POSITRONIC INDUSTRIES

Standard Density Rectangular Connectors

For Direct Current, Low Frequency Analog and Digital High Speed Data Applications

Products described within this catalog may be protected by one or more of the following U.S. patents:

5,255,580
5,329,697

Maximum Torque Values for 4-40 UNC Threads

	TORQUE		
MATERIAL	**Nm**	**in-lb**	**in-oz**
Phos. Bronze	0.90	8.0	128
Brass	0.68	6.0	96
Aluminum	0.45	4.0	64
Nylon	0.11	1.0	16

These torque values are applicable for threads only and do not apply to hardware assemblies. These torque values are approximate and should not be accepted as accurate limits. Indeterminant factors in specific applications preclude the publication of accurate torque values for universal use.

Unless otherwise specified, dimensional tolerances are:

1) **±0.001 inches (0.03 mm) for male contact mating diameters.**
2) **±0.003 inches (0.08 mm) for contact termination diameters.**
3) **±0.005 inches (0.13 mm) for all other diameters.**
4) **±0.015 inches (0.38 mm) for all other dimensions.**

CATALOG NUMBER:
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PRINTED DATE:
April, 2001
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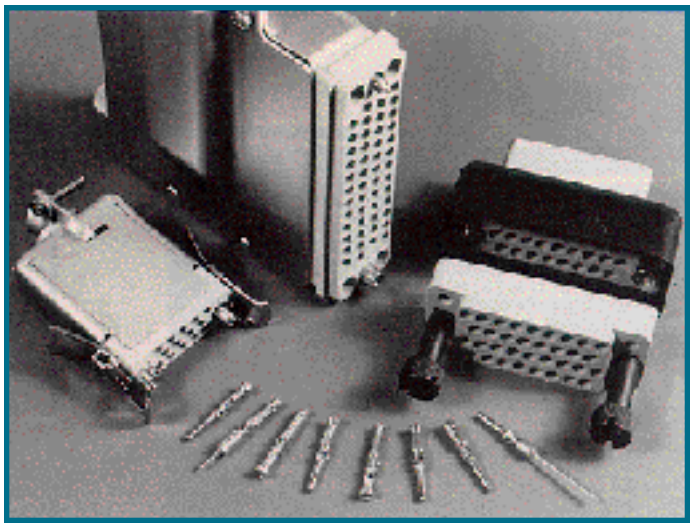
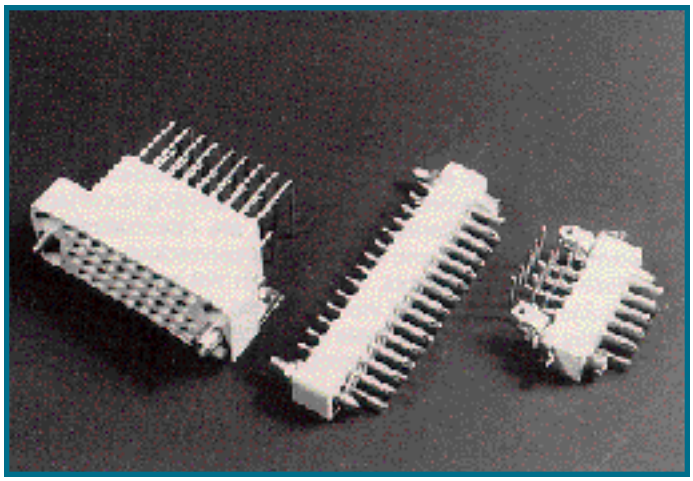
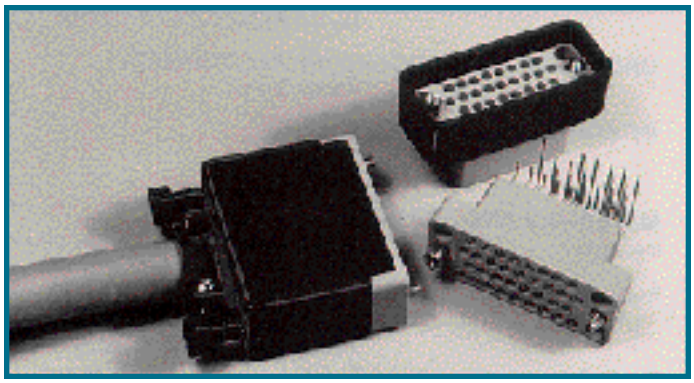
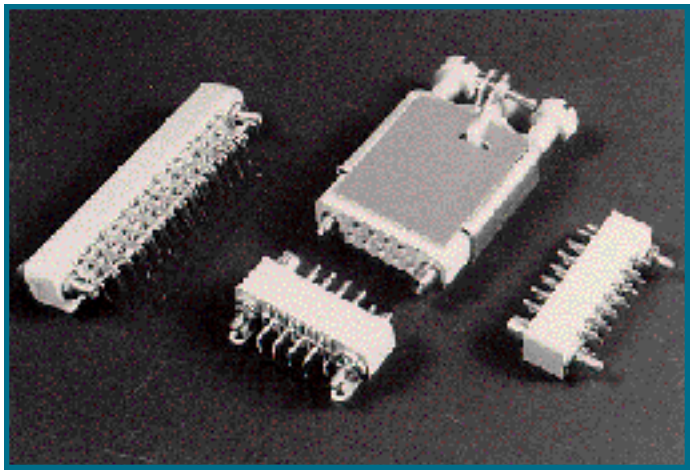
Positronic Industries' FEDERAL SUPPLY CODE FOR MANUFACTURERS is Number 28198.

TABLE OF CONTENTS









GMCT Series

HEAVY-DUTY RECTANGULAR CONNECTORS with REMOVABLE CONTACTS

Size 16 and 20 Contacts
Connectors Qualified to MIL-DTL-28748
Connectors Qualified to MIL-C-39029
IEC Publication 807-7

U.L. Recognized, File #E49351
Telecommunication U.L. File #E140980

GMCT Series connectors are heavy-duty, multi-pole, high reliability connectors qualified to MIL-DTL-28748 specifications. Termination styles are crimp, solder cup, straight solder, wrap post, press-fit, and crimp shielded. According to contact size selected, GMCT Series connectors are intermateable with Positronic GAP and GAPL series connectors.

Twelve contact variants, 9 through 104 poles, are offered. Contacts can have 0.062 inch (1.57mm) diameters, rated to 13 amperes per contact, or have 0.040 inch (1.02mm) diameters, rated to 7.5 amperes per contact. GMCT Series crimp contacts are qualified to MIL-C-39029.

A wide array of mounting, locking, shrouding and polarizing accessories is available for this series. For details, see the Heavy-Duty Rectangular Connector Accessories section.

Due to its many termination styles, its wide range of contact variants, and an array of cable support accessories, GMCT Series connectors are widely utilized in navigational systems, robotics, mainframe and peripheral computers, medical equipment, telecommunications, instrumentation and process control applications.

GMCT SERIES TECHNICAL CHARACTERISTICS

MILITARY SPECIFICATIONS:

Qualified to MIL-DTL-28748/3 and MIL-DTL-28748/4. Contacts qualified to MIL-C-39029/34 and MIL-C-39029/35.

UNDERWRITERS LABORATORY RECOGNIZED:

File No. E49351.

INTERNATIONAL STANDARDS:

IEC 807-7.
U.L. Recognized.

MATERIALS AND FINISHES:

Insulator: Glass filled DAP per ASTM-D-5948 type SDG-F. Grey color is standard, black available.

Removable Contacts: Gold flash over nickel. Military contacts plated 0.000050 inch (1.27 microns) gold over copper. Other finishes available upon request.

Hoods, Cable Adapters: Aluminum with yellow or black anodize.

Shells: Aluminum with yellow or black anodize.

Jackscrew System: Passivated stainless steel.

Polarizing Guides: Copper alloy with nickel plate or passivated stainless steel.

Vibration Locks: Copper alloy with zinc plate and dichromate seal.

MECHANICAL CHARACTERISTICS:

Removable Contacts: Insert contact to rear face of insulator, release from front face of insulator. Both size 16 (13 amps) and size 20 (7.5 amps) contacts available. Female contact has “closed entry” design for highest reliability.

Contact Retention in Insulator: 20 lbs. (89N) after 10 cycles of contact insertion/extraction.

Contact Termination: Crimp all wire sizes from 14 AWG (2.5 mm^2) through 32 AWG (0.03 mm^2). Also, solder cup, press-fit, wrap post and solder printed board terminations. Also, crimp and shielded contacts.

Locking Systems: Friction, vibration locks and jackscrews.

Polarization: Polarized guides, polarized shells and jackscrew system.

Mechanical Operations: 1000 operations per IEC 512-5.

Jackscrews: Standard threads, 6-32 UNC on all sizes, except 104 connector variant, which uses 8-32 UNC. Metric threads, M3X0.5 available.

ELECTRICAL CHARACTERISTICS:

Contact Current Rating (maximum): Size 16: 0.062 inch (1.57 mm) diameter. - 13 amps maximum.
Size 20: 0.040 inch (1.02 mm) diameter. - 7.5 amps maximum.

Initial ContactResistance: Size 16 – 0.003 ohms.
Size 20 – 0.007 ohms.

Flash over Voltage: 2700 V.AC (rms).

Test Voltage: Size 16 - 2000 V.AC (rms).
Size 20 - 1200 V.AC (rms).

Insulation Resistance (minimum): 5 G ohms.

Clearance and Creepage Distance (minimum): 0.080 inch (2.03 mm).

Working Temperature: -65°C to 150°C.

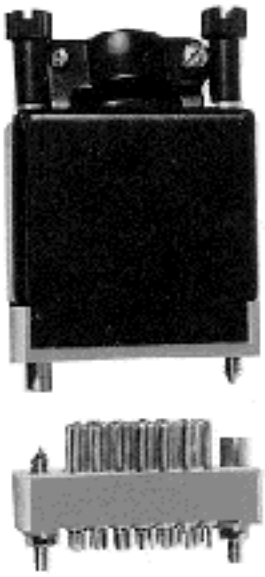
Working Voltage: 500 V.AC (rms).

Coaxial Contacts:
Characteristic Impedance: 50 ohms.
Initial Contact Resistance: 0.012 ohms max.

TYPICAL MATING ASSEMBLIES

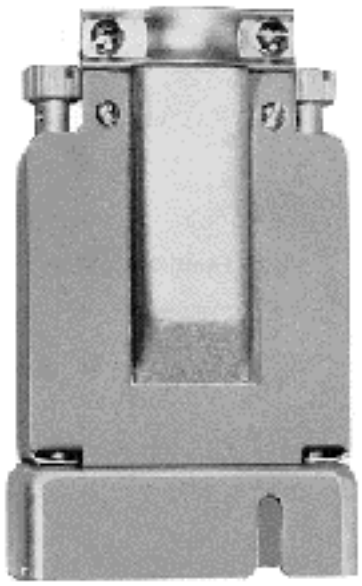
PICTURES ARE 80% OF ACTUAL SIZE

GMCT26F0E100JB



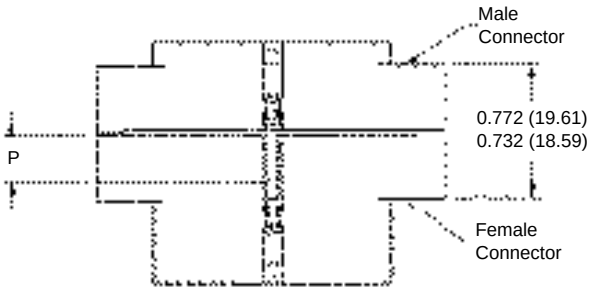
GAP26MDS4T0000

GMCT34F00RAZ0

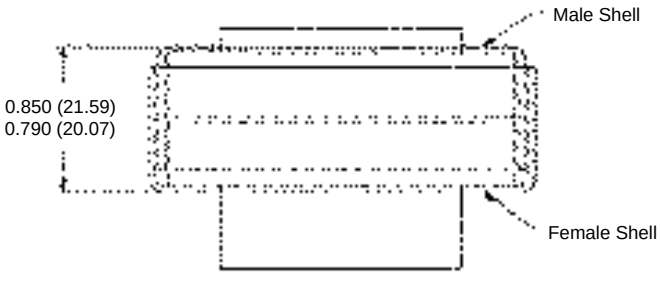


GMCT34M0TWA00

CONNECTOR MATING DIMENSIONS



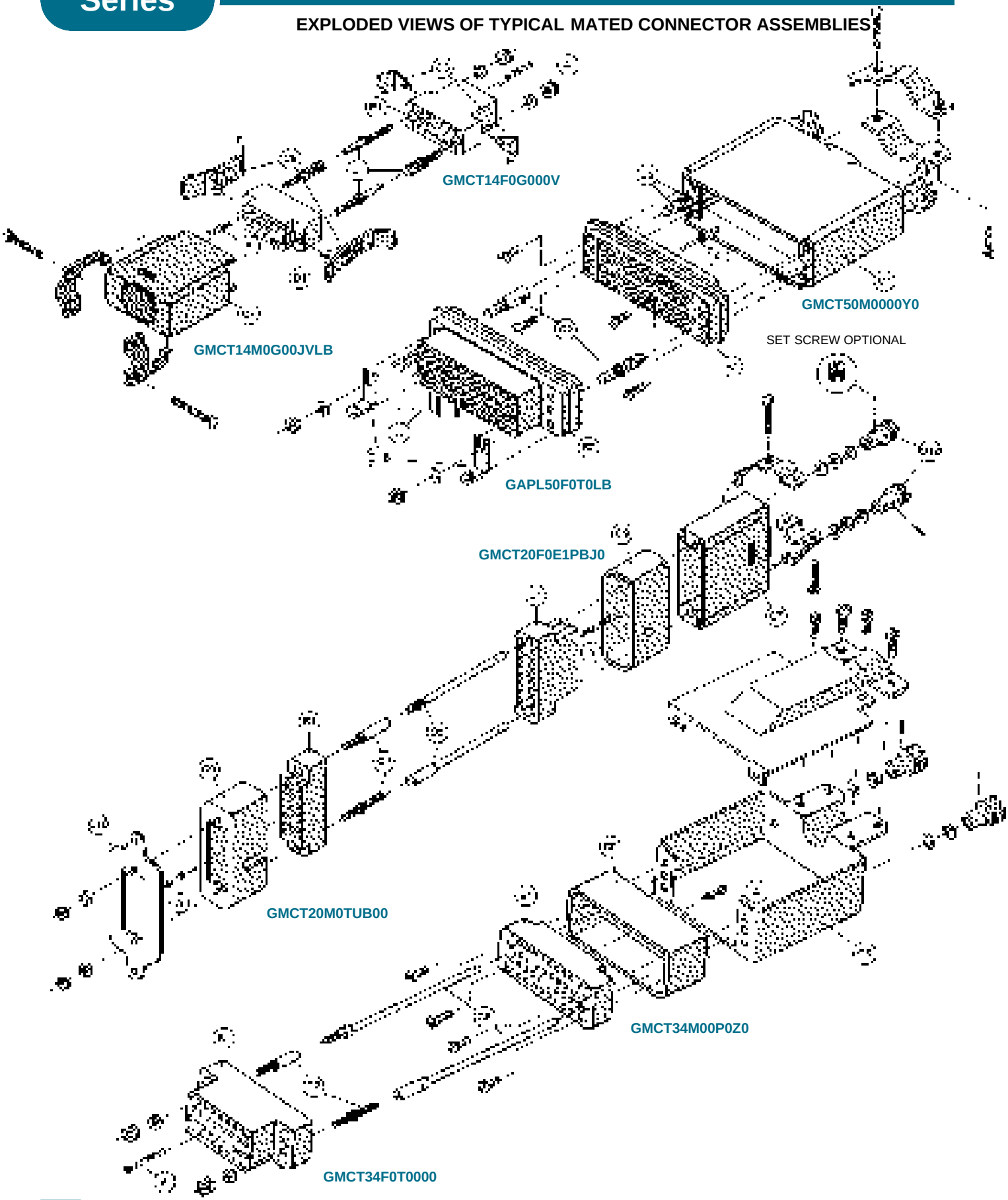
INSULATORS



PROTECTIVE SHELLS

P: 0.276 (7.01) MINIMUM PENETRATION OF MALE CONTACT IN “CLOSED ENTRY” DESIGN FEMALE CONTACT TO ENSURE MINIMUM CONTACTRESISTANCE.

EXPLODED VIEWS OF TYPICAL MATED CONNECTOR ASSEMBLIES



CONNECTOR COMPONENT DESCRIPTION AND TERMINOLOGY

A — Male and female contacts, size 16 and size 20. Power, signal and shielded. Terminations are crimp, solder cup, wrap post, printed board straight solder and press-fit.

B1 — Unloaded connector insulators, male and female. Insulator retention system retains all contact termination types. Insulator may be used as a free or fixed connector.

B2 — Loaded connector insulators, male and female. Insulators may be preloaded per customer requirements with contacts having terminations of 90° or straight solder printed board mount, wrap post and press-fit. Insulator contact positions may be selectively loaded with contacts. Unloaded insulator contact positions remain unloaded and reserved for future use. Connectors are normally fixed panel or printed board connectors.

C1 — Polarizing guides, male and female, ensure correct alignment and coupling of male and female connectors. They may also be used for keying when used in corner positions of connector variants 34, 42, 50, 66, 75 and 104 poles.

C2 — Fixed jackscrews are the stationary threaded members of the jackscrew system. Threaded pilots and sockets of the jackscrew system also provide connector polarization to ensure correct connector coupling.

C3 — Long turnable jackscrews, the rotating threaded members of the jackscrew system, are used with a free connector having a hood for cable support. Used on connector variants 9, 14, 18, 20, 21, 26 and 41 poles. Knobs, C-12, may be affixed to turnable jackscrews using either roll pins or set screws.

C4 — Short turnable jackscrews are used to polarize and mechanically assist with the coupling of the male and female connectors when the free connector is not equipped with a hood.

C5 — Long turnable jackscrews, factory assembled to hood (cable adapter) for polarization and mechanical assistance in the coupling of the free connector to the fixed connector. Used on connector variants with 34, 42, 50, 66, 75 and 104 poles.

C6 — Vibration locking system consists of lock tabs on fixed connector and locking levers on free cable connectors. Normally used on connector variants 7, 9, 14, 18, 20, 21 and 26 poles. Locks connectors in coupled position.

C7 — Hoods (cable adapters) are used on the free connector to provide cable support and contact protection. May also mechanically support either the turnable or fixed members of the jackscrew system.

C8 — Side access hoods (cable adapters). Extra strength, quick cable assembly to connector, fixed or free, to provide cable support and relieve stress on contact termination. Supplied with both turnable and fixed jackscrew systems.

C9 — Shells (shrouds), both male and female, protect male and female contacts from damage. Also used to provide additional polarization combinations.

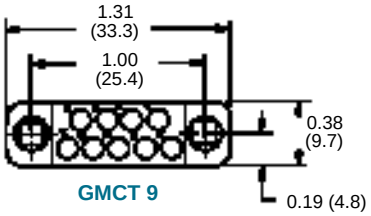
C10 — Mounting plates, with or without float bushings, provide a stronger mechanical method of mounting the fixed connector to a panel. May be used with shells.

C11 — Mounting angle brackets provide a means of mechanically affixing the fixed connector to the printed board.

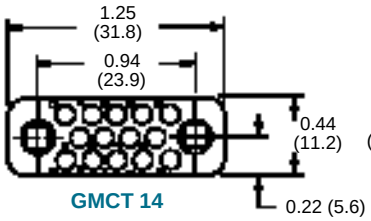
C12 — Knobs of turnable jackscrews may be affixed to the jackscrews by using either the roll pin or set screw method. Specify method desired in step 9 of order numbering system.

GMCT SERIES INSULATOR DIMENSIONS

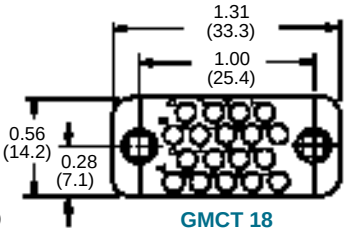
MATING FACE OF FEMALE CONNECTOR OR REAR FACE OF MALE CONNECTOR



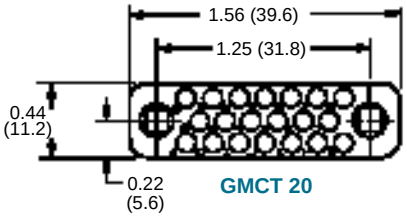
GMCT 9



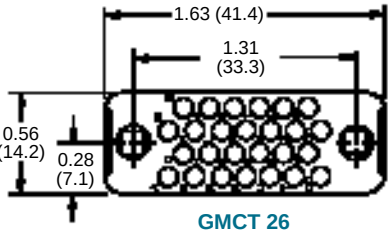
GMCT 14



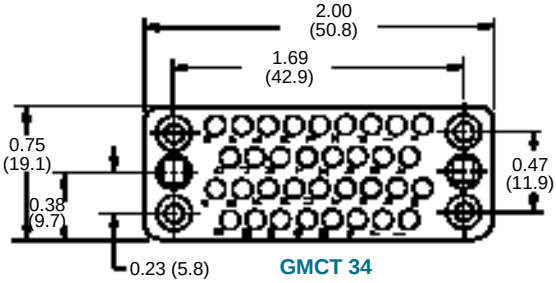
GMCT 18



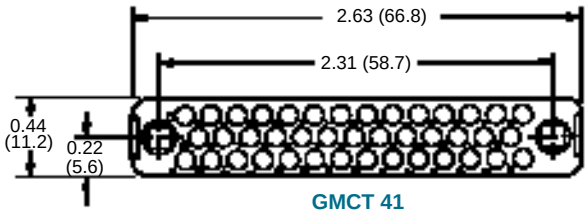
GMCT 20



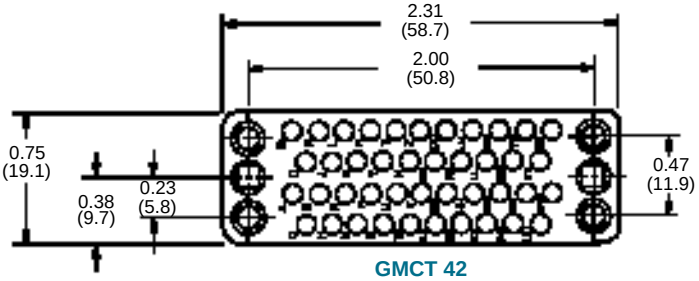
GMCT 26



GMCT 34



GMCT 41



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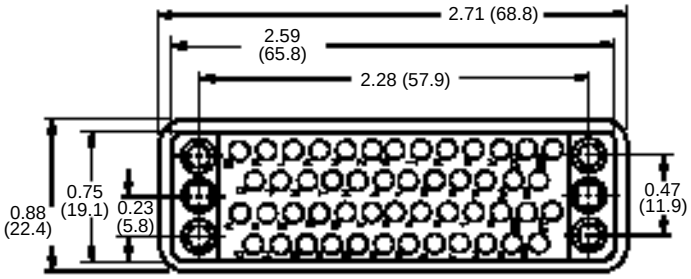
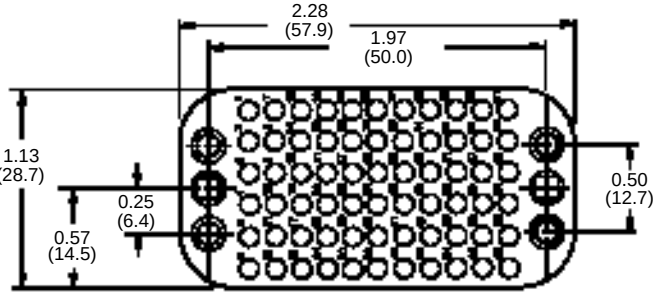


GMCT 50



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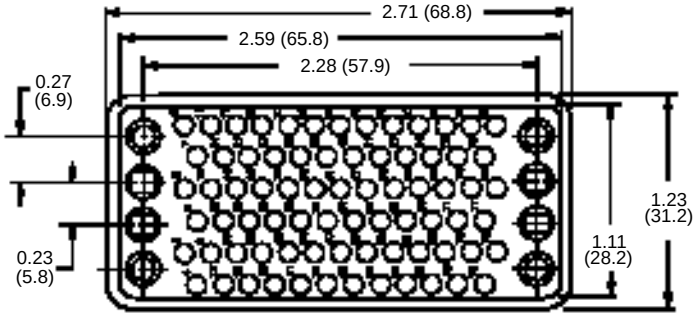

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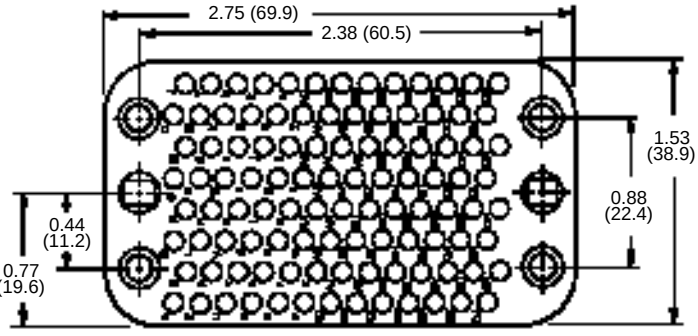


GMCT 104

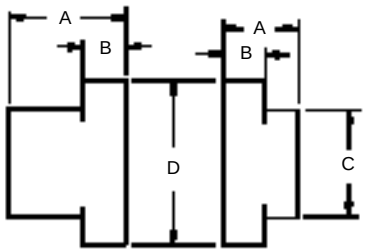
DIMENSIONS ARE IN INCHES (MILLIMETERS).
ALLDIMENSIONS ARE SUBJECT TO CHANGE.

MATERIAL: GLASS FILLED DIALLYLPHTHALATE PER ASTM-D-5948 TYPE SDG-F

SEE GMCT SERIES PRINTED BOARD HOLE PATTERN PAGE
FOR CONNECTOR VARIANT CONTACT HOLE POSITIONS

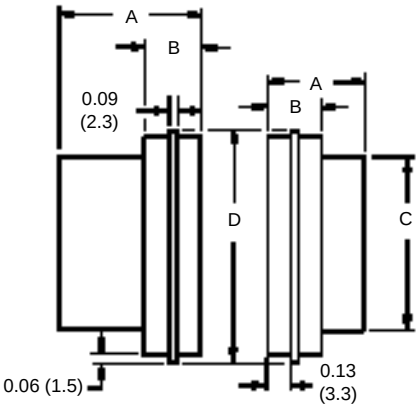
GMCT SERIES INSULATOR DIMENSIONS

FIGURE 1



FEMALE (F) MALE (M)

FIGURE 2



FEMALE (F) MALE (M)

CATALOG NUMBER	FIGURE	A	B	C	D
GMCT9F	1	0.86 (21.8)	0.37 (9.4)	0.81 (20.6)	1.31 (33.3)
GMCT9M	1	0.51 (13.0)	0.37 (9.4)	0.81 (20.6)	1.31 (33.3)
GMCT14F	1	0.86 (21.8)	0.37 (9.4)	0.78 (19.8)	1.25 (31.8)
GMCT14M	1	0.51 (13.0)	0.37 (9.4)	0.78 (19.8)	1.25 (31.8)
GMCT18F	1	0.86 (21.8)	0.37 (9.4)	0.77 (19.6)	1.31 (33.3)
GMCT18M	1	0.51 (13.0)	0.37 (9.4)	0.77 (19.6)	1.31 (33.3)
GMCT20F	1	0.86 (21.8)	0.37 (9.4)	1.07 (27.2)	1.56 (39.6)
GMCT20M	1	0.51 (13.0)	0.37 (9.4)	1.07 (27.2)	1.56 (39.6)
GMCT26F	1	0.87 (22.1)	0.37 (9.4)	1.07 (27.2)	1.63 (41.4)
GMCT26M	1	0.51 (13.0)	0.37 (9.4)	1.07 (27.2)	1.63 (41.4)
GMCT34F	1	0.86 (21.8)	0.37 (9.4)	1.38 (35.1)	2.00 (50.8)
GMCT34M	1	0.51 (13.0)	0.37 (9.4)	1.38 (35.1)	2.00 (50.8)
GMCT41F	1	0.86 (21.8)	0.37 (9.4)	2.13 (54.1)	2.63 (66.8)
GMCT41M	1	0.51 (13.0)	0.37 (9.4)	2.13 (54.1)	2.63 (66.8)
GMCT42F	1	0.87 (22.1)	0.37 (9.4)	1.67 (42.4)	2.31 (58.7)
GMCT42M	1	0.52 (13.2)	0.37 (9.4)	1.67 (42.4)	2.31 (58.7)
GMCT50F	2	0.86 (21.8)	0.37 (9.4)	1.97 (50.0)	2.72 (69.1)
GMCT50M	2	0.51 (13.0)	0.37 (9.4)	1.97 (50.0)	2.72 (69.1)
GMCT66F	1	0.88 (22.4)	0.37 (9.4)	1.67 (42.4)	2.28 (57.9)
GMCT66M	1	0.52 (13.2)	0.37 (9.4)	1.67 (42.4)	2.28 (57.9)
GMCT75F	2	0.88 (22.4)	0.37 (9.4)	1.97 (50.0)	2.72 (69.1)
GMCT75M	2	0.52 (13.2)	0.37 (9.4)	1.97 (50.0)	2.72 (69.1)
GMCT104F	1	0.86 (21.8)	0.37 (9.4)	2.05 (52.1)	2.75 (69.9)
GMCT104M	1	0.51 (13.0)	0.37 (9.4)	2.05 (52.1)	2.75 (69.9)

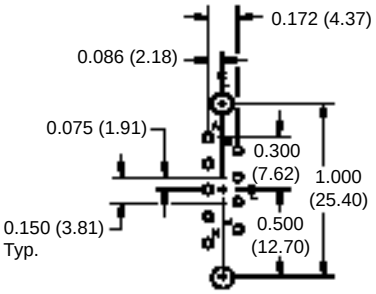
DIMENSIONS ARE IN INCHES (MILLIMETERS). ALLDIMENSIONS ARE SUBJECT TO CHANGE.

