

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)



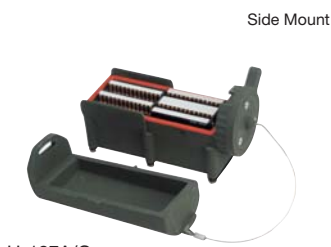
U-185B/G

Receptacle



U-186C/G

Bottom Mount



Side Mount

Contact Assembly

MX-3227/G



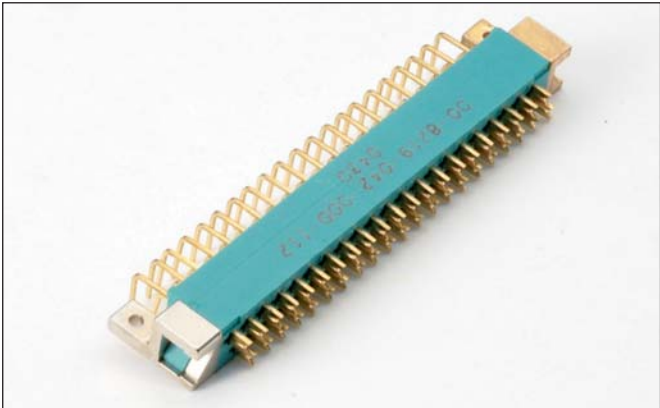
Binding Post

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 resis-
 tant 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

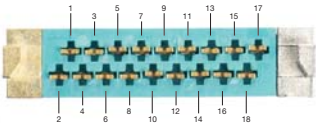
| Code No. | Contact Type | "Y" Dim. |
|----------|-------------------|----------|
| 722 | Wire hole tail | .157 |
| 721 | P. C. solder tail | .219 |
| 736 | P. C. solder tail | .250 |
| 737 | P. C. solder tail | .531 |
| 753 | P. C. solder tail | .093 |
| 771 | P. C. solder tail | .453 |

| | |
|-----------------------|--|
| Without Keying | 001 = Receptacle |
| | 002 = Plug, parallel board mounting |
| | 005 = Plug, perpendicular board mounting |

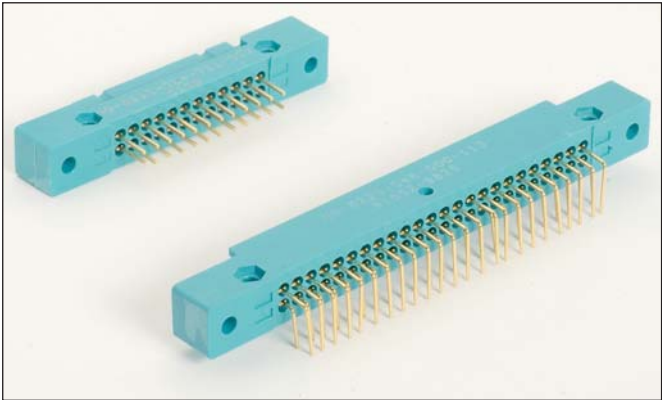
NOTE: Connector is supplied with mounting screws or eyelets, as applicable (see drawings).

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", 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. |
|------|---------|---|------------------------------|--------------|------------|
| 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 | Board Thickness |
|------------------------------|-----------|-------------------------|-------------------------------------|------------------------|
| | | | Guide Pins Sockets (R) Keying | |
| 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 | |
| Female (Exposed Contacts) | 901 | Wrappable Removable | X | |
| | | Formed Contact Terminal | X | .093 2.36 |
| | | | | |
| | 902 | PC Terminal | X | .080 2.03 .062 1.57 |
| | | Wire Hole Terminal | X | |
| | | PC Straight Terminal | X | |
| | 903 | Crimp Contact | X | |
| | 904 | Wrappable Removable | X | .093 2.36 |