580"	
504 = 60 8017 06 63	
Solderless Wrap Tail – .025" x .025" x .170"	
*000 = 60 8017 03 13	
Wire Crimp Tail (Contacts Loose) 18-26 AWG	
*000 = 60 8017 03 23	
Wire Crimp Tail (Contacts on a Reel) 18-26 AWG	

\*Order separately by part number, refer to page 25



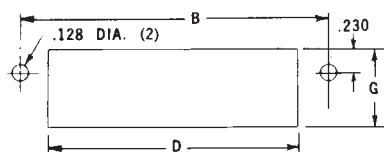


## DIMENSIONS:

millimeters (inches)

Number of Contacts	A	B	C Max.	D	E		F	G	J
					1/16" Card	3/32" Card			
17	1.900 (0.075)	2.300 (0.091)	2.570 (0.101)	1.890 (0.075)	.074 (0.003)	.105 (0.004)	17/32"	.571 (0.022)	1.850 (0.073)
23	2.500 (0.099)	2.900 (0.114)	3.170 (0.125)	2.490 (0.098)	.074 (0.003)	.105 (0.004)	17/32"	.571 (0.022)	2.450 (0.096)
29	3.100 (0.122)	3.500 (0.138)	3.770 (0.148)	3.090 (0.121)	.074 (0.003)	.105 (0.004)	17/32"	.571 (0.022)	3.050 (0.120)
35	3.700 (0.146)	4.100 (0.161)	4.370 (0.172)	3.690 (0.145)	.074 (0.003)	.105 (0.004)	17/32"	.571 (0.022)	3.650 (0.144)
41	4.300 (0.169)	4.700 (0.185)	4.970 (0.196)	4.290 (0.169)	.074 (0.003)	.105 (0.004)	17/32"	.571 (0.022)	4.250 (0.167)

## MOUNTING LAYOUT



## Series 8016 – .075" x .130" x .150" Grid Pattern

### FEATURES

- Available in five sizes: 20, 38, 56, 90 and 120 contacts
- Insertable / removable Varilok contacts
- Crimp, solder, solderless wrap, and taper tab terminations
- Exceptional versatility: all hardware can be mounted on plug or receptacle (see ordering code)
- Actuating screw facilitates mating and unmating, locks mated connectors together
- Polarizing hardware can be set to any of six positions at factory; can also be reset by user (see polarizing code)
- Optional cover with top or side cable entry and clamp
- Optional cable strain relief clamp with adjustable strap for large or small cable bundles (fits on sizes 38 and 56)
- Plug and receptacle contacts are protected from mishandling
- Guide pins and sockets ensure correct alignment when mating
- Aluminum covers
- CSA acceptable polyester material



### TECHNICAL SPECIFICATIONS

**Current Rating:**

8 amperes, maximum

**Contact Resistance:**

6 milliohms, maximum

**Contact Material:**

Phosphor bronze

**Contact Plating:**

Gold, 10 microinches min.,  
over Nickel,  
50-100 microinches

**Insulator Material:**

Thermoplastic 94V-O glass  
filled polyester

**Insulation Resistance:**

5,000 megohms, min.  
(polyester)

Sea Level: 1250 volts RMS

3.4" Hg: 625 volts RMS

**Cover and Clamp Material and Finish:**

Aluminum with clear chromate under grey  
enamel finish

### CONNECTORS:

**Male**



(Exposed Contacts)

**Female**



(Recessed Contacts)

**Male, Jackscrew**



001/601 Style

**Male, Fixed Nut**



002/602 Style

**Female, Fixed Nut**



007/607 Style

**Female, Jackscrew**



008/608 Style

### COVERS:

**Top Opening**



**Side Opening**



**Top/side Opening**  
(Removable Side Plate)



### CONTACTS:

**Crimp**



**Solder Tab**



217 Style

**Wire Wrap**  
14.4mm



218 Style

**Wire Wrap**  
19.3mm



750 Style

**Wire Wrap**  
.567



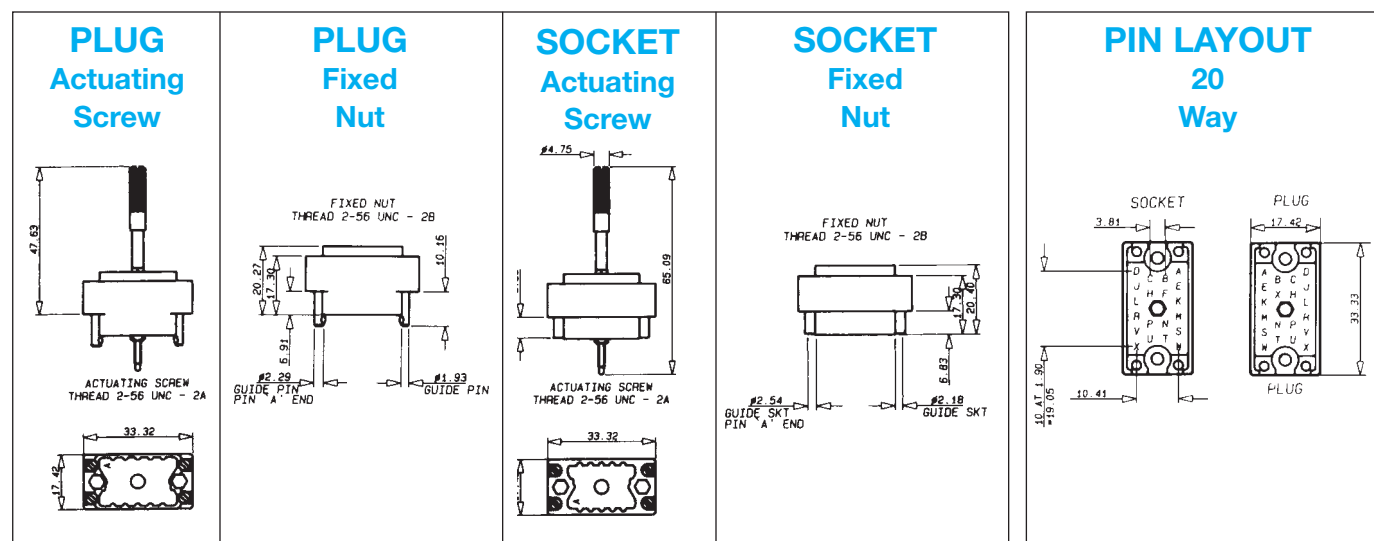
296 Style

**Solder**



504 Style

## Series 8016 – Rectangular Connector – 20 Contact



### ORDERING CODE

**00** Prefix  
**8016** Series Number  
**020** Number of Contacts  
**217**  
**601** See table below

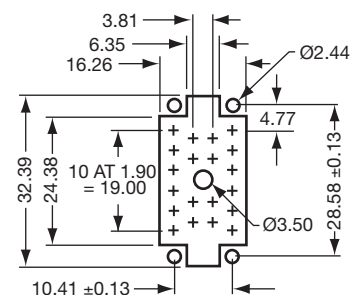
#### Contact Termination

\*000 = Contacts not fitted and ordered separately, see page 23 for full list of options

- 217 = Solder 0.098" x 2.49mm
- 218 = Wire Wrap –   
0.025 x 0.050 x 0.567" / 0.64 x 1.27 x 14.4mm
- 296 = Wire Wrap –   
0.025 x 0.026 x 0.579" / 0.64 x 0.66 x 14.7mm
- 504 = Solder Tail –
- 750 = Wire Wrap –   
0.025 x 0.050 x 0.760" / 0.64 x 1.27 x 19.3mm

\*Crimp contacts always ordered separately.  
See page 25 for details.

### RECOMMENDED LAYOUT FOR FRONT CHASSIS MOUNTING & PCB LAYOUT



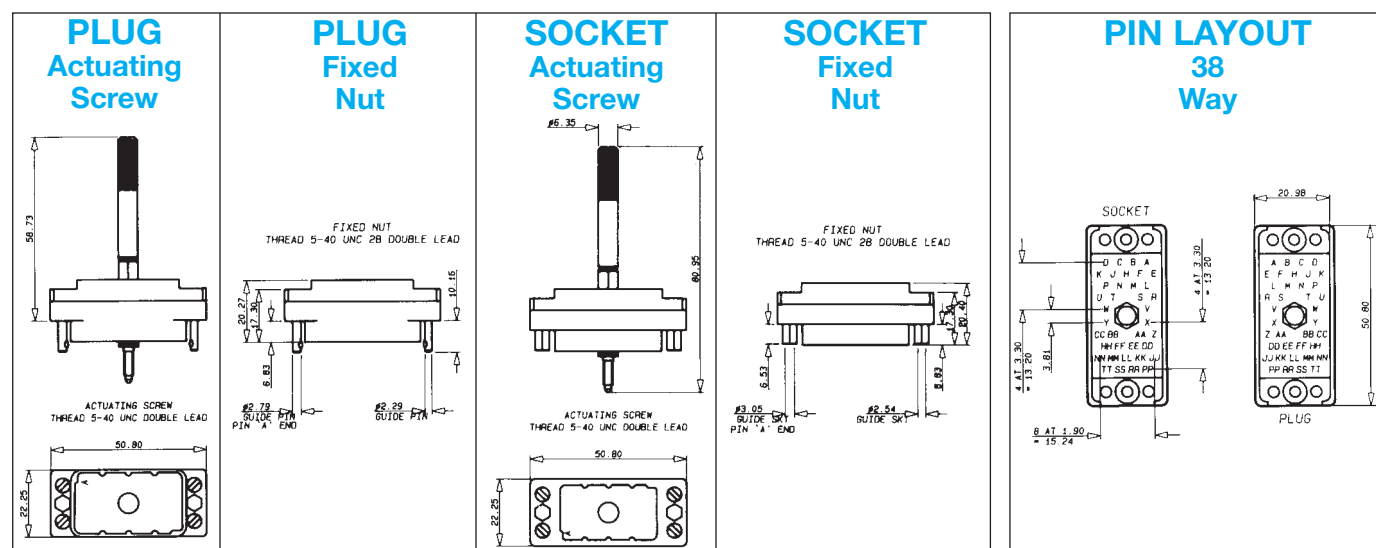
See page 26 for assembly tools.

20 CONTACTS					COVER			
Insulator Body Type	Basic P/N*	Color	Hardware **Thread	No Cover	Top Std Clamp	Side Std Clamp	Actuating Screw	Fixed Nut
Male	00 8016 020 000 XXX	Green	UNC	601	603	604	Y	N
Male	00 8016 020 000 XXX	Green	UNC	602	605	606	N	Y
Male	00 8016 020 000 XXX	Gray	UNC	001	903	904	Y	N
Male	00 8016 020 000 XXX	Gray	UNC	002	905	906	N	Y
Female	00 8016 020 000 XXX	Green	UNC	608	609	610	Y	N
Female	00 8016 020 000 XXX	Green	UNC	607	611	612	N	Y
Female	00 8016 020 000 XXX	Gray	UNC	008	909	910	Y	N
Female	00 8016 020 000 XXX	Gray	UNC	007	911	912	N	Y

\*Select the column desired and replace the XXX with the numbers from column.

\*\*United Course Thread

## Series 8016 – Rectangular Connector – 38 Contact



### ORDERING CODE

**00** Prefix  
**8016** Series Number  
**038** Number of Contacts  
**217** See table below  
**601** See table below

#### Contact Termination

\*000 = Contacts not fitted and ordered separately, see page 23 for full list of options

217 = Solder 0.098" x 2.49mm

218 = Wire Wrap – 0.025 x 0.050 x 0.567" / 0.64 x 1.27 x 14.4mm

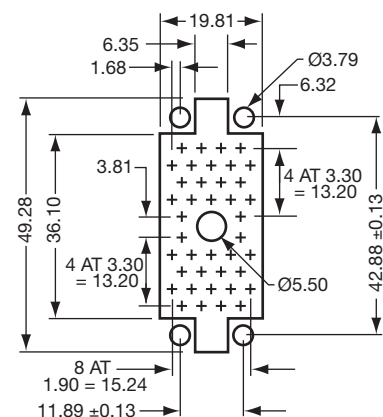
296 = Wire Wrap – 0.025 x 0.026 x 0.579" / 0.64 x 0.66 x 14.7mm

504 = Solder Tail –

750 = Wire Wrap – 0.025 x 0.050 x 0.760" / 0.64 x 1.27 x 19.3mm

\*Crimp contacts always ordered separately. See page 25 for details.

### RECOMMENDED LAYOUT FOR FRONT CHASSIS MOUNTING & PCB LAYOUT



See page 26 for assembly tools.