MATERIAL: GLASS FILLED DIALLYLPHTHALATE PER ASTM-D-5948 TYPE SDG-F

GMCT SERIES CONTACT HOLE POSITION DIMENSIONS AND PRINTED BOARD HOLE PATTERN

FOR STRAIGHT SOLDER CONTACTS AND COMPLIANT TERMINATION PRESS-FIT CONTACTS

MATING FACE OF FEMALE CONNECTOR OR REAR FACE OF MALE CONNECTOR



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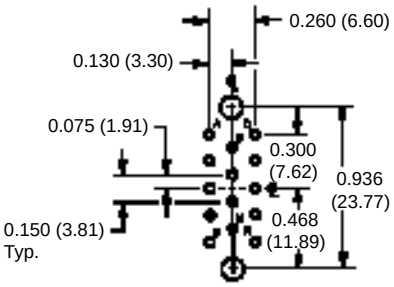

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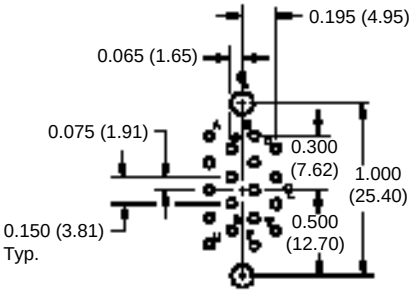

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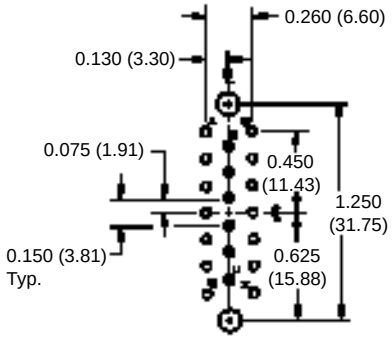

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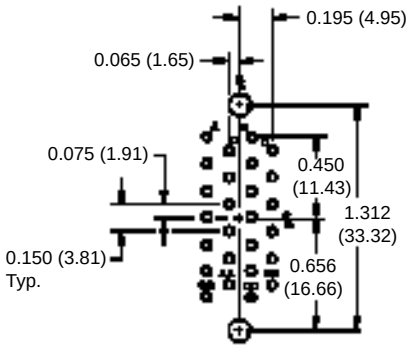

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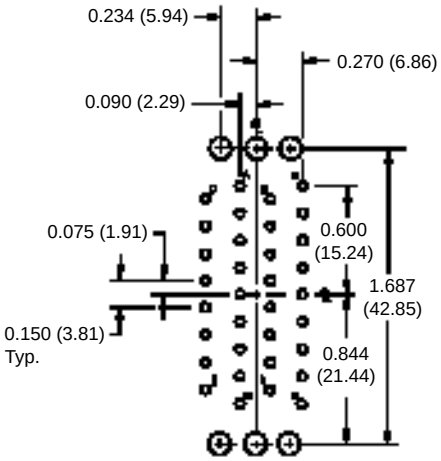


SIZE 34

SUGGEST 0.120 (3.05) Ø HOLES IN PRINTED BOARD FOR CONNECTOR MOUNTING HOLES

SUGGEST 0.040 (1.02) Ø HOLES IN PRINTED BOARD FOR GMCT SERIES STRAIGHT SOLDER CONTACTS

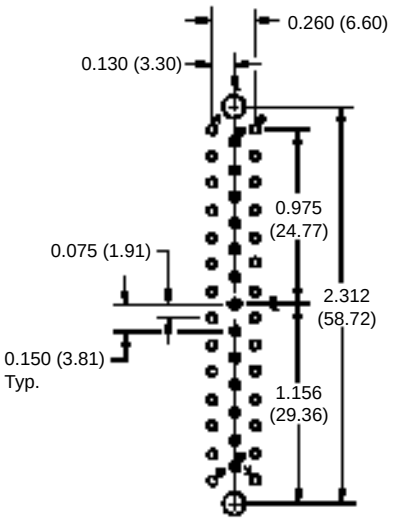
SUGGEST 0.069 (1.75) ±0.001 (0.03) Ø HOLE PLATED TO 0.063 (1.60) ±0.0035 (0.069) Ø HOLE FOR COMPLIANT TERMINATION PRESS-FIT CONTACTS

HOLE IDENTIFICATION FOR REFERENCE ONLY

DIMENSIONS ARE IN INCHES (MILLIMETERS). ALLDIMENSIONS ARE SUBJECT TO CHANGE.

GMCT SERIES CONTACT HOLE POSITION DIMENSIONS AND PRINTED BOARD HOLE PATTERN

FOR STRAIGHT SOLDER CONTACTS AND COMPLIANT TERMINATION PRESS-FIT CONTACTS MATING FACE OF FEMALE CONNECTOR OR REAR FACE OF MALE CONNECTOR



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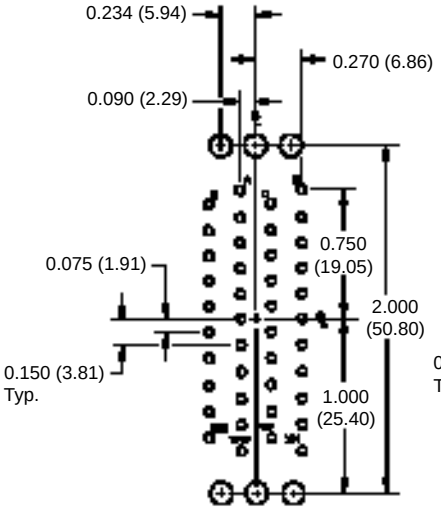

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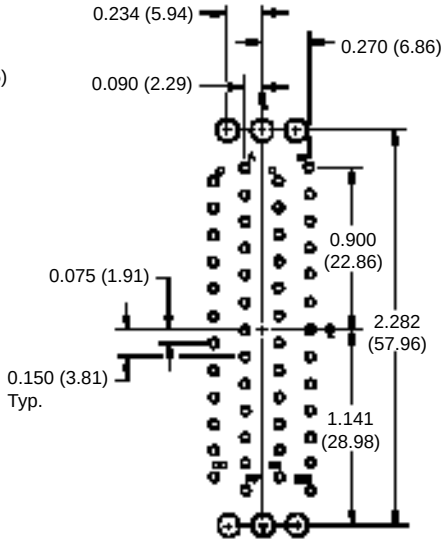
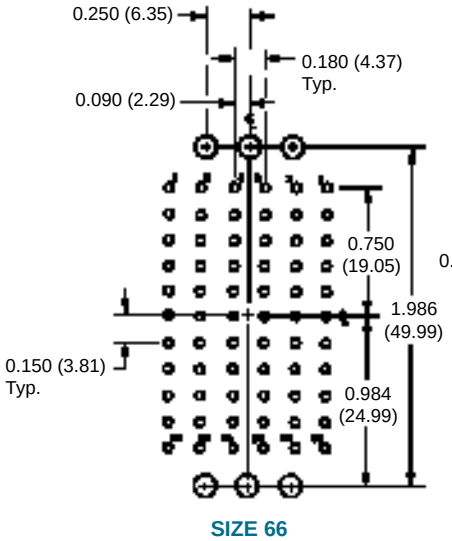
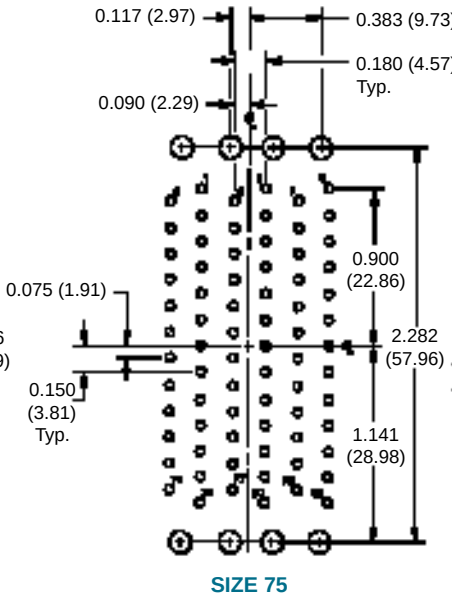


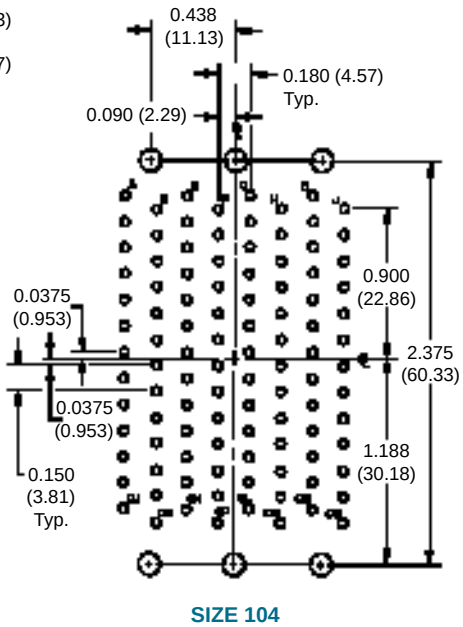
SIZE 50



SIZE 66



SIZE 75



SIZE 104

HOLE IDENTIFICATION FOR REFERENCE ONLY

SUGGEST 0.120 (3.05) Ø HOLES IN PRINTED BOARD FOR CONNECTOR MOUNTING HOLES

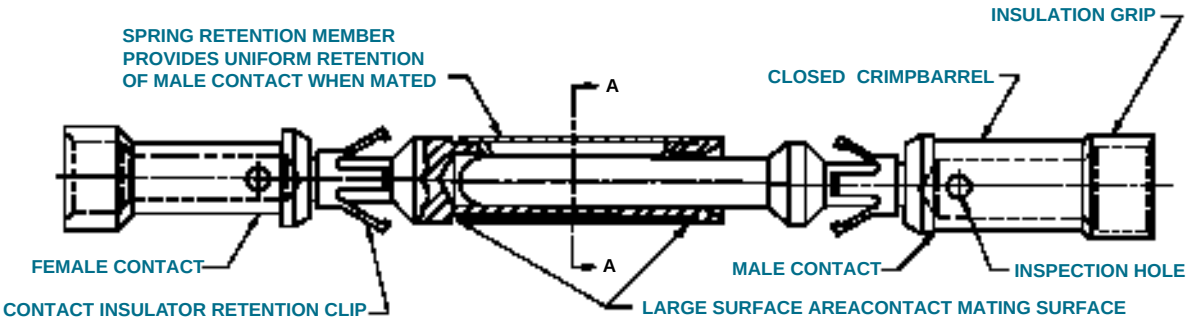
SUGGEST 0.040 (1.02) Ø HOLES IN PRINTED BOARD FOR GMCT SERIES STRAIGHT SOLDER CONTACTS

SUGGEST 0.069 (1.75) ±0.001 (0.03) Ø HOLE PLATED TO 0.063 (1.60) ±0.0035 (0.069) Ø HOLE FOR COMPLIANT TERMINATION PRESS-FIT CONTACTS

DIMENSIONS ARE IN INCHES (MILLIMETERS).
ALLDIMENSIONS ARE SUBJECT TO CHANGE.

GMCT SERIES CONTACTS
"LARGE SURFACE AREA CONTACT MATING SYSTEM"
HIGH RELIABILITY "CLOSED ENTRY" DESIGN

PRECISION MACHINED, SOLID COPPER ALLOY



SECTION A-A ENLARGED

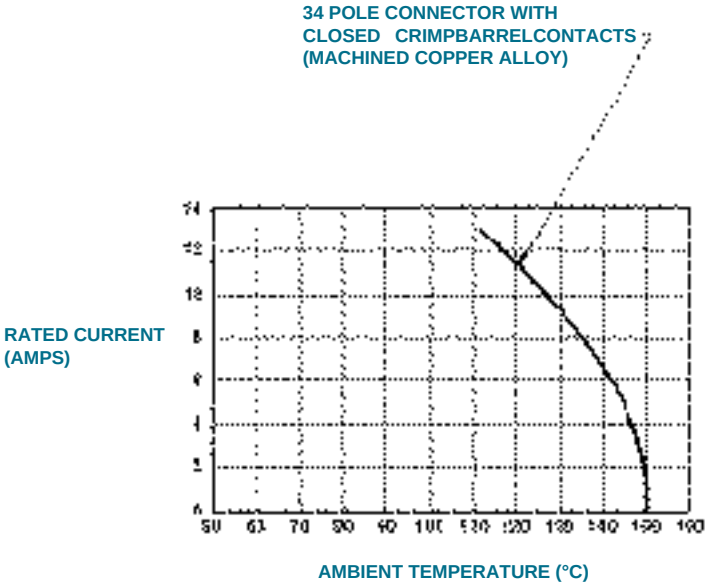
All contacts of the GMCT series connector family utilize the "Large Surface Area (L.S.A.) Contact Mating System." The "L.S.A. Contact Mating System" insures the lowest level of contact resistance during mechanical endurance tests of 1000 coupling cycles or more. Contact insertion/withdrawal forces remain substantially the same during the life of the connector.

The GMCT series uses only "Closed Entry" design female contacts. The "Closed Entry" design prevents probe damage to the female contacts, and will not allow the female contact to accept misaligned or bent male contacts.

All GMCT series contacts are precision machined from solid, copper alloy barstock. They are durable, smooth in construction, and have greater amperage capacities than hollow, sheet metal style contacts. This is graphically illustrated by the amperage-temperature rise curves developed for the 34 pole GMCT insulator using 16 AWG (1.5 mm^2) wire (see diagram pg. 10). The precision machined, removable contact also has a more durable insulator retention system than the hollow, sheet metal style contact. After ten removal cycles from its insulator, the precision machined contact will withstand axial forces in excess of 20 lbs. (89N). In comparison, the hollow, sheet metal style contact is limited to 10 lbs. (44.5N) after ten removal cycles from its insulator retention system.

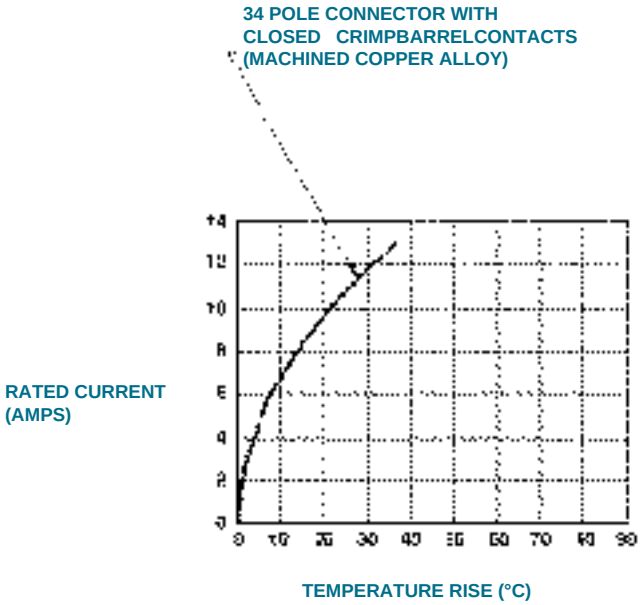
CURRENT-TEMPERATURE DERATING CURVE

(TESTED PER IEC PUBLICATION 512-3, TEST 5b)



CURVE DEVELOPED USING SIZE 16 CONTACT WITH 16 AWG (1.5 mm^2) SIZE WIRE

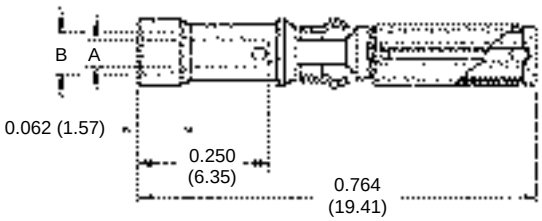
TEMPERATURE RISE CURVE



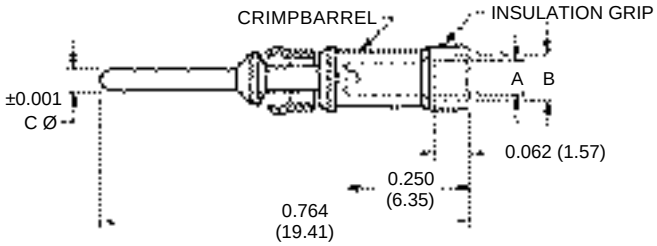
GMCT SERIES CRIMP CONTACTS

CLOSED CRIMP BARREL WITH INSULATION GRIP (SUPPORT)
PRECISION MACHINED, SOLID COPPER ALLOY

FEMALE CONTACT ("CLOSED ENTRY" DESIGN)



MALE CONTACT



POWER AND SIGNAL CONTACTS

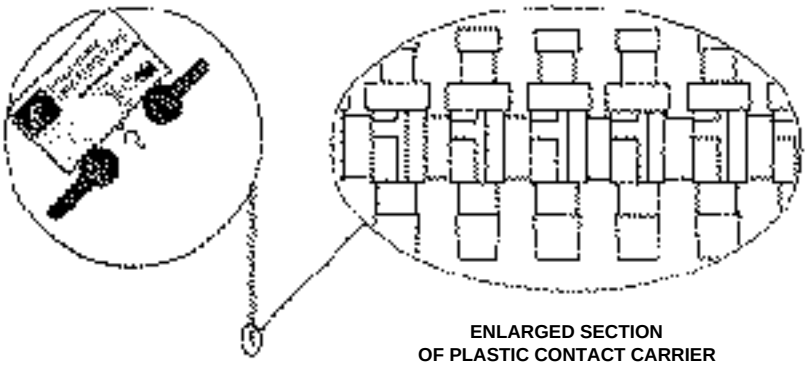
PART NUMBER	WIRE SIZE AWG/(mm²)	A	B	NOMINAL RATING
FC114N2	14 / 16 (2.5/1.5)	0.081 (2.06)	0.105 (2.67)	13 AMP
FC116N2	16 / 18 (1.5/1.0)	0.067 (1.70)	0.093 (2.36)	13 AMP
FC120N2	20 / 22 / 24 (0.5/0.3/0.25)	0.045 (1.14)	0.065 (1.65)	13 AMP
FC124N2	24 / 26 / 28 (0.25/0.12/0.08)	0.027 (0.69)	0.055 (1.40)	13 AMP
FC126N2	26 / 28 / 30 / 32 (0.12-0.03)	0.025 (0.64)	0.046 (1.17)	13 AMP
FC216N2	16 / 18 (1.5/0.8)	0.067 (1.70)	0.093 (2.36)	7.5 AMP
FC220N2	20 / 22 / 24 (0.5/0.3/0.25)	0.045 (1.14)	0.065 (1.65)	7.5 AMP
FC224N2	24 / 26 / 28 (0.25/0.12/0.08)	0.027 (0.69)	0.055 (1.40)	7.5 AMP

PART NUMBER	WIRE SIZE AWG/(mm²)	A	B	C	NOMINAL RATING
MC114N	14 / 16 (2.5/1.5)	0.081 (2.06)	0.105 (2.67)	0.062 (1.57)	13 AMP
MC116N	16 / 18 (1.5/1.0)	0.067 (1.70)	0.093 (2.36)	0.062 (1.57)	13 AMP
MC120N	20 / 22 / 24 (0.5/0.3/0.25)	0.045 (1.14)	0.065 (1.65)	0.062 (1.57)	13 AMP
MC124N	24 / 26 / 28 (0.25/0.12/0.08)	0.027 (0.69)	0.055 (1.40)	0.062 (1.57)	13 AMP
MC126N	26 / 28 / 30 / 32 (0.12-0.03)	0.025 (0.64)	0.046 (1.17)	0.062 (1.57)	13 AMP
MC216N	16 / 18 (1.5/0.8)	0.067 (1.70)	0.093 (2.36)	0.040 (1.02)	7.5 AMP
MC220N	20 / 22 / 24 (0.5/0.3/0.25)	0.045 (1.14)	0.065 (1.65)	0.040 (1.02)	7.5 AMP
MC224N	24 / 26 / 28 (0.25/0.12/0.08)	0.027 (0.69)	0.055 (1.40)	0.040 (1.02)	7.5 AMP

MATERIAL: COPPER ALLOY
FINISH: GOLD FLASH OVER NICKEL

DIMENSIONS ARE IN INCHES (MILLIMETERS).
ALLDIMENSIONS ARE SUBJECT TO CHANGE.

REELS FOR FEEDING AUTO-CRIMPING TOOLS



ENLARGED SECTION OF PLASTIC CONTACT CARRIER

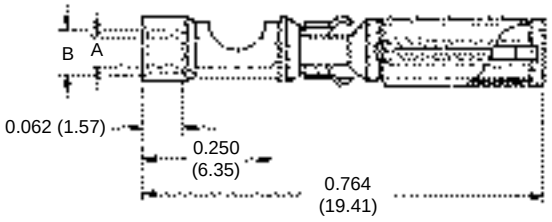
REELED CONTACTS

Contacts may be supplied on plastic carriers, packaged on reels of 2,000 contacts for use with bench mounted automatic strip and crimp tool part number 9550-0 for contact sizes 14 AWG (2.5 mm^2) through 24 AWG (0.25 mm^2) or part number 9550-1 for contact size 26 AWG (0.12 mm^2). The same type carrier is used for both male and female contacts of the same size and type, and requires no change in crimping tool.

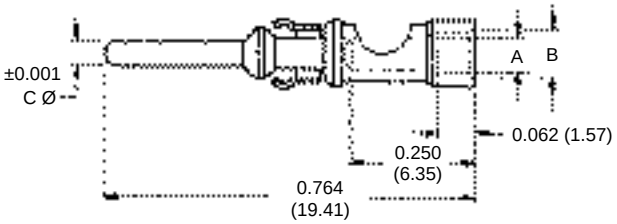
All male and female crimp style contacts can be ordered in reels by adding the letter "R" after the contact part number, such as MC116NR for a male contact and FC120N2R for a female contact. Wire sizes 14 AWG (2.5 mm^2) to 28 AWG (0.08 mm^2) can be accommodated by the crimping.

GMCT SERIES SOLDER CUP CONTACTS

FEMALE CONTACT ("CLOSED ENTRY" DESIGN)



MALE CONTACT



PART NUMBER	WIRE SIZE MAX.	A	B	NOMINAL RATING
FS114N2	14 AWG (2.5 mm²)	0.081 (2.06)	0.105 (2.67)	13 AMP
FS116N2	16 AWG (1.5 mm²)	0.067 (1.70)	0.093 (2.36)	13 AMP
FS120N2	20 AWG (0.5 mm²)	0.045 (1.14)	0.065 (1.65)	13 AMP
FS124N2	24 AWG (0.25 mm²)	0.027 (0.69)	0.055 (1.40)	13 AMP
FS216N2	16 AWG (1.5 mm²)	0.067 (1.70)	0.093 (2.36)	7.5 AMP
FS220N2	20 AWG (0.5 mm²)	0.045 (1.14)	0.065 (1.65)	7.5 AMP
FS224N2	24 AWG (0.25 mm²)	0.027 (0.69)	0.055 (1.40)	7.5 AMP

PART NUMBER	WIRE SIZE MAX.	A	B	C	NOMINAL RATING
MS114N	14 AWG (2.5 mm²)	0.081 (2.06)	0.105 (2.67)	0.062 (1.57)	13 AMP
MS116N	16 AWG (1.5 mm²)	0.067 (1.70)	0.093 (2.36)	0.062 (1.57)	13 AMP
MS120N	20 AWG (0.5 mm²)	0.045 (1.14)	0.065 (1.65)	0.062 (1.57)	13 AMP
MS124N	24 AWG (0.25 mm²)	0.027 (0.69)	0.055 (1.40)	0.062 (1.57)	13 AMP
MS216N	16 AWG (1.5 mm²)	0.067 (1.70)	0.093 (2.36)	0.040 (1.02)	7.5 AMP
MS220N	20 AWG (0.5 mm²)	0.045 (1.14)	0.065 (1.65)	0.040 (1.02)	7.5 AMP
MS224N	24 AWG (0.25 mm²)	0.027 (0.69)	0.055 (1.40)	0.040 (1.02)	7.5 AMP

MATERIAL: COPPER ALLOY
FINISH: GOLD FLASH OVER NICKEL

CONTACTS ARE NOT SUPPLIED WITH CONNECTORS AND MUST BE ORDERED SEPARATELY

MC120N

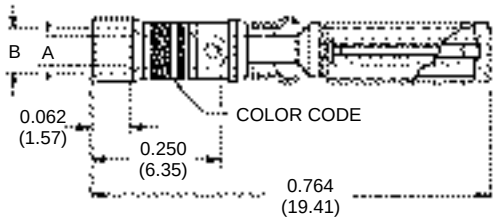
FC120N2

DIMENSIONS ARE IN INCHES (MILLIMETERS).
ALLDIMENSIONS ARE SUBJECT TO CHANGE.

MILITARY CRIMP CONTACTS

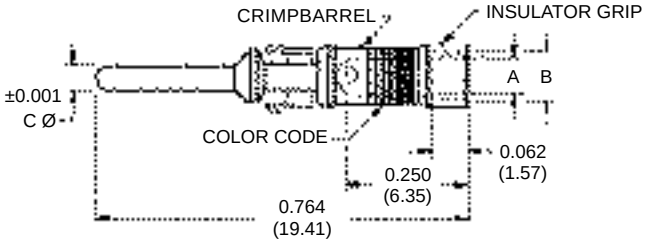
(QUALIFIED TO MIL-C-39029/34 AND MIL-C-39029/35)

FEMALE CONTACT ("CLOSED ENTRY" DESIGN)



PART NUMBER	A	B	COLOR CODE
M39029/35-274	0.045 (1.14)	0.068 (1.73)	RED/ VIOLET/ YELLOW
M39029/35-275	0.045 (1.14)	0.068 (1.73)	RED/ VIOLET/ GREEN
M39029/35-276	0.067 (1.70)	0.093 (2.36)	RED/ VIOLET/ BLUE

MALE CONTACT



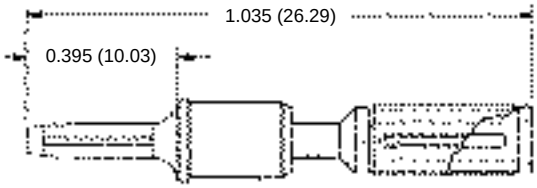
PART NUMBER	A	B	C	COLOR CODE
M39029/34-271	0.045 (1.14)	0.068 (1.73)	0.040 (1.02)	RED/ VIOLET/ BROWN
M39029/34-272	0.045 (1.14)	0.068 (1.73)	0.062 (1.57)	RED/ VIOLET/ RED
M39029/34-273	0.067 (1.70)	0.093 (2.36)	0.062 (1.57)	RED/ VIOLET/ ORANGE

MATERIAL: COPPER ALLOY
FINISH: 0.000050 (1.27 MICRONS) GOLD OVER COPPER

GMCT SERIES COMPLIANT TERMINATION PRESS-FIT CONTACTS

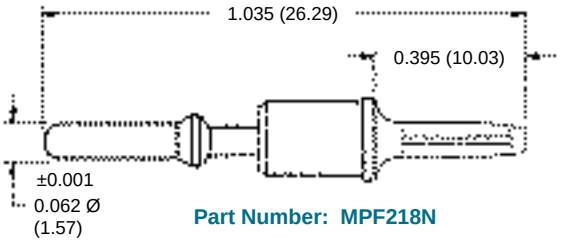
PRECISION MACHINED, COPPER ALLOY

FEMALE CONTACT ("CLOSED ENTRY" DESIGN)



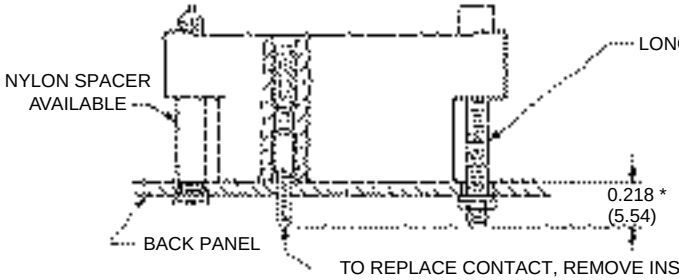
Part Number: FPF218N2

MALE CONTACT

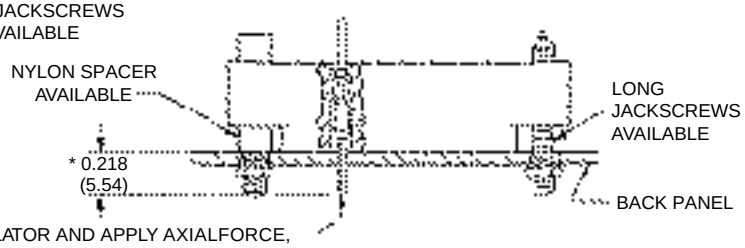


Part Number: MPF218N

FEMALE CONNECTOR



MALE CONNECTOR



TO REPLACE CONTACT, REMOVE INSULATOR AND APPLY AXIALFORCE,
REPLACE WITH NEW CONTACTAND REPOSITION INSULATOR OVER CONTACTS

SUGGEST 0.069 (1.75) ±0.001 (0.03) Ø HOLE PLATED TO 0.063 (1.60) ±0.0035 (0.069) Ø HOLE FOR COMPLIANT CONTACT TERMINATION POSITIONS, PER IEC-352-5. SEE PAGE 7 FOR PRINTED BOARD CONTACT HOLE POSITIONS.

PRESS-FIT CONTACTS ARE NOT SUPPLIED WITH CONNECTORS AND MUST BE ORDERED SEPARATELY.

CONSULT Technical Sales FOR PRESS-FIT INSTALLATION TOOL.

CONSULT Technical Sales FOR PART NUMBERS FOR THE LONG JACKSCREW OR NYLON SPACER.

*** ADDITIONAL CONTACT EXTENSION LENGTHS AVAILABLE.**

CONSULT Technical Sales FOR AVAILABILITY OF SOLID PRESS-FIT CONTACTS.

MATERIAL: COPPER ALLOY

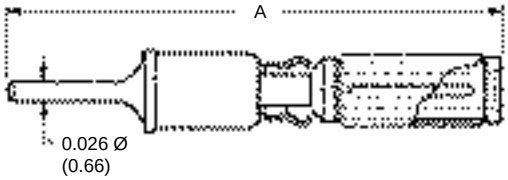
FINISH: GOLD FLASH OVER NICKEL

DIMENSIONS ARE IN INCHES (MILLIMETERS).
ALLDIMENSIONS ARE SUBJECT TO CHANGE.

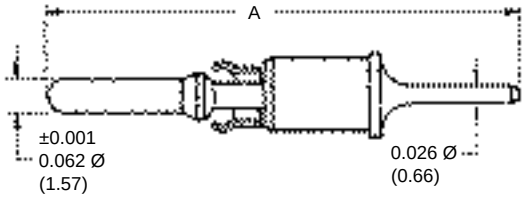
GMCT SERIES STRAIGHT SOLDER CONTACTS

PRECISION MACHINED, SOLID COPPER ALLOY

FEMALE CONTACT ("CLOSED ENTRY" DESIGN)



MALE CONTACT



MATERIAL: COPPER ALLOY

FINISH: GOLD FLASH OVER NICKEL

PART NUMBER	A	B
FDS125N2	0.950 (24.13)	0.125 (3.18)
FDS156N2	0.981 (24.92)	0.156 (3.96)
FDS187N2	1.012 (25.70)	0.187 (4.75)

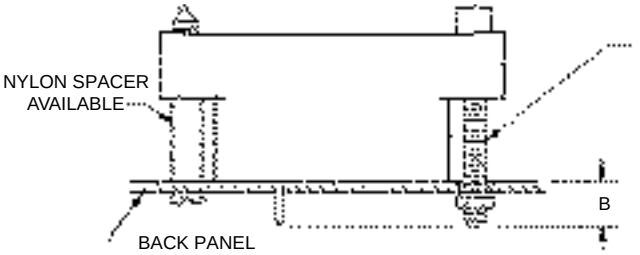
CONSULT Technical Sales FOR CONTACTS OF DIFFERENT LENGTHS AND TAILDIAMETERS

UNLESS SPECIFIED OTHERWISE, STRAIGHT SOLDER CONTACTS ARE NOT SUPPLIED WITH CONNECTORS AND MUST BE ORDERED SEPARATELY

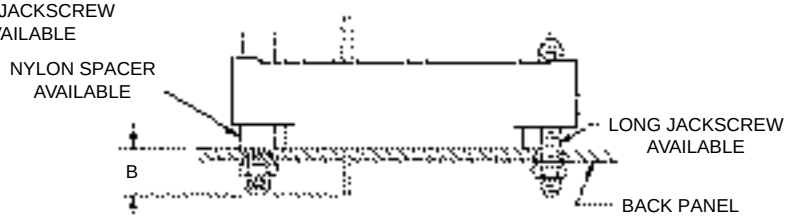
CONTACTS MAY BE INSTALLED IN CONNECTOR TO CUSTOMER ORDER

PART NUMBER	A	B
MDS125N	0.950 (24.13)	0.125 (3.18)
MDS156N	0.981 (24.92)	0.156 (3.96)
MDS187N	1.012 (25.70)	0.187 (4.75)

FEMALE CONNECTOR



MALE CONNECTOR

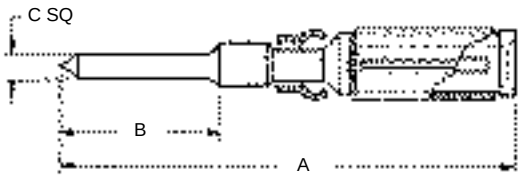


CONSULT Technical Sales FOR PART NUMBERS FOR THE LONG JACKSCREW OR NYLON SPACER

GMCT SERIES WRAP POST CONTACTS

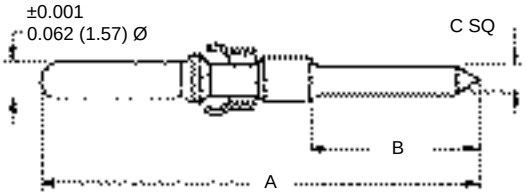
PRECISION MACHINED, SOLID COPPER ALLOY

FEMALE CONTACT ("CLOSED ENTRY" DESIGN)

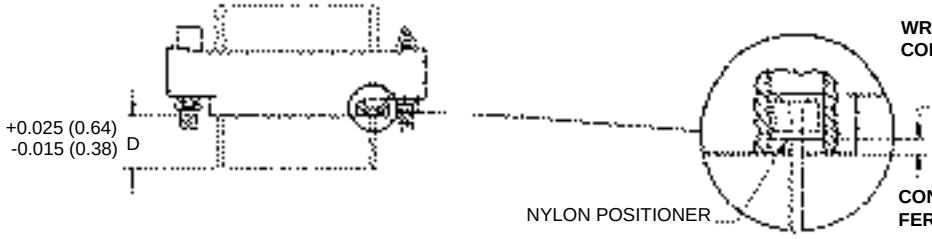


PART NUMBER	A	B	C	D
FW814N2	1.335 (33.91)	0.695 (17.65)	0.025 (0.64)	0.500 (12.70)
FW845N2	1.335 (33.91)	0.695 (17.65)	0.045 (1.14)	0.500 (12.70)

MALE CONTACT



PART NUMBER	A	B	C	D
MW814N	1.335 (33.91)	0.695 (17.65)	0.025 (0.64)	0.500 (12.70)
MW845N	1.335 (33.91)	0.695 (17.65)	0.045 (1.14)	0.500 (12.70)



WRAP POST CONTACTS ARE NOT SUPPLIED WITH CONNECTOR AND MUST BE ORDERED SEPARATELY

ORDER POSITIONER 9167-1 WITH THE 0.025 SQ. CONTACTAND 9167-2 WITH THE 0.045 SQ. CONTACT

CONSULT Technical Sales FOR CONTACTS OF DIFFERENT TAILLENGTHS

CONSULT Technical Sales FOR NYLON POSITIONER INSTALLATION TOOL

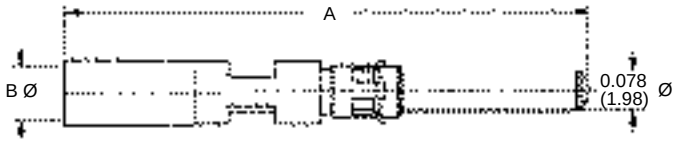
DIMENSIONS ARE IN INCHES (MILLIMETERS). ALLDIMENSIONS ARE SUBJECT TO CHANGE.

