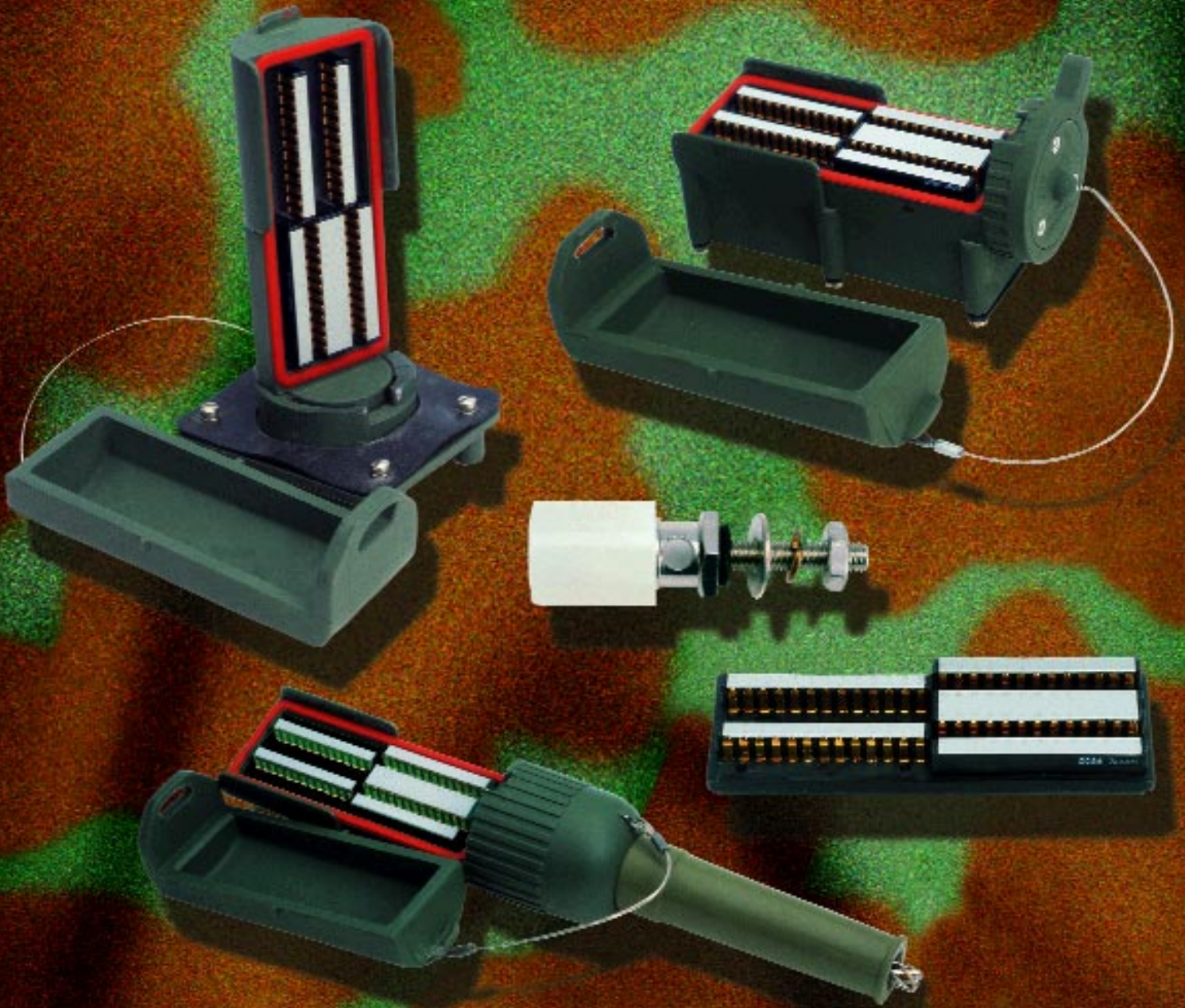


AVIX



**ELCO
Hermaphrocon Connecting
System**

Hermaphrocon™ Connecting System

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)