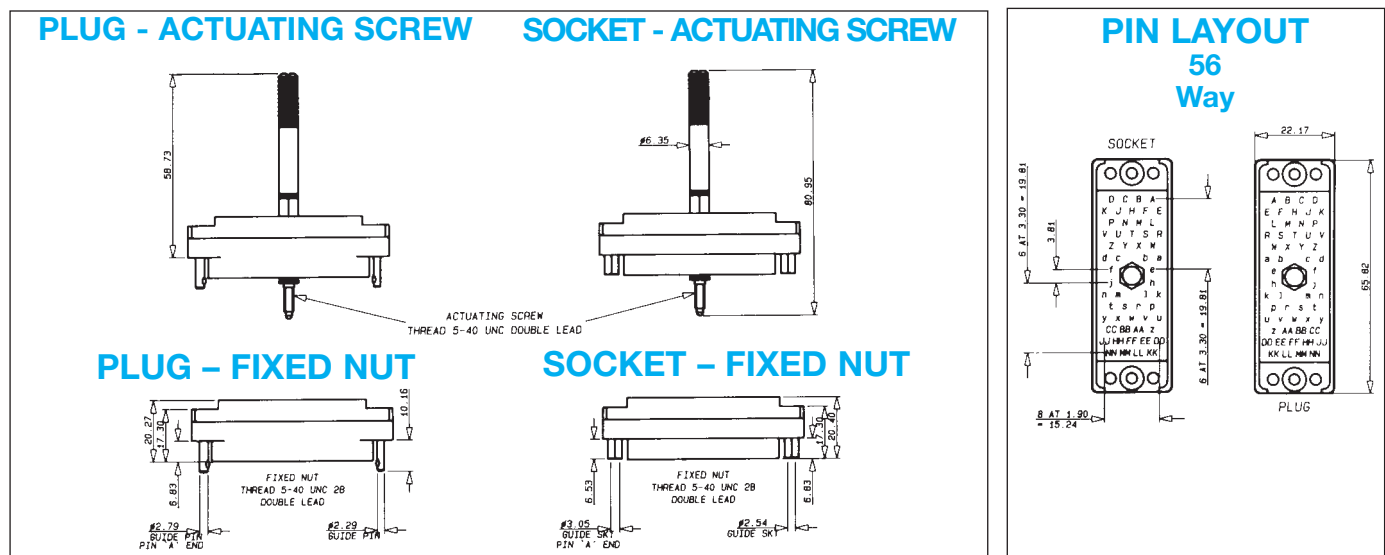
38 CONTACTS					COVER							
Insulator Body Type	Basic P/N*	Color	Hardware **Thread	No Cover	Top Std Clamp	Side Std Clamp	Top Lge Clamp	Side Lge Clamp	Top EX Lge Clamp	Side EX Lge Clamp	Actuating Screw	Fixed Nut
Male	00 8016 038 000 XXX	Green	UNC	601	603	604	619	620	631	632	Y	N
Male	00 8016 038 000 XXX	Green	UNC	602	605	606	621	622	633	634	N	Y
Male	00 8016 038 000 XXX	Gray	UNC	001	903	904	919	920	931	932	Y	N
Male	00 8016 038 000 XXX	Gray	UNC	002	905	906	921	922	933	934	N	Y
Female	00 8016 038 000 XXX	Green	UNC	608	609	610	623	624	635	636	Y	N
Female	00 8016 038 000 XXX	Green	UNC	607	611	612	625	626	637	638	N	Y
Female	00 8016 038 000 XXX	Gray	UNC	008	909	910	923	924	935	936	Y	N
Female	00 8016 038 000 XXX	Gray	UNC	007	911	912	925	926	937	938	N	Y

\*Select the column desired and replace the XXX with the numbers from column.

\*\*United Course Thread



## Series 8016 – Rectangular Connector – 56 Contact



### ORDERING CODE

**00**      **8016**      **056**      **217**      **601**  
 Prefix      Series Number      Number of Contacts      See table below

#### Contact Termination

\*000 = Contacts not fitted and ordered separately, see page 23 for full list of options

217 = Solder 0.098" x 2.49mm

218 = Wire Wrap – 0.025 x 0.050 x 0.567" / 0.64 x 1.27 x 14.4mm

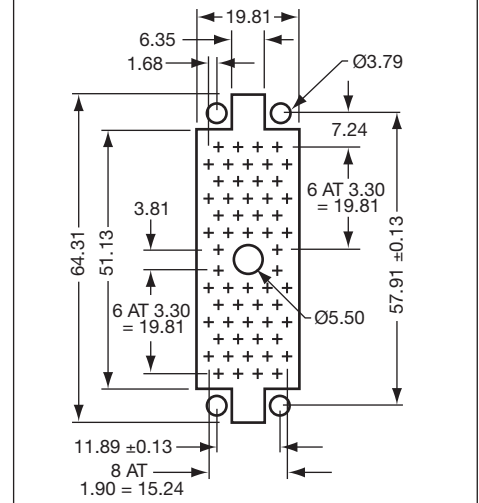
296 = Wire Wrap – 0.025 x 0.026 x 0.579" / 0.64 x 0.66 x 14.7mm

504 = Solder Tail –

750 = Wire Wrap – 0.025 x 0.050 x 0.760" / 0.64 x 1.27 x 19.3mm

\*Crimp contacts always ordered separately. See page 25 for details.

### RECOMMENDED LAYOUT FOR FRONT CHASSIS MOUNTING & PCB LAYOUT



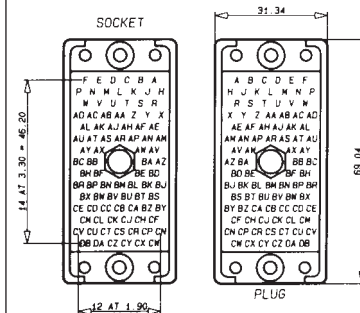
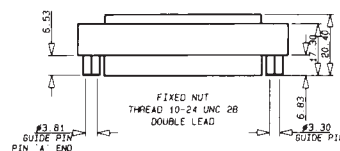
See page 26 for assembly tools.

56 CONTACTS					COVER							
Insulator Body Type	Basic P/N*	Color	Hardware **Thread	No Cover	Top Std Clamp	Side Std Clamp	Top Lge Clamp	Side Lge Clamp	Top EX Lge Clamp	Side EX Lge Clamp	Actuating Screw	Fixed Nut
Male	00 8016 056 000 XXX	Green	UNC	601	603	604	619	620	631	632	Y	N
Male	00 8016 056 000 XXX	Green	UNC	602	605	606	621	622	633	634	N	Y
Male	00 8016 056 000 XXX	Gray	UNC	001	903	904	919	920	931	932	Y	N
Male	00 8016 056 000 XXX	Gray	UNC	002	905	906	921	922	933	934	N	Y
Female	00 8016 056 000 XXX	Green	UNC	608	609	610	623	624	635	636	Y	N
Female	00 8016 056 000 XXX	Green	UNC	607	611	612	625	626	637	638	N	Y
Female	00 8016 056 000 XXX	Gray	UNC	008	909	910	923	924	935	936	Y	N
Female	00 8016 056 000 XXX	Gray	UNC	007	911	912	925	926	937	938	N	Y

\*Select the column desired and replace the XXX with the numbers from column.

\*\*United Course Thread

## 90 Way



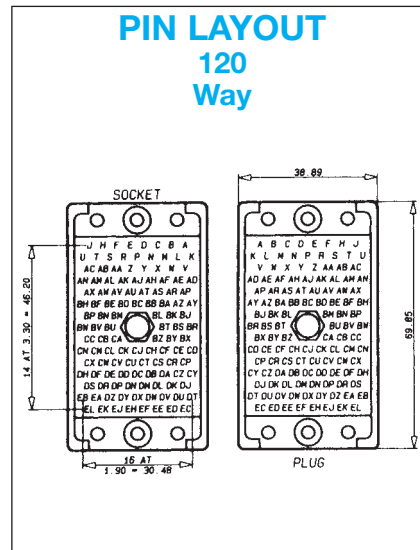
See table below

Technical drawing of a rectangular plate with a central hole and a grid of holes. The drawing includes the following dimensions and features:

- Overall width: 28.58
- Overall height: 67.81
- Top flange width: 7.93
- Top flange thickness: 1.72
- Top flange hole diameter: Ø3.75
- Top flange hole spacing: 5.88
- Central hole diameter: Ø6.75
- Grid of holes: 14 AT 3.30 = 46.20
- Bottom flange thickness: 19.43 ± 0.13
- Bottom flange hole diameter: Ø3.75
- Bottom flange hole spacing: 12 AT 1.90 = 22.86

19

## PLUG - ACTUATING SCREW SOCKET - ACTUATING SCREW



00	8016	120	217	601
└	└	└	└	└
Prefix	Series Number	Number of Contacts		See table below

\*000 = Contacts not fitted and ordered separately,  
see page 23 for full list of options

217 = Solder 0.098" x 2.49mm

218 = Wire Wrap –  0.025 x 0.050 x 0.567" / 0.64 x 1.27 x 14.4mm

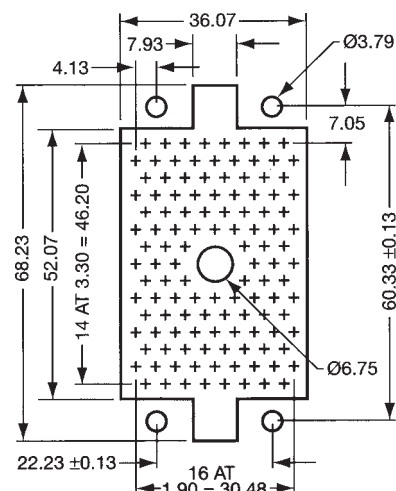
296 = Wire Wrap –  0.025 x 0.026 x 0.579" / 0.64 x 0.66 x 14.7mm

504 = Solder Tail – 

750 = Wire Wrap –  0.025 x 0.050 x 0.760" / 0.64 x 1.27 x 19.3mm

\*Crimp contacts always ordered separately.  
See page 25 for details.

## RECOMMENDED LAYOUT FOR FRONT CHASSIS MOUNTING & PCB LAYOUT



See page 26 for assembly tools.

120 CONTACTS					COVER			
Insulator Body Type	Basic P/N*	Color	Hardware **Thread	No Cover	Top Lge Clamp	Side Lge Clamp	Actuating Screw	Fixed Nut
Male	00 8016 120 000 XXX	Green	UNC	601	603	604	Y	N
Male	00 8016 120 000 XXX	Green	UNC	602	605	606	N	Y
Male	00 8016 120 000 XXX	Gray	UNC	001	N/A	N/A	Y	N
Male	00 8016 120 000 XXX	Gray	UNC	002	N/A	N/A	N	Y
Female	00 8016 120 000 XXX	Green	UNC	608	609	610	Y	N
Female	00 8016 120 000 XXX	Green	UNC	607	611	612	N	Y
Female	00 8016 120 000 XXX	Gray	UNC	008	N/A	N/A	Y	N
Female	00 8016 120 000 XXX	Gray	UNC	007	N/A	N/A	N	Y

\*Select the column desired and replace the XXX with the numbers from column.

\*\*United Course Thread

## Series 8016 Covers

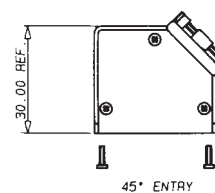
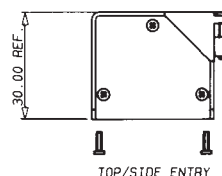
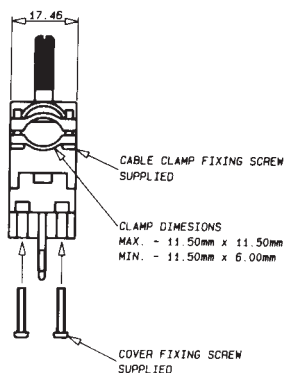
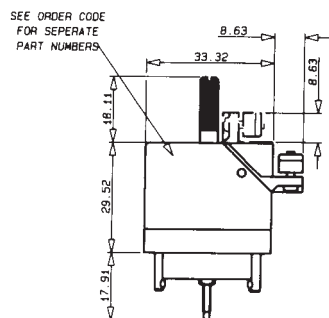
Part Number	For Size	Hardware Threads	Cable Entrance	Clamp Type	Size mm (inches)
30 8016 9829 00 000	20	Metric	Side	Standard	11.53 (0.454) Dia
30 8016 9831 00 000	20	Metric	Top	Standard	11.53 (0.454) Dia
30 8016 0200 00 415	20	UNC	45	Standard	5 x 10 (0.197 x 0.394) min
30 8016 9821 00 000	38	Metric	Side	Standard	16.51 x 12.70 (0.650 x 0.500)
30 8016 9822 00 000	38	Metric	Top	Standard	16.51 x 12.70 (0.650 x 0.500)
30 8016 9825 00 000	38	Metric	Side	Large	16.51 x 15.44 (0.650 x 0.608)
30 8016 9826 00 000	38	Metric	Top	Large	16.51 x 15.44 (0.650 x 0.608)
30 8016 9838 00 000	38	Metric	Side	Ex-Large	20.83 x 15.60 (0.820 x 0.614)
30 8016 9839 00 000	38	Metric	Top	Ex-Large	20.83 x 15.60 (0.820 x 0.614)
30 8016 9823 00 000	56	Metric	Side	Standard	16.51 x 12.70 (0.650 x 0.500)
30 8016 9824 00 000	56	Metric	Top	Standard	16.51 x 12.70 (0.650 x 0.500)
30 8016 9827 00 000	56	Metric	Side	Large	16.51 x 15.44 (0.650 x 0.608)
30 8016 9828 00 000	56	Metric	Top	Large	16.51 x 15.44 (0.650 x 0.608)
30 8016 9840 00 000	56	Metric	Side	Ex-Large	20.83 x 15.60 (0.820 x 0.614)
30 8016 9842 00 000	56	Metric	Top	Ex-Large	20.83 x 15.60 (0.820 x 0.614)
30 8016 0560 00 413	56	UNC	Top/Side	Standard	6 x 14 (0.236 x 0.551) min
30 8016 0560 00 415	56	UNC	45	Standard	6 x 14 (0.236 x 0.551) min
30 8016 9832 00 000	90	Metric	Side	Large	20.32 (0.800) Dia
30 8016 9833 00 000	90	Metric	Top	Large	20.32 (0.800) Dia
30 8016 9843 00 000	90	Metric	Side	Ex-Large	25.40 x 20.32 (1.00 x 0.800)
30 8016 9844 00 000	90	Metric	Top	Ex-Large	25.40 x 20.32 (1.00 x 0.800)
30 8016 9834 00 000	120	Metric	Side	Large	20.32 x 27.43 (0.800 x 1.080)
30 8016 9835 00 000	120	Metric	Top	Large	20.32 x 27.43 (0.800 x 1.080)