MATERIAL: COPPER ALLOY

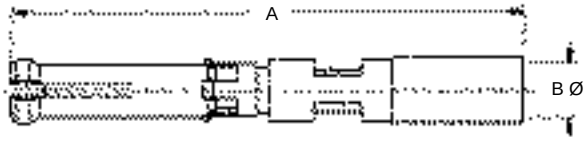
FINISH: GOLD FLASH OVER NICKEL

GMCT SERIES CRIMP SHIELDED CONTACTS

MALE CONTACT



FEMALE CONTACT



FCS126N2

MCS126N

CONTACT DESIGNATION	PART NUMBER	A	B Ø	CABLE SIZE
MALE	MCS126N	0.993 (25.22)	0.045 (1.14)	RG 178 B/U RG 196 A/U
FEMALE	FCS126N2	0.967 (24.56)	0.045 (1.14)	RG 178 B/U RG 196 A/U
MALE	MCS226N	1.048 (26.62)	0.070 (1.78)	RG 179 B/U RG 316 /U
FEMALE	FCS226N2	1.022 (25.96)	0.070 (1.78)	RG 179 B/U RG 316 /U

TECHNICAL CHARACTERISTICS

MATERIALS AND FINISHES:

Insulating Material: (Dielectric) PCTFE.

Inner Contacts: Phosphor bronze, 0.000030 inch (0.8 microns) gold over nickel.

Outer Contacts: Brass and beryllium copper, gold flash over nickel.

MECHANICAL CHARACTERISTICS:*

Contact Retention In Insulator: 20 lbs. (89N).

Removable Contacts: Rear insertion, front removable.

Insertion Force Per Contact: 8 oz. (2.2N) per contact maximum.

Durability: 100 cycles minimum.

Vibration: 20g from 10 HZ to 500 HZ.

Shock: 30g - 11 ms.

ELECTRICAL CHARACTERISTICS:

Micro-Coaxial Contacts	Contact/Wire Combinations			
	126N		226N	
	RG178	RG196	RG179	RG316
Characteristic Impedance (ohms)	50	50	75	50
Frequency Range	0-500 MHz			
VSWR				
0 to 200 MHz	1.25			
200 to 500 MHz	1.70		2.25	
Insertion Loss @ 500 MHz	0.2 dB		1.0 dB	

Dielectric Strength At Sea Level: 600 V rms.

Initial Contact Resistance: 0.012 ohms maximum.

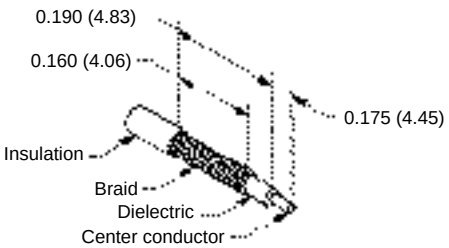
Insulator Resistance: 5 G ohms.

CLIMATIC CHARACTERISTICS:

Temperature Range: -55°C to +125°C.

9506-0 CRIMP TOOL

SHIELDED CABLE STRIP LENGTH



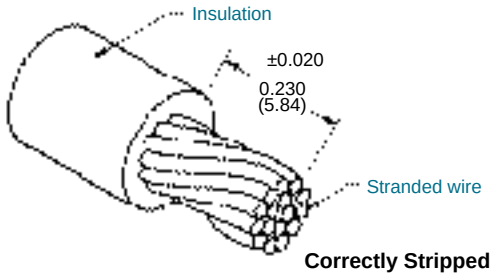
DIMENSIONS ARE IN INCHES (MILLIMETERS). ALLDIMENSIONS ARE SUBJECT TO CHANGE.

CRIMPING INFORMATION FOR GMCT SERIES CRIMP CONTACTS

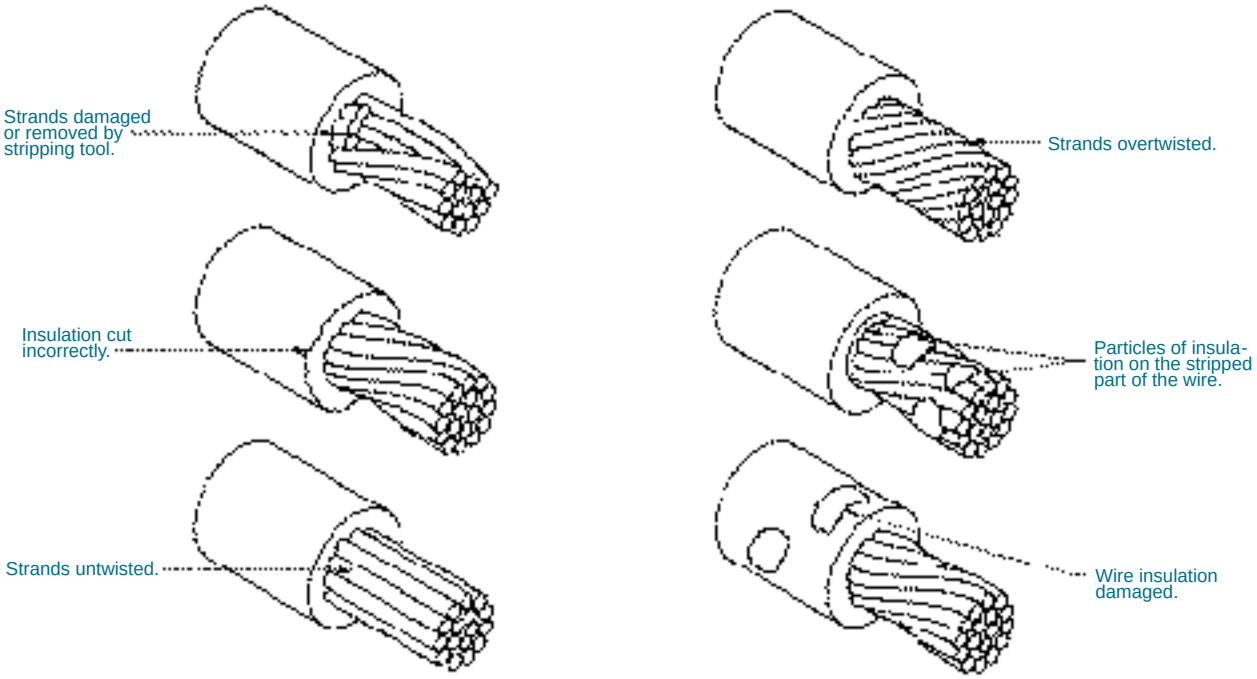
USE INDICATED POSITRONIC TOOLS FOR BEST RESULTS

Step 1: Strip wire to indicated length.

Take Care Not To:
- **Damage or remove strands.**
- **Untwist or overtwist strands.**
- **Leave insulation particles on strands.**
- **Damage insulation.**



Correctly Stripped Wire



Examples of Stripping Faults

Step 2: Crimp wire to contact.

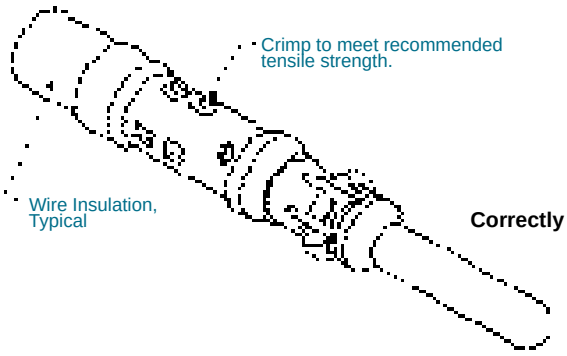
For Hand Crimp Tool:
- **Place contact into crimping tool.**
- **Insert wire into contact.**
- **Center contact by slowly closing the crimping tool until the crimp indenters make contact with the crimp barrel.**
- **Complete the cycle of the crimping tool in one smooth motion.**
- **Remove the crimped contact.**

For Automatic Feed Pneumatic Crimp Tool:
- **Insert the wire into the contact, positioned in the crimp tool by the plastic carrier.**
- **Depress the activating device of the crimping tool to start the crimping cycle.**
- **Remove the crimped contact.**

CRIMPING INFORMATION FOR GMCT SERIES CRIMP CONTACTS

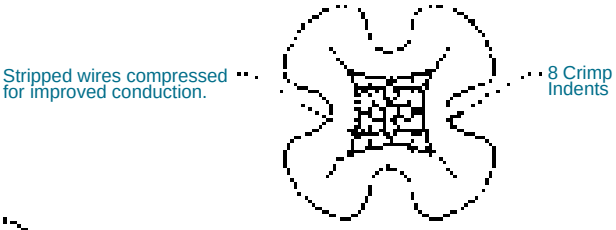
Step 3: Inspect the crimp.

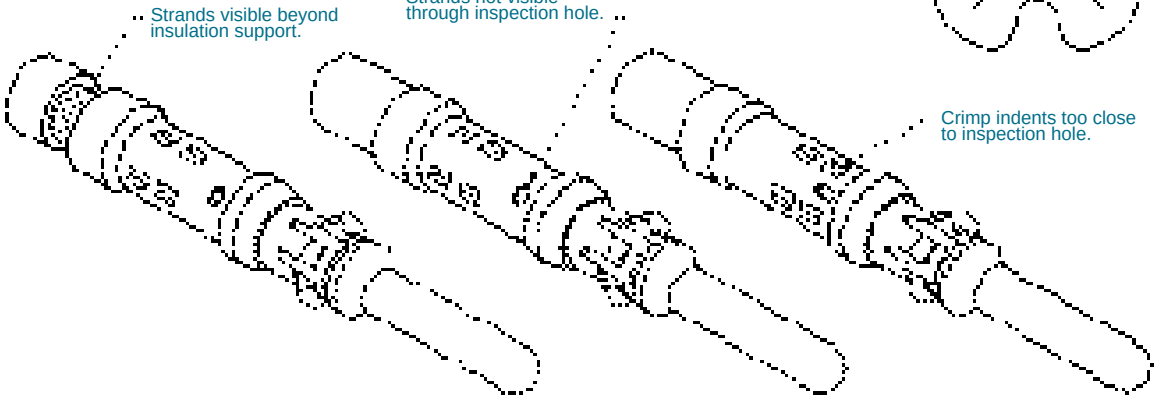
For All Tools:
- **Strands to be visible through the inspection hole.**
- **Strands not to be visible beyond the insulation support.**
- **Crimped contact to meet recommended conductor tensile force shown in chart.**
- **Check for peeled gold and bent contacts.**



Correctly Crimped Contact

Cross Section of Correctly Crimped Contact





Examples of Crimping Faults

Positronic Recommended Conductor TensileStrength

WIRE SIZE AWG/(mm²)	AXIALLOAD POUNDS/(N)
14 (2.5)	70 (311)
16 (1.5)	50 (222)
18 (1.0)	28 (125)
20 (0.5)	20 (89)
22 (0.3)	12 (53)
24 (0.25)	8 (36)
26 (0.12)	5 (22)
28 (0.08)	3 (13)
30 (0.05)	1.5 (6.7)
32 (0.03)	1.0 (4.4)

Positronic Recommended Tools

TOOLTYPE	CONTACT SIZE AWG (mm²)	TOOLNUMBERS
AUTOMATIC FEED PNEUMATIC CRIMP TOOL:	14-24 (2.5-0.25)	9550-0
	26 (0.12)	9550-1
HAND CRIMP TOOL:	14-24 (2.5-0.25)	9501 WITH 9502-1 POSITIONER
	26 (0.12)	9507 WITH 9502-18 POSITIONER
INSERTION TOOL:	N/A	9099
EXTRACTION TOOL:	N/A	9081

Conductor tensile strength values are derived using silver-tin plated copper wires. Values may change depending upon what type of wire is used.

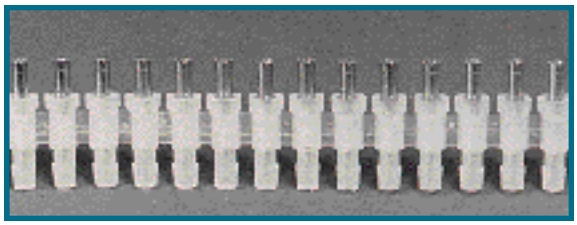
CYCLE-CONTROLLED STEP ADJUSTABLE HAND CRIMP TOOL

****M22520/1-01**
****Part No. 9501**

Features of this positive ratchet action tool include accommodations for wire sizes 14 AWG (2.5 mm^2) through 26 AWG (0.12 mm^2) and eight (8) impression crimp on wires and contacts of various compositions. Required for use with this basic tool is the turret head part number 9502-1.

CONTACT CARRIERS FOR AUTOMATIC FEED TOOL

Molded thermoplastic carriers in a continuous belt feed contacts to the crimp station of the automatic feed tool. They also locate the contacts in respect to the tool's indenters. The carriers are color coded red, blue, yellow, green, orange or natural for contact identification for both MS and proprietary applications.



AUTOMATIC FEED CRIMP TOOL, PNEUMATICALLY ACTUATED

Part No. 9550-0

This fast cycling automatic crimp tool produces an 8 indent crimp on wire sizes 14 AWG (2.5 mm^2) through 32 AWG (0.03 mm^2).

*To order, specify part number 9550-0. Foot control valve is supplied as a standard accessory.

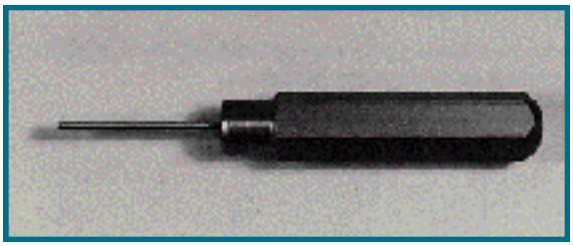
*Specify part number 9550-1 for FC126N2 and MC126N contacts only for automatic feed crimp tool.

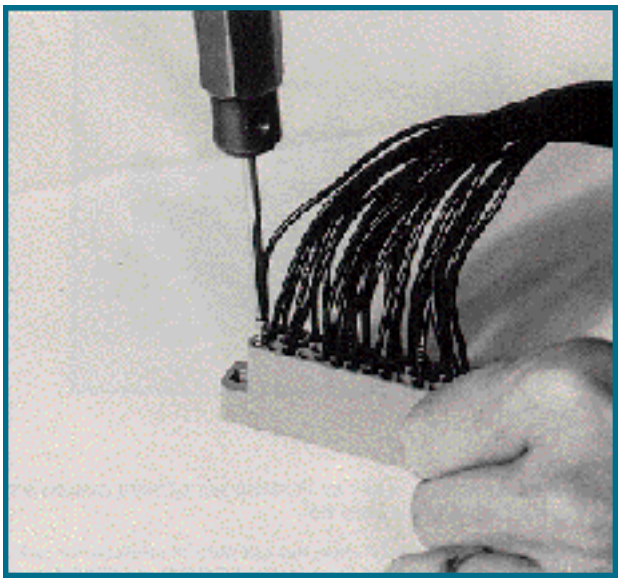
**Specify part number 9507 crimp tool and 9502-18 positioner for cycle controlled step adjustable hand crimp tool for FC126N2 and MC126N contacts only.

CONTACT INSERTION TOOL

Part No. 9099

An easy to use contact insertion tool for 14 AWG (2.5 mm^2) and smaller wires. See photographic demonstration shown below for recommended insertion procedure.

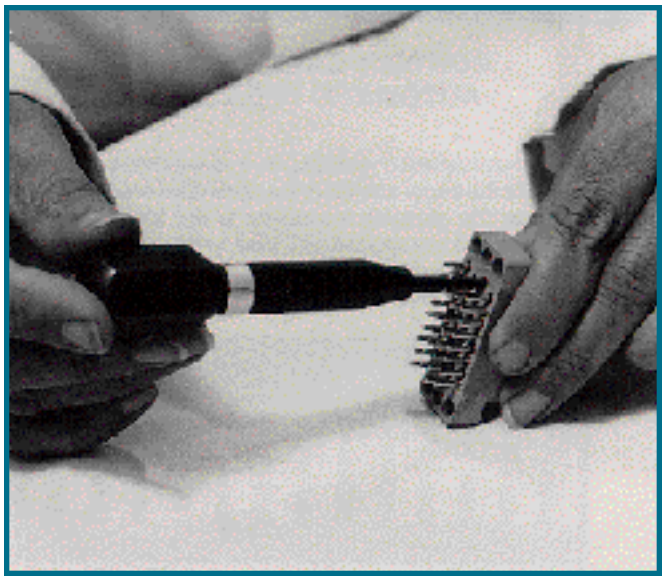




CONTACT EXTRACTION TOOL

Part No. 9081

The spring loaded contact extraction tool simplifies the extraction of removable contacts from the connector insulators. Simply insert the hollow tool tip over the male or female contact from the front face of the insulator, rotate the tool slightly while increasing the pushing force against the butt of the extraction tool. The contact will be released from the insulator retention system and “pop out” of the rear face of the insulator. See photo below for recommended removal procedure.



ORDERING INFORMATION – CODE NUMBERING SYSTEM

Specify Complete Connector By Following Steps 1 Through 9
Insert "0" When Step Is Not Used

STEP	1	2	3	4	5	6	7	8	9		10
	GMCT	34	F	0	0	R	A	Z	0	–	

STEP 1 - Basic Series
GMCT Series.

STEP 2 -
GMCT Series Connector Variants
9, 14, 18, 20, 26, 34, 41, 42, 50, 66, 75, 104

STEP 3 - Connector Gender
M - Male insulator.
F - Female insulator.

STEP 4 - Contact Termination Type
All Female contacts "closed entry" design.
0 - Contacts to be ordered separately, see Contact ordering charts.

***STEP 5 - Polarizing Guides and Jackscrew System**
G - Polarizing grounding guides.
N - Polarizing guides.
NSS - Stainless steel polarizing guides.
T - Fixed jackscrews.
E - Short turnable jackscrews, offered with set screw option.
EL - Long turnable jackscrews, offered with set screw option.
E1 - Turnable jackscrews used on 9, 14, 18, 20, 26 and 41 variant hoods, offered with set screw option.
0 - If no polarizing guides or jackscrews are required. Also, use "0" if ordering hoods equipped with jackscrews, for variants 34, 42, 50, 66, 75 and 104, see STEP 8.

STEP 6 - Shells and Mounting Plates
P - Male shell, not available on 41 variant.
R - Female shell, not available on 41 variant.
H - Mounting plate, not available on 41 variant.
W - Male shell with mounting plate.
U - Female shell with mounting plate.
0 - If no shells or mounting plates are required.

STEP 7 - Polarization Positions of Shells
Select letter to designate position of male pin and female slot for polarization system.
A, B, C, D, E, F, G
0 - If no polarization is required or if no shells are required.

STEP 8 - Cable Adapters (Hoods)
J - Top opening hood (formed), not offered on 66 and 104 variants.
L - Side opening hood (formed), not offered on 66 and 104 variants.
Q - Top opening hood (drawn), offered on 66 and 104 variants.
S - Side opening hood (drawn), offered on 66 and 104 variants.
Y - Top opening hood (formed), equipped with stainless steel jackscrew system, offered on 34, 42, 50 and 75 variants.
I - Side opening hood (formed), equipped with stainless steel jackscrew system, offered on 34, 42, 50 and 75 variants.
Z - Top opening hood (drawn), equipped with stainless steel jackscrew system, offered on 34, 50, 66, 75 and 104 variants.
V - Side opening hood (drawn), equipped with stainless steel jackscrew system, offered on 34, 50, 66, 75 and 104 variants.
0 - If no hoods are required.

STEP 9 - Additional Options
B - For black anodized aluminum parts.
C - Set screw option, offered on the E, EL and E1.
R - For yellow chromate coating on aluminum parts.
V - Lock tab, offered on 9, 14, 18, 20, 26, 34, 41 and 42 variants.
VL - Lock lever, offered on 9, 14, 18, 20, 26, 34, 41 and 42 variants.
FB - Floating bushings for mounting plate.
0 - If no additional options are required.

*** NOTE: FOR DETAILS OF ITEMS LISTED IN STEPS 5 THROUGH 9, SEE HEAVY-DUTY RECTANGULAR CONNECTOR ACCESSORIES SECTION ON FOLLOWING PAGES.**

REMOVABLE CONTACT ORDERING ASSISTANCE CHART

GMCT SERIES CRIMP AND SOLDER CUP CONTACT TERMINATIONS

TERMINATION TYPE	CONTACT FUNCTION	CONTACT SIZE	WIRE SIZE	MALE PART NUMBER	FEMALE PART NUMBER
CRIMP	POWER	16	14 AWG (2.5 mm²) - 16 AWG (1.5 mm²)	11 CON	FC114N2
			16 AWG (1.5 mm²) - 18 AWG (1.0 mm²)	MC116N	FC116N2
		20	16 AWG (1.5 mm²) - 18 AWG (1.0 mm²)	MC216N	FC216N2
	SIGNAL	16	20 AWG (0.5 mm²) - 24 AWG (0.25 mm²)	MC120N	FC120N2
			24 AWG (0.25 mm²) - 28 AWG (0.08 mm²)	MC124N	FC124N2
			26 AWG (0.12 mm²) - 32 AWG (0.03 mm²)	MC126N	FC126N2
		20	20 AWG (0.5 mm²) - 24 AWG (0.25 mm²)	MC220N	FC220N2
			24 AWG (0.25 mm²) - 28 AWG (0.08 mm²)	MC224N	FC224N2
	MILITARY	16	16 AWG (1.5 mm²) - 20 AWG (0.5 mm²)	M39029/34-273	M39029/35-276
			20 AWG (0.5 mm²) - 24 AWG (0.25 mm²)	M39029/34-272	M39029/35-275
		20	20 AWG (0.5 mm²) - 24 AWG (0.25 mm²)	M39029/34-271	M39029/35-274
	COAX	--	RG 178 B/U, RG 196 A/U	MCS126N	FCS126N2
			RG 179 A/U, RG 316 /U	MCS226N	FCS226N2
SOLDER CUP	POWER	16	14 AWG (2.5 mm²) max.	MS114N	FS114N2
			16 AWG (1.5 mm²) max.	MS116N	FS116N2
		20	16 AWG (1.5 mm²) max.	MS216N	FS216N2
	SIGNAL	16	20 AWG (0.5 mm²) max.	MS120N	FS120N2
			24 AWG (0.25 mm²) max.	MS124N	FS124N2
		20	20 AWG (0.5 mm²) max.	MS220N	FS220N2
			24 AWG (0.25 mm²) max.	MS224N	FS224N2

FOR ORDERING CRIMPCONTACTS ON REELS, ADD R TO PART NUMBER.
EXAMPLES: MC114NR OR FC114N2R.

GMCT SERIES PRINTED BOARD MOUNT CONTACT TERMINATIONS

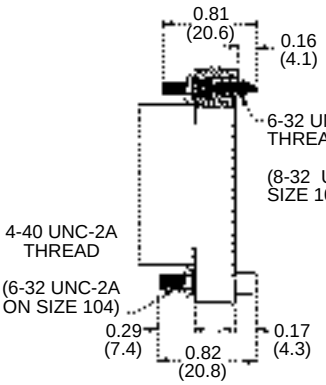
TERMINATION TYPE	CONTACT SIZE	USABLE TERMINATION LENGTH	TERMINATION DIMENSION	MALE PART NUMBER	FEMALE PART NUMBER
STRAIGHT	16	0.125 (3.18)	0.026 Ø (0.66)	MDS125N	FDS125N2
		0.156 (3.96)	0.026 Ø (0.66)	MDS156N	FDS156N2
		0.187 (4.75)	0.026 Ø (0.66)	MDS187N	FDS187N2
WRAP POST	16	0.695 (17.65)	0.025 SQUARE (0.64)	MW814N	FW814N2
		0.695 (17.65)	0.045 SQUARE (1.14)	MW845N	FW845N2
COMPLIANT PRESS FIT	16	0.218 (5.54)		MPF218N	FPF218N2

DIMENSIONS ARE IN INCHES (MILLIMETERS).
ALLDIMENSIONS ARE SUBJECT TO CHANGE.

JACKSCREW SYSTEM DIMENSIONS WHEN MOUNTED ON CONNECTOR

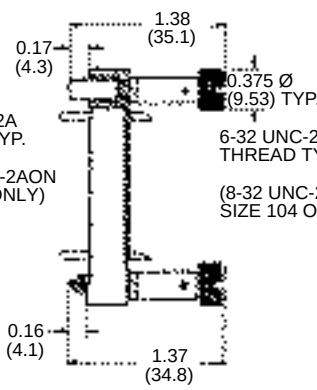
(QUALIFIED TO MIL-DTL-28748)

(T) FIXED JACKSCREWS



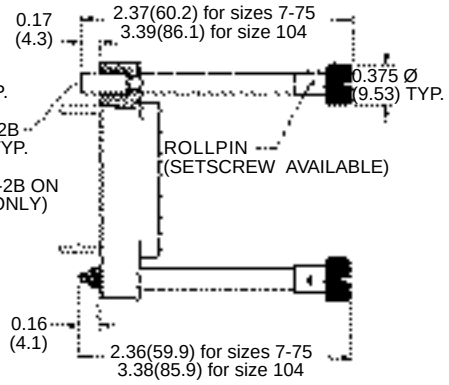
(STAINLESS STEEL)

(E) SHORT TURNABLE JACKSCREWS



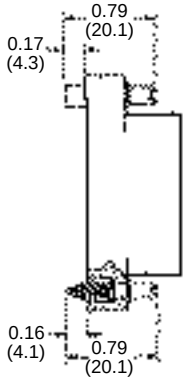
(STAINLESS STEELWITH ALUMINUM KNOBS)

(EL) LONG TURNABLE JACKSCREWS



(STAINLESS STEELWITH ALUMINUM TUBES AND KNOBS)

(ESS) SHORT TURNABLE JACKSCREWS



(STAINLESS STEEL)

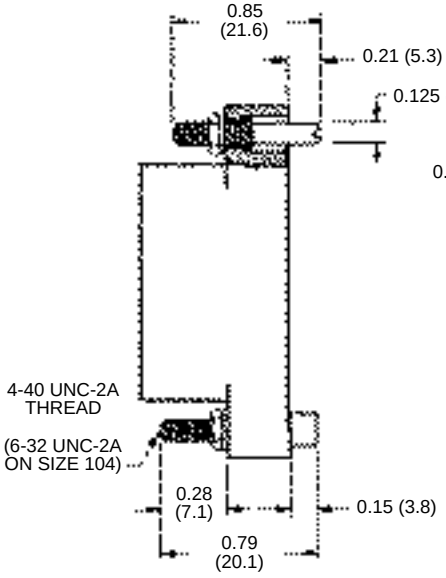
ON A MALE CONNECTOR, THE FEMALE GUIDE OR FEMALE JACKSCREW IS LOCATED AT CONTACT POSITION A OR NO. 1

METRIC THREADS AVAILABLE, SEE PAGE 26

POLARIZING GUIDE DIMENSIONS WHEN MOUNTED ON CONNECTOR

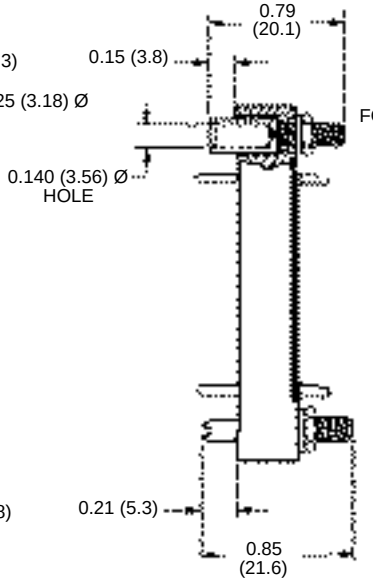
(QUALIFIED TO MIL-DTL-28748)

(N) GUIDES



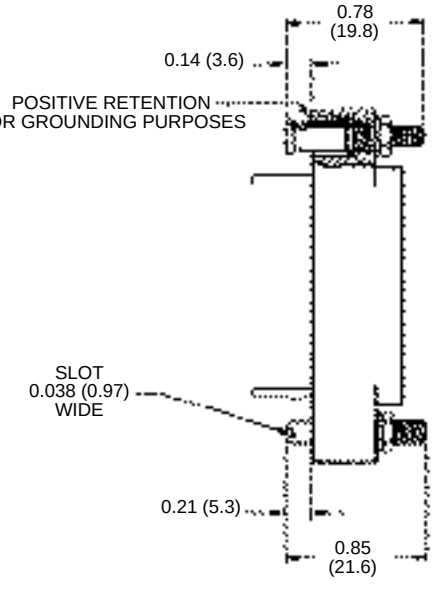
(COPPER ALLOY)

(NSS) GUIDES



(STAINLESS STEEL)

(G) GUIDES



(COPPER ALLOY)

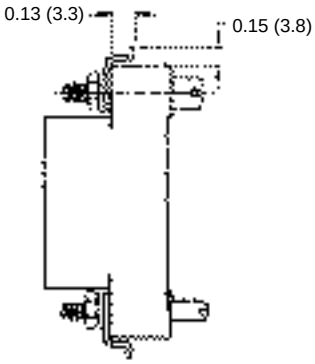
ON A MALE CONNECTOR, THE FEMALE GUIDE OR FEMALE JACKSCREW IS LOCATED AT CONTACT POSITION A OR NO. 1

METRIC THREADS AVAILABLE, SEE PAGE 26

DIMENSIONS ARE IN INCHES (MILLIMETERS). ALLDIMENSIONS ARE SUBJECT TO CHANGE.