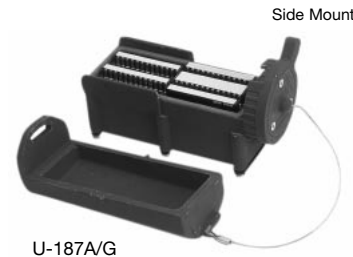
U-185B/G

Receptacle



U-186C/G

Bottom Mount

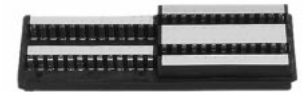


Side Mount

U-187A/G

Contact Assembly

MX-3227/G



Binding Post

SC-C-136011

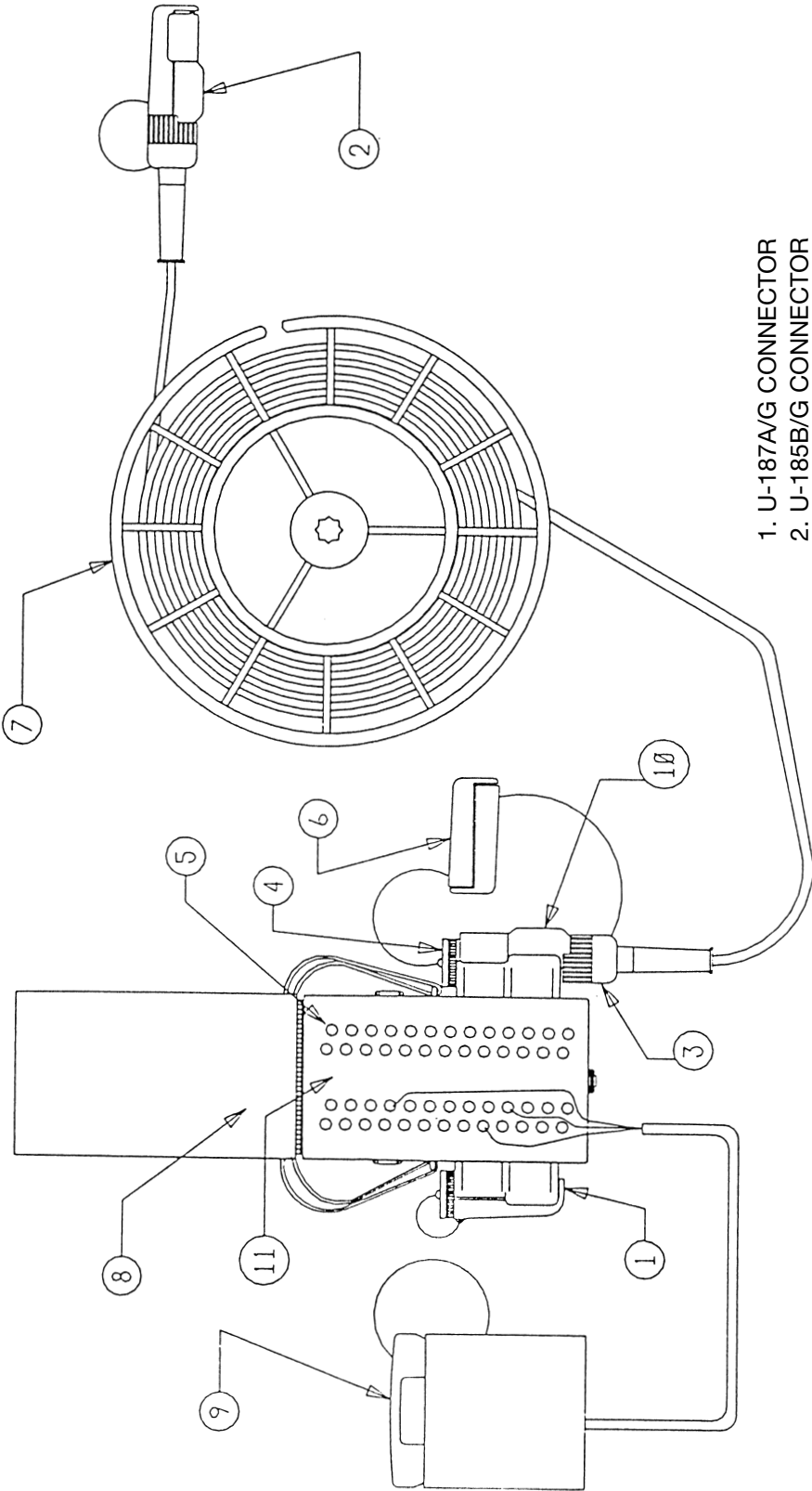


ELCO P/N 08 2264 0130 00 000
MATERIAL: Brass, machined (terminal)
Nylon (housing)