## Series 8016 Covers

### CLAMPING AND COVER DIMENSIONS

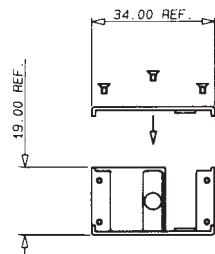
### OPTIONAL REMOVABLE SIDE PLATE COVER

#### 20 CONTACTS

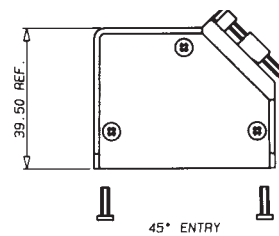
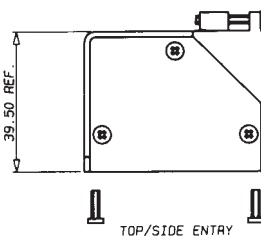
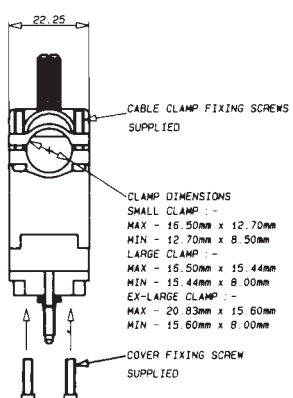
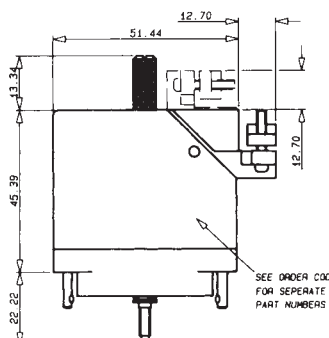


Part Number	Opening
308016020000413	Side/Top
308016020000415	45°

CLAMP	
Minimum Size	Maximum Size
5 x 10 (0.197 x 0.394)	10 x 10 (0.394 x 0.394)
5 x 10 (0.197 x 0.394)	10 x 10 (0.394 x 0.394)

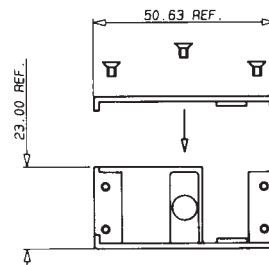


#### 38 CONTACTS

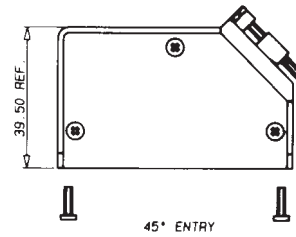
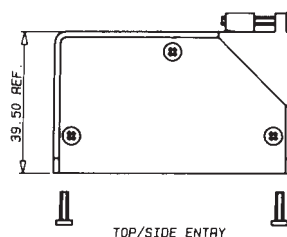
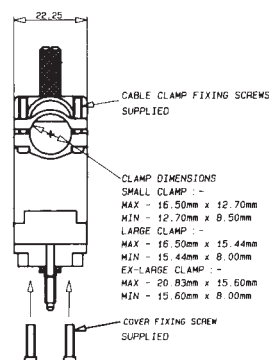
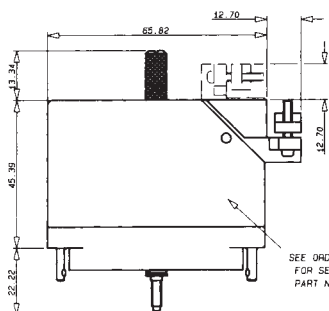


Part Number	Opening
308016038000413	Side/Top
308016038000415	45°

CLAMP	
Minimum Size	Maximum Size
6 x 14 (0.236 x 0.551)	17 x 14 (0.669 x 0.551)
6 x 14 (0.236 x 0.551)	17 x 14 (0.669 x 0.551)

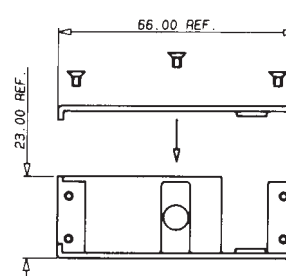


#### 56 CONTACTS



Part Number	Opening
308016056000413	Side/Top
308016056000415	45°

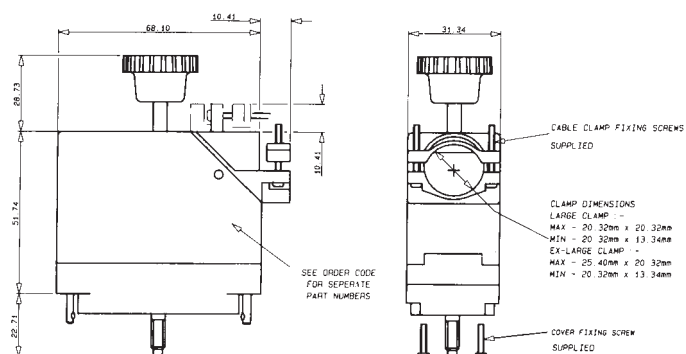
CLAMP	
Minimum Size	Maximum Size
6 x 14 (0.236 x 0.551)	17 x 14 (0.669 x 0.551)
6 x 14 (0.236 x 0.551)	17 x 14 (0.669 x 0.551)



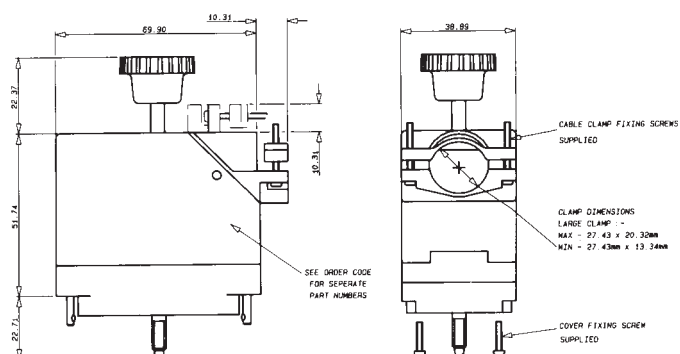


### CLAMPING AND COVER DIMENSIONS

#### 90 CONTACTS



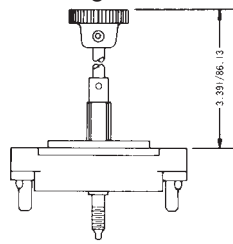
#### 120 CONTACTS



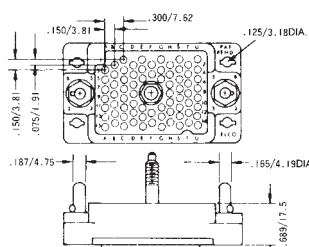
See page 21 for part numbers

### 75/100/130 CONTACTS

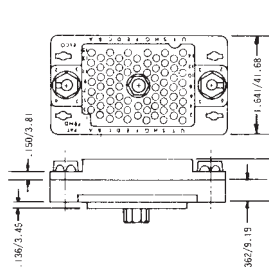
Plug with  
Actuating Screw 001



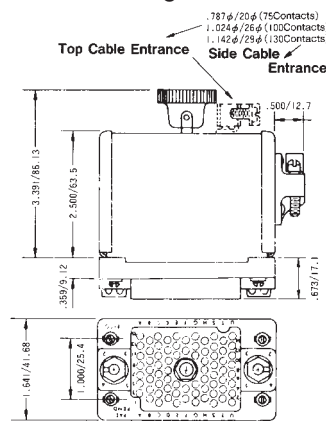
Plug with  
Fixed Screw 002



Receptacle with  
Fixed Nut 007

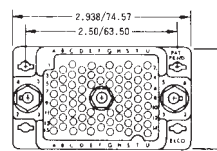


Receptacle with  
Actuating Nut 008

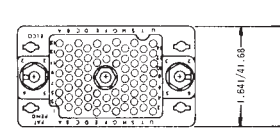


### 75 CONTACTS

Plug

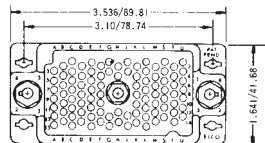


Receptacle

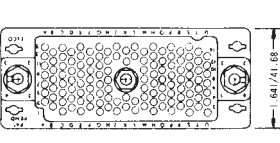


### 100 CONTACTS

Plug

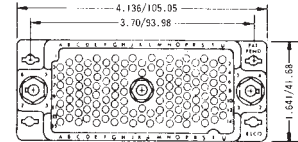


Receptacle

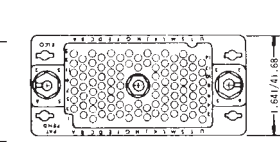


### 130 CONTACTS

Plug



Receptacle

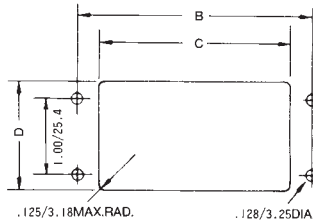


### ORDERING CODE

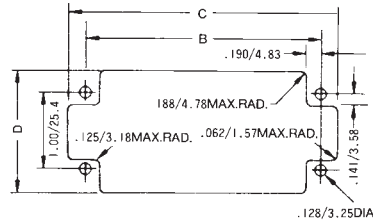
00	8017	XXX	XXX	0XX
Prefix	Series Number	Number of Positions 75, 100, 130		See Variation Code

### RECOMMENDED CHASSIS LAYOUT

Layout for Front Chassis Mounting



Layout for Back Chassis Mounting



All Tolerances  $\pm .005/\pm .127$

No. of Pos.	Front Chassis Mtg.			Back Chassis Mtg.		
	B	C	D	B	C	D
75	2.500/63.50	1.953/49.61	1.437/36.50	2.500/63.50	2.953/75.00	1.656/42.06
100	3.100/78.74	2.546/64.67	1.437/36.50	3.100/78.74	3.562/90.47	1.656/42.06
130	3.700/93.98	3.156/80.16	1.437/36.50	3.700/93.98	4.156/105.56	1.656/42.06

Dimensions inches/mm

### VARIATION CODE

Insulator Body Type	Variation Code No.	Cover & Cable Entrance	Actuating Screw	Fixed Screw
Plug	001	No	Yes	No
	002	No	No	Yes
	003	Top	Yes	No
	004	Side	Yes	No
	005	Top	No	Yes
	006	Side	No	Yes

Insulator Body Type	Variation Code No.	Cover & Cable Entrance	Fixed Nut	Actuating Nut
Receptacle	007	No	Yes	No
	008	No	No	Yes
	009	Top	Yes	No
	010	Side	Yes	No
	011	Top	No	Yes
	012	Side	No	Yes


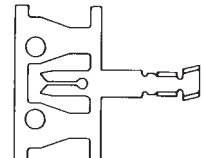

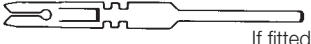
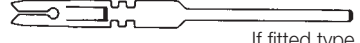
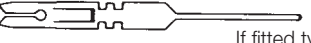
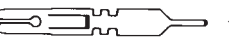
### CONNECTOR PLUG AND RECEPTACLE COMBINATIONS

Plug	Receptacle	007	008	009	010	011	012
001							
002							
003							
004							
005							
006							

## Loose Contacts

Varilok® connectors can be specified as either fully loaded, to include the connector body and a variety of pre-loaded contact termination types or the empty body and a selection

of separately specified and ordered contacts. The table below details the various loose contacts available.

Contact Style	Description	Plating Specification	Order Code
 * Ordered separately	Crimp Contact Loose	0.25µM Gold All Over (Standard) 0.25µM Gold Nose & Tail (Optional)	60 8017 0313 00 339 60 8017 0313 00 042
 * Ordered separately	Crimp Contact End Carrier (1800 Contacts per reel)	0.25µM Gold All Over (Standard) 0.25µM Gold Nose & Tail (Optional) 0.25µM Gold All Over (Standard) 0.25µM Gold Nose & Tail (Optional)	60 8017 0323 99 339 60 8017 0323 99 042 60 8017 0323 00 339** 60 8017 0323 00 042**
Tail Section – 2.49 x 0.61 (0.098 x 0.024)  * If fitted type 217	Solder Tag Contact	0.25µM Gold All Over (Standard)	60 8017 0513 00 339
Tail Section – 1.27 x 0.63 (0.025 x 0.005)  * If fitted type 218	14.4mm Maxiwrap Contact	0.25µM Gold All Over (Standard)	60 8017 0613 00 339
Tail Section – 1.27 x 0.63 (0.025 x 0.005)  * If fitted type 750	19.3mm Maxiwrap Contact	0.25µM Gold All Over (Standard)	60 8017 0623 00 339
Tail Section – 0.635 x 0.63 (0.025 x 0.005)  * If fitted type 296	14.0 Miniwrap Contact	0.25µM Gold All Over (Standard)	60 8017 0633 00 339
Tail Section – 0.635 x 0.63 (0.025 x 0.005)  * If fitted type 504	4.3mm PC Solder Contact for ø 1.00 mm P.T.H.	0.25µM Gold All Over (Standard)	60 8017 0663 00 339

\* Indicates standard contact

Plating code 343 = 0.50 µm Gold all over

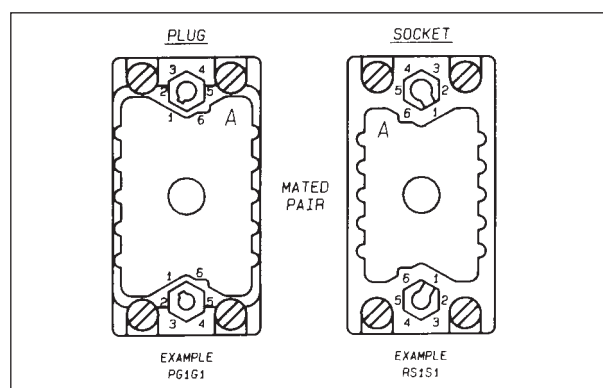
\*\* Order code to be used when purchasing through a USA source.

## CONNECTOR POLARIZATION

Varicon® 8016 Series connectors are designed with an integral polarizing system to ensure in high density environments that the correct halves are mated together.

As a factory standard, male plugs are set to the code PG1G1, with the female receptacles being set to the opposite matching code RS1S1.

Customers who need to change the standard polarization to another position can do so by using hand tool 06 1989 02 00 0000, or, by ordering the connectors with the required polarization (eg: PG1G4 or RS2S5, etc) When ordering a different polarization from normal, the polarization is called out at the end of the part number (Ex: 00 8016 056 000 601PG2G4, etc).



## ORDERING CODE

**P**  
Type of Connector Half  
Plug = P  
Socket = R

**G**  
Location Side  
(Large Dia.)  
Guide Pin = G  
Guide Socket = S

**1**  
Positions  
1 through 6

**G**  
Location Side  
(Small Dia.)  
Guide Pin = G  
Guide Socket = S

**1**  
Positions  
1 through 6

## Tools

### CONTACT INSERTION TOOLS

These are small hand tools which provide a positive method for inserting contacts into the rear of the insulator by applying pressure on the contacts directly to the end of the insulation crimp.