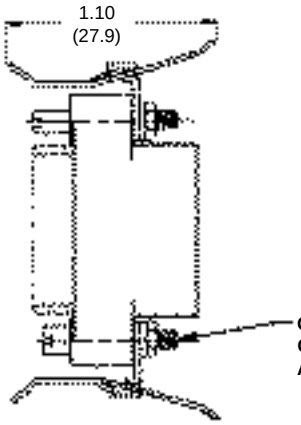
HEAVY-DUTY RECTANGULAR CONNECTOR ACCESSORIES FOR GMCT, GAP, GAPL, VMCT, VAPL, GM and GMPL SERIES CONNECTORS

VIBRATION LOCKS (V,VL)



(V) - VIBRATION TABS

Typical Part Number:
GMCT34F0N000V



(VL) - VIBRATION LEVER ASSEMBLY

Typical Part Number:
GMCT34M0N000VL

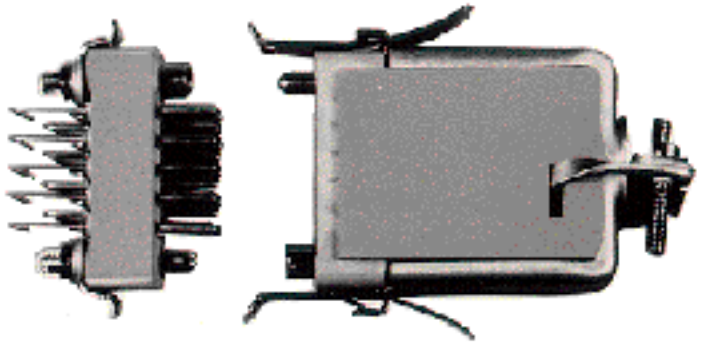
SPECIFYCODE "V" OR "VL" IN STEP 9 OF ORDERING INFORMATION

MATERIAL: COPPER ALLOY

FINISH: ZINC PLATE WITH DICHRO-MATE SEAL

ON MALE CONNECTOR THE FEMALE GUIDE OR JACKSCREW IS LOCATED AT CONTACT POSITION A OR NO. 1

TYPICAL MATING ASSEMBLY



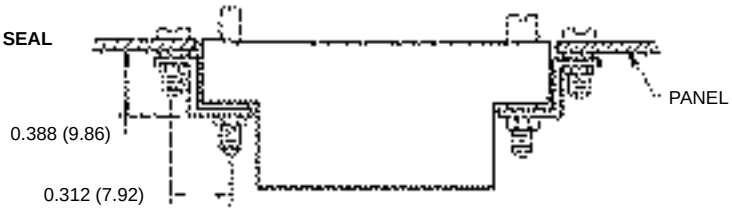
GAPL14M0NVLB **GMCT14F0N00JVL**

FLUSH PANEL CONNECTOR MOUNTING BRACKETS

MATERIAL: COPPER ALLOY

FINISH: ZINC WITH DICHROMATE SEAL

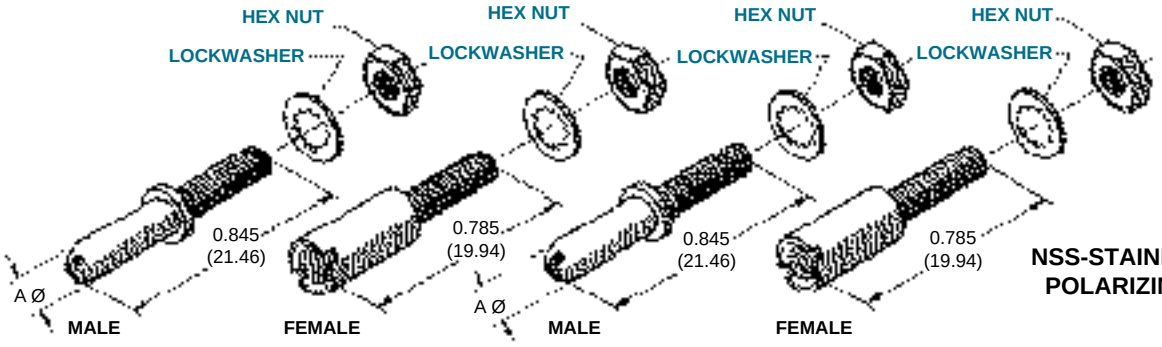
CONNECTOR VARIANTS	PART NUMBER
7 THRU 75	80023-2
104	80023-4



DIMENSIONS ARE IN INCHES (MILLIMETERS). ALLDIMENSIONS ARE SUBJECT TO CHANGE.

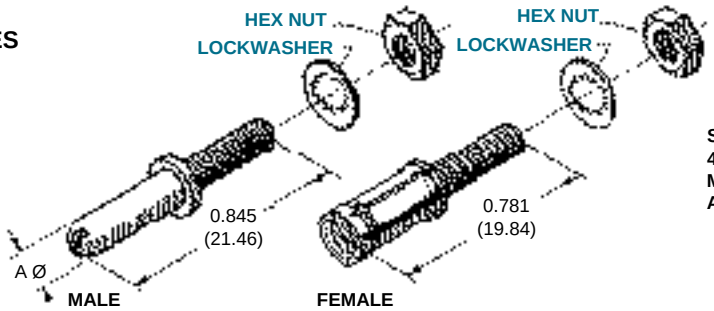
HEAVY-DUTY RECTANGULAR CONNECTOR ACCESSORIES FOR GMCT, GAP, GAPL, VMCT, VAPL, GM and GMPL SERIES CONNECTORS

POLARIZING GUIDES



NSS-STAINLESS STEEL POLARIZING GUIDES

N-POLARIZING GUIDES



STUD THREAD OF 4-40 UNC-2AIS STANDARD, METRIC THREADS AVAILABLE UPON REQUEST

G-POLARIZING GROUNDING GUIDES

NUT DRIVER

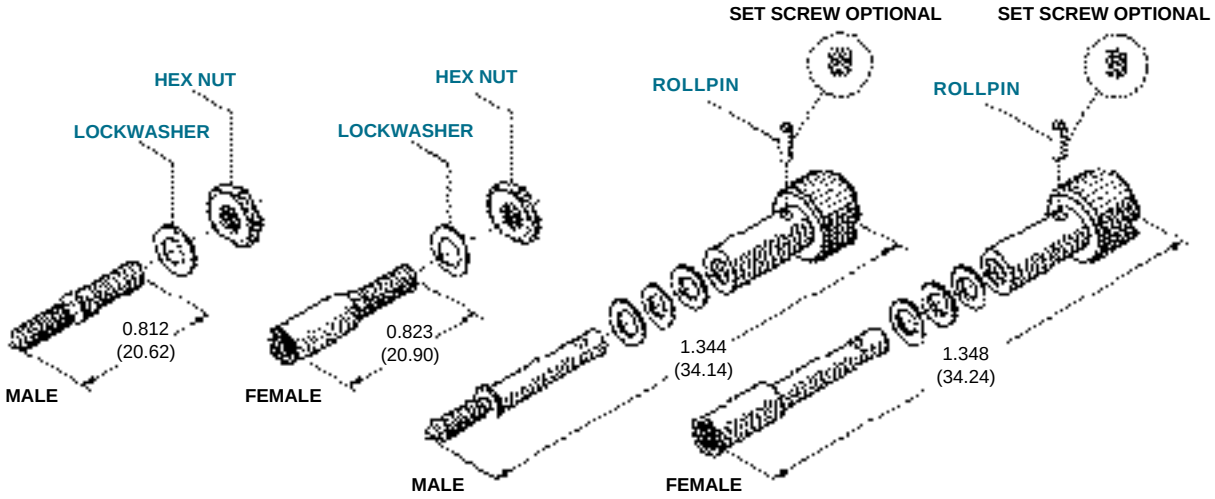
Part Number: 9535-1 FOR 4-40 THREADS
Part Number: 9535-2 FOR 6-32 THREADS

TYPE	MATERIAL AND FINISH	USED ON CONNECTOR VARIANTS	A Ø
N-GUIDE MALE	COPPER ALLOYWITH NICKEL PLATE	7 AND 9 THROUGH 75	0.124 (3.15)
		104	0.124 (3.15)
N-GUIDE FEMALE	COPPER ALLOYWITH NICKEL PLATE	7 AND 9 THROUGH 75	——
		104	——
NSS-GUIDE MALE	STAINLESS STEEL PASSIVATED	7 AND 9 THROUGH 75	0.124 (3.15)
		104	0.124 (3.15)
NSS-GUIDE FEMALE	STAINLESS STEEL PASSIVATED	7 AND 9 THROUGH 75	——
		104	——
G-GUIDE MALE	COPPER ALLOYWITH NICKEL PLATE	7 AND 9 THROUGH 75	0.124 (3.15)
		104	0.124 (3.15)
G-GUIDE FEMALE	COPPER ALLOYWITH NICKEL PLATE	7 AND 9 THROUGH 75	——
		104	——

DIMENSIONS ARE IN INCHES (MILLIMETERS).
ALLDIMENSIONS ARE SUBJECT TO CHANGE.

FIXED AND TURNABLE JACKSCREW SYSTEM

SEE PAGE 26 FOR THREAD INFORMATION

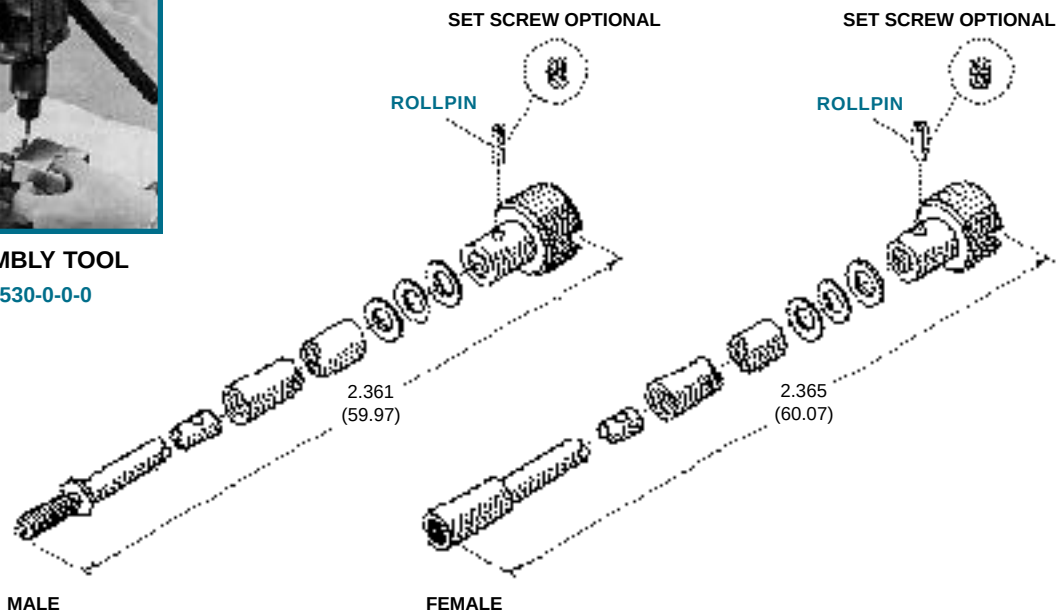


T - FIXED JACKSCREWS

E - SHORT TURNABLE JACKSCREWS

ROLL PIN ASSEMBLY TOOL

Part Number: 9530-0-0-0



EL - LONG TURNABLE JACKSCREWS

DIMENSIONS ARE IN INCHES (MILLIMETERS).
ALLDIMENSIONS ARE SUBJECT TO CHANGE.

FIXED AND TURNABLE JACKSCREW SYSTEMS

COUPLING THREAD SIZES ONLY

TYPE	MATERIAL AND FINISH	AVAILABILITY			USED ON CONNECTOR VARIANTS
		6-32 THREAD	8-32 THREAD	M3x0.5 METRIC THD.	
T JACKSCREW MALE	STAINLESS STEEL PASSIVATED	X	------	X	7 AND 9 THROUGH 75
		------	X	X	104
T JACKSCREW FEMALE	STAINLESS STEEL PASSIVATED	X	------	X	7 AND 9 THROUGH 75
		------	X	X	104
E JACKSCREW MALE	STAINLESS STEEL PASSIVATED	X *	------	X	7 AND 9 THROUGH 75
		------	X	X	104
E JACKSCREW FEMALE	STAINLESS STEEL PASSIVATED	X *	------	X	7 AND 9 THROUGH 75
		------	X	X	104
EL JACKSCREW MALE	STAINLESS STEEL PASSIVATED	X *	------	X	7 AND 9 THROUGH 75
		------	X	X	104
EL JACKSCREW FEMALE	STAINLESS STEEL PASSIVATED	X *	------	X	7 AND 9 THROUGH 75
		------	X	X	104

*** SET SCREW OPTION AVAILABLE ON STAINLESS STEEL TURNABLE JACKSCREWS WITH 6-32 THREADS ONLY**

POLARIZATION OF MALE AND FEMALE SHELLS

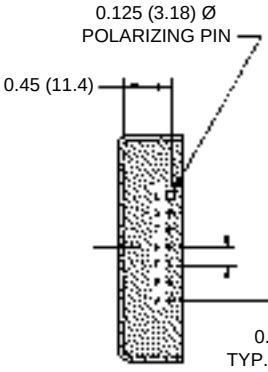
(QUALIFIED TO MIL-DTL-28748)

POLARIZATION

Polarization is accomplished with shells by a pin and slot arrangement. Female shells are slotted to accept non-magnetic stainless steel polarizing pins mounted on the male shells.

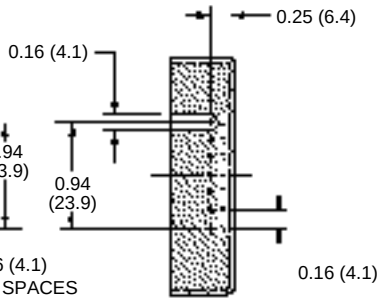
There are 7 polarizing positions available which are designated by the letters A, B, C, D, E, F or G. Nonpolarized shells are designated by "O" and are supplied without slot and pin. See ordering chart.

MALE SHELL



Typical Part Number:
G34000PD000

FEMALE SHELL



Typical Part Number:
G34000RD000

DIMENSIONS FOR FEMALE SHELLS (R)

(QUALIFIED TO MIL-DTL-28748)

FIGURE 1

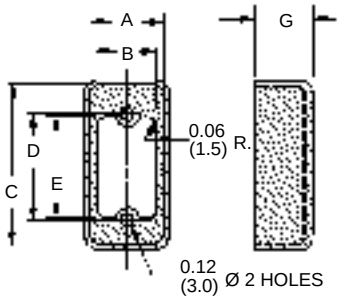


FIGURE 2

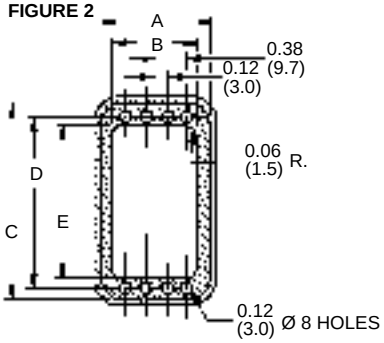


FIGURE 3

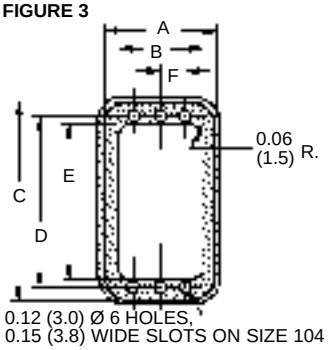


FIGURE	PART NUMBER	A	B	C	D	E	F	G
1	G9000R000	0.52 (13.2)	0.38 (9.7)	1.45 (36.8)	1.00 (25.4)	0.88 (22.4)	-----	0.72 (18.3)
1	G14000R000	0.58 (14.7)	0.45 (11.4)	1.39 (35.3)	0.94 (23.9)	0.81 (20.6)	-----	0.72 (18.3)
1	G18000R000	0.71 (18.0)	0.58 (14.7)	1.45 (36.8)	1.00 (25.4)	0.88 (22.4)	-----	0.72 (18.3)
1	G20000R000	0.58 (14.7)	0.45 (11.4)	1.71 (43.4)	1.25 (31.8)	1.13 (28.7)	-----	0.72 (18.3)
1	G26000R000	0.71 (18.0)	0.58 (14.7)	1.78 (45.2)	1.31 (33.3)	1.20 (30.5)	-----	0.72 (18.3)
3	G34000R000	0.89 (22.6)	0.76 (19.3)	2.14 (54.4)	1.69 (42.9)	1.42 (36.1)	0.23 (5.8)	0.72 (18.3)
3	G42000R000	0.90 (22.9)	0.77 (19.6)	2.46 (62.5)	2.00 (50.8)	1.75 (44.5)	0.23 (5.8)	0.72 (18.3)
3	G50000R000	1.02 (25.9)	0.76 (19.3)	2.86 (72.6)	2.28 (57.9)	2.03 (51.6)	0.23 (5.8)	0.72 (18.3)
3	G66000R000	1.27 (32.3)	1.13 (28.7)	2.43 (61.7)	1.97 (50.0)	1.70 (43.2)	0.25 (6.4)	0.72 (18.3)
2	G75000R000	1.38 (35.1)	1.13 (28.7)	2.87 (72.9)	2.28 (57.9)	2.03 (51.6)	-----	0.72 (18.3)
3	G104000R000	1.69 (42.9)	1.48 (37.6)	2.91 (73.9)	2.38 (60.5)	2.08 (52.8)	0.44 (11.2)	0.72 (18.3)

MATERIAL: 0.040 (1.02) THICK ALUMINUM
FINISH: YELLOW OR BLACK ANODIZE

DIMENSIONS ARE IN INCHES (MILLIMETERS).
ALLDIMENSIONS ARE SUBJECT TO CHANGE.

HEAVY-DUTY RECTANGULAR CONNECTOR ACCESSORIES FOR GMCT, GAP, GAPL, VMCT, VAPL, GM and GMPL SERIES CONNECTORS

DIMENSIONS FOR MALE SHELLS (P)

(QUALIFIED TO MIL-DTL-28748)

FIGURE 1

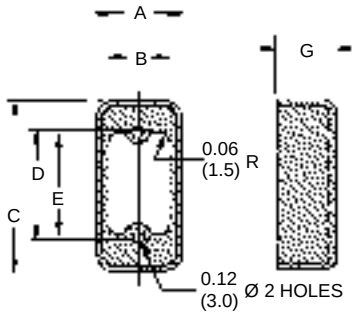


FIGURE 2

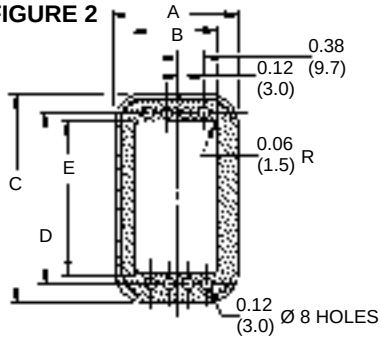


FIGURE 3

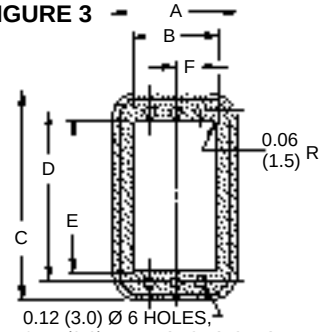


FIGURE	PART NUMBER	A	B	C	D	E	F	G
1	G9000P000	0.50 (12.7)	0.38 (9.7)	1.44 (36.6)	1.00 (25.4)	0.88 (22.4)	-----	0.72 (18.3)
1	G14000P000	0.56 (14.2)	0.45 (11.4)	1.38 (35.1)	0.94 (23.9)	0.81 (20.6)	-----	0.72 (18.3)
1	G18000P000	0.68 (17.3)	0.58 (14.7)	1.44 (36.6)	1.00 (25.4)	0.88 (22.4)	-----	0.72 (18.3)
1	G20000P000	0.56 (14.2)	0.45 (11.4)	1.68 (42.7)	1.25 (31.8)	1.13 (28.7)	-----	0.72 (18.3)
1	G26000P000	0.69 (17.5)	0.58 (14.7)	1.75 (44.5)	1.31 (33.3)	1.20 (30.5)	-----	0.72 (18.3)
3	G34000P000	0.88 (22.4)	0.76 (19.3)	2.13 (54.1)	1.69 (42.9)	1.42 (36.1)	0.23 (5.8)	0.72 (18.3)
3	G42000P000	0.88 (22.4)	0.77 (19.6)	2.43 (61.7)	2.00 (50.8)	1.75 (44.5)	0.23 (5.8)	0.72 (18.3)
3	G50000P000	1.00 (25.4)	0.76 (19.3)	2.84 (72.1)	2.28 (57.9)	2.03 (51.6)	0.23 (5.8)	0.72 (18.3)
3	G66000P000	1.25 (31.8)	1.13 (28.7)	2.41 (61.2)	1.97 (50.0)	1.70 (43.2)	0.25 (6.4)	0.72 (18.3)
2	G75000P000	1.36 (34.5)	1.13 (28.7)	2.84 (72.1)	2.28 (57.9)	2.03 (51.6)	-----	0.72 (18.3)
3	G104000P000	1.67 (42.4)	1.48 (37.6)	2.89 (73.4)	2.38 (60.5)	2.08 (52.8)	0.44 (11.2)	0.72 (18.3)

MATERIAL: 0.040 (1.02) THICK ALUMINUM

FINISH: YELLOW OR BLACK ANODIZE

DIMENSIONS ARE IN INCHES (MILLIMETERS).
ALLDIMENSIONS ARE SUBJECT TO CHANGE.

DIMENSIONS FOR MOUNTING PLATES (H)

(QUALIFIED TO MIL-DTL-28748)

Mounting plates provide a simple, economical means of mounting the connector to any supporting surface. They can be used with or without shells and are available with floating bushings for “blind mountings” to facilitate alignment and coupling of the connector.

FIGURE 1

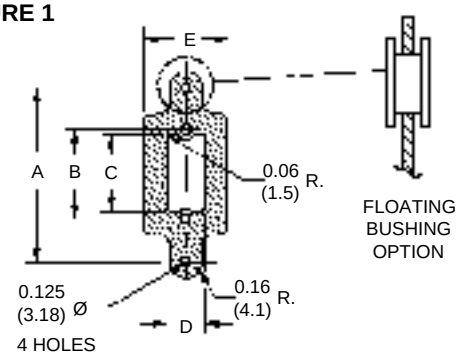


FIGURE 2

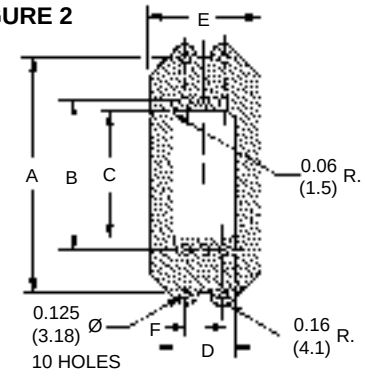


FIGURE 3

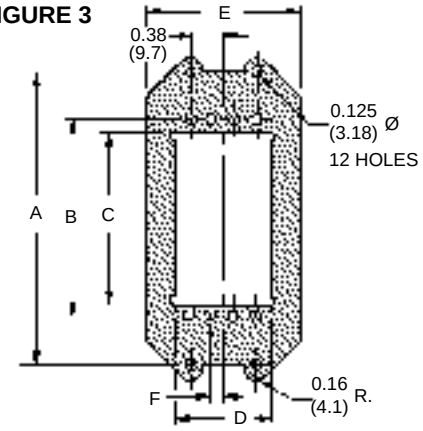


FIGURE 4

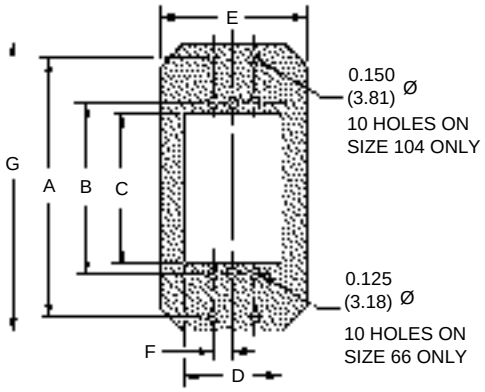


FIGURE	PART NUMBER	A	B	C	D	E	F	G
1	G9000H000	2.02 (51.3)	1.00 (25.4)	0.88 (22.4)	0.41 (10.4)	0.95 (24.1)	-----	-----
1	G14000H000	1.95 (49.5)	0.94 (23.9)	0.81 (20.6)	0.47 (11.9)	1.02 (25.9)	-----	-----
1	G18000H000	2.02 (51.3)	1.00 (25.4)	0.88 (22.4)	0.59 (15.0)	1.14 (29.0)	-----	-----
1	G20000H000	2.27 (57.7)	1.25 (31.8)	1.13 (28.7)	0.47 (11.9)	1.02 (25.9)	-----	-----
1	G26000H000	2.33 (59.2)	1.31 (33.3)	1.19 (30.2)	0.59 (15.0)	1.14 (29.0)	-----	-----
2	G34000H000	2.70 (68.6)	1.69 (42.9)	1.44 (36.6)	0.75 (19.1)	1.33 (33.8)	0.23 (5.8)	-----
2	G42000H000	3.02 (76.7)	2.00 (50.8)	1.75 (44.5)	0.75 (19.1)	1.33 (33.8)	0.23 (5.8)	-----
2	G50000H000	3.42 (86.9)	2.28 (57.9)	2.03 (51.6)	0.75 (19.1)	1.45 (36.8)	0.23 (5.8)	-----
4	G66000H000	2.98 (75.7)	1.97 (50.0)	1.72 (43.7)	1.13 (28.7)	1.69 (42.9)	0.25 (6.4)	3.30 (83.8)
3	G75000H000	3.42 (86.9)	2.28 (57.9)	2.03 (51.6)	1.11 (28.2)	1.80 (45.7)	0.12 (3.0)	-----
4	G104000H000	3.50 (88.9)	2.38 (60.5)	2.13 (54.1)	1.49 (37.8)	2.00 (50.8)	0.44 (11.2)	3.88 (98.6)

MATERIAL: ALUMINUM

FINISH: YELLOW OR BLACK ANODIZE

FOR FLOATING BUSHING OPTION USE CODE “FB” IN STEP9 OF ORDERING INFORMATION

DIMENSIONS ARE IN INCHES (MILLIMETERS).
ALLDIMENSIONS ARE SUBJECT TO CHANGE.

HEAVY-DUTY RECTANGULAR CONNECTOR ACCESSORIES FOR GMCT, GAP, GAPL, VMCT, VAPL, GM and GMPL SERIES CONNECTORS

CABLE ADAPTERS
DIMENSIONS FOR TOP OPENING HOODS WITH JACKSCREW SYSTEM (J, Y, Z)

FIGURE 1

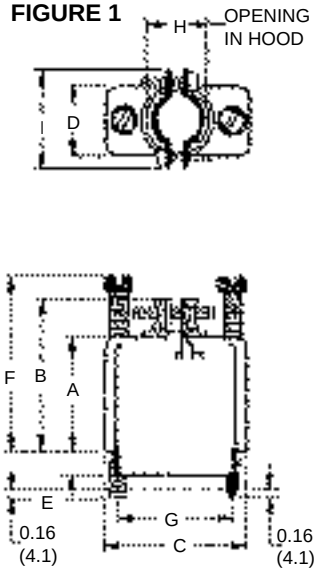


FIGURE 2

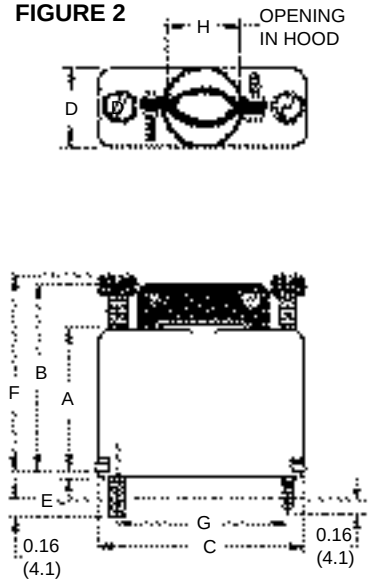


FIGURE 3

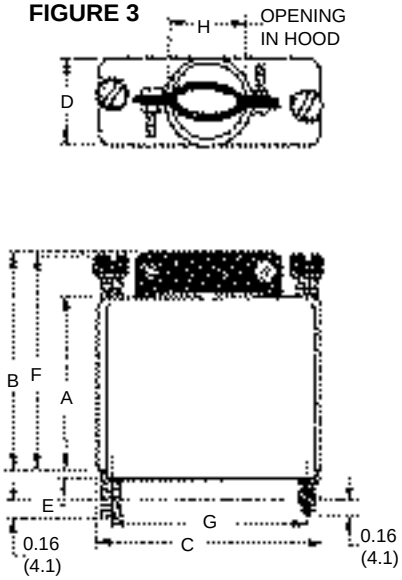


FIGURE	PART NUMBER	A	B ±0.07	C ±0.02	D	E	F ±0.06	G	H	I
1	G900E100J0	1.25 (31.8)	1.59 (40.4)	1.36 (34.5)	0.44 (11.2)	0.25 (6.4)	1.93 (49.0)	1.00 (25.4)	0.38 (9.7) x 0.52 (13.2)	0.81 (20.6)
1	G1400E100J0	1.20 (30.5)	1.56 (39.6)	1.25 (31.8)	0.50 (12.7)	0.28 (7.1)	1.84 (46.7)	0.94 (23.9)	0.44 (11.2) x 0.50 (12.7)	0.81 (20.6)
1	G1800E100J0	1.19 (30.2)	1.60 (40.6)	1.31 (33.3)	0.63 (16.0)	0.28 (7.1)	1.84 (46.7)	1.00 (25.4)	0.54 Ø (13.7)	0.94 (23.9)
1	G2000E100J0	1.31 (33.3)	1.65 (41.9)	1.58 (40.1)	0.50 (12.7)	0.28 (7.1)	1.84 (46.7)	1.25 (31.8)	0.44 (11.2) x 0.67 (17.0)	0.81 (20.6)
3	G2100E100J0	1.34 (34.0)	1.84 (46.7)	2.29 (58.2)	0.44 (11.2)	0.25 (6.4)	1.96 (49.8)	1.94 (49.3)	0.38 Ø (9.7)	-----
3	G2600E100J0	1.28 (32.5)	1.72 (43.7)	1.63 (41.4)	0.63 (16.0)	0.28 (7.1)	1.90 (48.3)	1.31 (33.3)	0.38 (9.7) x 0.59 (15.0)	-----
3	G3400000Y0	1.25 (31.8)	1.65 (41.9)	2.00 (50.8)	0.83 (21.1)	0.27 (6.9)	1.75 (44.5)	1.69 (42.9)	0.70 Ø (17.8)	-----
3	G3400000Y20	1.25 (31.8)	1.65 (41.9)	2.00 (50.8)	0.81 (20.6)	0.27 (6.9)	1.75 (44.5)	1.69 (42.9)	0.51 Ø (13.0)	-----
1	G4100E100J0	1.25 (31.8)	1.60 (40.6)	2.70 (68.6)	0.51 (13.0)	0.32 (8.1)	1.87 (47.5)	2.31 (58.7)	0.44 (11.2) x 0.063 (1.60)	0.81 (20.6)
3	G4200000Y0	1.30 (33.0)	1.70 (43.2)	2.31 (58.7)	0.83 (21.1)	0.09 (2.3)	1.80 (45.7)	2.00 (50.8)	0.70 Ø (17.8)	-----
3	G4200000Y30	1.30 (33.0)	1.70 (43.2)	2.31 (58.7)	0.83 (21.1)	0.09 (2.3)	1.80 (45.7)	2.00 (50.8)	0.75 (19.1) x 0.99 (25.1)	-----
3	G5000000Y0	1.83 (46.5)	2.27 (57.7)	2.60 (66.0)	0.81 (20.6)	0.10 (2.5)	2.34 (59.4)	2.28 (57.9)	0.75 (19.1) x 0.99 (25.1)	-----
3	G5000000Y20	1.30 (33.0)	1.75 (44.5)	2.60 (66.0)	0.81 (20.6)	0.09 (2.3)	1.81 (46.0)	2.28 (57.9)	0.63 Ø (16.0)	-----
3	G5000000Y30	1.83 (46.5)	2.27 (57.7)	2.60 (66.0)	0.81 (20.6)	0.14 (3.6)	2.33 (59.2)	2.28 (57.9)	0.75 Ø (19.1)	-----
3	G5000000Y40	1.30 (33.0)	1.75 (44.5)	2.60 (66.0)	0.81 (20.6)	0.09 (2.3)	1.80 (45.7)	2.28 (57.9)	0.75 Ø (19.1)	-----
3	G5000000Y50	1.30 (33.0)	1.75 (44.5)	2.60 (66.0)	0.81 (20.6)	0.09 (2.3)	1.83 (46.5)	2.28 (57.9)	0.75 (19.1) x 0.99 (25.1)	-----
2	G6600000Z0	1.17 (29.7)	1.70 (43.2)	2.38 (60.5)	1.22 (31.0)	0.08 (2.0)	1.83 (46.5)	1.97 (50.0)	0.88 (22.4) x 1.14 (29.0)	-----
3	G7500000Y0	2.02 (51.3)	2.52 (64.0)	2.60 (66.0)	1.19 (30.2)	0.09 (2.3)	2.50 (63.5)	2.28 (57.9)	1.06 Ø (26.9)	-----
3	G7500000Y20	1.28 (32.5)	1.78 (45.2)	2.60 (66.0)	1.19 (30.2)	0.09 (2.3)	1.81 (46.0)	2.28 (57.9)	1.06 Ø (26.9)	-----
2	G10400000Z0	2.23 (56.6)	2.70 (68.6)	2.85 (72.4)	1.63 (41.4)	0.09 (2.3)	2.95 (74.9)	2.38 (60.5)	1.19 Ø (30.2)	-----

MATERIAL: HOODS, CABLE CLAMPS AND KNOBS - ALUMINUM, YELLOW OR BLACK ANODIZE

JACKSCREWS - STAINLESS STEEL, PASSIVATED, SEE PAGE 26 FOR THREAD INFORMATION

M 3 x 0.5 METRIC THREADS AVAILABLE ON ZINC PLATED STEELJACKSCREWS

DESKIRTED HOODS AVAILABLE

DIMENSIONS ARE IN INCHES (MILLIMETERS). ALLDIMENSIONS ARE SUBJECT TO CHANGE.

