

# M55302 Two Piece Edge Board Connectors



- M55302 Qualified
- 64 & 96 Pin Male and Female
- Vertical and Right Angle
- Gold Plated Contacts
- Certified to M55302 (500 mating cycles)
- Marked with Military number
- Group A & B testing standard

**M55302 / XXX - XX**

01-09 =  
Contact Style  
Contact Tail Length

131 = 96 Pin R/A Male  
132 = 96 Pin Vert Female  
133 = 64 Pin R/A Male  
134 = 64 Pin Vert Female  
157 = 64 Pin Vert Male  
148 = 64 Pin R/A Female

### FEATURES:

- Designed for mobile, transportable, and semi-permanent military communications facilities (telephone, telegraph, teletype, radio, etc.)
- High-reliability Hermaphrocon™ connectors are designed for speedy, foolproof interconnections under extreme field conditions, are impossible to mismatch, even in the dark
- Hermaphrocon™ plugs mate interchangeably with both receptacles and plugs, permitting connection of either cable end to any other cable end of distribution box
- Redundant Hermaphrocon™ design provides 104 contacts for 52 cable conductors (52 pairs) assures circuit continuity with up to 50% contact damage (jumpers linking redundant contact pairs are welded for reliability)
- Rugged, waterproof Hermaphrocon™ connectors resist wear and damage caused by dragging on the ground or through water, even without covers

### SPECIFICATIONS:

- PLUG, ELECTRICAL  
U-185B/G CONNECTOR
- RECEPTACLE, ELECTRICAL  
U-186C/G CONNECTOR
- RECEPTACLE, ELECTRICAL  
U-187A/G CONNECTOR
- CONTACT ASSEMBLY,  
ELECTRICAL MX-3227/G  
(as applicable)
- HOUSINGS:  
Die-cast aluminum alloy with protective finish per MIL-F-14072
- GASKETS AND GLANDS:  
Silicone rubber
- INSULATORS:  
Fortron-PPS-Black
- INSULATION RESISTANCE:  
1000 megohms, minimum
- CONTACTS:  
Beryllium copper, gold plated
- CONTACT RESISTANCE:  
7 milliohms, maximum
- IMMERSION:  
per MIL-C-55074
- MOISTURE RESISTANCE:  
per MIL-C-55074
- AIR LEAKAGE:  
per MIL-C-55074
- VIBRATION:  
per MIL-C-55074
- TEMPERATURE:  
-65°F to 150°F
- OVERALL DIMENSIONS (approx.):  
U-185B/G 2.437" x 2.750" x 13.125"  
U-186C/G 3.500" x 4.000" x 6.375"  
U-187A/G 2.375" x 3.125" x 6.375"
- MILITARY SPECIFICATION:  
MIL-C-55074, MIL-STD-454

Plug (Cable Connector)



U-185B/G

Receptacle



U-186C/G

Bottom Mount



Side Mount

U-187A/G

Contact Assembly

MX-3227/G



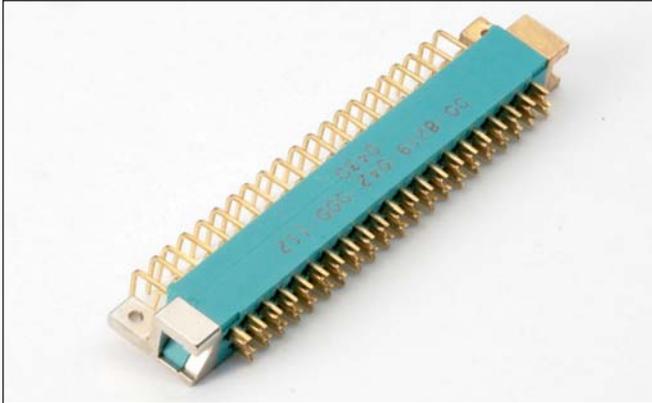
Binding Post

SC-C-136011



ELCO P/N 08 2264 0130 00 000  
MATERIAL: Brass, machined (terminal)  
Nylon (housing)