Tool	Contact Capability
06 1742 0400 00 000	Varilok®
	No. 60 8017 Family
06 7698 01 000 0000	Mini Varilok®
	No. 60 8216 Family



**Contact Insertion Tool**

### HAND CRIMP TOOLS

This tool is designed for hand crimping of contacts. The tool is well suited for maintenance, model shop, laboratory and small scale production purposes. Two crimping cavities are available; Upper Cavity will crimp wire 18-20 AWG and the Lower Cavity will crimp wire 22-26 AWG.



**VARILOK®  
Hand Crimp Tool  
(Standard)**



**VARILOK®  
Hand Crimp Tool**



**MINI VARILOK®  
Hand Crimp Tool**

Part No.	Contact Capability	Wire Type & Size
06 7852 0100 00 000 (Standard)	Varilok®	Stranded AWG
	No. 60 8017 0313	No. 18-26
06 7852 7002 01 000 (Blue Handle)	Varilok®	Stranded AWG
	No. 60 8017 0313	No. 18-26
06 7858 01 000 0000	Mini Varilok®	Stranded AWG
	No. 60 8216 0313	No. 22-30

### CONTACT EXTRACTION TOOLS

This tool is designed to extract contacts from the front of the insulator quickly and easily, without damage to either contacts or insulator.



**Contact  
Extraction Tool**

Tool	Contact Capability
06 1877 0400 00 000	Varilok®
	No. 60 8017 Family
06 7699 01 000 0000	Mini Varilok®
	No. 60 8216 Family

### CRIMPING MACHINES



These heavy duty crimping machines are designed for fast and economical production-line crimping of contacts supplied on reels. The machines incorporate the unique DIALMATIC crimp adjustment which permits the machine operator to crimp contacts to wires of different sizes by simply adjusting two knobs.

### SPECIFICATIONS

**Press Rating:** 3 Ton Capacity

**Power:** 240V AC, 50 Cycles

Part No.	Contact	Wire Size
HR-1 06 1984 0100	Varilok®	AWG No. 18-26
HR-3 06 7705 0100	Mini Varilok®	AWG No. 22-30

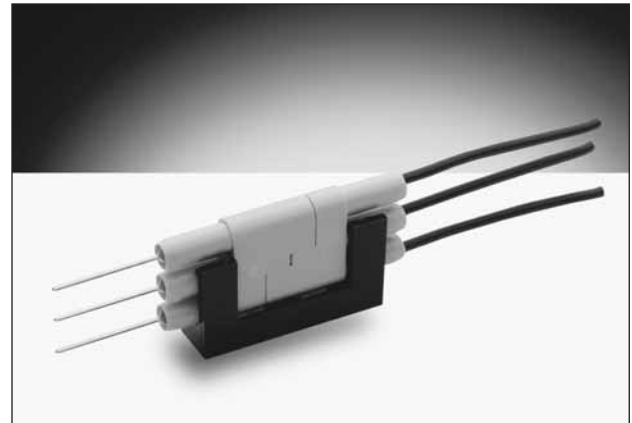
## Series 8020 – Cable Connector

### APPLICATION

In line connection of 2 or 3 wire of 18-26 AWG, insulation  $\phi$ 1.03 mm to 1.88 mm.

### FEATURES AND BENEFITS

- 2 and 3 position in single row
- Uses identical molding for plug and socket
- Uses identical contact for plug and socket
- Uses standard Varicon 8016 contacts
- Uses standard Varicon Crimping Tools, Contact Extraction Tools and Insertion Tools
- Has combined nylon mounting and locking clip common to both sizes
- Contacts for both solder and crimp termination



### TECHNICAL SPECIFICATIONS

#### Contact:

Single row of 2 or 3 Varilok contacts

#### Contact Rating:

8.5 amperes

#### Insulation Resistance:

5,000 megohms (min)

#### Configuration:

On a 0.200 inch pitch, 5.08 mm

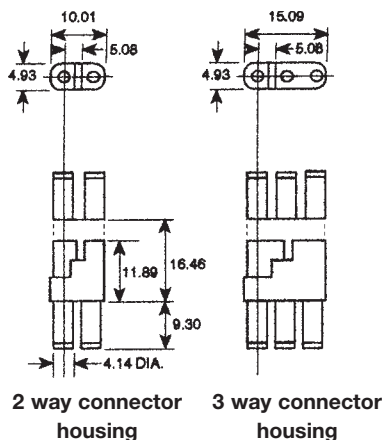
#### Contact Resistance:

6 milliohms (max)

#### Voltage Proof:

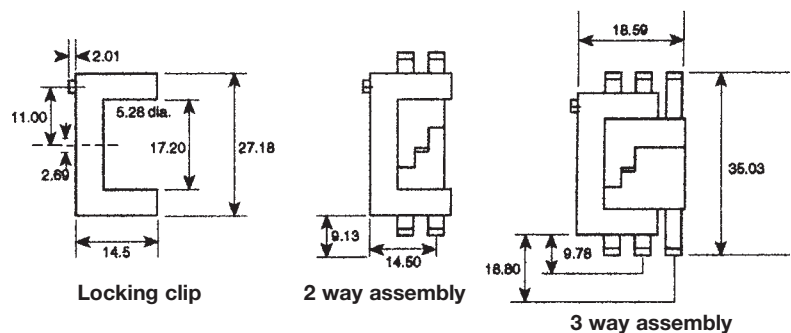
2,500 volts R.M.S. Sea Level

### CONNECTOR DIMENSIONS (mm)



### LOCKING CLIP DIMENSIONS (mm)

P/N 608020321000000



### ORDERING CODE FOR COMPLETE CONNECTORS WITH NON-CRIMP CONTACTS FITTED

00	8020	002	217	001
Prefix	Series Number	Number of Contacts	*Contact Termination	Variation Code
		002 = Two way 003 = Three way	000 = Crimp Contacts (Ordered Separately) 217 = Solder Tag 218 = Wire Wrap (0.61 x 1.27 x 14.4mm) 296 = Mini Wire Wrap (0.61 x 0.66 x 4.73mm) 504 = Solder Tail (0.61 x 0.66 x 4.32mm)	

\*Contact terminations should be insulated because they may protrude from the insulator.

NB: See page 25 for details of contacts.

### ORDERING CODE FOR HOUSINGS AND CRIMP CONTACTS

Description	Part Number	Description	Part Number
2 way connector: Housing only	60-8020-3117-00-000	0.25μM Gold reeled crimp contacts (gold all over)	60-8017-0323-99-339
3 way connector: Housing only	60-8020-3317-00-000	0.25μM Gold reeled crimp contacts (selective)	60-8017-0323-99-042
0.25μM Gold loose crimp contacts (gold all over)	60-8017-0313-00-339	NB: See page 25 for details of crimp contacts	
0.25μM Gold loose crimp contacts (selective)	60-8017-0313-00-042	Locking clip	60-8020-3210-00-000

## Series 8026 – 0.100" Rectangular Connector

### FEATURES

- Economical miniature high-density connectors suitable for high-reliability and military applications.
- 0.100" (2.54mm) square grid rack and panel connectors with male and female insulators are available in four sizes: 33, 75, 117 and 165 contacts.
- Insertable / removable mini-varilok and mini-wrap contacts.
- Crimp and/or solderless wrap terminations.
- Exceptional versatility: all hardware can be mounted on plug or receptacle (see ordering code).
- Actuating screw facilitates mating and unmating; locks mated connectors together.
- Keyed and shrouded insulator design prevents incorrect mating and protects contacts from mishandling.
- Simplified polarizing hardware permits 36 polarization combinations per connector pair.
- Optional covers with top or side cable entry and clamp.
- Optional cable clamps.
- Choice of any combination of hardware — or no hardware.



### TECHNICAL SPECIFICATIONS

#### CONTACTS

**Current Rating:**

5 amperes

**Contact Resistance:**

6 milliohms

**Withdrawal Force:**

2 to 8 ounces max. per contact

**Material:**

Phosphor Bronze

**Standard Plating:**

Gold, 10 microinches min.,  
over Nickel,  
50-100 microinches

**Spacing:**

0.100" (2.54mm)

#### INSULATORS

**Insulation Resistance:**

5,000 megohms, min.  
(diallyl phthalate insulators)  
5,000 megohms, min.  
(polycarbonate insulators)

**Operating Temperature:**

-40°C to +120°C

**Dielectric Withstanding**

**Voltage:**

Sea Level: 1,000 Volts rms

**Materials:**

0.100" (2.54mm) spacing –  
diallyl phthalate, glass-filled,  
flame resistant

### ORDERING CODE

**00**

**8026**

**033**

**Number of  
Contacts**

033 = 33  
075 = 75  
117 = 117  
165 = 165

**000**

**Contact Code**

Order crimp contacts  
separately by Part Number.  
Otherwise specify contact code 491.  
000 = Crimp (3000 - contact reel)



Part Number  
60 8216 0323 00 339

000 = Crimp (loose contact)

Accepts #22-30 AWG wire



Part Number  
60 8216 0313 00 339

491 = Wire wrappable removable contact .025"  
(.635mm) sq. x .564" (14.33mm) tail



Part Number  
60 8216 0413 00 339

**803**

**Variation Code**

Add 050 to order alternative  
keying (Pin & Socket)  
i.e. 701 = Standard hermaphroditic  
keying  
751 = Pin and socket keying  
Complete a 15 digit assembly number  
for each mating part, male and female.

## Series 8026 – 0.100" Rectangular Connector

### VARIATION CODES

**33 Contacts  
Table 1**

Insulator Body Type	Variation Code No.	Actuating Screw	Fixed Nut	Keying Hardware	Cover
Male (Exposed Contacts)	701	Yes	No	Yes	No
	702	Yes	No	No	No
	703	No	Yes	Yes	No
	704	No	Yes	No	No
	733	No	No	Yes	No
	734	No	No	No	No
Female (Recessed Contacts)	801	No	Yes	Yes	No
	802	No	Yes	No	No
	803	Yes	No	Yes	No
	804	Yes	No	No	No
	833	No	No	Yes	No
	834	No	No	No	No

**33 Contacts  
Table 2**

Insulator Body Type	Variation Code No.	Actuating Nut	Fixed Nut	Keying Hardware	Cover
Male (Exposed Contacts)	503	No	Yes	Yes	No
	504	No	Yes	No	No
Female (Recessed Contacts)	601	No	Yes	Yes	No
	602	No	Yes	No	No

**75, 117 & 165 Contacts  
Table 3**

Insulator Body Type	Variation Code No.			Cable Entrance	Actuating Screw	Fixed Nut	Keying Hardware
	Without Cover	Cover Small Clamp	Cover Large Clamp				
Male (Exposed Contacts)	701	—	—	No	Yes	No	Yes
	702	—	—	No	Yes	No	No
	703	—	—	No	No	Yes	Yes
	704	—	—	No	No	Yes	No
	733	—	—	No	No	No	Yes
	734	—	—	No	No	No	No
	—	705	713	Top	Yes	No	Yes
	—	706	714	Side	Yes	No	Yes
	—	707	715	Top	Yes	No	No
	—	708	716	Side	Yes	No	No
	—	709	717	Top	No	Yes	Yes
	—	710	718	Side	No	Yes	Yes
	—	711	719	Top	No	Yes	No
	—	712	720	Side	No	Yes	No
	—	735	739	Top	No	No	Yes
	—	736	740	Side	No	No	Yes
	—	737	741	Top	No	No	No
	—	738	742	Side	No	No	No
Female (Recessed Contacts)	801	—	—	No	No	Yes	Yes
	802	—	—	No	No	Yes	No
	803	—	—	No	Yes	No	Yes
	804	—	—	No	Yes	No	No
	833	—	—	No	No	No	Yes
	834	—	—	No	No	No	No
	—	805	813	Top	No	Yes	Yes
	—	806	814	Side	No	Yes	Yes
	—	807	815	Top	No	Yes	No
	—	808	816	Side	No	Yes	No
	—	809	817	Top	Yes	No	Yes
	—	810	818	Side	Yes	No	Yes
	—	811	819	Top	Yes	No	No
	—	812	820	Side	Yes	No	No
	—	835	839	Top	No	No	Yes
	—	836	840	Side	No	No	Yes
	—	837	841	Top	No	No	No
	—	838	842	Side	No	No	No



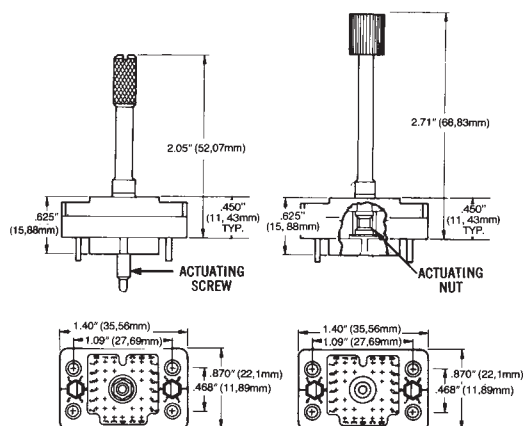
## Series 8026 – 0.100" Rectangular Connector

### 33 CONTACTS

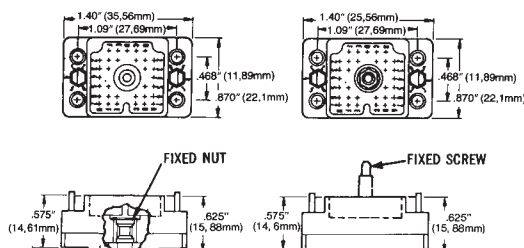
Female Plug (Recessed Contacts)  
For variation code number

See Table 1  
Page 29

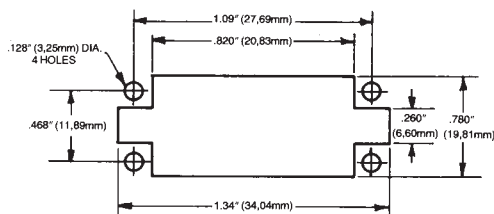
See Table 2  
Page 29



MALE RECEPTACLE (Exposed Contacts)