HEAVY-DUTY RECTANGULAR CONNECTOR ACCESSORIES FOR GMCT, GAP, GAPL, VMCT, VAPL, GM and GMPL SERIES CONNECTORS

CABLE ADAPTERS
DIMENSIONS FOR SIDE OPENING HOODS WITH JACKSCREW SYSTEM (L,I,V)

FIGURE 1

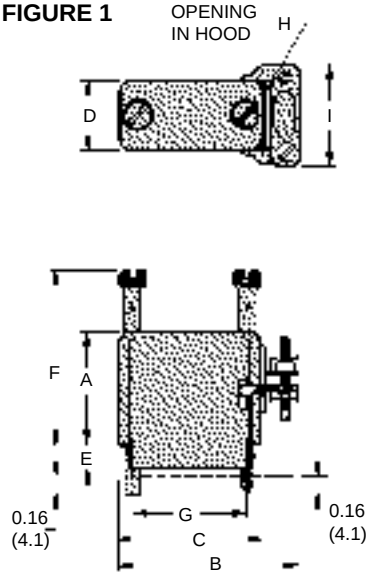


FIGURE 2

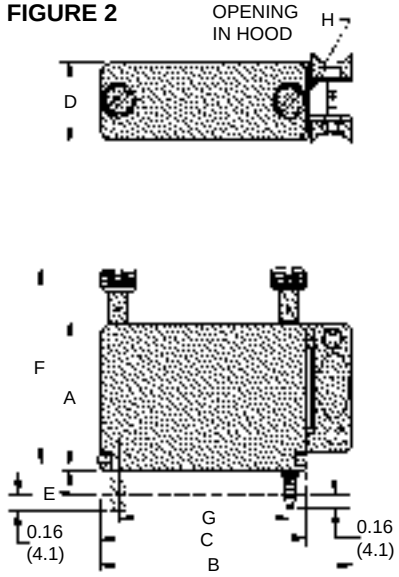


FIGURE 3

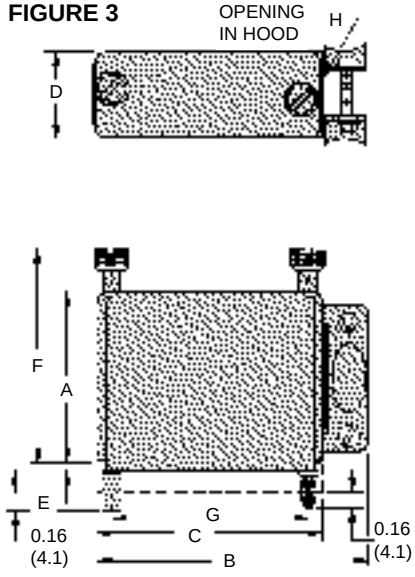


FIGURE	PART NUMBER	A	B ±0.07	C	D	E	F ±0.05	G	H	I
1	G900E100L0	1.24 (31.5)	1.70 (43.2)	1.36 (34.5)	0.44 (11.2)	0.25 (6.4)	1.93 (49.0)	1.00 (25.4)	0.38 (9.7) x 0.50 (12.7)	0.81 (20.6)
1	G1400E100L0	1.19 (30.2)	1.64 (41.7)	1.25 (31.8)	0.50 (12.7)	0.28 (7.1)	1.84 (46.7)	0.94 (23.9)	0.44 (11.2) x 0.50 (12.7)	0.81 (20.6)
3	G1400E100L30	1.19 (30.2)	1.65 (41.9)	1.25 (31.8)	0.50 (12.7)	0.28 (7.1)	1.84 (46.7)	0.94 (23.9)	0.38 Ø (9.7)	-----
1	G1800E100L0	1.19 (30.2)	1.70 (43.2)	1.31 (33.3)	0.63 (16.0)	0.28 (7.1)	1.84 (46.7)	1.00 (25.4)	0.54 Ø (13.7)	0.94 (23.9)
3	G1800E100L30	1.19 (30.2)	1.70 (43.2)	1.31 (33.3)	0.63 (16.0)	0.28 (7.1)	1.84 (46.7)	1.00 (25.4)	0.53 (13.5) x 0.75 (19.1)	-----
1	G2000E100L0	1.31 (33.3)	1.90 (48.3)	1.56 (39.6)	0.50 (12.7)	0.28 (7.1)	1.88 (47.8)	1.25 (31.8)	0.44 (11.2) x 0.67 (17.0)	0.81 (20.6)
3	G2100E100L0	1.34 (34.0)	2.79 (70.9)	2.29 (58.2)	0.44 (11.2)	0.25 (6.4)	1.96 (49.8)	1.94 (49.3)	0.38 Ø (9.7)	-----
3	G2600E100L0	1.28 (32.5)	2.05 (52.1)	1.63 (41.4)	0.63 (16.0)	0.28 (7.1)	1.90 (48.3)	1.31 (33.3)	0.38 (9.7) x 0.59 (15.0)	-----
3	G340000I0	1.25 (31.8)	2.40 (61.0)	2.00 (50.8)	0.83 (21.1)	0.09 (2.3)	1.75 (44.5)	1.69 (42.9)	0.70 Ø (17.8)	-----
3	G3400000I20	1.25 (31.8)	2.40 (61.0)	2.00 (50.8)	0.81 (20.6)	0.27 (6.9)	1.75 (44.5)	1.69 (42.9)	0.51 Ø (13.0)	-----
3	G4100E100L0	1.25 (31.8)	3.16 (80.3)	2.70 (68.6)	0.51 (13.0)	0.32 (8.1)	1.79 (45.5)	2.31 (58.7)	0.43 (10.9) x 0.62 (15.7)	1.10 (27.9)
3	G420000I0	1.30 (33.0)	2.70 (68.6)	2.31 (58.7)	0.83 (21.1)	0.09 (2.3)	1.80 (45.7)	2.00 (50.8)	0.70 Ø (17.8)	-----
3	G4200000I30	1.30 (33.0)	2.70 (68.6)	2.31 (58.7)	0.83 (21.1)	0.09 (2.3)	1.80 (45.7)	2.00 (50.8)	0.75 (19.1) x 0.84 (21.3)	-----
3	G500000I0	1.83 (46.5)	3.15 (80.0)	2.68 (68.1)	0.81 (20.6)	0.09 (2.3)	2.34 (59.4)	2.28 (57.9)	0.75 (19.1) x 1.00 (25.4)	-----
3	G5000000I20	1.30 (33.0)	3.00 (76.2)	2.60 (66.0)	0.81 (20.6)	0.09 (2.3)	1.81 (46.0)	2.28 (57.9)	0.63 Ø (16.0)	-----
3	G5000000I30	1.83 (46.5)	3.03 (77.0)	2.60 (66.0)	0.81 (20.6)	0.14 (3.6)	2.33 (59.2)	2.28 (57.9)	0.75 Ø (19.1)	-----
2	G6600000V0	1.17 (29.7)	2.94 (74.7)	2.38 (60.5)	1.22 (31.0)	0.08 (2.0)	1.83 (46.5)	1.97 (50.0)	0.96 (24.4) x 1.06 (26.9)	-----
3	G750000I0	2.02 (51.3)	3.10 (78.7)	2.60 (66.0)	1.19 (30.2)	0.09 (2.3)	2.50 (63.5)	2.28 (57.9)	1.06 Ø (26.9)	-----
3	G7500000I20	1.28 (32.5)	3.10 (78.7)	2.60 (66.0)	1.19 (30.2)	0.09 (2.3)	1.81 (46.0)	2.28 (57.9)	0.62 (15.7) x 1.10 (27.9)	-----
2	G10400000V0	2.23 (56.6)	3.35 (85.1)	2.85 (72.4)	1.63 (41.4)	0.09 (2.3)	2.87 (72.9)	2.38 (60.5)	1.19 Ø (30.2)	-----

MATERIAL: HOODS, CABLE CLAMPS AND KNOBS - ALUMINUM, YELLOW OR BLACK ANODIZE

JACKSCREW - STAINLESS STEEL, PASSIVATED, SEE PAGE 26 FOR THREAD INFORMATION

M 3 x 0.5 METRIC THREADS AVAILABLE ON ZINC PLATED STEELJACKSCREWS

DESKIRTED HOODS AVAILABLE UPON REQUEST

DIMENSIONS ARE IN INCHES (MILLIMETERS).
ALLDIMENSIONS ARE SUBJECT TO CHANGE.

HEAVY-DUTY RECTANGULAR CONNECTOR ACCESSORIES FOR GMCT, GAP, GAPL, VMCT, VAPL, GM and GMPL SERIES CONNECTORS

CABLE ADAPTERS
DIMENSIONS FOR TOP OPENING HOODS (J,Q)

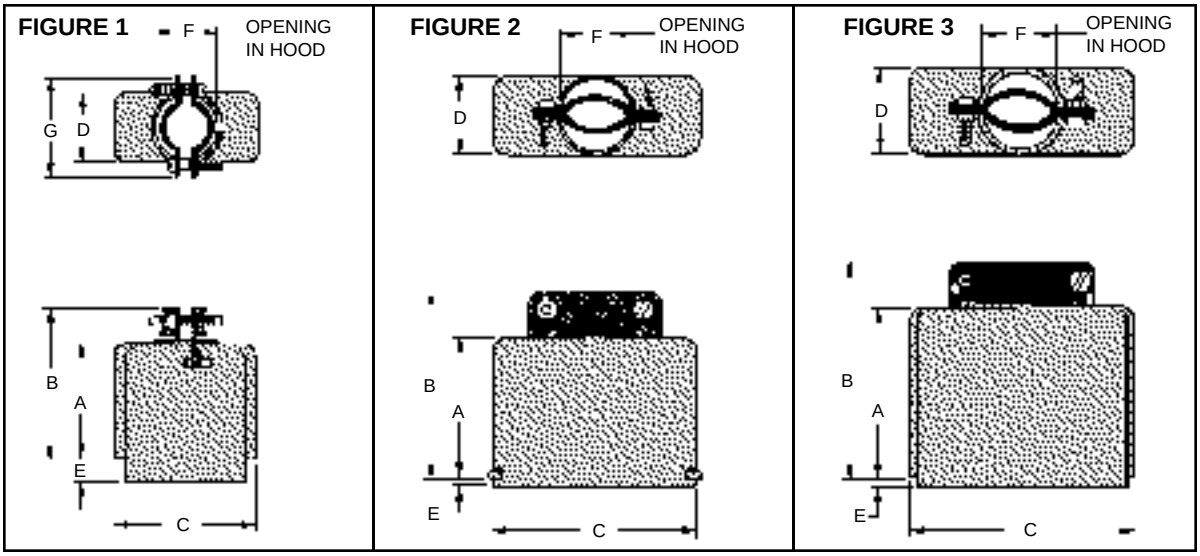


FIGURE	PART NUMBER	A	B ±0.07	C ±0.02	D	E	F	G
3	G700000J0	1.14 (29.0)	1.60 (40.6)	1.23 (31.2)	0.44 (11.2)	0.20 (5.1)	0.31 Ø (7.9)	-----
3	G800000J0	1.00 (25.4)	1.34 (34.0)	0.81 (20.6)	0.44 (11.2)	0.28 (7.1)	0.25 Ø (6.4)	-----
1	G900000J0	1.25 (31.8)	1.64 (41.7)	1.36 (34.5)	0.44 (11.2)	0.25 (6.4)	0.38 (9.7) x 0.52 (13.2)	0.81 (20.6)
3	G900000J20	0.86 (21.8)	1.26 (32.0)	1.34 (34.0)	0.44 (11.2)	0.25 (6.4)	0.31 Ø (7.9)	-----
1	G1400000J0	1.20 (30.5)	1.56 (39.6)	1.25 (31.8)	0.55 (14.0)	0.28 (7.1)	0.44 (11.2) x 0.50 (12.7)	0.81 (20.6)
3	G1400000J30	1.19 (30.2)	1.56 (39.6)	1.25 (31.8)	0.50 (12.7)	0.28 (7.1)	0.38 Ø (9.7)	-----
1	G1800000J0	1.19 (30.2)	1.60 (40.6)	1.31 (33.3)	0.63 (16.0)	0.28 (7.1)	0.54 Ø (13.7)	0.94 (23.9)
1	G1800000J30	1.19 (30.2)	1.56 (39.6)	1.31 (33.3)	0.63 (16.0)	0.28 (7.1)	0.54 (13.7) x 0.75 (19.1)	0.81 (20.6)
1	G2000000J0	1.31 (33.3)	1.65 (41.9)	1.58 (40.1)	0.50 (12.7)	0.28 (7.1)	0.44 (11.2) x 0.67 (17.0)	0.81 (20.6)
3	G2100000J0	1.34 (34.0)	1.84 (46.7)	2.29 (58.2)	0.44 (11.2)	0.25 (6.4)	0.38 Ø (9.7)	-----
3	G2600000J0	1.28 (32.5)	1.72 (43.7)	1.63 (41.4)	0.63 (16.0)	0.28 (7.1)	0.38 (9.7) x 0.59 (15.0)	-----
3	G3400000J0	1.25 (31.8)	1.65 (41.9)	2.00 (50.8)	0.83 (21.1)	0.27 (6.9)	0.70 Ø (17.8)	-----
3	G3400000J20	1.25 (31.8)	1.65 (41.9)	2.00 (50.8)	0.81 (20.6)	0.27 (6.9)	0.51 Ø (13.0)	-----
1	G4100000J0	1.25 (31.8)	1.60 (40.6)	2.70 (68.6)	0.51 (13.0)	0.32 (8.1)	0.44 (11.2) x 0.63 (16.0)	0.81 (20.6)
3	G4200000J0	1.30 (33.0)	1.70 (43.2)	2.31 (58.7)	0.83 (21.1)	0.09 (2.3)	0.70 Ø (17.8)	-----
3	G4200000J30	1.30 (33.0)	1.70 (43.2)	2.31 (58.7)	0.83 (21.1)	0.09 (2.3)	0.75 (19.1) x 0.99 (25.1)	-----
3	G5000000J0	1.83 (46.5)	2.27 (57.7)	2.60 (66.0)	0.81 (20.6)	0.10 (2.5)	0.75 (19.1) x 0.99 (25.1)	-----
3	G5000000J20	1.30 (33.0)	1.75 (44.5)	2.60 (66.0)	0.81 (20.6)	0.09 (2.3)	0.63 Ø (16.0)	-----
3	G5000000J30	1.83 (46.5)	2.27 (57.7)	2.60 (66.0)	0.81 (20.6)	0.09 (2.3)	0.75 Ø (19.1)	-----
3	G5000000J40	1.30 (33.0)	1.75 (44.5)	2.60 (66.0)	0.81 (20.6)	0.09 (2.3)	0.75 Ø (19.1)	-----
3	G5000000J50	1.30 (33.0)	1.75 (44.5)	2.60 (66.0)	0.81 (20.6)	0.09 (2.3)	0.75 (19.1) x 0.99 (25.1)	-----
2	G6600000Q0	1.30 (33.0)	1.75 (44.5)	2.38 (60.5)	1.22 (31.0)	0.09 (2.3)	0.88 (22.4) x 1.14 (29.0)	-----
3	G7500000J0	2.02 (51.3)	2.52 (64.0)	2.60 (66.0)	1.19 (30.2)	0.09 (2.3)	1.06 Ø (26.9)	-----
1	G7500000J20	1.28 (32.5)	1.78 (45.2)	2.60 (66.0)	1.19 (30.2)	0.09 (2.3)	1.06 Ø (26.9)	-----
2	G10400000Q0	2.23 (56.6)	2.70 (68.6)	2.85 (72.4)	1.63 (41.4)	0.09 (2.3)	1.19 Ø (30.2)	-----

PLASTIC CABLE CLAMPS FOR RIGID CABLE SUPPORT ARE AVAILABLE ON HOODS FOR CONTACT VARIANTS 34, 42 AND 50. SEE PAGE 35.

MATERIAL: HOODS, CABLE CLAMPS AND KNOBS - ALUMINUM, YELLOW OR BLACK ANODIZE

DESKIRTED HOODS AVAILABLE

HOODS HAVE THREADED MOUNTING HOLES FOR USE WITH POLARIZING GUIDES TO ATTACH TO CONNECTOR

DIMENSIONS ARE IN INCHES (MILLIMETERS). ALLDIMENSIONS ARE SUBJECT TO CHANGE.

HEAVY-DUTY RECTANGULAR CONNECTOR ACCESSORIES FOR GMCT, GAP, GAPL, VMCT, VAPL, GM and GMPL SERIES CONNECTORS

CABLE ADAPTERS
DIMENSIONS FOR SIDE OPENING HOODS (L,S)

FIGURE 1

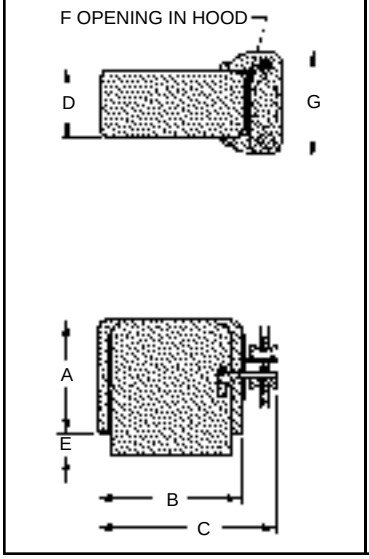


FIGURE 2

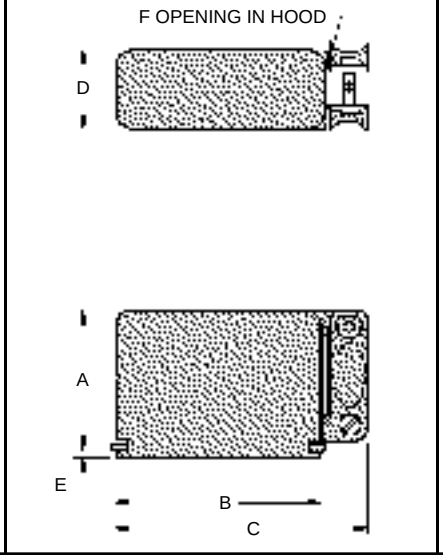


FIGURE 3

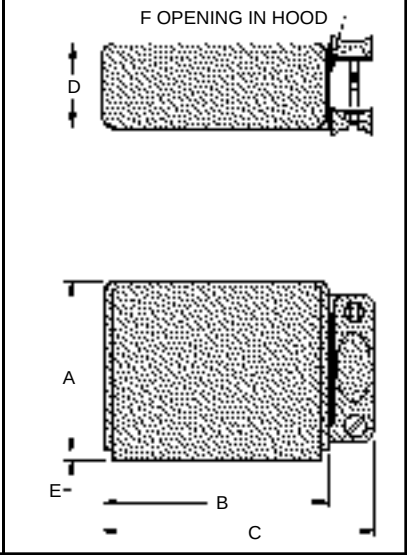


FIGURE	PART NUMBER	A	B	C ±0.07	D	E	F	G
1	G900000L0	1.24 (31.5)	1.36 (34.5)	1.70 (43.2)	0.44 (11.2)	0.25 (6.4)	0.38 (9.7) x 0.50 (12.7)	0.81 (20.6)
1	G1400000L0	1.19 (30.2)	1.25 (31.8)	1.64 (41.7)	0.50 (12.7)	0.28 (7.1)	0.44 (11.2) x 0.50 (12.7)	0.81 (20.6)
3	G1400000L30	1.19 (30.2)	1.25 (31.8)	1.65 (41.9)	0.50 (12.7)	0.28 (7.1)	0.38 Ø (9.7)	-----
1	G1800000L0	1.19 (30.2)	1.31 (33.3)	1.70 (43.2)	0.63 (16.0)	0.28 (7.1)	0.54 Ø (13.7)	0.94 (23.9)
3	G1800000L30	1.19 (30.2)	1.31 (33.3)	1.70 (43.2)	0.63 (16.0)	0.28 (7.1)	0.53 (13.5) x 0.75 (19.1)	-----
1	G2000000L0	1.31 (33.3)	1.56 (39.6)	1.90 (48.3)	0.50 (12.7)	0.28 (7.1)	0.44 (11.2) x 0.67 (17.0)	0.81 (20.6)
3	G2100000L0	1.34 (34.0)	2.29 (58.2)	2.79 (70.9)	0.44 (11.2)	0.25 (6.4)	0.38 Ø (9.7)	-----
3	G2600000L0	1.28 (32.5)	1.63 (41.4)	2.05 (52.1)	0.63 (16.0)	0.28 (7.1)	0.38 (9.7) x 0.59 (15.0)	-----
3	G3400000L0	1.25 (31.8)	2.00 (50.8)	2.40 (61.0)	0.83 (21.1)	0.09 (2.3)	0.70 Ø (17.8)	-----
3	G3400000L20	1.25 (31.8)	2.00 (50.8)	2.40 (61.0)	0.81 (20.6)	0.27 (6.9)	0.51 Ø (13.0)	-----
1	G4100000L0	1.25 (31.8)	2.70 (68.6)	3.16 (80.3)	0.51 (13.0)	0.32 (8.1)	0.43 (10.9) x 0.62 (15.7)	-----
3	G4200000L0	1.30 (33.0)	2.31 (58.7)	2.70 (68.6)	0.83 (21.1)	0.09 (2.3)	0.70 Ø (17.8)	-----
3	G4200000L30	1.30 (33.0)	2.31 (58.7)	2.70 (68.6)	0.83 (21.1)	0.09 (2.3)	0.75 (19.1) x 0.84 (21.3)	-----
3	G5000000L0	1.83 (46.5)	2.68 (68.1)	3.15 (80.0)	0.81 (20.6)	0.09 (2.3)	0.75 (19.1) x 1.00 (25.4)	-----
3	G5000000L20	1.30 (33.0)	2.60 (66.0)	3.00 (76.2)	0.81 (20.6)	0.09 (2.3)	0.63 Ø (16.0)	-----
3	G5000000L30	1.83 (46.5)	2.60 (66.0)	3.03 (77.0)	0.81 (20.6)	0.14 (3.6)	0.75 Ø (19.1)	-----
2	G6600000S0	1.17 (29.7)	2.38 (60.5)	2.94 (74.7)	1.22 (31.0)	0.08 (2.0)	0.96 (24.4) x 1.06 (26.9)	-----
3	G7500000L0	2.02 (51.3)	2.60 (66.0)	3.10 (78.7)	1.19 (30.2)	0.09 (2.3)	1.06 Ø (26.9)	-----
1	G7500000L20	1.28 (32.5)	2.60 (66.0)	3.10 (78.7)	1.19 (30.2)	0.09 (2.3)	0.62 (15.7) x 1.10 (27.9)	-----
2	G10400000S0	2.23 (56.6)	2.85 (72.4)	3.35 (85.1)	1.63 (41.4)	0.09 (2.3)	1.19 Ø (30.2)	-----

DIMENSIONS ARE IN INCHES (MILLIMETERS).
ALLDIMENSIONS ARE SUBJECT TO CHANGE.

MATERIAL: HOODS, CABLE CLAMPS AND KNOBS - ALUMINUM, YELLOW OR BLACK ANODIZE

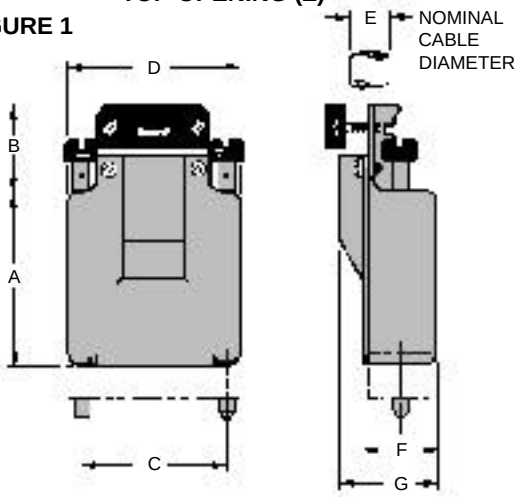
HOODS HAVE THREADED MOUNTING HOLES FOR USE WITH POLARIZING GUIDES TO ATTACH TO CONNECTOR

DESKIRTED HOODS AVAILABLE

CABLE ADAPTERS
DIMENSIONS FOR SIDE ACCESS HOODS WITH JACKSCREW SYSTEM

TOP OPENING (Z)

FIGURE 1



SIDE OPENING (V)

FIGURE 2

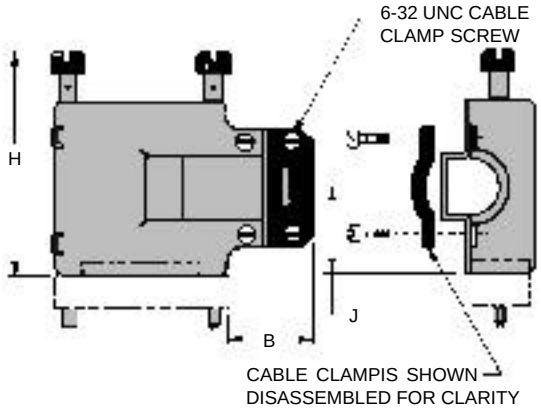


FIGURE	PART NUMBER	A	B	C	D	E	F	G	H	J
1	G3400000Z0	2.10 (53.3)	0.81 (20.6)	1.69 (42.9)	2.10 (53.3)	0.44 (11.2)	0.86 (21.8)	1.11 (28.2)	2.60 (66.0)	-----
2	G3400000V0	2.10 (53.3)	0.81 (20.6)	1.69 (42.9)	2.10 (53.3)	0.44 (11.2)	0.86 (21.8)	1.11 (28.2)	2.60 (66.0)	1.05 (26.7)
1	G5000000Z0	2.69 (68.3)	0.81 (20.6)	2.28 (57.9)	2.69 (68.3)	0.63 (16.0)	0.86 (21.8)	1.24 (31.5)	3.19 (81.0)	-----
2	G5000000V0	2.69 (68.3)	0.81 (20.6)	2.28 (57.9)	2.69 (68.3)	0.63 (16.0)	0.86 (21.8)	1.24 (31.5)	3.19 (81.0)	1.35 (34.3)
1	G7500000Z0	2.69 (68.3)	0.94 (23.9)	2.28 (57.9)	2.69 (68.3)	1.00 (25.4)	1.22 (31.0)	1.72 (43.7)	3.19 (81.0)	-----
2	G7500000V0	2.69 (68.3)	0.94 (23.9)	2.28 (57.9)	2.69 (68.3)	1.00 (25.4)	1.22 (31.0)	1.72 (43.7)	3.19 (81.0)	1.35 (34.3)

MATERIAL: HOODS AND KNOBS - ALUMINUM, YELLOW OR BLACK ANODIZE
CABLE CLAMPS - ALUMINUM, YELLOW OR BLACK ANODIZE
JACKSCREW - STAINLESS STEEL, PASSIVATED, 6-32 THREADS STANDARD
M3 x 0.5 METRIC THREADS AVAILABLE

DIMENSIONS ARE IN INCHES (MILLIMETERS).
ALLDIMENSIONS ARE SUBJECT TO CHANGE.