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

MIL-C-55074

Hermaphrocon™ Connecting System

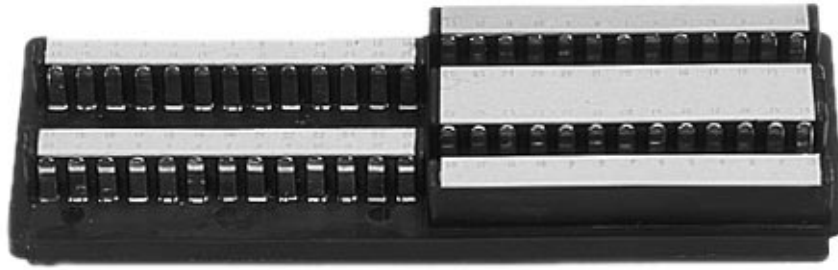


- 1. U-187A/G CONNECTOR
- 2. U-185B/G CONNECTOR
- 3. U/185 LOCKING CAM
- 4. U/187 LOCKING CAM
- 5. BINDING POST TERMINAL
- 6. PROTECTIVE COVERS
- 7. CABLE ASSEMBLY - NOT AVAILABLE
- 8. DISTRIBUTION BOX - NOT AVAILABLE
- 9. TELEPHONE CONNECTION - NOT AVAILABLE
- 10. U/185 - U/187 CONNECTION
- 11. DROP-LINE PANEL - NOT AVAILABLE

MX-3227/G



M55074/4-01 Hermaphrocon™ Connector



ELCO PART NUMBER

08 2260 9010 00 000

104 Position, 52 Circuit MX Contact Assembly

DESCRIPTION

The hermaphrocon connector has redundant circuitry assuring signal continuity. For each wire termination on the back of the connector, there are two contact positions on the face of the connector networked together. Hermaphrocon connectors are all identical and mate at 180 degrees into each other.

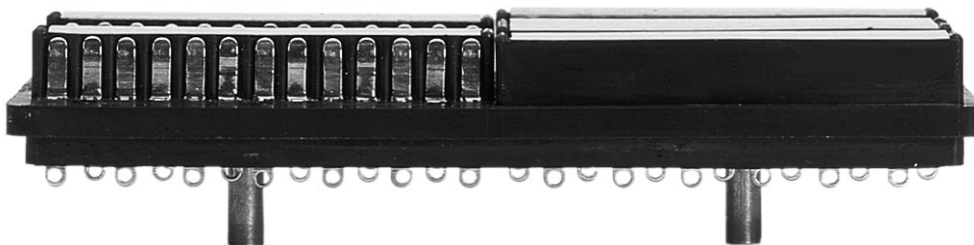
FEATURES

Basic size of the connector:
Length: 4.75 inches
Width: 1.75 inches
Height: 1.15 inches
Weight: .26 lbs.

52 circuits per connector with 104 contact positions. Circuit redundancy assures that a missing or damaged contact in the pair will not cause the connector to fail.

Identical male and female connectors mate 180 degrees into each other.

Cannot be mated improperly.



U-185B/G



M55074/1-01 Hermaphrocon Plug



ELCO PART NUMBER

08 2260 0110 00 000

Hermaphrocon Connector and Housing

DESCRIPTION

The U-185B/G plug is a hermaphrocon connector with a die cast aluminum shell. The U-185B/G plug is attached to the cable assemblies and mate and unmate to the receptacles or other plugs by a mechanical locking cam mechanism.

FEATURES

Basic size of connector and housing:
Length: 13.13 inches
Width: 2.44 inches
Height: 2.75 inches
Weight: 2.20 lbs.

Hermaphrocon circuit redundancy assures that a missing or damaged contact in the contact pair will not cause the connector to fail.

Mating and unmating by the mechanical cam mechanism on the connector housing also seals the housings during assembly.

Cannot be mated improperly.

Cast aluminum housings.



U-187A/G

M55074/3-01 Hermaphrocon Receptacle



ELCO PART NUMBER

08 2263 0110 00 000

Hermaphrocon Connector and Housing

DESCRIPTION

The U-187A/G side mount receptacle is a hermaphrocon connector with a die cast aluminum shell. The U-187A/G receptacle is wired and mounted to both distribution boxes and mate to the U-185B/G plug by a mechanical locking cam mechanism.

FEATURES

Basic size of connector and housing:
Length: 6.38 inches
Width: 2.38 inches
Height: 3.13 inches
Weight: 1.84 lbs.