RECOMMENDED CHASSIS LAYOUT

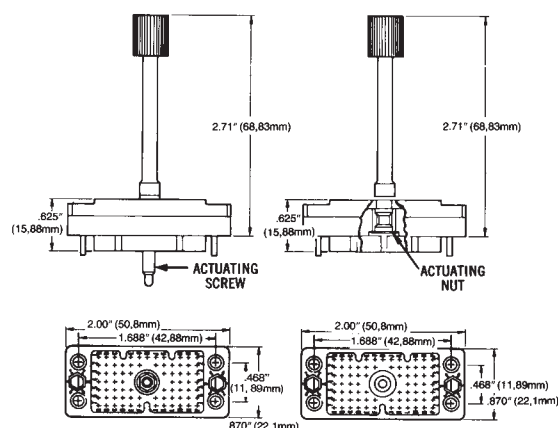


### 75 CONTACTS

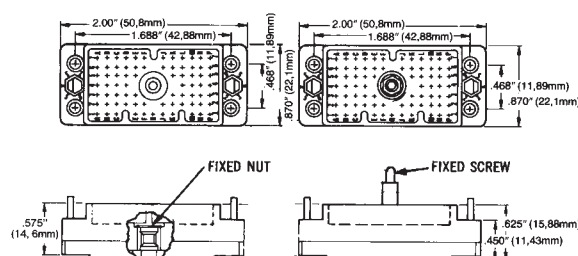
Female Plug (Recessed Contacts)  
For variation code number

See Table 3  
Page 29

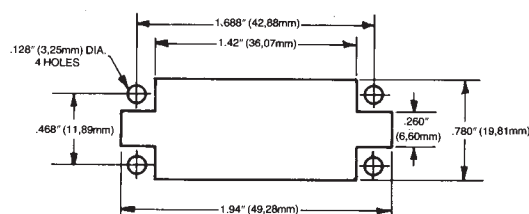
See Table 4  
Page 29



MALE RECEPTACLE (Exposed Contacts)



RECOMMENDED CHASSIS LAYOUT



## SERIES 8026 COVER CROSS REFERENCE. FOR DETAILS SEE PAGE 21

Cover Number	Cable Entrance	Clamp	
		Description	8026/.100" (2.54mm) sq.
30 8016 9821 00 000	Side	Small	75 Pin
30 8016 9822 00 000	Top	Small	75 Pin
30 8016 9823 00 000	Side	Small	117 Pin
30 8016 9824 00 000	Top	Small	117 Pin
30 8016 9825 00 000	Side	Large	75 Pin
30 8016 9826 00 000	Top	Large	75 Pin
30 8016 9827 00 000	Side	Large	117 Pin
30 8016 9828 00 000	Top	Large	117 Pin
30 8016 9832 00 000	Side	Large	165 Pin

Cover Number	Cable Entrance	Clamp	
		Description	8026/.100" (2.54mm) sq.
30-8016-9833 00 000	Top	Large	165 Pin
30-8016-9838 00 000	Side	Ex-Large	75 Pin
30-8016-9839 00 000	Top	Ex-Large	75 Pin
30-8016-9840 00 000	Side	Ex-Large	117 Pin
30-8016-9842 00 000	Top	Ex-Large	117 Pin
30-8016-9843 00 000	Side	Ex-Large	165 Pin
30-8016-9844 00 000	Top	Ex-Large	165 Pin
30-8016-9845 00 000	Side	Ex-Large	—
30-8016-9846 00 000	Top	Ex-Large	—

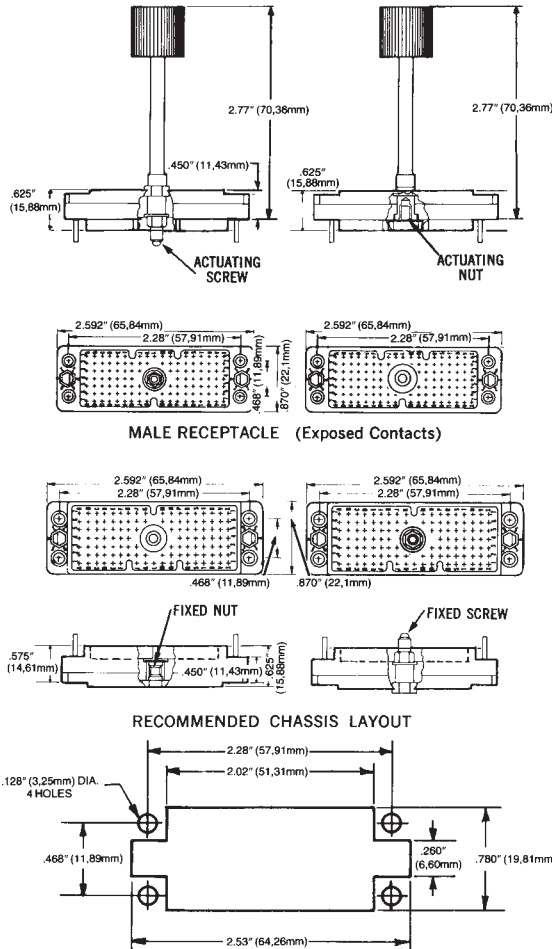
## Series 8026 – 0.100" Rectangular Connector

### 117 CONTACTS Female Plug (Recessed Contacts)

For variation code number

See Table 3  
Page 29

See Table 4  
Page 29

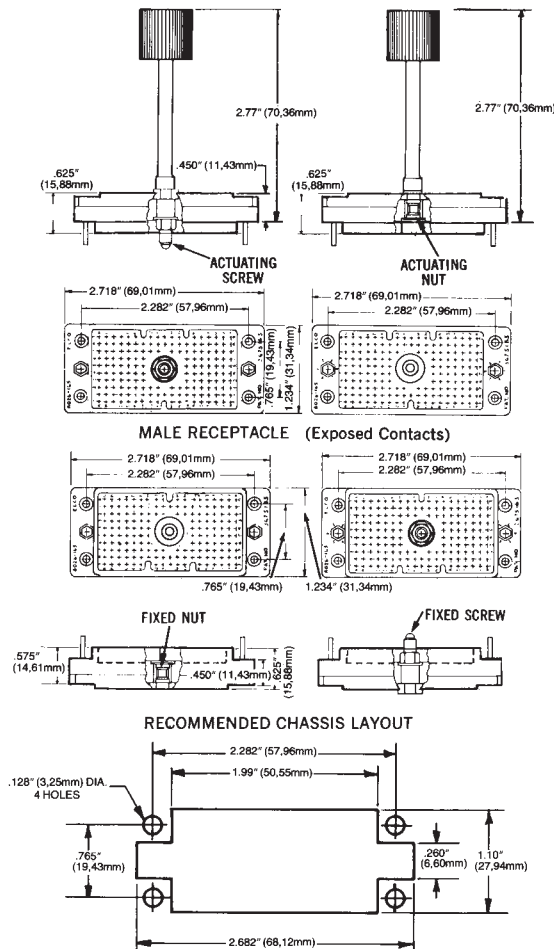


### 165 CONTACTS Female Plug (Recessed Contacts)

For variation code number

See Table 3  
Page 29

See Table 4  
Page 29



### POLARIZATION CODE

Polarizing pins, when desired, are factory set in position #1. Customer can reset as shown below, use tool No. 06 1989 02. To order factory settings other than position #1, fill out

the "Polarizing Code" below and submit it along with the completed connector ordering code.

**P**

Insulator Body Type  
P = Male, R = Female

**LS**

Left Side Pin

**5**

Left Side Pin Position  
1 through 6

**RS**

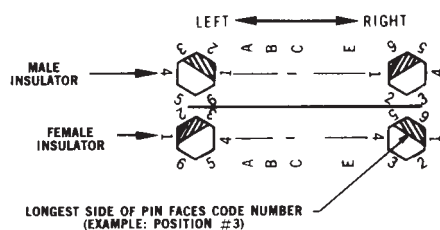
Right Side Pin

**3**

Right Side Pin Position  
1 through 6

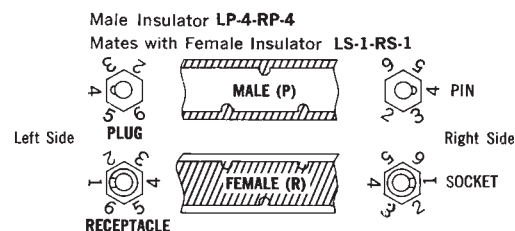
### POLARIZATION / KEYING

EXAMPLE: P-LS-5-RS-3 Mates with R-LS-5-RS-3 as shown below



### ALTERNATIVE KEYING

EXAMPLE (PIN & SOCKET)

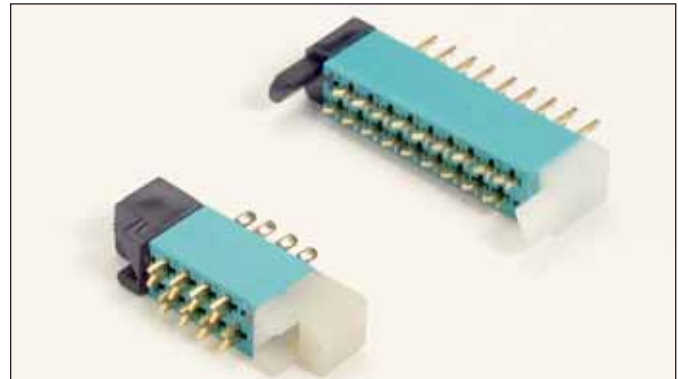


**NOTE:** Same size of pin and socket keying hardware are used on all existing 8026 connectors (33, 75, 117, 165) – both sides

## Series 8218 – 0.050" Staggered Dual Row

### FEATURES

- High contact density
- For parallel or perpendicular p.c. card mounting
- High mounting density (.050" centers, minimum)
- Nylon end sections for mounting and card guidance
- Mounting hardware supplied with connector
- Mates with 8219 Series



### TECHNICAL SPECIFICATIONS

#### Current Rating:

5 amperes, maximum

#### Contact Resistance:

0.005 ohm, maximum

#### Contact Material and Plating:

Phosphor Bronze  
nickel plate, 30 to 50 microinches followed by  
gold plate, 10 to 20 microinches

#### Insulator Material:

Diallyl phthalate, glass-filled, flame resistant,  
end guides: nylon

#### Insulation Resistance:

5,000 megohms, minimum

#### Dielectric Withstanding Voltage:

Sea Level: 1000 Volts rms  
3.4" Hg: 500 Volts rms

#### Insertion/Withdrawal Force:

2 to 16 ounces per contact

### ORDERING CODE

**00**

**8218**

**076**

**000**

**001**

#### Number of Contacts

002 to 076 for connectors  
without center guide

#### Contact Code

#### Variation Code

001 = Receptacle  
002 = Plug-Card  
005 = Plug-Board

#### with keying pins

011 = Receptacle  
012 = Plug-Card/pin  
inserted in  
odd position  
013 = Plug-Card/pin  
inserted in even  
position  
017 = Plug-Board

#### with keying holes

021 = Receptacle  
022 = Plug-Card/pin  
inserted in  
odd position  
023 = Plug-Card/pin  
inserted in even  
position  
027 = Plug-Board

#### Variant 002 right angled contacts

000 = 60 8200 16 33  
P.C. Tail



000 = 60 8200 16 63  
P.C. Tail



#### Variants 001 and 005

722 = 60 8200 16 13  
Wire Hole Tail



736 = 60 8200 16 33  
P.C. Tail (X = 9/32", Y = 1/4")



753 = 60 8200 16 53  
P.C. Tail (X = 1/8", Y = 3/32")

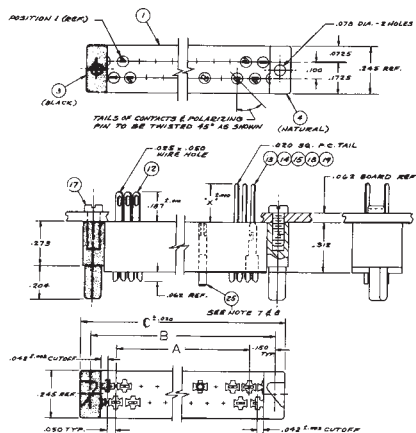


771 = 60 8200 16 63  
P.C. Tail (X = 31/64", Y = 29/64")

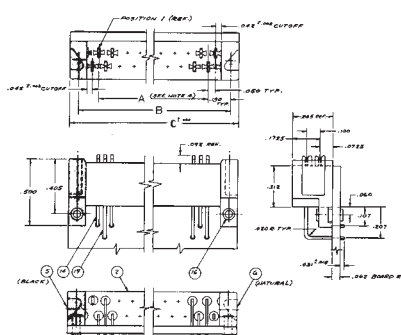


## Series 8218 – 0.050" Staggered Dual Row

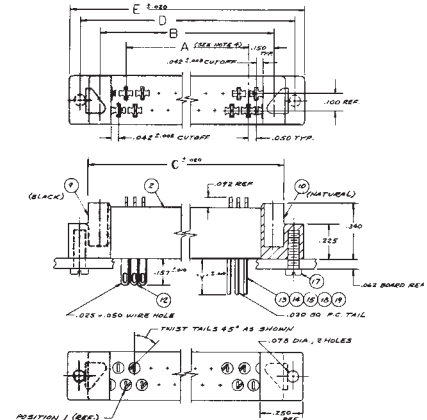
## Receptacle Variation 001



## Plug Variation 002



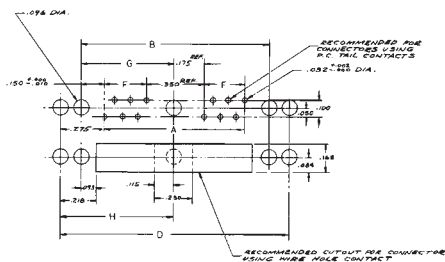
### Plug Variation 005



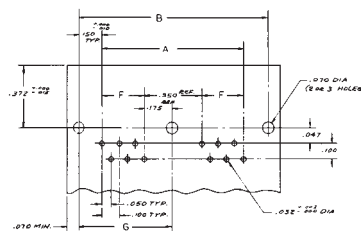
## RECEPTACLE 001 – MATES WITH PLUGS 002 AND 005

## MOUNTING LAYOUT

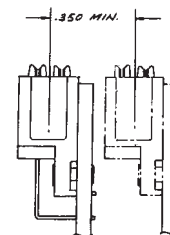
### Variation 001 and 005



## Variation 002



### Minimum Center to Center Spacing for Adjustment Plugs



## DIMENSIONS

**(inches)**

<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>
(No. of contacts x 0.050") - 0.050"	"A" dimension + 0.300"	"A" dimension + 0.440"	"A" dimension + 0.550"	"A" dimension + 0.690"

## POLARIZATION

**Keying Ordering No.**  
**60-8218-4715-00-152**

### PLUG OR RECEPTACLE



Determine polarization pin location from views.