PART	ELCO PART NUMBER	MILITARY PART NUMBER	DESCRIPTION
ELCO HERMAPHROCON™ CONNECTORS	08 2260 0110 00 000	U-185B/G M-55074/1-01	HERMAPHROCON™ PLUG, cable type
	08 2276 0110 00 000	U-186C/G M-55074/2-01	HERMAPHROCON™ RECEPTACLE, panel type
	08 2263 0110 00 000	U-187A/G M-55074/3-01	HERMAPHROCON™ RECEPTACLE, panel type
	08 2260 9010 00 000	MX-3227/G M-55074/4-01	HERMAPHROCON™ CONTACT ASSEMBLY
BINDING POSTS	08 2264 0110 00 000	SIG. CORPS. DWG. # SC-C-136011	SHORT SPRING BINDING POST ASSEMBLY with O-ring, flat washer, split washer and nut - White
	08 2264 0120 00 000	SIG. CORPS. DWG. # SC-C-136001	SHORT SPRING BINDING POST ASSEMBLY without hardware - White
	08 2264 0130 00 000	SIG. CORPS. DWG. # SC-C-136001	LONG SPRING BINDING POST with O-ring, flat washer, split washer and nut - White
	08 2264 0121 00 000	SIG. CORPS. DWG. # SC-C-136001	LONG SPRING BINDING POST without hardware - White



## 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**

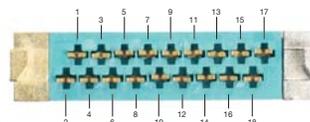
For Variation = 001			For Variation = 002		
Code No.	Contact Type	"X" Dim.	Code No.	Contact Type	
722	Wire hole tail	.187	000	P. C. solder tails formed	
721	P. C. solder tail	.250	722	Wire hole tail unformed	
736	P. C. solder tail	.281	<b>For Variation = 005</b>		
737	P. C. solder tail	.562	Code No.	Contact Type	"Y" Dim.
753	P. C. solder tail	.125	722	Wire hole tail	.157
771	P. C. solder tail	.484	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

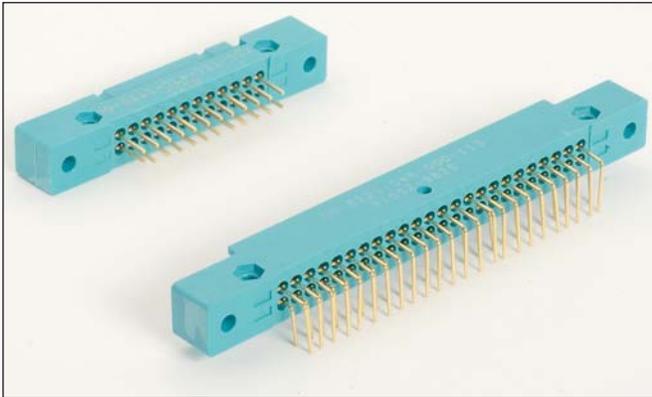
**NOTE:** Connector is supplied with mounting screws or eyelets, as applicable (see drawings).

Contact Factory for Special Variations.

## POLARIZING SYSTEM



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



## FEATURES

- Wide range of contact terminations including wire wrapping, P.C. solder tail, wire hole, wire crimp
- For 1/16", 1/32" 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.
000		Coined Tail Formed 90° after installing (Max. 0236 Diag.)	60 8223 0223 60 8223 0213	.080 .062	
000		Coined Tail Formed 90° after installing (Max. 0236 Diag.)	60 8223 0243 60 8223 0253	.093	
722		Wire Hole Tail (.032 x .050)	60 8200 1613	.162	
721		P.C. Tail .020 Sq.	60 8200 1623	.228	
736		P.C. Tail .020 Sq.	60 8200 1633	.259	
737		P.C. Tail .020 Sq.	60 8200 1643	.541	
753		P.C. Tail .020 Sq.	60 8200 1653	.103	
771		P.C. Tail .020 Sq.	60 8200 1663	.462	
000		Crimp Contact (Reel 3000) 22-30 AWG	60 8216 0323		
000		Crimp Contact (Loose) 22-30 AWG	60 8216 0313		
491		Wrappable/Removable Contact (.025 Sq.)	60 8216 0413	.560	

Insulator Type	Variation	Contact Style	Accessories	
			Guide Pins Sockets (R) Keying	Board Thickness
Male (Exposed Contacts)	001	Formed Contact Terminal	X	.080 2.03 .062 1.57
	002	PC Terminal	X	
		Wire Hole Terminal	X	
		PC Straight Terminal	X	
	003	Crimp Contact	X	
004	Wrappable Removable	X		
Female (Exposed Contacts)	901	Formed Contact Terminal	X	.080 2.03 .062 1.57
	902	PC Terminal	X	
		Wire Hole Terminal	X	
		PC Straight Terminal	X	
	903	Crimp Contact	X	
904	Wrappable Removable	X	.093 2.36	