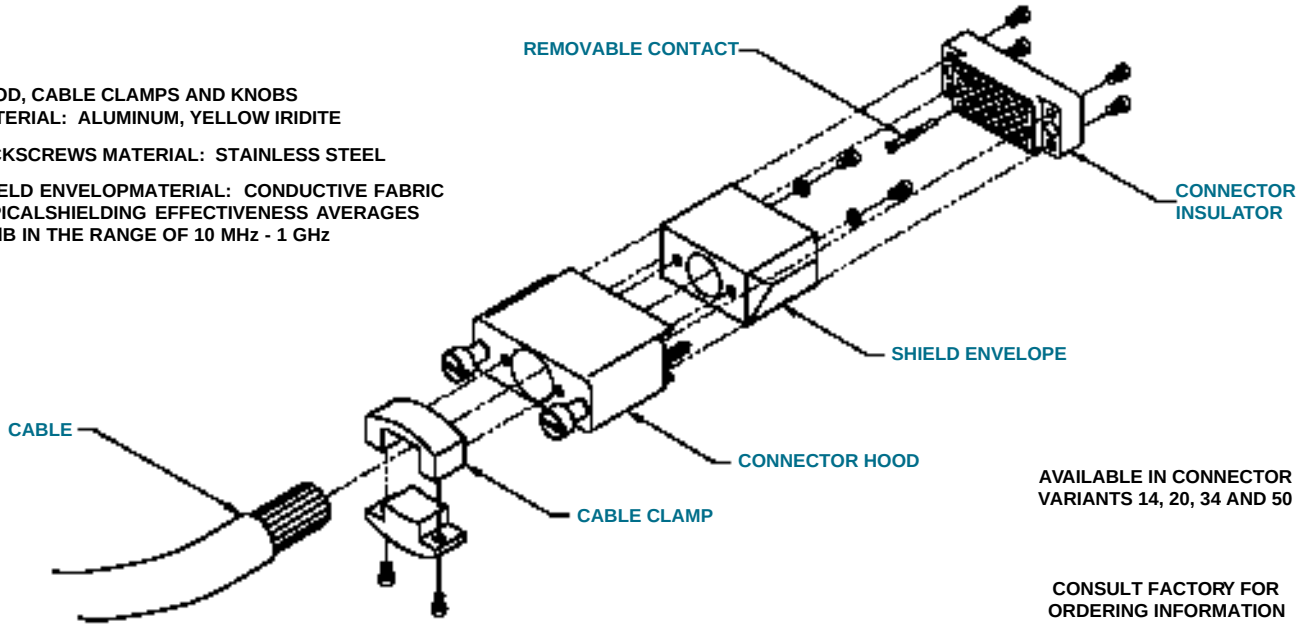
HEAVY-DUTY RECTANGULAR CONNECTOR ACCESSORIES FOR GMCT, GAP, GAPL, VMCT, VAPL, GM and GMPL SERIES CONNECTORS

EMI/RFI SHIELDED HOOD

HOOD, CABLE CLAMPS AND KNOBS
MATERIAL: ALUMINUM, YELLOW IRIDITE

JACKSCREWS MATERIAL: STAINLESS STEEL

SHIELD ENVELOPMATERIAL: CONDUCTIVE FABRIC
TYPICALSHIELDING EFFECTIVENESS AVERAGES
60 dB IN THE RANGE OF 10 MHz - 1 GHz

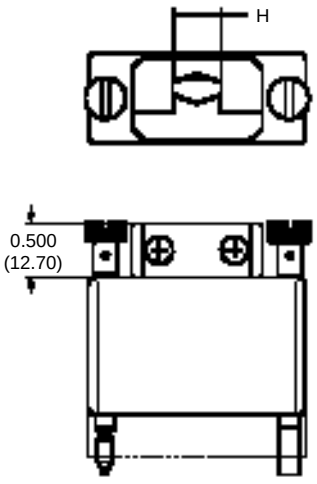


AVAILABLE IN CONNECTOR VARIANTS 14, 20, 34 AND 50

CONSULT FACTORY FOR ORDERING INFORMATION

TOP OPENING HOODS WITH JACKSCREW SYSTEM AND PLASTIC CABLE CLAMPS

FOR RIGID CABLE SUPPORT



HOOD PART NUMBER	H
G3400000Y60	0.300 MAX. (7.62) Ø
G3400000Y70	0.375 MAX. (9.53) Ø
G3400000Y80	0.450 MAX. (11.43) Ø
G4200000Y60	0.300 MAX. (7.62) Ø
G4200000Y70	0.375 MAX. (9.53) Ø
G4200000Y80	0.450 MAX. (11.43) Ø
G5000000Y60	0.300 MAX. (7.62) Ø
G5000000Y70	0.375 MAX. (9.53) Ø
G5000000Y80	0.450 MAX. (11.43) Ø

CABLE CLAMPS MATERIAL- COMPOSITE STANDARD,
GLASS FILLED POLYESTER OPTION

ALUMINUM MATERIAL WITH YELLOW OR BLACK ANODIZE FINISH ALSO AVAILABLE FOR CABLE CLAMPS

PANEL CUT-OUT DIMENSIONS
FOR GM SERIES AND GMCT SERIES CONNECTORS

FIGURE 1

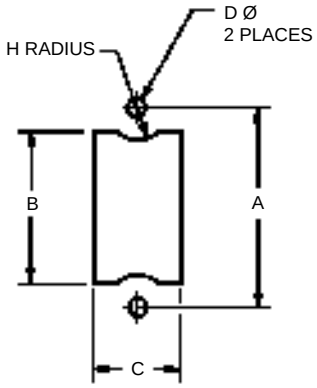


FIGURE 2

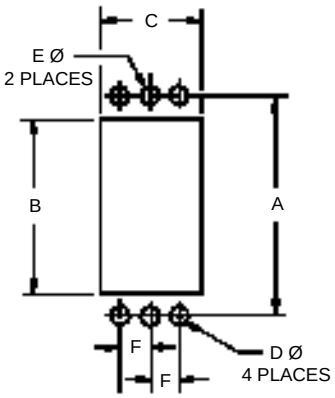
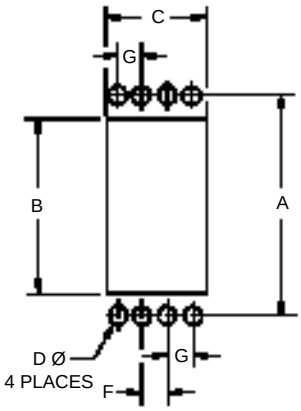


FIGURE 3



SIZE	FIGURE	A	B MIN.	C MIN.	D MIN.	E MIN.	F	G	H MAX.
7	1	0.906 (23.01)	0.660 (16.76)	0.386 (9.80)	0.120 (3.05)	------	------	------	------
8	1	0.562 (14.27)	0.440 (11.18)	0.385 (9.78)	0.095 (2.41)	------	------	------	------
9	1	1.000 (25.40)	0.820 (20.83)	0.386 (9.80)	0.120 (3.05)	------	------	------	------
14	1	0.936 (23.77)	0.817 (20.75)	0.446 (11.33)	0.120 (3.05)	------	------	------	0.118 (3.00)
18	1	1.000 (25.40)	0.880 (22.35)	0.572 (14.53)	0.120 (3.05)	------	------	------	0.115 (2.92)
20	1	1.250 (31.75)	1.129 (28.68)	0.446 (11.33)	0.120 (3.05)	------	------	------	0.115 (2.92)
21	1	1.936 (49.17)	1.830 (46.48)	0.384 (9.75)	0.120 (3.05)	------	------	------	0.115 (2.92)
26	1	1.312 (33.32)	1.192 (30.28)	0.572 (14.53)	0.120 (3.05)	------	------	------	------
34	2	1.687 (42.85)	1.389 (35.28)	0.776 (19.71)	0.120 (3.05)	0.125 (3.18)	0.234 (5.94)	------	------
41	1	2.312 (58.72)	2.135 (54.23)	0.446 (11.33)	0.120 (3.05)	------	------	------	------
42	2	2.000 (50.80)	1.682 (42.72)	0.776 (19.71)	0.120 (3.05)	0.125 (3.18)	0.234 (5.94)	------	------
50	2	2.282 (57.96)	1.983 (50.37)	0.776 (19.71)	0.120 (3.05)	0.125 (3.18)	0.234 (5.94)	------	------
66	2	1.968 (49.99)	1.683 (42.75)	1.135 (28.83)	0.120 (3.05)	0.125 (3.18)	------	------	------
75	3	2.282 (57.96)	1.987 (50.47)	1.120 (28.45)	0.120 (3.05)	------	0.234 (5.94)	0.266 (6.76)	------
104	2	2.375 (60.33)	2.058 (52.27)	1.479 (37.57)	0.120 (3.05)	0.145 (3.68)	0.438 (11.13)	------	------

DIMENSIONS ARE IN INCHES (MILLIMETERS).
ALLDIMENSIONS ARE SUBJECT TO CHANGE.

GAP Series

HEAVY-DUTY RECTANGULAR PRINTED BOARD CONNECTORS with STRAIGHT SOLDER CONTACTS

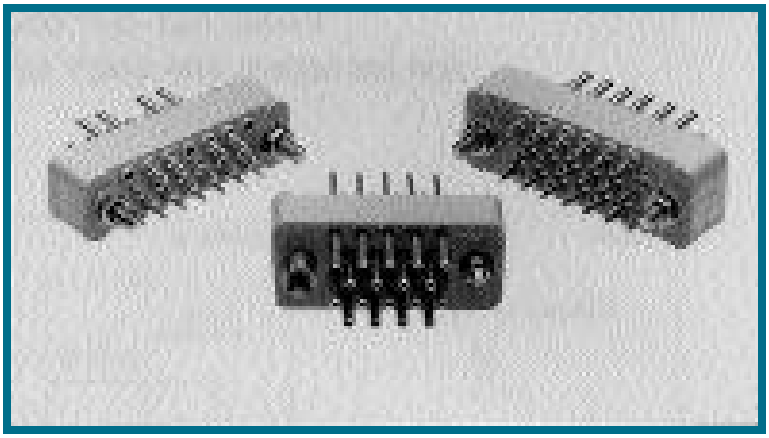
Size 16 Contacts

Conforms to MIL-DTL-28748

IEC Publication 807-1

U.L. Recognized, File #E49351

Telecommunication U.L. File #E140980



GAP Series connectors are heavy-duty, multi-pole, low profile, high reliability connectors. Contacts are male only with 0.062 inch (1.57mm) diameters, rated to 7.5 amperes per contact. Termination style is straight solder printed board mount. GAP Series connectors are intermateable with Positronic GMCT Series connectors.

A wide array of mounting, locking and polarizing accessories is available for this series. For details, see the Heavy-Duty Rectangular Connector Accessories section.

Due to its printed board mount termination style, and its 0.062 inch (1.57mm) diameter contacts, the GAP Series is ideal for heavy-duty applications found in avionics, medical equipment, telecommunications, instrumentation and process control applications.

GAP SERIES TECHNICAL CHARACTERISTICS

MILITARY SPECIFICATIONS:

Conforms to MIL-DTL-28748.

INTERNATIONAL STANDARDS:

IEC 807-1.
U.L. Recognized.

MATERIALS AND FINISHES:

Insulator:	Glass filled DAP per ASTM-D-5948 type SDG-F. Grey color is standard, black available.
Fixed Contacts:	Copper alloy with gold flash over nickel. Other finishes available upon request.
Jackscrew System:	Passivated stainless steel.
Polarizing Guides:	Copper alloy with nickel plate or passivated stainless steel.
Vibration Locks:	Copper alloy with zinc plate and dichromate seal.

MECHANICAL CHARACTERISTICS:

Fixed Contacts:	**Male** – Size 16: 0.062 inch (1.57 mm) diameter.
Contact Retention in Insulator:	10 lbs. (44.5N) minimum.
Contact Termination:	Straight printed board mounted.
Locking Systems:	Friction, vibration locks and jackscrews.
Polarization:	Guide pins and guide sockets, and jackscrew system.
Mechanical Operations:	1000 operations per IEC 512-5.
Jackscrews:	Standard threads, 6-32 UNC. Metric threads, M3X0.5 available.

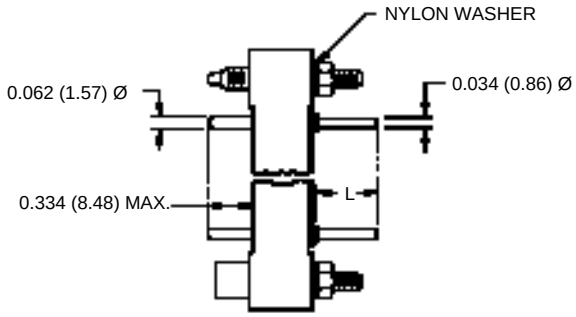
ELECTRICAL CHARACTERISTICS:

Contact Current Rating (maximum):	7.5 amperes limited at contact termination diameter.
Initial ContactResistance:	0.003 ohms.
Flash over Voltage:	2500 V.AC (rms).
Test Voltage:	1200 V.AC (rms).
Insulation Resistance (minimum):	5 G ohms.
Clearance and Creepage Distance (minimum):	0.047 inch (1.19 mm).
Working Temperature:	-55°C to 125°C.
Working Voltage:	250 V.AC (rms).

GAP SERIES CONNECTORS WITH STRAIGHT SOLDER CONTACTS

(MALE ONLY)

CONTACT MATERIAL: COPPER ALLOY
CONTACT FINISH: GOLD FLASH OVER NICKEL



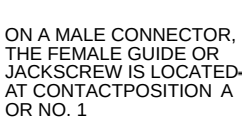
CONTACT CODE	L
DS3	0.093 (2.36)
DS4	0.125 (3.18)
DS5	0.156 (3.96)
DS6	0.187 (4.75)

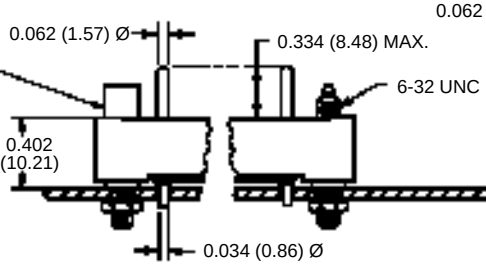
Typical Part Number: GAP34MDS6T0000

SEE GMCT SERIES PRINTED BOARD HOLE PATTERN PAGE FOR CONNECTOR VARIANT CONTACT HOLE POSITIONS

SPECIFYCONTACT CODE IN STEP4 OF ORDERING INFORMATION FOR DESIRED LENGTH OF CONTACT TERMINATION

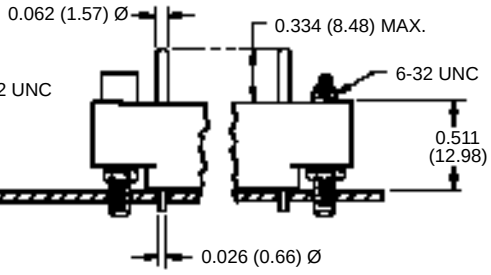
GAP SERIES, LOW PROFILE, PRINTED BOARD MOUNT CONNECTOR





GAP34MDS4T0000

GMCT SERIES, HIGH PROFILE, PRINTED BOARD MOUNT CONNECTOR

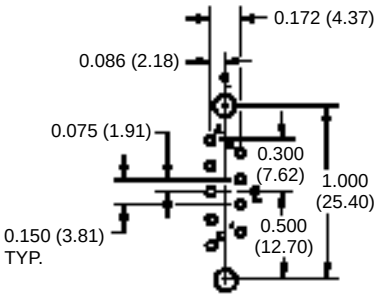


GMCT34M0T0000 WITH MDS125N CONTACTS INSTALLED

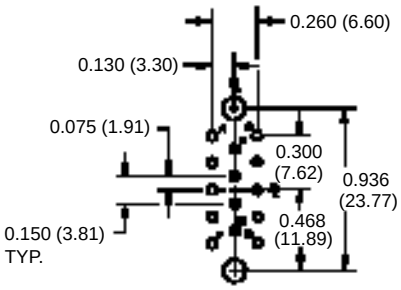
DIMENSIONS ARE IN INCHES (MILLIMETERS). ALLDIMENSIONS ARE SUBJECT TO CHANGE.

GAP SERIES CONTACT HOLE POSITION DIMENSIONS AND PRINTED BOARD HOLE PATTERN

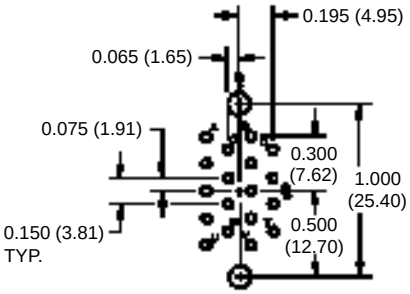
MATING FACE OF FEMALE CONNECTOR OR REAR FACE OF MALE CONNECTOR



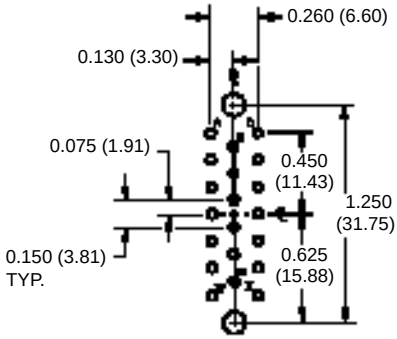
SIZE 9



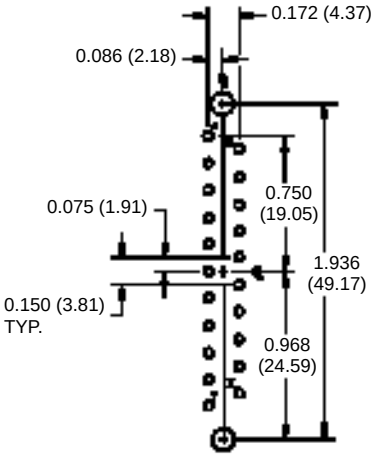
SIZE 14



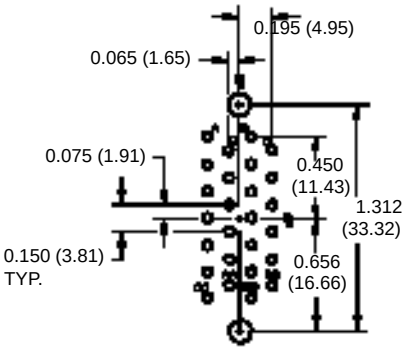
SIZE 18



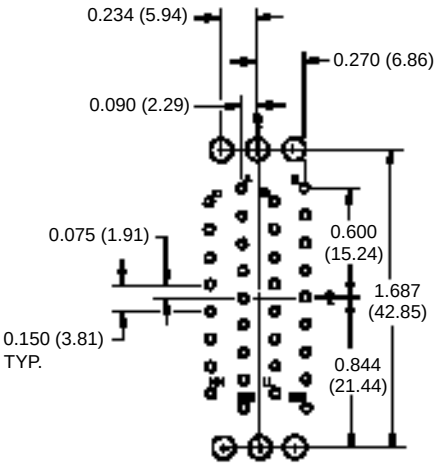
SIZE 20



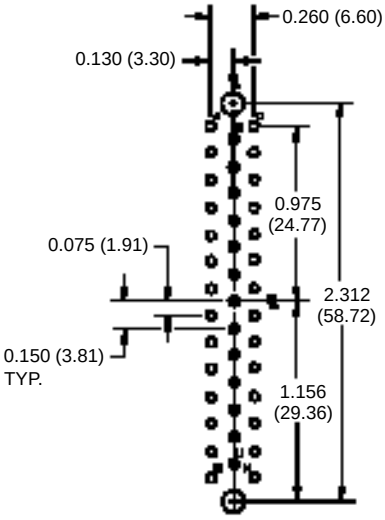
SIZE 21



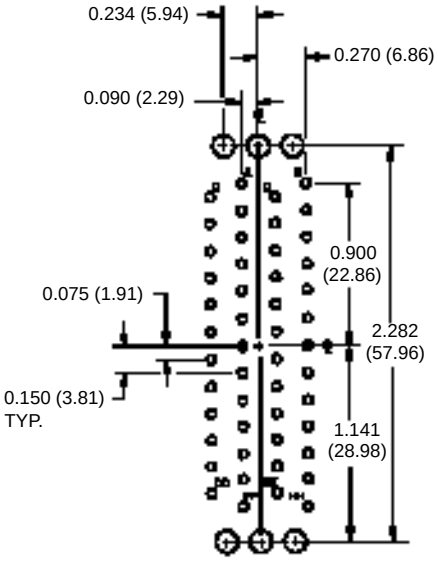
SIZE 26



SIZE 34



SIZE 41



SIZE 50

HOLE IDENTIFICATION FOR REFERENCE ONLY

DIMENSIONS ARE IN INCHES (MILLIMETERS).
ALLDIMENSIONS ARE SUBJECT TO CHANGE.

SUGGEST 0.120 (3.05) Ø HOLES IN PRINTED BOARD FOR CONNECTOR MOUNTING HOLES

SUGGEST 0.052 (1.32) Ø HOLES IN PRINTED BOARD FOR GAPSERIES CONNECTOR CONTACT TERMINATIONS

ORDERING INFORMATION – CODE NUMBERING SYSTEM

Specify Complete Connector By Following Steps 1 Through 9
Insert "0" When Step Is Not Used

STEP	1	2	3	4	5	6	7	8	9		10
	GAP	26	M	DS4	T	0	0	0	0	–	

STEP 1 - Basic Series
GAP Series
(Male Connector Only).

STEP 2 -
GAP Series Connector Variants
9, 14, 18, 20, 21, 26, 34, 41, 50

STEP 3 - Connector Gender
M - Male insulator only.

STEP 4 - Contact Termination Type
DS3 - Straight solder 0.093 (2.36)
DS4 - Straight solder 0.125 (3.18)
DS5 - Straight solder 0.156 (3.96)
DS6 - Straight solder 0.187 (4.75)

***STEP 5 - Polarizing Guides and Jackscrew System**
G - Polarizing grounding guides.
N - Polarizing guides.
NSS - Stainless steel polarizing guides.
T - Fixed jackscrews.
0 - If no polarizing guides or jackscrews are required.

STEP 6 - Shells and Mounting Plates
P - Male shell, not available on 41 variant.
R - Female shell, not available on 41 variant.
0 - If no shells or mounting plates are required.

STEP 7 - Polarization Positions of Shells
Select letter to designate position of male pin and female slot for polarization system.
A, B, C, D, E, F, G
0 - If no polarization is required or if no shells are required.

STEP 8 - Cable Adapters (Hoods)
0 - Not offered for GAP series.

STEP 9 - Additional Options
B - For black anodized aluminum parts.
R - For yellow chromate coating on aluminum parts.
V - Lock tab, offered on 9, 14, 18, 20, 21, 26, 34 and 41 variants.
0 - If no additional options are required.

*** NOTE: FOR DETAILS OF ITEMS LISTED IN STEPS 5 THROUGH 9, SEE HEAVY-DUTY RECTANGULAR CONNECTOR ACCESSORIES SECTION.**

GAPL Series

HEAVY-DUTY RECTANGULAR RIGHT ANGLE PRINTED BOARD MOUNT CONNECTORS

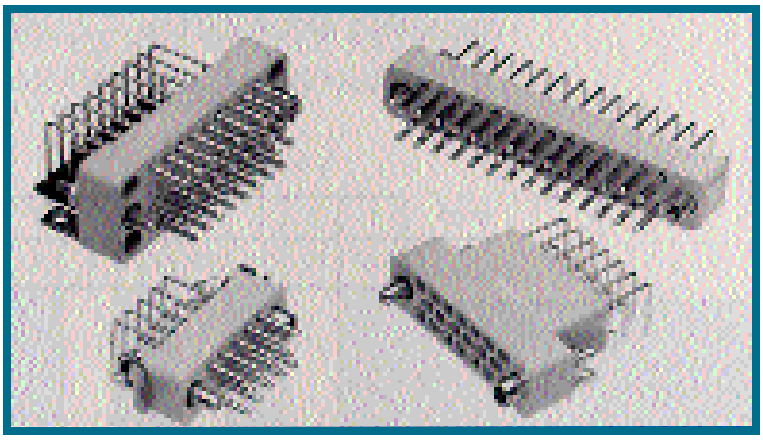
Size 16 Contacts

Conforms to MIL-DTL-28748

IEC Publication 807-1

U.L. Recognized, File #E49351

Telecommunication U.L. File #E140980



GAPLSeries connectors are heavy-duty, multi-pole, high reliability connectors conforming to MIL-DTL-28748 specifications. Termination style is right angle printed board mount. GAPL Series connectors are intermateable with Positronic GMCT Series connectors.

GAPL Series connectors are offered with a variety of mounting, locking and polarizing accessories. For details, see the Heavy-Duty Rectangular Connector Accessories section.

GAPL Series connectors are ideal for high reliability, heavy-duty applications which require a printed board mounted connector. They are widely utilized in navigational systems, robotics, mainframe and peripheral computers, medical equipment, telecommunications, instrumentation and process control applications.

GAPL SERIES TECHNICAL CHARACTERISTICS

MILITARY SPECIFICATIONS:

Conforms to MIL-DTL-28748.

INTERNATIONAL STANDARDS:

IEC 807-1.
U.L. Recognized.

MATERIALS AND FINISHES:

Insulator:	Glass filled DAP per ASTM-D-5948 type SDG-F. Grey color is standard, black available.
Fixed Contacts:	Copper alloy with gold over nickel. Other finishes avaiable upon request.
Jackscrew System:	Passivated stainless steel.
Polarizing Guides:	Copper alloy with nickel plate or passivated stainless steel.
Vibration Locks:	Copper alloy with zinc plate and dichromate seal.

MECHANICAL CHARACTERISTICS:

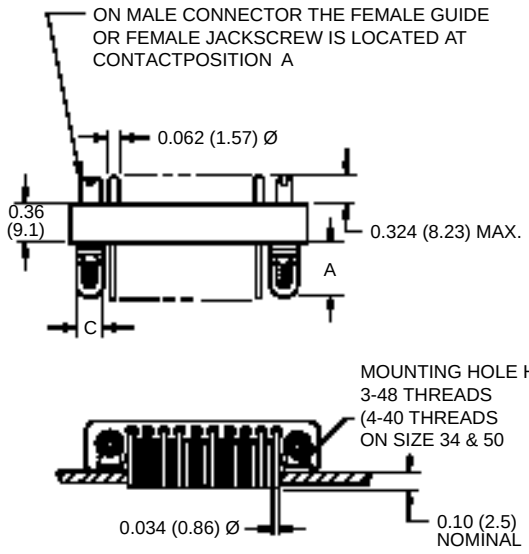
Fixed Contacts:	**Male** – Size 16: 0.062 inch (1.57 mm) diameter. **Female** – "Closed entry" design for highest reliability.
Contact Retention in Insulator:	10 lbs. (44.5N) minimum.
Contact Termination:	Right angle printed board mounted.
Locking Systems:	Friction, vibration locks and jackscrews.
Polarization:	Guide pins and guide sockets, and jackscrew system.
Mechanical Operations:	1000 operations per IEC 512-5.
Jackscrews:	Standard threads, 6-32 UNC. Metric threads, M3X0.5 available.

ELECTRICAL CHARACTERISTICS:

Contact Current Rating (maximum):	7.5 amperes limited at contact termination diameter.
Initial ContactResistance:	0.003 ohms.
Flash over Voltage:	2500 V.AC (rms).
Test Voltage:	1200 V.AC (rms).
Insulation Resistance (minimum):	5 G ohms.
Clearance and Creepage Distance (minimum):	0.047 inch (1.19 mm).
Working Temperature:	-55°C to 125°C.
Working Voltage:	250 V.AC (rms).

GAPL SERIES RIGHT ANGLE PRINTED BOARD MOUNT CONNECTORS

MALE CONNECTOR



SIZE	A	B	C
9	0.290 (7.37)	0.212 (5.38)	0.156 (3.96)
14	0.290 (7.37)	0.212 (5.38)	0.156 (3.96)
18	0.290 (7.37)	0.212 (5.38)	0.156 (3.96)
20	0.290 (7.37)	0.212 (5.38)	0.156 (3.96)
26	0.290 (7.37)	0.212 (5.38)	0.156 (3.96)
34	0.417 (10.59)	0.303 (7.70)	0.220 (5.59)
41	0.290 (7.37)	0.212 (5.38)	0.156 (3.96)
50	0.417 (10.59)	0.303 (7.70)	0.220 (5.59)

ADD 0.030(0.76) TO "B" DIMENSION WHEN MOUNTING BRACKET (LB) AND VIBRATION LOCK TAB (V) ARE USED IN COMBINATION ON CONNECTOR

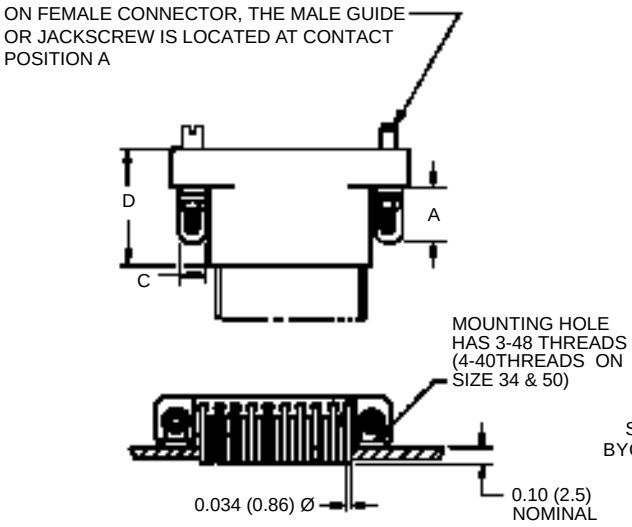
(V) TAB NOT AVAILABLE ON SIZE 50

STANDARD POSITION OF INSULATOR REQUIRES CONTACT "A" TO BE ADJACENT TO THE PRINTED BOARD

FOR FACE DIMENSIONS OF INSULATOR VARIANT DESIRED, SEE GM SERIES INSULATOR DIMENSION PAGE

GAPL SERIES RIGHT ANGLE PRINTED BOARD MOUNT CONNECTORS

FEMALE CONNECTOR



SIZE	A	B	C	D
9	0.290 (7.37)	0.212 (5.38)	0.156 (3.96)	0.856 (21.74)
14	0.290 (7.37)	0.212 (5.38)	0.156 (3.96)	0.887 (22.53)
18	0.290 (7.37)	0.212 (5.38)	0.156 (3.96)	0.887 (22.53)
20	0.290 (7.37)	0.212 (5.38)	0.156 (3.96)	0.856 (21.74)
26	0.290 (7.37)	0.212 (5.38)	0.156 (3.96)	0.887 (22.53)
34	0.417 (10.59)	0.303 (7.70)	0.220 (5.59)	0.856 (21.74)
41	0.290 (7.37)	0.212 (5.38)	0.156 (3.96)	0.877 (22.28)
50	0.417 (10.59)	0.303 (7.70)	0.220 (5.59)	0.856 (21.74)

ADD 0.030(0.76) TO "B" DIMENSION WHEN MOUNTING BRACKET (LB) AND VIBRATION LOCK TAB (V) ARE USED IN COMBINATION ON CONNECTOR

(V) TAB NOT AVAILABLE ON SIZE 50

STANDARD POSITION OF INSULATOR REQUIRES CONTACT "A" TO BE ADJACENT TO THE PRINTED BOARD

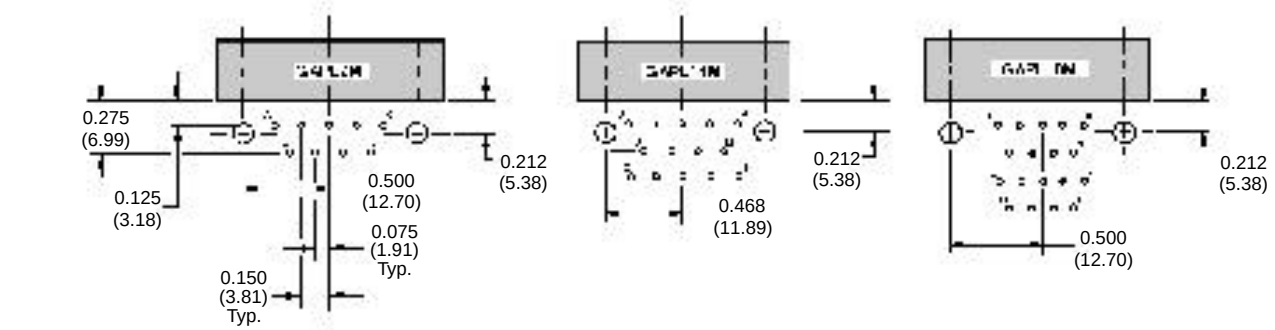
CONTACT MATERIAL: COPPER ALLOY

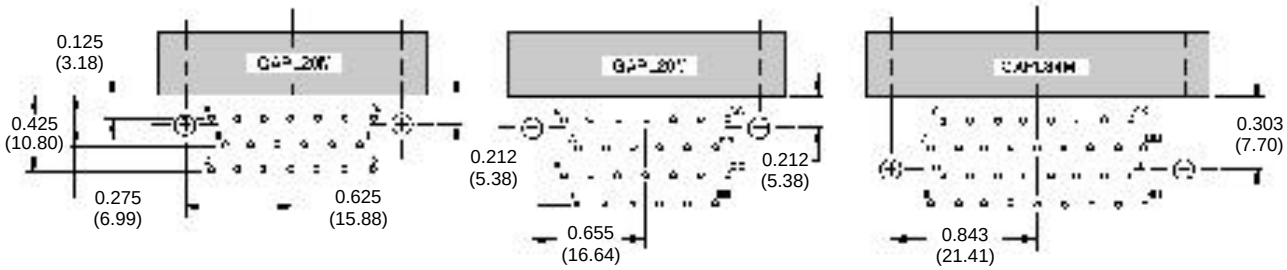
CONTACT FINISH: GOLD FLASH OVER NICKEL

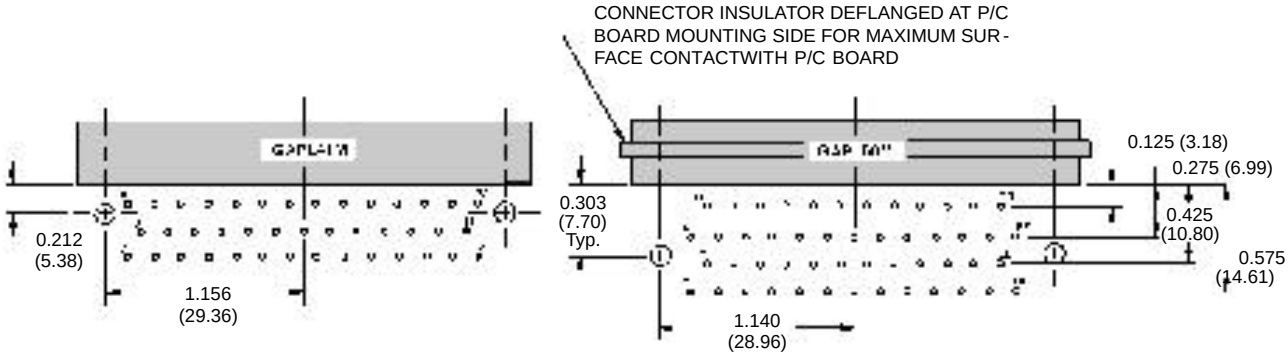
FOR FACE DIMENSIONS OF INSULATOR VARIANT DESIRED, SEE GMCT SERIES INSULATOR DIMENSION PAGE

DIMENSIONS ARE IN INCHES (MILLIMETERS). ALLDIMENSIONS ARE SUBJECT TO CHANGE.