P = Specify location by contact # where polarizing pin must be inserted.

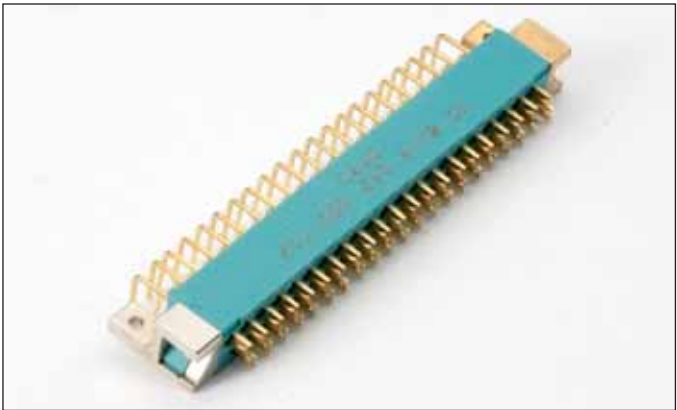
H = Specify location by contact # where contact must be omitted for mating.

Typical Example:    00-8218-024-721-001-P17            (polarizing pin mtd. in position 17)  
                              00-8218-024-721-005-H17            (polarizing hole is in position 17)

## Series 8219 – 0.050" Staggered Dual Row

### FEATURES

- For p.c. card-to-card applications
- High contact density
- Low withdrawal force contacts
- Rugged, color coded end guides
- Parallel or perpendicular p.c. board mounting
- Mates with Series 8218



### TECHNICAL SPECIFICATIONS

**Current Rating:**

5 amperes, maximum

**Contact Resistance:**

6 milliohms, maximum

**Contact Material and Plating:**

Phosphor Bronze

Gold, 10 microinches minimum,  
over nickel, 50 to 100 microinches

**Insulator Material:**

Diallyl phthalate, glass-filled, flame resistant per MIL-M-14F, Type SDGF.

**Guidance Hardware:**

Left hand guides: Metal, gold color  
Right hand guides: Metal, silver color

**Insulation Resistance:**

5,000 megohms, minimum

**Dielectric Withstanding Voltage:**

Sea Level: 1000 Volts rms

3.4" Hg: 500 Volts rms

**Insertion/Withdrawal Force:**

2 to 8 ounces per contact

### ORDERING CODE

**00**

**8219**

**042**

**722**

**001**

**Number of Contacts**  
018, 030, 036, 042, 054, 072

**Contact Code**  
(see below)

**Variation Code**

**For Variation = 001**

Code No.	Contact Type	"X" Dim.
722	Wire hole tail	.187
721	P. C. solder tail	.250
736	P. C. solder tail	.281
737	P. C. solder tail	.562
753	P. C. solder tail	.125
771	P. C. solder tail	.484

**For Variation = 002**

Code No.	Contact Type
000	P. C. solder tails formed
722	Wire hole tail unformed

**For Variation = 005**

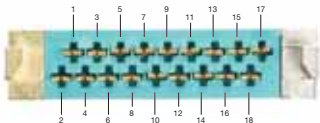
Code No.	Contact Type	"Y" Dim.
722	Wire hole tail	.157
721	P. C. solder tail	.219
736	P. C. solder tail	.250
737	P. C. solder tail	.531
753	P. C. solder tail	.093
771	P. C. solder tail	.453

<b>Without Keying</b>	001 = Receptacle
	002 = Plug, parallel board mounting
	005 = Plug, perpendicular board mounting

**NOTE:** Connector is supplied with mounting screws or eyelets, as applicable (see drawings).

Contact Factory for Special Variations.

### POLARIZING SYSTEM



When Keying is ordered with part number, the Key is installed at the factory.

RECEPTACLE - VARIATION 001

POSITION 1 (REF.)

LEFT HAND GUIDE (GOLD COLOR)

R.GHT HAND GUIDE (SILVER COLOR)

#2-56 TAPPED HOLES

.100

.294 REF.

C

K REF.

.032 x .050 WIRE HOLES

.020 SQ. P.C. TAIL

.062 BOARD REF.

.187

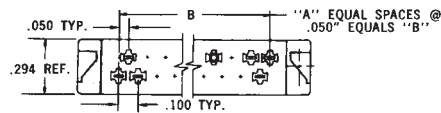
.477

.273

.312

METAL KEYING PIN (REF.)

60 8218 4715



millimeters (inches)

Number of Contacts	A	B	C	Ref. D	E	F	G	Ref. K
18	17	.850 (0.033)	1.150 (0.045)	1.290 (0.051)	1.400 (0.055)	1.540 (0.061)	.964 (0.038)	1.300 (0.051)
30	29	1.450 (0.057)	1.750 (0.069)	1.890 (0.075)	2.000 (0.079)	2.140 (0.084)	1.564 (0.061)	1.900 (0.075)
36	35	1.750 (0.069)	2.050 (0.080)	2.190 (0.086)	2.300 (0.091)	2.440 (0.096)	1.864 (0.073)	2.220 (0.087)
42	41	2.050 (0.080)	2.350 (0.093)	2.490 (0.098)	2.600 (0.102)	2.740 (0.108)	2.164 (0.085)	2.500 (0.098)
54	53	2.650 (0.104)	2.950 (0.116)	3.090 (0.122)	3.200 (0.126)	3.340 (0.131)	2.764 (0.109)	3.100 (0.122)
72	71	3.550 (0.140)	3.850 (0.152)	3.990 (0.157)	4.100 (0.161)	4.240 (0.167)	3.664 (0.144)	4.000 (0.157)

Technical drawings of the PCB layout for the 100-pin DIP package, showing top, bottom, and side views with dimensions and labels.

**Top View:**

- Left Hand Guide (Gold Color): .173
- Position 1 (Ref.): Indicated by a circle with a crosshair.
- Right Hand Guide (Silver Color): Indicated by a circle with a crosshair.
- Dimensions: .270, .100, B
- Note: "A" EQUAL SPACES @ .050" EQUALS "B"

**Bottom View:**

- Dimensions: .470, .375, C, D REF.

**Side View:**

- Dimensions: .312, .060, .107, .207, .031, .062 BOARD REF.

Technical drawing of a printed circuit board (PCB) showing top and bottom views with dimensions and labels.

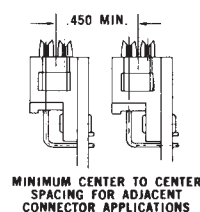
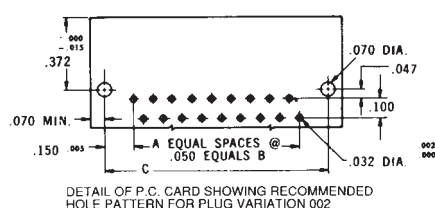
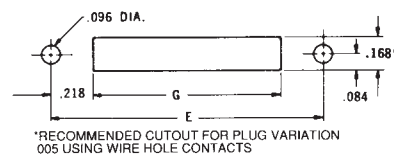
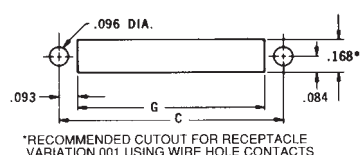
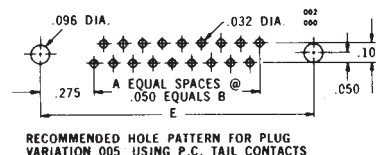
**Top View Dimensions and Labels:**

- F REF.**: Dimension across the top edge.
- E**: Overall width dimension.
- B**: Dimension across the middle section.
- .100**: Dimension for the rightmost section.
- .270**: Dimension for the rightmost section.
- .173**: Dimension for the rightmost section.
- 'A' EQUAL SPACES @ .050' EQUALS 'B'**: Label for the top edge spacing.

**Bottom View Dimensions and Labels:**

- D**: Dimension across the bottom edge.
- .312**: Dimension for the rightmost section.
- .122**: Dimension for the rightmost section.
- .157**: Dimension for the rightmost section.
- .062 BOARD REF.**: Label for the bottom edge spacing.
- .020 SQ. P.C. TAIL**: Label for the bottom edge tail.
- .032 x .050 WIRE HOLE**: Label for the bottom edge holes.
- #2-56 TAPPED HOLES**: Label for the bottom edge holes.

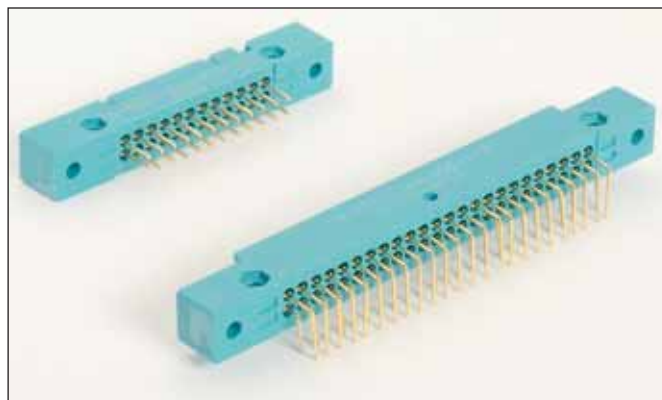
**POSITION 1 (REF.)**: Label for the bottom edge holes.

[illegible]**AVX**

## Series 8223 – 0.100" Dual Row Square Grid

### FEATURES

- Wide range of contact terminations including wire wrapping, P.C. solder tail, wire hole, wire crimp
- For 1/16", 3/32" P.C. card
- Polarity and keying are built into the connector body to prevent mismatching
- Perpendicular or parallel connector mounting
- Proven Varicon® contact reliability
- Protected male; recessed female contacts



### TECHNICAL SPECIFICATIONS CONTACTS

**Current Rating:**  
5 amperes with 22 AWG wire

**Contact Resistance:**  
6 milliohms, maximum

**Contact Material and Plating:**  
Phosphor Bronze  
Nickel plate, 50 to 100 micro-inches, followed by gold plate.  
10 microinches minimum

### INSULATORS

**Material:**  
Diallyl Phthalate, glass-filled, flame resistant, per MIL-M-14-F, Type SDGF

**Insulation Resistance:**  
5,000 megohms, minimum

**Dielectric Withstanding Voltage:**  
Sea Level: 1,000 Volts rms

**Insertion/Withdrawal Force:**  
2 to 8 ounces per contact

### ORDERING CODE

00

8223

024

000

001

**Number of Contacts**  
024, 048, 072 & 096

**Contact Code**

**Variation Code**

Use three digit code number when contacts are to be factory installed. If contacts are to be supplied loose, or contact tails to be formed, use three zeros (000) in contact code section. Note that the wire crimp tail contacts can only be ordered as separate items by part numbers.

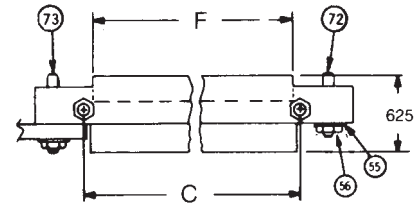
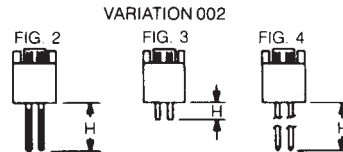
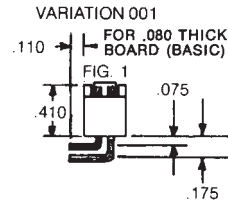
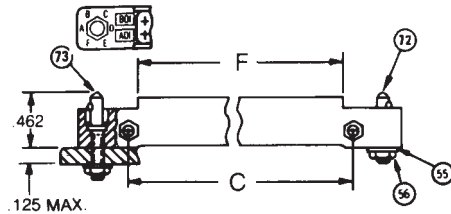
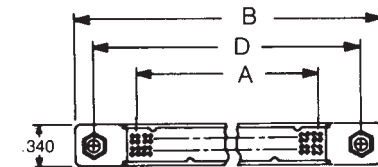
Code	Profile	Description	Part No.	H Dim.	Board Thk.	Fig.
000		Coined Tail Formed 90° after installing (Max. 0236 Diag.)	60 8223 0223 60 8223 0213	.080	.062	1
000		Coined Tail Formed 90° after installing (Max. 0236 Diag.)	60 8223 0243 60 8223 0253	.093		1
722		Wire Hole Tail (.032 x .050)	60 8200 1613	.162		3
721		P.C. Tail .020 Sq.	60 8200 1623	.228		4
736		P.C. Tail .020 Sq.	60 8200 1633	.259		4
737		P.C. Tail .020 Sq.	60 8200 1643	.541		4
753		P.C. Tail .020 Sq.	60 8200 1653	.103		4
771		P.C. Tail .020 Sq.	60 8200 1663	.462		4
000		Crimp Contact (Reel 3000) 22-30 AWG	60 8216 0323			5
000		Crimp Contact (Loose) 22-30 AWG	60 8216 0313			5
491		Wrappable/Removable Contact (.025 Sq.)	60 8216 0413	.560		6