Hermaphrocon circuit redundancy assures that a missing or damaged contact in the contact pair will not cause the connector to fail.

Mating and unmating by the mechanical cam mechanism on the connector housing also seals the housings during assembly.

Cannot be mated improperly.

Cast aluminum housings.



U-186C/G



M55074/2-01 Hermaphrocon Receptacle



ELCO PART NUMBER

08 2276 0110 00 000

Hermaphrocon Connector and Housing

DESCRIPTION

The U-186C/G bottom mount receptacle is a hermaphrocon connector with a die cast aluminum shell. The U-186C/G receptacle is wired and mounted at the bottom of a structure and mate to the U-185B/G plug by a mechanical locking cam mechanism.

FEATURES

Basic size of connector and housing:

Length: 4.00 inches

Width: 3.50 inches

Height: 6.38 inches

Weight: 1.84 lbs.

Hermaphrocon circuit redundancy assures that a missing or damaged contact in the contact pair will not cause the connector to fail.

Mating and unmating by the mechanical cam mechanism on the connector housing also seals the housings during assembly.

Cannot be mated improperly.

Cast aluminum housings.



General Specifications



MX-3227/G, U-185B/G, U-186C/G, U-187A/G

Continuity: 1 ohm maximum impedance.

Dielectric Strength: No adjacent contact shorts when a 1000 volt source is applied.

Insulation Resistance: 1000 megohms minimum when 1000 volt source is applied.

Air Leakage: No air leaks when 15 PSI air is applied to the connector for 1 minute.

Contact Resistance: 7 millivolt drop maximum measured at like wire connection positions with a 3 amp source. Bulk resistance must be subtracted from the circuit resistance.

Immersion: Dielectric strength, insulation resistance following 16 hours of immersion at 3 feet.

Durability: Continuity, dielectric strength, insulation resistance, following 200 cycles of mating and unmating.

Shock Drop: Continuity, dielectric strength, and insulation resistance, air leakage, following 12 drops at 3 feet.

Vibration: Continuity, dielectric strength, and insulation resistance, air leakage, following vibration cycling.

High Humid./High Temp.: 10 megohm minimum insulation resistance following 5 days continuous exposure.

Temperature Cycling: Continuity, dielectric strength, and insulation resistance following extreme temperature cycling.

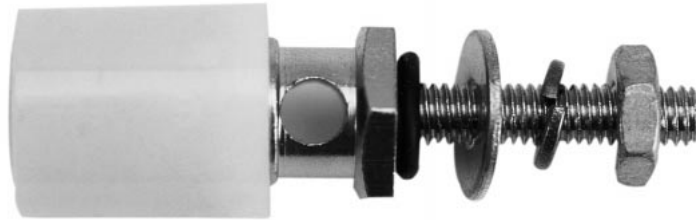
Current Rating: 3 amps at 400 volts.

Operating Range: 150 degrees F to -65 degrees F.

SC-C-136011



Binding Post Assembly



ELCO PART NUMBER

08 2264 0130 00 000

1.625", White Housing, W/ Hardware

VARIANCES ELCO PART NUMBERS

08 2264 0110 00 000

1.454", White Housing, W/ Hardware

08 2264 0120 00 000

1.454", White Housing, W/O Hardware

08 2264 0121 00 000

1.625", White Housing, W/O Hardware

DESCRIPTION

Depress the cap and insert a stripped tinned wire into the hole on top of the cap. When the cap is released the locking cam grasps the wire end ensuring a reliable connection.

FEATURES

Basic size of a binding post:
Diameter: .610 inches
Height: 1.95 inches

Quick wire connect and disconnect.

Wire connection is semi-permanent.

High reliability connection.

Easily mounted to a drop-line panel assembly.

SPECIFICATIONS

Durability: 200 compressions and relaxations minimum.

Holding Power: 10 pounds minimum pull following durability using a tinned 26 AWG wire.

NOTICE: Specifications are subject to change without notice. Contact your nearest AVX Sales Office for the latest specifications. All statements, information and data given herein are believed to be accurate and reliable, but are presented without guarantee, warranty, or responsibility of any kind, expressed or implied. Statements or suggestions concerning possible use of our products are made without representation or warranty that any such use is free of patent infringement and are not recommendations to infringe any patent. The user should not assume that all safety measures are indicated or that other measures may not be required. Specifications are typical and may not apply to all applications.

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