GAPL SERIES MALE RIGHT ANGLE PRINTED BOARD HOLE PATTERN







SUGGEST 0.109 (2.77) Ø HOLES IN PRINTED BOARD FOR CONNECTOR MOUNTING HOLES FOR VARIANTS 9, 14, 18, 20, 26 AND 41

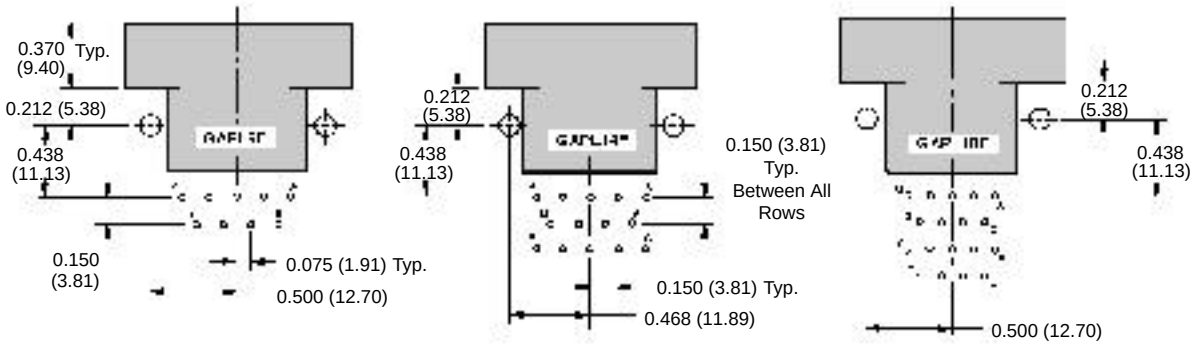
SUGGEST 0.125 (3.18) Ø HOLES IN PRINTED BOARD FOR CONNECTOR MOUNTING HOLES FOR VARIANTS 34 AND 50

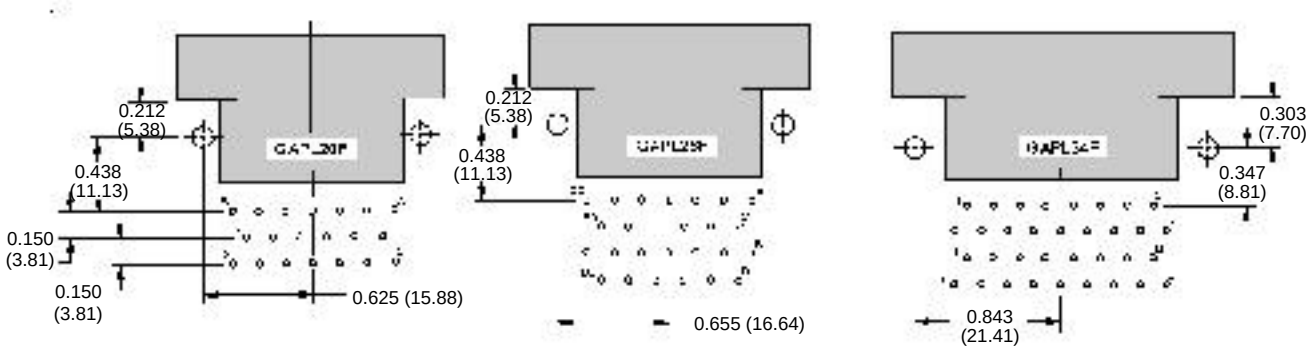
SUGGEST 0.052 (1.32) Ø HOLES IN PRINTED BOARD FOR CONTACT TERMINATIONS

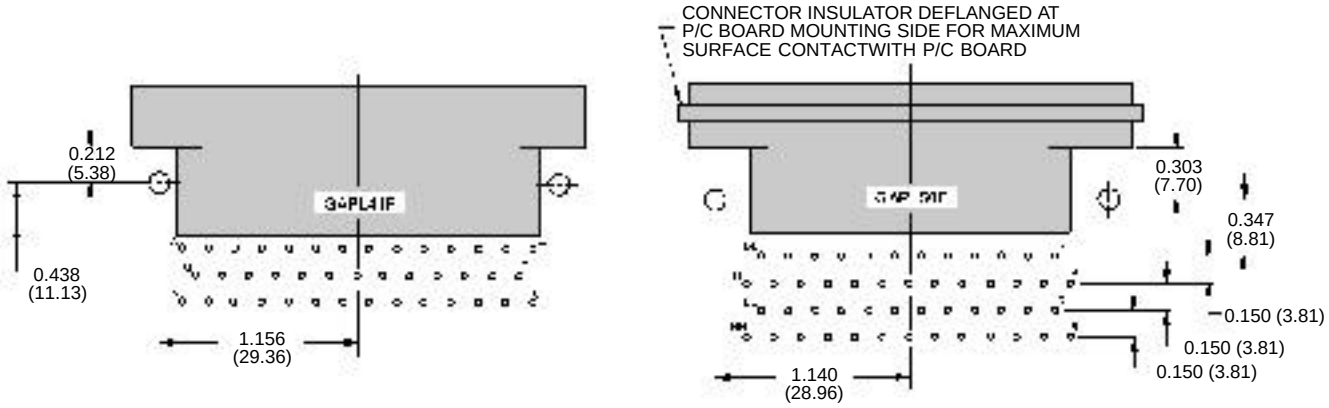
ADD 0.030 (0.76) TO THE MOUNTING HOLE POSITION WHEN MOUNTING BRACKET (LB) AND VIBRATION LOCK TAB (V) ARE USED IN COMBINATION ON CONNECTOR

**DIMENSIONS ARE IN INCHES (MILLIMETERS).
ALLDIMENSIONS ARE SUBJECT TO CHANGE.**

GAPL SERIES FEMALE RIGHT ANGLE PRINTED BOARD HOLE PATTERN







SUGGEST 0.109 (2.77) Ø HOLES IN PRINTED BOARD FOR CONNECTOR MOUNTING HOLES FOR VARIANTS 9, 14, 18, 20, 26 AND 41

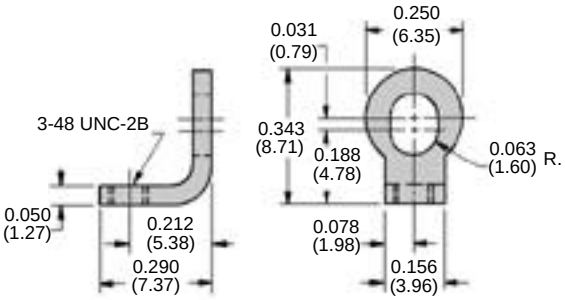
SUGGEST 0.125 (3.18) Ø HOLES IN PRINTED BOARD FOR CONNECTOR MOUNTING HOLES FOR VARIANTS 34 AND 50

SUGGEST 0.052 (1.32) Ø HOLES IN PRINTED BOARD FOR CONTACT TERMINATIONS

ADD 0.030 (0.76) TO THE MOUNTING HOLE POSITION WHEN MOUNTING BRACKET (LB) AND VIBRATION LOCK TAB (V) ARE USED IN COMBINATION ON CONNECTOR

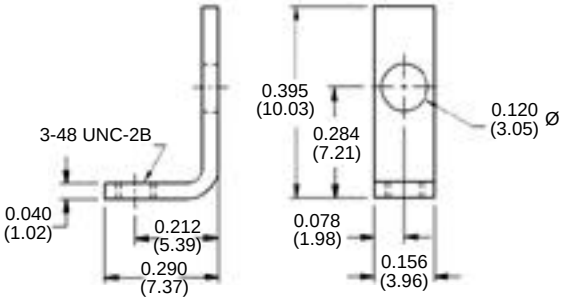
**DIMENSIONS ARE IN INCHES (MILLIMETERS).
ALLDIMENSIONS ARE SUBJECT TO CHANGE.**

GAPL SERIES CONNECTOR MOUNTING BRACKET



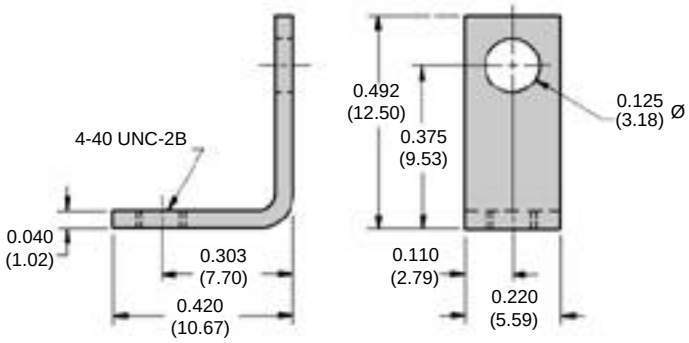
USE ON CONNECTOR VARIANTS
9, 14, 20 AND 41

MATERIAL: ALUMINUM
FINISH: YELLOW CHROMATE



USE ON CONNECTOR VARIANTS
18 AND 26

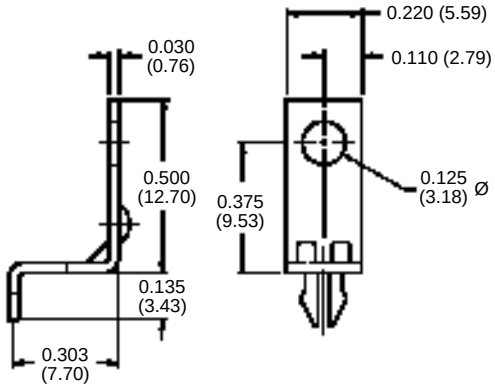
MATERIAL: COPPER ALLOY
FINISH: ZINC PLATE WITH DICHROMATE SEAL



USE ON CONNECTOR VARIANTS
34 AND 50

MATERIAL: COPPER ALLOY
FINISH: ZINC PLATE WITH DICHROMATE SEAL

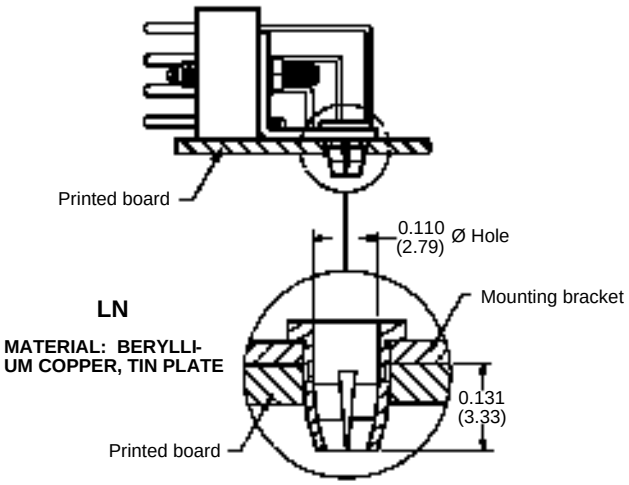
PUSH-ON FASTENER FOR RIVETED ON RIGHT ANGLE MOUNTING BRACKETS



LN2

MATERIAL: COPPER ALLOY, TIN PLATE

SUGGEST 0.123 ±0.003 (3.12) Ø HOLE FOR MOUNTING CONNECTOR WITH PUSH-ON FASTENER



LN

MATERIAL: BERYLLI-UM COPPER, TIN PLATE

SAMPLE #	PRINTED BRD. HOLE Ø	INSERTION FORCE (lbs.)	RETENTION FORCE (lbs.)
1	0.120 (3.05)	7 1/4	5 3/4
2	0.123 (3.12)	5 3/4	5 1/2
3	0.125 (3.18)	2 3/4	2 1/2
4	0.128 (3.25)	1 3/4	2 1/4
5	0.126 (3.20) PLATED	1 3/4	2 1/4

DIMENSIONS ARE IN INCHES (MILLIMETERS).
ALLDIMENSIONS ARE SUBJECT TO CHANGE.

ORDERING INFORMATION – CODE NUMBERING SYSTEM

Specify Complete Connector By Following Steps 1 Through 7
Insert "0" When Step Is Not Used

STEP	1	2	3	4	5	6	7	—	8
	GAPL	14	M	0	N	V	LB		

STEP 1 - Basic Series
GAPLSeries.

STEP 2 -
GAPL Series Connector Variants
9, 14, 18, 20, 26, 34, 41, 50

STEP 3 - Connector Gender
M - Male insulator.
F - Female insulator.

STEP 4 - Contact Type
0 - Standard termination.

STEP 7 - Mounting Bracket
LB - Mounting bracket.
0 - If no mounting bracket is required.
LN - Mounting bracket with push-on fastener, offered on size 34 and 50 only.
LN2 - Mounting bracket with push-on fastener, offered on size 34 and 50 only.

***STEP 6 - Locking Devices**
V - Lock tab.
VL - Lock lever.
0 - If no locking devices are required.

***STEP 5 - Polarizing Guides and Jackscrew System**
G - Polarizing grounding guides.
N - Polarizing guides.
NSS - Stainless steel polarizing guides.
T - Fixed jackscrews.
0 - If no polarizing guides or jackscrews are required.

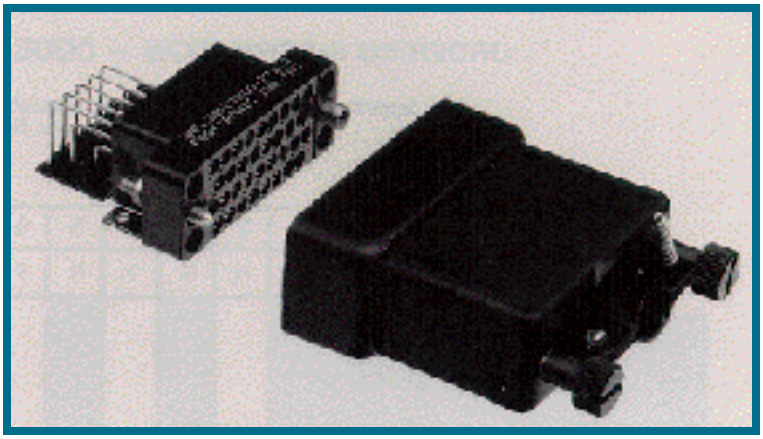
*** NOTE: FOR DETAILS OF ITEMS LISTED IN STEPS 5 AND 6, SEE HEAVY-DUTY RECTANGULAR CONNECTOR ACCESSORIES SECTION.**

V.35 Series

HEAVY-DUTY RECTANGULAR CCITT V.35 INTERFACE CONNECTORS

Size 16 Contacts
Connectors Qualified to MIL-DTL-28748
Contacts Qualified to MIL-C-39029
IEC Publication 807-7
ISO International Standard 2593

U.L. Recognized, File #E49351
Telecommunication U.L. File #E140980



VMCT and VAPL series connectors are high reliability connectors meeting international standards for CCITT V.35 interfacing. To meet these specifications, VMCT and VAPL series connectors come in 34 position glass filled DAP insulators with 0.062 inch (1.57mm) diameters, size 16 contacts rated to 13 amperes.

VMCT Series connectors are offered in crimp, solder cup, printed board mount, press-fit and wrap post terminations. VAPL Series connectors have right angle printed board mount terminations. VMCT and VAPL series connectors meet performance requirements for MIL-DTL-28748 and MIL-C-39029.

A wide array of mounting, locking, shrouding and polarizing accessories is available for these connectors. For details, see the Heavy-Duty Rectangular Connector Accessories section, GMCT 34 variant.

VMCT and VAPL series connectors were specifically designed to satisfy requirements for V.35 interfacing and high speed data transmission found in the telecommunications, modem and computer industries. These connectors fully comply with the contact and jackscrew system requirements of ISO standard 2593, as revised by ISO TC 97/SC6 N 2599 and 3236.

V.35 SERIES TECHNICAL CHARACTERISTICS

VMCT SERIES CONNECTORS WITH REMOVABLE CONTACTS

MILITARY SPECIFICATIONS:

Qualified to MIL-DTL-28748/3 and MIL-DTL-28748/4. Contacts qualified to MIL-C-39029/34 and MIL-C-39029/35.

INTERNATIONAL STANDARDS:

IEC 807-1 and IEC 807-7.
U.L. Recognized.

MATERIALS AND FINISHES:

Insulator:	Glass filled DAP per ASTM-D-5948 type SDG-F. Grey color is standard, black available.
Removable Contacts:	Copper alloy with gold flash over nickel. Military contacts plated 0.000050 inch (1.27 microns) gold over copper. Other finishes available upon request.
Hoods, Cable Adapters:	Aluminum with yellow or black anodize. Steel with zinc plate and dichromate seal.
Shells:	Aluminum with yellow or black anodize.
Jackscrew System:	Passivated stainless steel.
Polarizing Guides:	Copper alloy with nickel plate or passivated stainless steel.
Vibration Locks:	Copper alloy with zinc plate and dichromate seal.

MECHANICAL CHARACTERISTICS:

Removable Contacts:	Insert contact to rear face of insulator, release from front face of insulator. Size 16 (13 amps.) contacts available. Female contact has “closed entry” design for highest reliability.
Contact Retention in Insulator:	20 lbs. (89N) after 10 cycles of contact insertion extraction.
Contact Termination:	Crimp all wire sizes from 14 AWG (2.5 mm^2) through 32 AWG (0.03 mm^2). Solder cup, wrap post, press-fit and printed board mount.
Locking Systems:	Friction, vibration locks and jackscrews.
Polarization:	Polarized guides, polarized shells and jackscrew system.
Mechanical Operations:	1000 operations per IEC 512-5.
Jackscrews:	Standard threads, 6-32 UNC. Metric threads, M3X0.5 available.

ELECTRICAL CHARACTERISTICS:

Contact Current Rating:	Size 16: 0.062 inch(1.57 mm) diameter – 13 amps nominal.
Initial ContactResistance:	Size 16 – 0.003 ohms.
Flash over Voltage:	2700 V.AC (rms).
Test Voltage:	Size 16 – 2000 V.AC (rms).
Insulation Resistance (minimum):	5 G ohms.
Clearance and Creepage Distance (minimum):	0.080 inch (2.03 mm).
Working Temperature:	-55°C to 125°C.
Working Voltage:	250 V.AC (rms).

VAPL SERIES TECHNICAL CHARACTERISTICS

MILITARY SPECIFICATIONS:

Conforms to MIL-DTL-28748.

INTERNATIONAL STANDARDS:

IEC 807-1 and IEC 807-7.
U.L. Recognized.

MATERIALS AND FINISHES:

Insulator:	Glass filled DAP per ASTM-D-5948 type SDG-F. Grey color is standard, black available.
Fixed Contacts:	Copper alloy, gold flash over nickel.
Jackscrew System:	Passivated stainless steel.
Polarizing Guides:	Copper alloy with nickel plate or passivated stainless steel.
Vibration Locks:	Copper alloy with zinc plate and dichromate seal.

MECHANICAL CHARACTERISTICS:

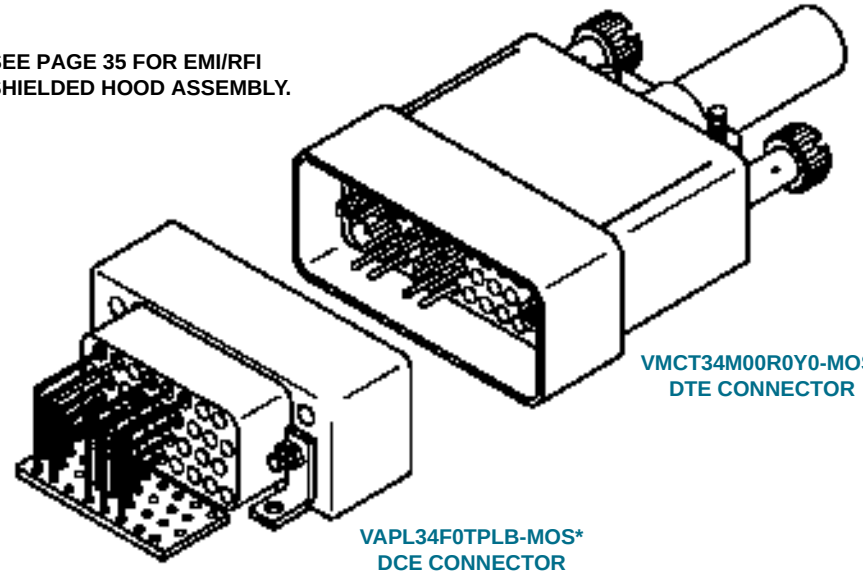
Fixed Contacts:	**Male** – Size 16: 0.062 inch (1.57 mm) diameter. **Female** – "Closed entry" design for highest reliability.
Contact Retention in Insulator:	10 lbs. (44.5N) minimum.
Contact Termination:	Right angle printed board mounted.
Locking Systems:	Friction, vibration locks and jackscrews.
Polarization:	Polarized guides and jackscrew system.
Mechanical Operations:	1000 operations per IEC 512-5.
Jackscrews:	Standard threads, 6-32 UNC. Metric threads, M3X0.5 available.

ELECTRICAL CHARACTERISTICS:

Contact Current Rating:	7.5 amps. limited at contact termination diameter.
Initial ContactResistance:	0.003 ohms.
Flash over Voltage:	2500 V.AC (rms).
Test Voltage:	1200 V.AC (rms).
Insulation Resistance (minimum):	5 G ohms.
Clearance and Creepage Distance (minimum):	0.047 inch (1.19 mm).
Working Temperature:	-55°C to 125°C.
Working Voltage:	250 V.AC (rms).

VMCT/VAPL SERIES TYPICAL CONNECTOR MATING ASSEMBLY

SEE PAGE 35 FOR EMI/RFI SHIELDED HOOD ASSEMBLY.



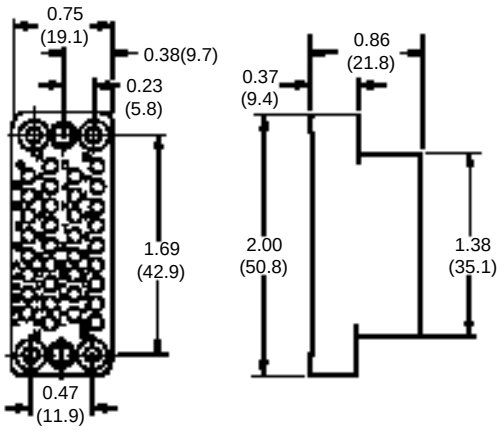
VMCT34M00R0Y0-MOS*
DTE CONNECTOR

VAPL34F0TPLB-MOS*
DCE CONNECTOR

*** MOS DESIGNATES THE NUMBERING SYSTEM FOR SPECIAL CUSTOMER REQUIREMENTS. SELECTIVE LOADING OF CONTACTS FOR V.35 CONNECTORS IS ACHIEVED THROUGH THIS SYSTEM. PLEASE CONTACT TECHNICAL SALES FOR DETAILS.**

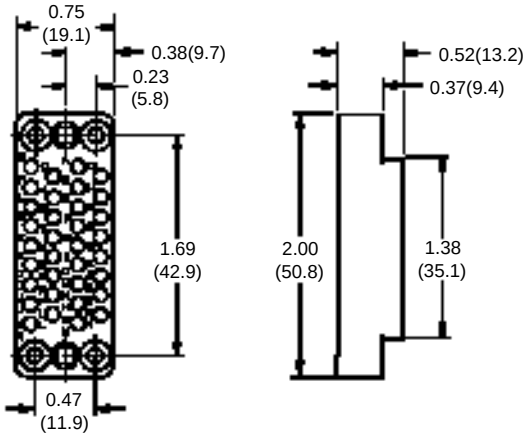
VMCT SERIES CONNECTOR INSULATOR DIMENSIONS

FEMALE CONNECTOR



FOR VMCT (V.35) SERIES CONTACTS,
SEE GMCT SERIES CONTACT SECTION

MALE CONNECTOR

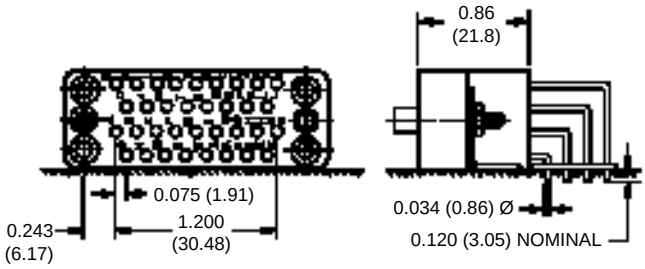


FOR VMCT SERIES CONTACT HOLE POSITIONS,
SEE GMCT SERIES CONTACT HOLE POSITIONS, PAGE 7

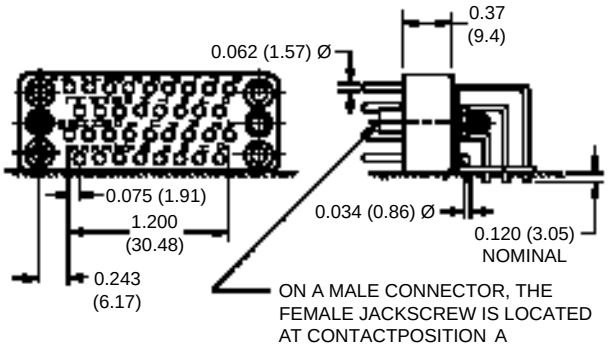
MATERIAL: GLASS FILLED DIALLYL PHTHALATE
PER ASTM-D-5948 TYPE SDG-F

VAPL SERIES RIGHT ANGLE PRINTED BOARD MOUNT CONNECTORS

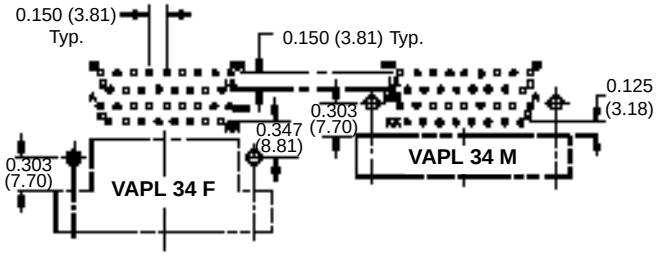
FEMALE CONNECTOR



MALE CONNECTOR



VAPL SERIES RIGHT ANGLE PRINTED BOARD HOLE PATTERN

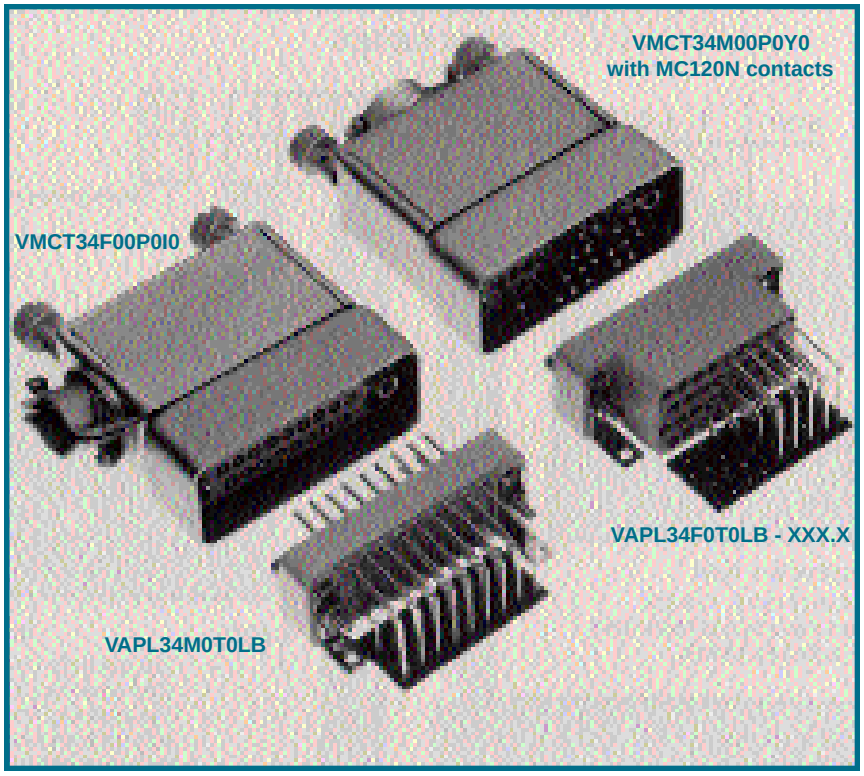


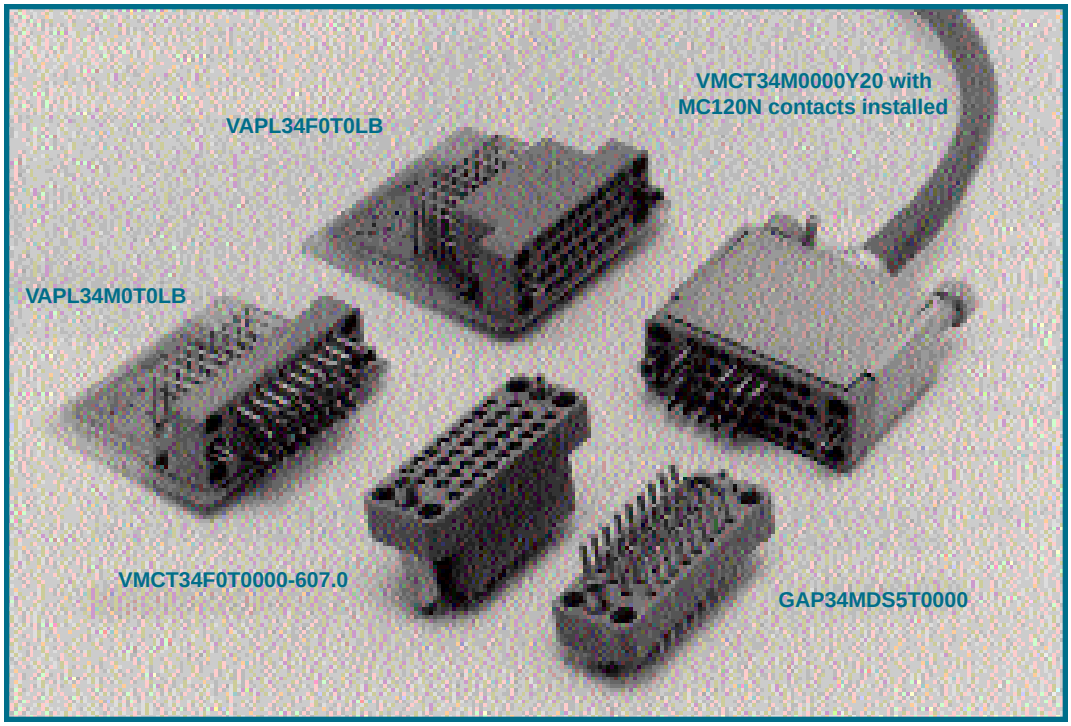
FOR MOUNTING BRACKET DIMENSIONS SEE GAPLSERIES, GAPL 34 VARIANT, PAGE 45

DIMENSIONS ARE IN INCHES (MILLIMETERS).
ALLDIMENSIONS ARE SUBJECT TO CHANGE.