Insulator Type	Variation	Contact Style	Cover	Bracket	Accessories			Refer To Figure	Board Thickness
					Guide Pins Sockets (R)				
					Keying	Threaded Locking	Lkg. Kyg.		
Male (Exposed Contacts)	001	Formed Contact Terminal			X			1	.080 2.03 .062 1.57
	002	PC Terminal			X			2	
		Wire Hole Terminal			X			3	
		PC Straight Terminal			X			4	
	003	Crimp Contact			X			5	
		Wrappable Removable			X			6	
004	Formed Contact Terminal			X			1	.093 2.36	
Female (Exposed Contacts)	901	Formed Contact Terminal			X			1	.080 2.03 .062 1.57
	902	PC Terminal			X			2	
		Wire Hole Terminal			X			3	
		PC Straight Terminal			X			4	
	903	Crimp Contact			X			5	
		Wrappable Removable			X			6	
904	Formed Contact Terminal			X			1	.093 2.36	

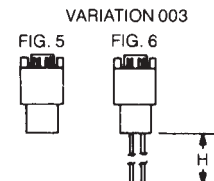


## Series 8223 – 0.100" Dual Row Square Grid

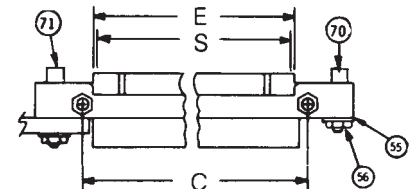
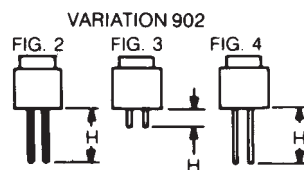
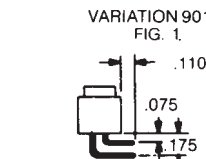
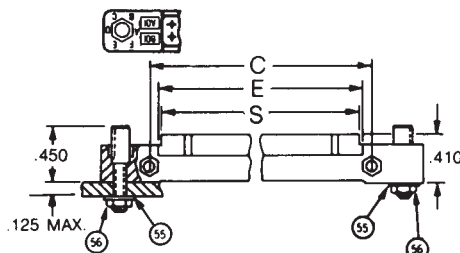
### MALE INSULATORS



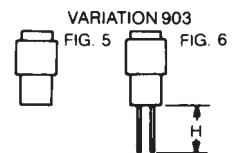
**CRIMP  
TYPE**



### FEMALE INSULATORS

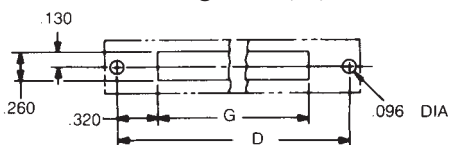


**CRIMP  
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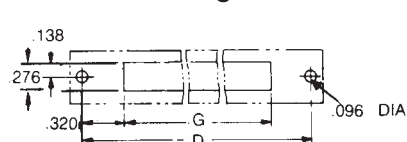


### MOUNTING LAYOUT

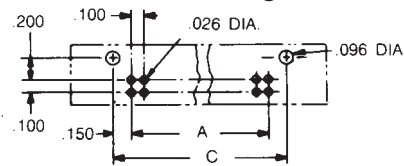
Panel for Figures 2, 3, & 4



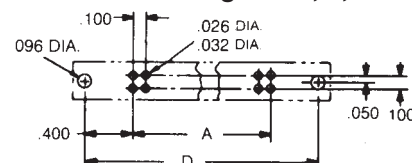
Panel for Figures 5 & 6



P.C. Board for Figure 1

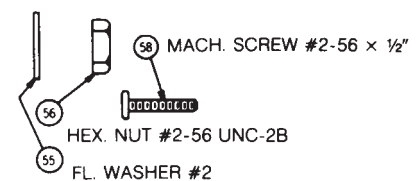


P.C. Board for Figures 2, 3, & 4



### MOUNTING HARDWARE

(See drawings for correct assembly of hardware.  
Hardware shown is supplied with each board mounted connector.)



### KEY TO DIAGRAMS

No. of Contacts	A	B	C	D	E	F	G	H	S
24	1.1	2.2	1.4	1.9	1.27	1.252	1.26	Pg. 26	1.236
48	2.3	3.4	2.6	3.1	2.47	2.452	2.46	Pg. 26	2.436
72	3.5	4.6	3.8	4.3	3.67	3.652	3.66	Pg. 26	3.636
96	4.7	5.8	5.0	5.5	4.87	4.852	4.86	Pg. 26	4.836

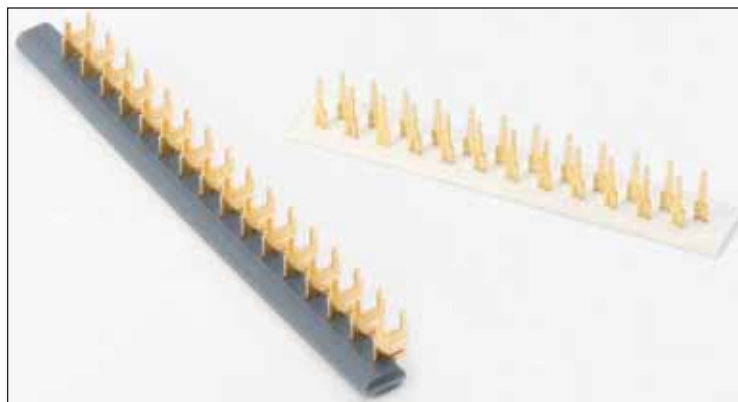
Item	Size	Part # Unified Thread
55	#2	90-0502-0031-11-053
56	#2-5	90-0602-0121-11-053
58	#2-5	90-0902-0136-11-053

Item	Size	Part #
70	#2-5	60-8223-4562-11-062
71	#2-5	60-8223-4522-11-062
72	#2-5	60-8223-4662-11-062
73	#2-5	60-8223-4662-11-062

## Contact Strip

### FEATURES

- Contacts supplied imbedded in vinyl strips, correctly spaced and ready for insertion and staking into p.c. card
- For  $\frac{1}{16}$ " thick p.c. cards
- Mates with Series 7000 Receptacles



### TECHNICAL SPECIFICATIONS

#### Current Rating:

10 amperes

#### Contact Resistance:

6 milliohms, maximum

#### Contact Material and Plating:

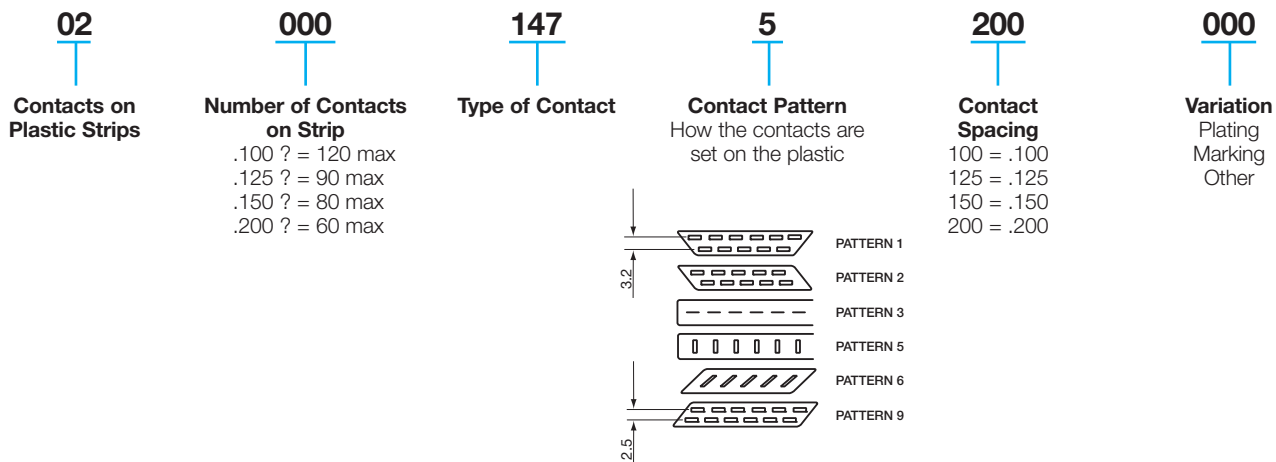
Phosphor Bronze per QQ-B-750, Composition A.

†Gold, 50 microinches minimum, over nickel, 30 to 100 microinches






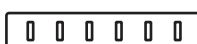

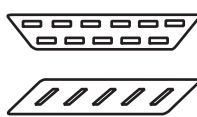







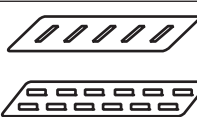

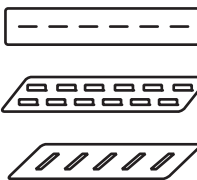


#### Insertion/Withdrawal Force:

2 to 16 ounces per contact

### ORDERING CODE



## Contact Strip

Contact Code	Loose Contact Part Number	For Card Thickness	Silhouette	Available Pattern	Application	Fig #
013	60 5001 1913 00 339	1/16" (0.0625)			Module Card Contact	
014	60 5001 1923 00 339	3/32" (0.09375)			Module Card Contact	
046	62 5101 0643 00 339	1/16" (0.0625)			Tandem Card Contact	4
113	62 5201 0213 00 339	1/16" (0.0625)			Base Card Contact	1, 2, 3
135	60 7001 0413 00 339	1/16" (0.0625)			Lower Tier w/Wire Hole	
137	60 7001 0513 00 339	1/16" (0.0625)			Upper Tier w/Wire Hole	
147	60 7001 1513 00 339	1/16" (0.0625)			Lower Tier	
323	60 8240 0213 00 339	1/16" (0.0625)			Base Card Contact	5, 6
327	60 8240 0243 00 339	3/32" (0.09375)			Base Card Contact	5, 6
332	60 8240 0313 00 339	1/16" (0.0625)			Module Card Contact	

# Varicon®

## Contact Strip

### Perpendicular Cards – Pad Spacing .200"

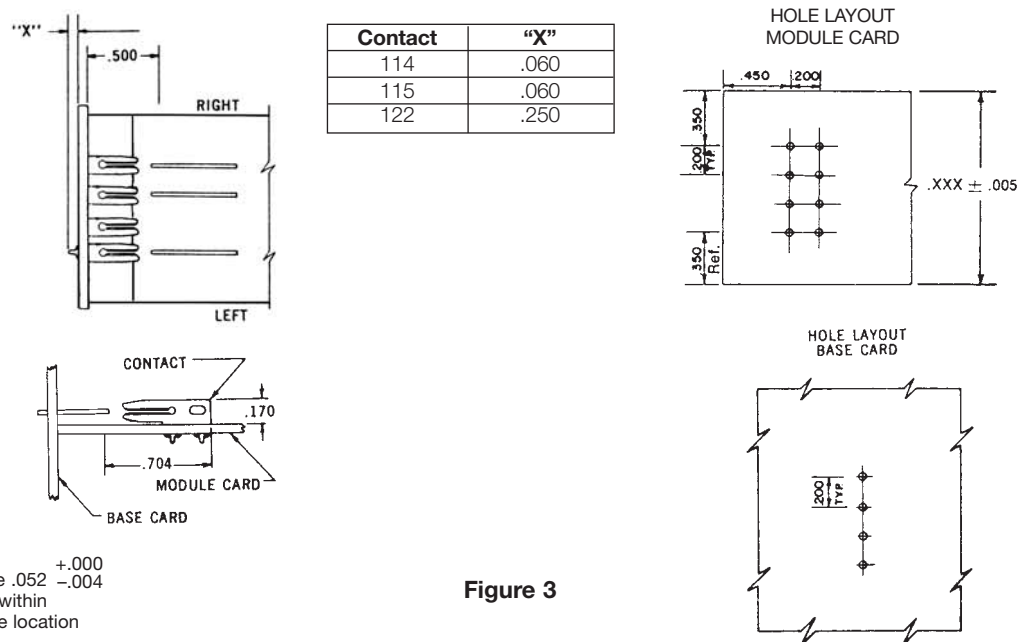


Figure 3

## Tandem Cards – Pad Spacings .125"/.150"/.200"

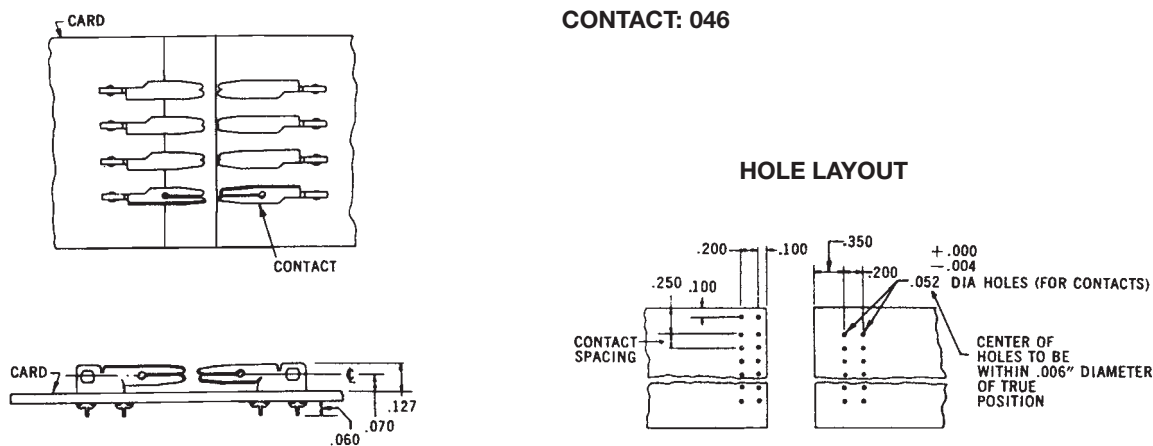


Figure 4

## TECHNICAL SPECIFICATIONS

### Contacts:

Contacts on .125", .150" or .200" Centers  
Contacts supplied on disposable plastic carrier strips.

.200" spacing with a max. of 60 contacts.

.150" spacing with a max. of 80 contacts.

.125" spacing with a max. of 90 contacts.

### Contact Resistance:

0.006 Ohm, maximum

### Contact Material and Plating:

Phosphor Bronze

Gold, 50 microinches minimum,  
over nickel, 50 to 100 microinches

### Insertion/Withdrawal Force:

2 to 16 ounces per contact

### Current Rating:

8 amperes

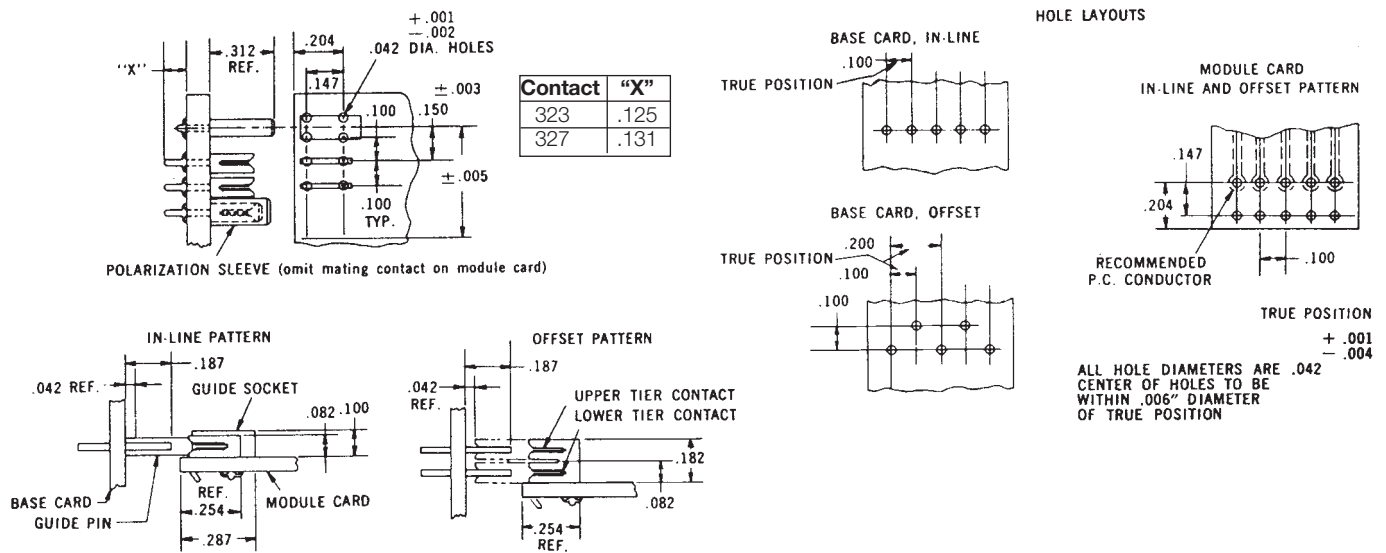


Figure 5

## TECHNICAL SPECIFICATIONS

### Contacts:

Supplied on disposable plastic carrier strips

### Current Rating:

5 amperes

### Contact Resistance:

0.006 Ohm, maximum

### Contact Material and Plating:

Phosphor Bronze

†Gold, 50 microinches minimum,  
over nickel, 50 to 100 microinches

### Insertion/Withdrawal Force:

2 to 16 ounces per contact

## Parallel Cards – .213" Between Cards

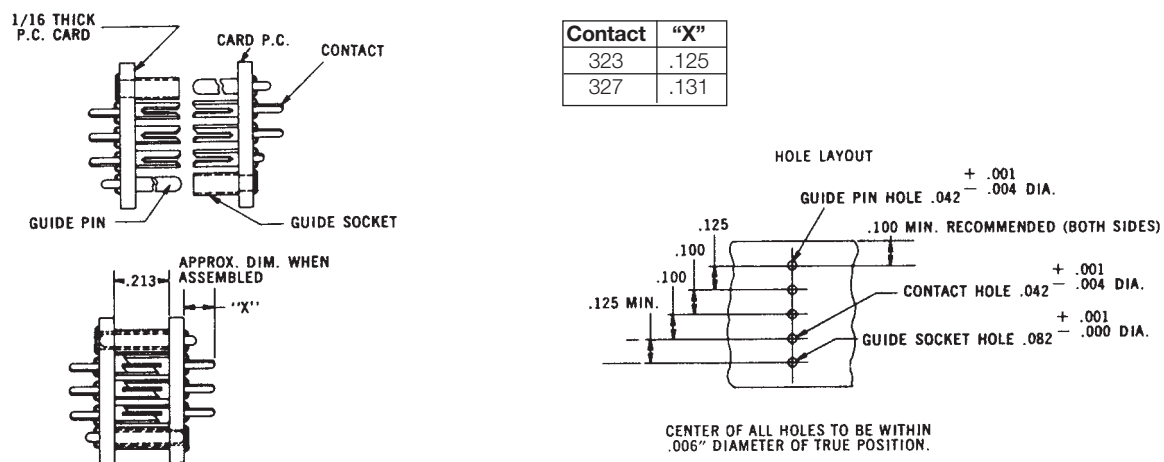


Figure 6

# Varicon®

## Contact Strip – Technical

### Parallel Cards – .438" Between Cards

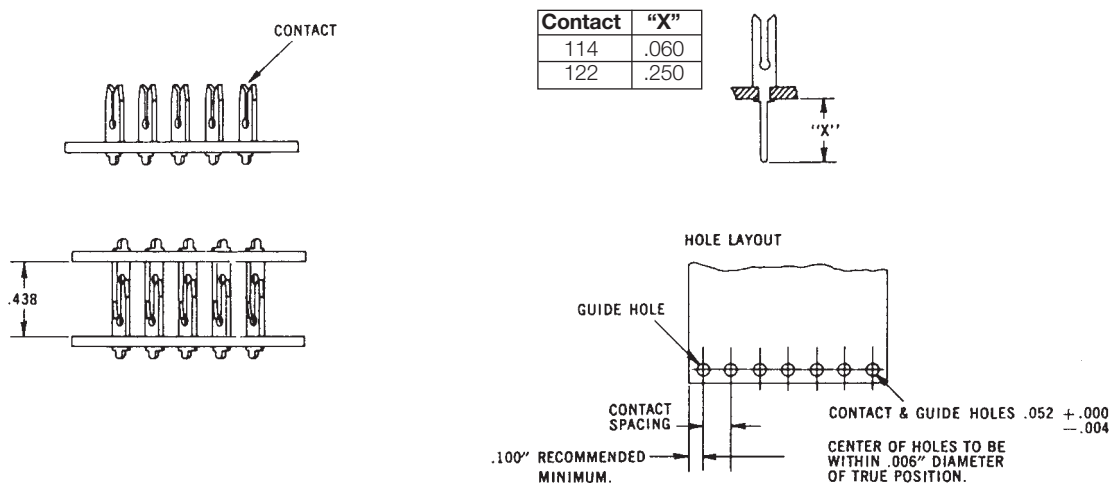


Figure 1

## TECHNICAL SPECIFICATIONS

### Contacts:

Supplied on disposable plastic carrier strips

### Current Rating:

8 amperes

### Contact Resistance:

0.006 Ohm, maximum

### Contact Material and Plating:

Phosphor Bronze

Gold, 50 microinches minimum,  
over nickel, 50 to 100 microinches

### Insertion/Withdrawal Force:

2 to 16 ounces per contact

- Contacts – Contacts are available on four spacings; each spacing has a corresponding maximum number of contacts. Fewer contacts can be ordered.

.200" spacing with a max. of 60 contacts per strip

.150" spacing with a max. of 80 contacts per strip

.125" spacing with a max. of 90 contacts per strip

## Perpendicular Cards – Pad Spacing .100"

## FEATURES

- For  $\frac{1}{16}$ " and  $\frac{3}{32}$ " thick p.c. cards
- Contacts supplied imbedded in vinyl strips, correctly spaced and ready for insertion and staking into p.c. card
- Complete set of plug contacts supplied on two disposable plastic strips, one for upper-tier contacts, the other for lower-tier contacts
- Efficient and economical installation equipment includes staking and strip removal tools for all applications

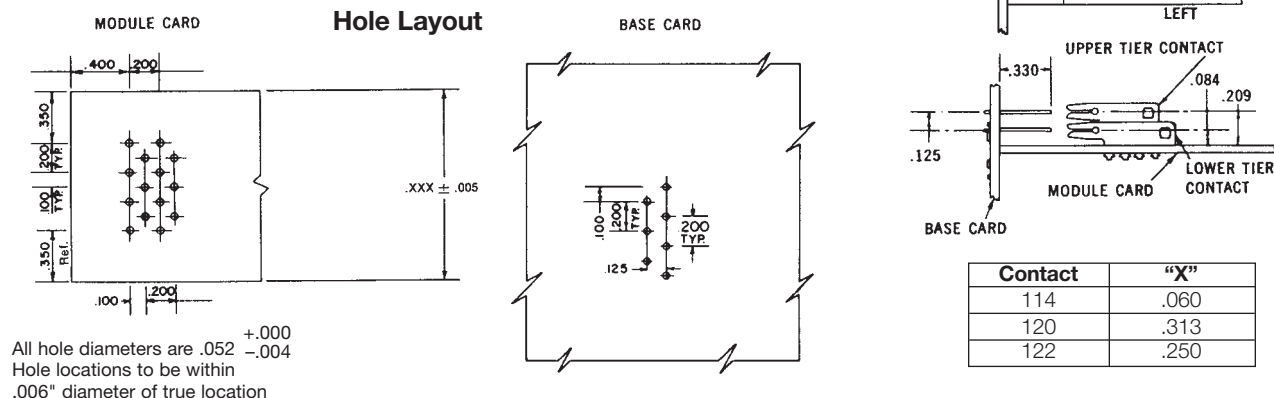
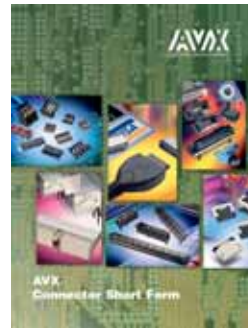


Figure 2

## Connector Short Form



## DIN41612 / EN60603-2 Connectors



## FFC/FPC Connectors



## Memory Card Components





## PASSIVES

### Capacitors

Multilayer Ceramic  
Tantalum  
Microwave  
Glass  
Film  
Power Film  
Power Ceramic  
Ceramic Disc  
Trimmer  
BestCap™

### Resistors

Arrays

### Timing Devices

Resonators  
Oscillators  
Crystals

### Filters

EMI  
SAW  
Dielectric

### Thin Film

Inductors  
Fuses  
Capacitors  
Couplers  
Baluns  
Filters

### Integrated Passive Components

Low Inductance Chip Arrays  
Capacitor Arrays  
Dual Resonance Chips  
Custom IPCs

### Voltage Suppressors, Varistors and Thermistors

### Acoustical Piezos

## CONNECTORS

2mm Hard-Metric for CompactPCI®

Automotive Connectors

Board to Board Connectors –  
SMT and Through-Hole

Card Edge

Compression

Custom Designed Connectors

Customized Backpanel, Racking and  
Harnessing Services

DIN 41612 Connectors

FFC/FPC Connectors

Insulation Displacement Connectors

I/O Connectors

Memory Card Connectors  
CF, PCMCIA, SD, MMC

MOBO™, I/O, Board to Board and  
Battery Connectors

Press-fit Connectors

Varicon®

Wire to Board, Crimp or IDC

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## AMERICAS

**AVX Greenville, SC**  
Tel: 864-967-2150

**AVX Northwest, WA**  
Tel: 360-699-8746

**AVX Midwest, IN**  
Tel: 317-861-9184

**AVX Mid/Pacific, CA**  
Tel: 408-988-4900

**AVX Northeast, MA**  
Tel: 617-479-0345

**AVX Southwest, CA**  
Tel: 949-859-9509

**AVX Canada**  
Tel: 905-238-3151

**AVX South America**  
Tel: +55-11-4688-1960

## EUROPE

**AVX Limited, England**  
Tel: +44-1276-697000

**AVX S.A.S., France**  
Tel: +33-1-69-18-46-00

**AVX GmbH, Germany**  
Tel: +49-0811-95949-0

**AVX SRL, Italy**  
Tel: +39-02-614-571

**AVX Czech Republic**  
Tel: +420-57-57-57-521

**AVX/ELCO UK**  
Tel: +44-1638-675000

**ELCO Europe GmbH**  
Tel: +49-2741-299-0

**AVX S.A., Spain**  
Tel: +34-91-63-97-197

**AVX Benelux**  
Tel: +31-187-489-337

## ASIA-PACIFIC

**AVX/Kyocera (S) Pte Ltd.,  
Singapore**  
Tel: +65-6286-7555

**AVX/Kyocera, Asia, Ltd.,  
Hong Kong**  
Tel: +852-2363-3303

**AVX/Kyocera Yuhan Hoesa,  
South Korea**  
Tel: +82-2785-6504

**AVX/Kyocera HK Ltd.,  
Taiwan**  
Tel: +886-2-2656-0258

**AVX/Kyocera (M) Sdn Bhd,  
Malaysia**  
Tel: +60-4228-1190

**AVX/Kyocera International  
Trading Co. Ltd.,  
Shanghai**  
Tel: +86-21-3255 1933

**AVX/Kyocera Asia Ltd.,  
Shenzen**  
Tel: +86-755-3336-0615

**AVX/Kyocera International  
Trading Co. Ltd.,  
Beijing**  
Tel: +86-10-6588-3528

**AVX/Kyocera India  
Liaison Office**  
Tel: +91-80-6450-0715

## ASIA-KED (KYOCERA Electronic Devices)

**KED Hong Kong Ltd.**  
Tel: +852-2305-1080/1223

**KED Hong Kong Ltd.  
Shenzen**  
Tel: +86-755-3398-9600

**KED Company Ltd.  
Shanghai**  
Tel: +86-21-3255-1833

**KED Hong Kong Ltd.  
Beijing**  
Tel: +86-10-5869-4655

**KED Taiwan Ltd.**  
Tel: +886-2-2950-0268

**KED Korea Yuhan Hoesa,  
South Korea**  
Tel: +82-2-783-3604/6126

**KED (S) Pte Ltd.  
Singapore**  
Tel: +65-6509-0328

**Kyocera Corporation  
Japan**  
Tel: +81-75-604-3449

**Contact:**