SUGGEST 0.052 (1.32) Ø HOLES IN PRINTED BOARD FOR CONTACT TERMINATIONS
SUGGEST 0.125 (3.18) Ø HOLES IN PRINTED BOARD FOR CONNECTOR MOUNTING HOLES

HEAVY-DUTY RECTANGULAR CCITT V.35 INTERFACE CONNECTORS





ORDERING INFORMATION – CODE NUMBERING SYSTEM

Specify Complete Connector By Following Steps 1 Through 9
Insert "0" When Step Is Not Used

VMCT SERIES

STEP	1	2	3	4	5	6	7	8	9		10
	VMCT	34	F	0	0	R	B	Z	0	–	

STEP 1 - Basic Series
VMCT Series (V.35).

STEP 2 - VMCT Series 34 Connector Variant

STEP 3 - Connector Gender
M - Male insulator.
F - Female insulator.

STEP 4 - Contact Termination Type
All Female contacts "closed entry" design.
0 - Contacts are to be ordered separately, see contact ordering charts.

***STEP 5 - Polarizing Guides and Jackscrew System**
G - Polarizing grounding guides.
N - Polarizing guides.
NSS - Stainless steel polarizing guides.
T - Fixed jackscrews.
E - Short turnable jackscrews, offered with set screw option.
EL - Long turnable jackscrews, offered with set screw option.
0 - If no polarizing guides or jackscrews are required. Also, use "0" if ordering hoods equipped with jackscrews, see STEP8.

***STEP 6 - Shells and Mounting Plates**
P - Male shell.
R - Female shell.
H - Mounting plate.
W - Male shell with mounting plate.
U - Female shell with mounting plate.
0 - If no shells or mounting plates are required.

***STEP 7 - Polarization Positions of Shells**
Select letter to designate position of male pin and female slot for polarization system.
A, B, C, D, E, F, G
0 - If no polarization is required or if no shells are required.

***STEP 8 - Cable Adapters (Hoods)**
J - Top opening hood (formed).
L - Side opening hood (formed).
Y - Top opening hood (formed), equipped with stainless steel jackscrew system.
I - Side opening hood (formed), equipped with stainless steel jackscrew system.
Z - Top opening hood (drawn, side access), equipped with stainless steel jackscrew system.
V - Side opening hood (drawn, side access), equipped with stainless steel jackscrew system.
0 - If no hoods are required.

***STEP 9 - Additional Options**
B - For black anodized aluminum parts.
C - Set screw option, offered on the E and EL jackscrew systems.
R - For yellow chromate coating on aluminum parts.
V - Lock tab.
VL - Lock lever.
FB - Floating bushings for mounting plate.
0 - If no additional options are required.

*** NOTE: FOR DETAILS OF ITEMS LISTED IN STEPS 5 THROUGH 9, SEE HEAVY-DUTY RECTANGULAR CONNECTOR ACCESSORIES SECTION, GMCT 34 VARIANT.**

ORDERING INFORMATION – CODE NUMBERING SYSTEM

Specify Complete Connector By Following Steps 1 Through 7
Insert "0" When Step Is Not Used

VAPL SERIES

STEP	1	2	3	4	5	6	7	—	8
	VAPL	34	F	0	T	0	LB		

STEP 1 - Basic Series
VAPLSeries (V.35).

STEP 2 -
VAPL Series 34 Connector Variant

STEP 3 - Connector Gender
M - Male insulator.
F - Female insulator.

STEP 4 - Contact Type
0 - Standard termination.

STEP 7 - Mounting Bracket
LB - Mounting bracket.
0 - If no mounting bracket is required.
LN - Mounting bracket with push-on fastener.
LN2 - Mounting bracket with one-piece bracket and push-on fastener.

***STEP 6 - Locking Devices**
V - Lock tab.
VL - Lock lever.
0 - If no locking devices are required.

***STEP 5 - Polarizing Guides and Jackscrew System**
G - Polarizing grounding guides.
N - Polarizing guides.
NSS - Stainless steel polarizing guides.
T - Fixed jackscrews.
0 - If no polarizing guides or jackscrews are required.

*** NOTE: FOR DETAILS OF ITEMS LISTED IN STEPS 5 AND 6, SEE HEAVY-DUTY RECTANGULAR CONNECTOR ACCESSORIES SECTION, GMCT 34 VARIANT.**

FOR MOUNTING BRACKET DIMENSIONS, SEE GAPL SERIES, GAPL 34 VARIANT

GM Series

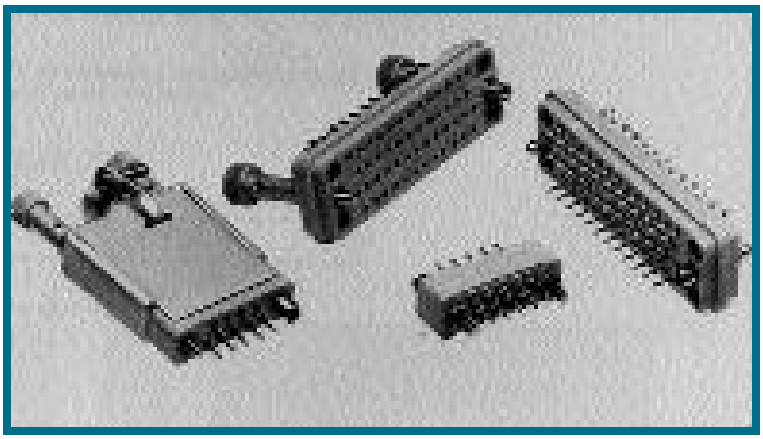
RECTANGULAR CONNECTORS with FIXED SOLDER CONTACTS

Size 20 Contacts

Qualified to MIL-DTL-28748

IEC Publication 807-6

U.L. Recognized File #E49351



GM Series connectors are multi-pole, high reliability connectors qualified to MIL-DTL-28748 specifications. Contacts are 0.040 inch (1.02mm) diameters, rated to 7.5 amperes per contact. Termination styles are solder cup and straight solder printed board mount. Eleven connector variants, seven through 50 poles, are offered.

A wide array of mounting, locking, shrouding and polarizing accessories is available for this series. For details, see the Heavy-Duty Rectangular Connector Accessories section.

The GM Series is a popular choice of engineers in all areas of electronics and is widely utilized in navigational systems, robotics, mainframe and peripheral computers, medical equipment, telecommunications, instrumentation and process control applications.

GM Series connectors are not mateable with GMCT Series connectors and contacts.

GM SERIES TECHNICAL CHARACTERISTICS

MILITARY SPECIFICATIONS:

Qualified to MIL-DTL-28748/5 and MIL-DTL-28748/6.

INTERNATIONAL STANDARDS:

IEC 807-6.
U.L. Recognized.

MATERIALS AND FINISHES:

Insulator:	Glass filled DAP per ASTM-D-5948 type SDG-F. Grey color is standard, black available.
Fixed Contacts:	**Solder** - Copper alloy, gold flash over nickel. **Printed Board Mounted** - Copper alloy, gold flash over nickel. **Military** - Copper alloy, 0.000050 inch (1.27 microns) gold over nickel. Other finishes available upon request.
Hoods, Cable Adapters:	Aluminum with yellow or black anodize.
Shells:	Aluminum with yellow or black anodize.
Jackscrew System:	Passivated stainless steel.
Polarizing Guides:	Copper alloy with nickel plate or passivated stainless steel.
Vibration Locks:	Copper alloy with zinc plate and dichromate seal.

MECHANICAL CHARACTERISTICS:

Fixed Contacts:	**Male** - Size 20: 0.040 inch (1.02 mm^2) diameter. **Female** - Open entry is standard. "Closed entry" available on solder cup style for high reliability applications.
Contact Retention in Insulator:	10 lbs. (44.5N) minimum.
Contact Termination:	0.046 inch (1.17 mm) internal diameter on solder cup style contact for 20 AWG (0.5 mm^2) wire maximum. 0.025 inch (0.64 mm) diameter printed board mount style contact.
Locking Systems:	Friction, vibration locks and jackscrews.
Polarization:	Polarized guides, polarized shells and jackscrew system.
Mechanical Operations:	With "closed entry" female contacts, 500 operations per IEC 512-5.
Jackscrews:	Standard threads, 6-32 UNC. Metric threads, M3X0.5 available.

ELECTRICAL CHARACTERISTICS:

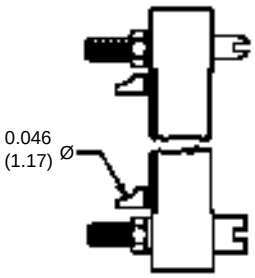
Contact Current Rating (maximum):	7.5 amps.
Initial ContactResistance:	0.010 ohms.
Flash over Voltage:	2500 V.AC (rms).
Test Voltage:	1200 V.AC (rms).
Insulation Resistance (minimum):	5 G ohms.
Clearance and Creepage Distance (minimum):	0.047 inch (1.19 mm).
Working Temperature:	-55°C to 125°C.
Working Voltage:	300 V.AC (rms).

GM SERIES CONNECTORS WITH SOLDER CUP CONTACTS

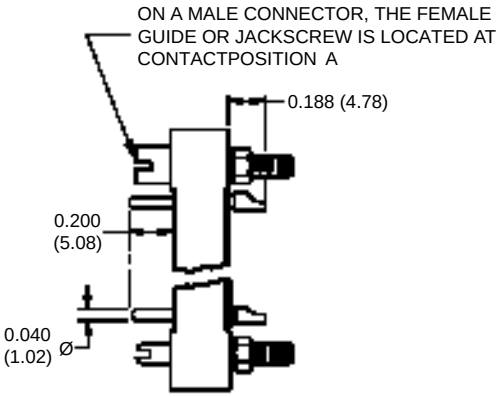
CONTACT MATERIAL: COPPER ALLOY

CONTACT FINISH: GOLD FLASH OVER NICKEL
"CLOSED ENTRY" FEMALE CONTACT AVAILABLE

SPECIFYCODE "CE" IN STEP10 OF ORDERING INFORMATION



Typical Part Number: GM14FSCN0000

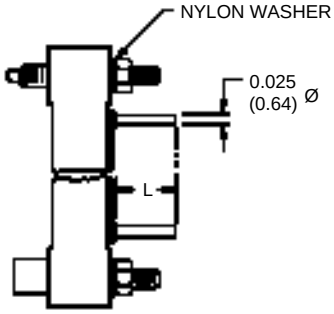


Typical Part Number: GM14MSCN0000

GM SERIES CONNECTORS WITH STRAIGHT SOLDER CONTACTS FOR PRINTED BOARD MOUNT

CONTACT MATERIAL: COPPER ALLOY

CONTACT FINISH: GOLD FLASH OVER NICKEL



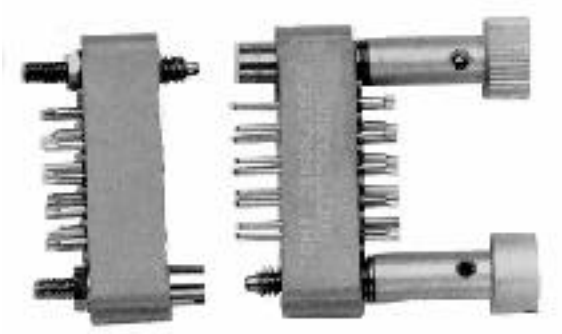
Typical Part Number: GM34FDS5T0000

CONTACT CODE	L
DS3	0.093 (2.36)
DS4	0.125 (3.18)
DS5	0.156 (3.96)
DS6	0.187 (4.75)

SEE GM SERIES PRINTED BOARD HOLE PATTERN PAGE FOR CONNECTOR VARIANT CONTACT HOLE POSITIONS

SPECIFYCONTACT CODE IN STEP4 OF ORDERING INFORMATION FOR DESIRED LENGTH OF CONTACT TERMINATION

TYPICAL MATING ASSEMBLY

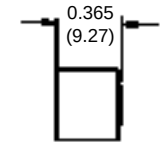


GM9FSCT0000 GM9MSCE0000

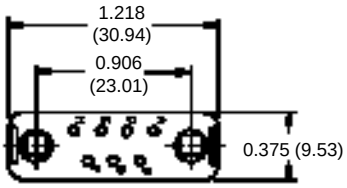
DIMENSIONS ARE IN INCHES (MILLIMETERS).
ALLDIMENSIONS ARE SUBJECT TO CHANGE.

GM SERIES INSULATOR DIMENSIONS

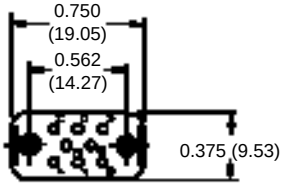
MATING FACE OF FEMALE CONNECTOR OR REAR FACE OF MALE CONNECTOR



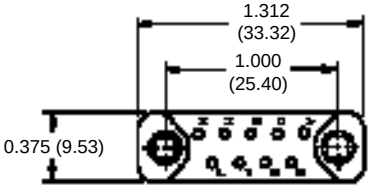
MALE AND FEMALE
PROFILE VIEW



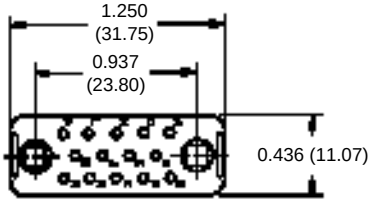
GM7



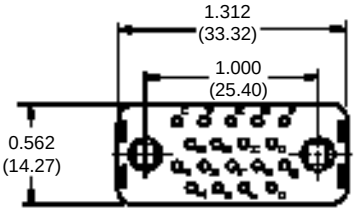
GM8



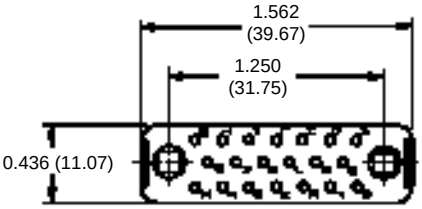
GM9



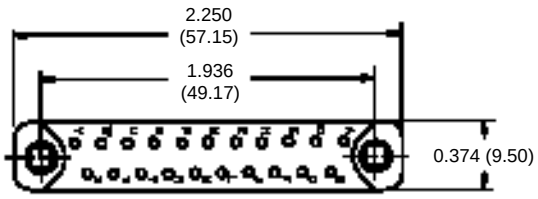
GM14



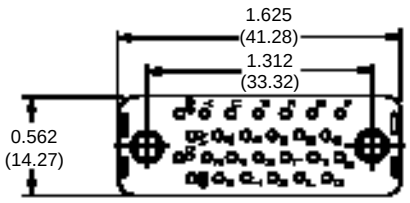
GM18



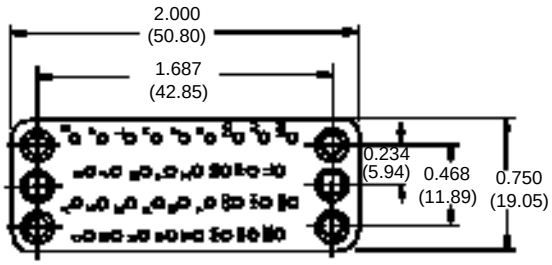
GM20



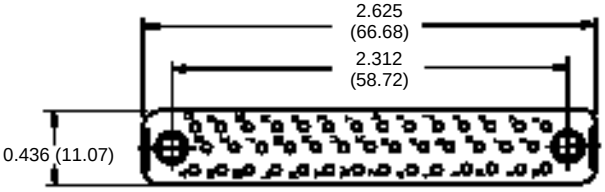
GM21



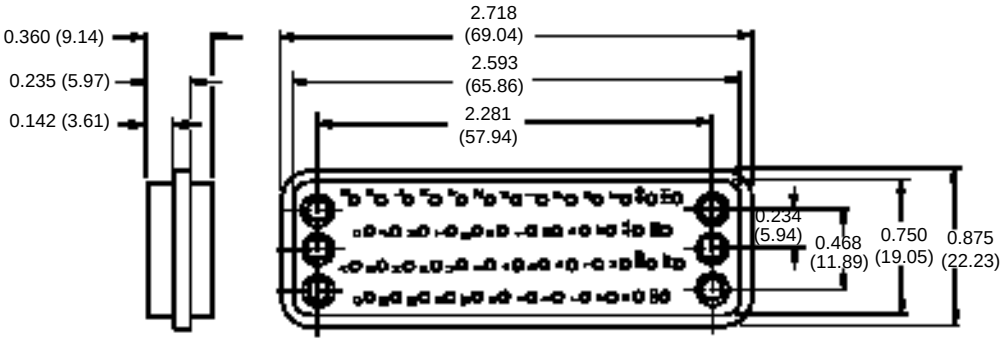
GM26



GM34



GM41



GM50

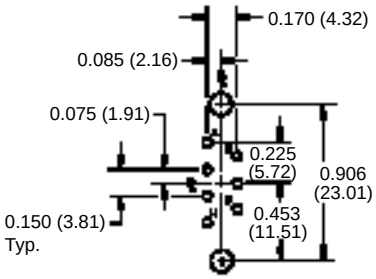
SEE GM SERIES PRINTED BOARD HOLE PATTERN PAGE FOR CONNECTOR VARIANT CONTACT HOLE POSITIONS

MATERIAL: GLASS FILLED DIALLYLPHTHALATE PER ASTM-D-5948 TYPE SDG-F

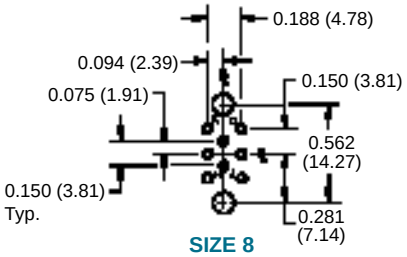
DIMENSIONS ARE IN INCHES (MILLIMETERS).
ALLDIMENSIONS ARE SUBJECT TO CHANGE.

GM SERIES CONTACT HOLE POSITION DIMENSIONS AND PRINTED BOARD HOLE PATTERN

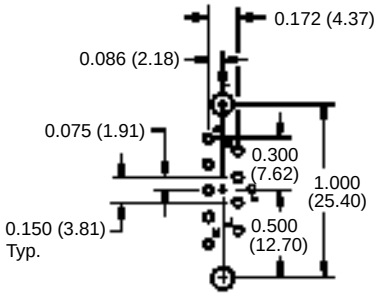
MATING FACE OF FEMALE CONNECTOR OR REAR FACE OF MALE CONNECTOR



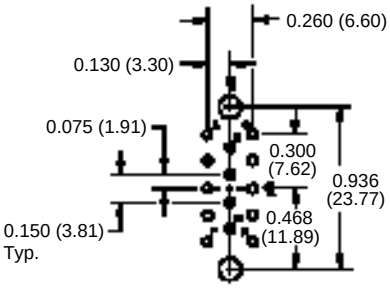
SIZE 7



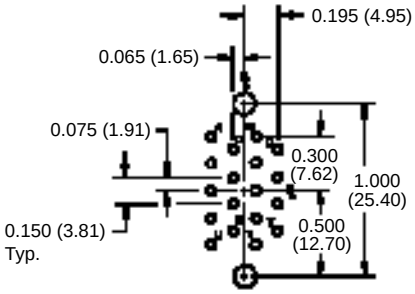
SIZE 8



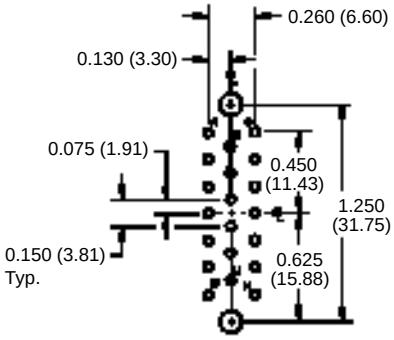
SIZE 9



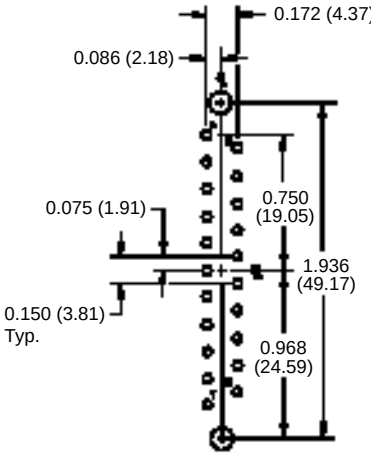
SIZE 14



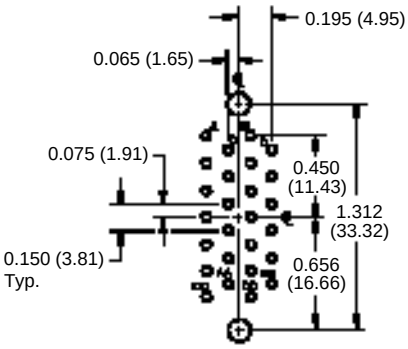
SIZE 18



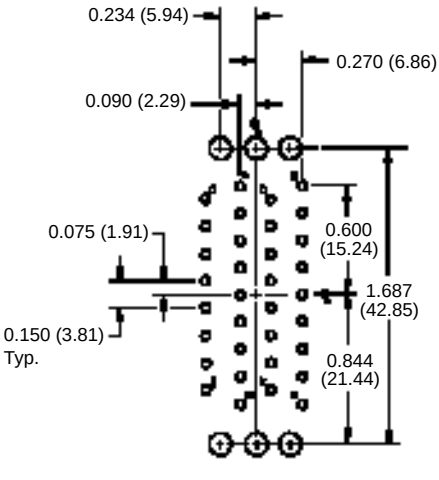
SIZE 20



SIZE 21



SIZE 26



SIZE 34

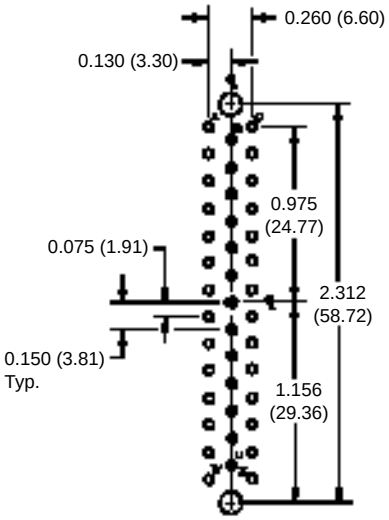
SUGGEST 0.120 (3.05) Ø HOLES IN PRINTED BOARD FOR CONNECTOR MOUNTING HOLES
SUGGEST 0.040 (1.02) Ø HOLE IN PRINTED BOARD FOR CONTACT TERMINATIONS

HOLE IDENTIFICATION FOR REFERENCE ONLY

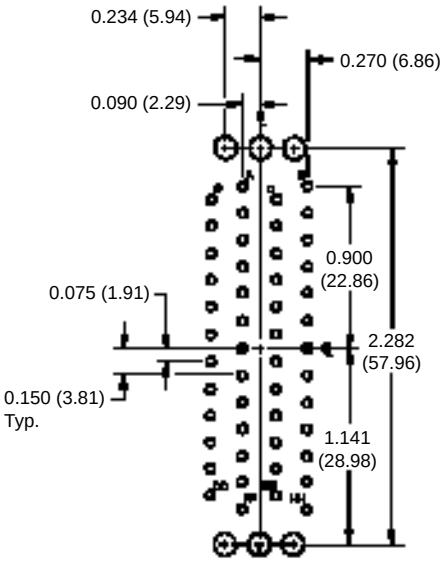
DIMENSIONS ARE IN INCHES (MILLIMETERS).
ALLDIMENSIONS ARE SUBJECT TO CHANGE.

GM SERIES CONTACT HOLE POSITION DIMENSIONS AND PRINTED BOARD HOLE PATTERN

MATING FACE OF FEMALE CONNECTOR OR REAR FACE OF MALE CONNECTOR



SIZE 41



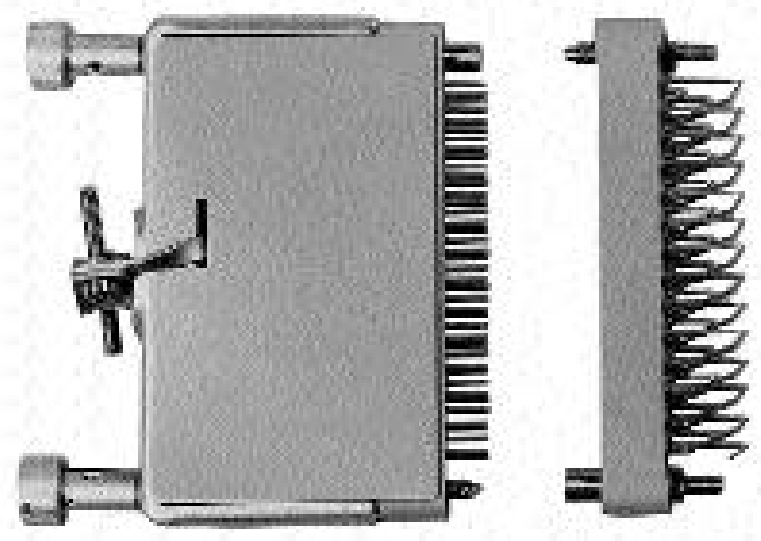
SIZE 50

SUGGEST 0.120 (3.05) Ø HOLES IN PRINTED BOARD FOR CONNECTOR MOUNTING HOLES

SUGGEST 0.040 (1.02) Ø HOLE IN PRINTED BOARD FOR CONTACT TERMINATIONS

HOLE IDENTIFICATION FOR REFERENCE ONLY

TYPICAL MATING ASSEMBLY



GM41MSCE100J0

GMPL41F0T00

DIMENSIONS ARE IN INCHES (MILLIMETERS).
ALLDIMENSIONS ARE SUBJECT TO CHANGE.

ORDERING INFORMATION – CODE NUMBERING SYSTEM

Specify Complete Connector By Following Steps 1 Through 9
Insert "0" When Step Is Not Used

STEP	1	2	3	4	5	6	7	8	9		10
	GM	41	M	SC	E1	0	0	J	0		

STEP 1 - Basic Series
GM Series.

STEP 2 -
GM Series Connector Variants
7, 8, 9, 14, 18, 20, 21, 26, 34, 41, 50

STEP 3 - Connector Gender
M - Male insulator.
F - Female insulator.

STEP 4 - Contact Termination Type
SC - Solder cup, for closed entry female contact specify 'CE'in Step 10.
DS3 - Straight solder [0.093 (2.36)].
DS4 - Straight solder [0.125 (3.18)].
DS5 - Straight solder [0.156 (3.96)].
DS6 - Straight solder [0.187 (4.75)].

***STEP 5 - Polarizing Guides and Jackscrew System**
G - Polarizing grounding guides.
N - Polarizing guides.
NSS - Stainless steel polarizing guides.
T - Fixed jackscrews.
E - Short turnable jackscrews, offered with set screw option.
EL - Long turnable jackscrews, offered with set screw option.
E1 - Turnable jackscrews used on 9, 14, 18, 20, 21, 26 and 41 variant hoods, offered with set screw option.
0 - If no polarizing guides or jackscrews are required. Also, use "0" if ordering hoods equipped with jackscrews for sizes 34 and 50, see Step 8.

***STEP 6 - Shells and Mounting Plates**
P - Male shell, not available on 41 variant.
R - Female shell, not available on 41 variant.
H - Mounting plate, not available on 41 variant.
W - Male shell with mounting plate.
U - Female shell with mounting plate.
0 - If no shells or mounting plates are required.

***STEP 7 - Polarization Positions of Shells**
Select letter to designate position of male pin and female slot for polarization system.
A, B, C, D, E, F, G
0 - If no polarization is required or if no shells are required.

***STEP 8 - Cable Adapters (Hoods)**
J - Top opening hood (formed).
L - Side opening hood (formed).
Y - Top opening hood (formed), equipped with stainless steel jackscrew system, offered on 34 and 50 variants.
I - Side opening hood (formed), equipped with stainless steel jackscrew system, offered on 34 and 50 variants.
Z - Top opening hood (drawn, side access), equipped with stainless steel jackscrew system, offered on 34 and 50 variants.
V - Side opening hood (drawn, side access), equipped with stainless steel jackscrew system, offered on 34 and 50 variants.
0 - If no hoods are required.

***STEP 9 - Additional Options**
B - For black anodized aluminum parts.
C - Set screw option, offered on the E, EL and E1 jackscrew systems.
R - For yellow chromate coating on aluminum parts.
V - Lock tab, offered on 7, 9, 14, 18, 20, 21, 26, 34 and 41 variants.
VL - Lock lever, offered on 7, 9, 14, 18, 20, 21, 26, 34 and 41 variants.
0 - If no additional options are required.

*** NOTE: FOR DETAILS OF ITEMS LISTED IN STEPS 5 THROUGH 9, SEE HEAVY-DUTY RECTANGULAR CONNECTOR ACCESSORIES SECTION.**

ORDERING INFORMATION
FOR MIL-DTL-28748/3 and MIL-DTL-28748/4

CHART #1 MALE CONNECTORS

PART NUMBER EXPLANATIONS

M28748/3	B	B	1	A	S	1A

Step 1 – Basic Part Number M28748/3

Step 2 – Shell Hardware
A - Long Jackscrew Hardware Only
B - All Other Hardware
- - Insert Only (No Hardware)

Step 3 – Insert Size
B - 9 Contact Variant
C - 14 Contact Variant
D - 20 Contact Variant
E - 26 Contact Variant
F - 34 Contact Variant
G - 42 Contact Variant
H - 50 Contact Variant
J - 66 Contact Variant
K - 75 Contact Variant
L - 104 Contact Variant

Step 4 – Shield/Retaining Plate
Shield
1 - Top Opening Hood
2 - Side Opening Hood
5 - Top Opening Hood (Size 66/104)
6 - Side Opening Hood (Size 66/104)
0 - None

Retaining Plate
P

Step 5– Shell
A - A (Polarized Plug)
B - B (Polarized Plug)
C - C (Polarized Plug)
D - D (Polarized Plug)
E - E (Polarized Plug)
F - F (Polarized Plug)
G - G (Polarized Plug)
H - Unpolarized Plug
J - A (Polarized Receptacle)
K - B (Polarized Receptacle)
L - C (Polarized Receptacle)
M - D (Polarized Receptacle)
N - E (Polarized Receptacle)
P - F (Polarized Receptacle)
Q - G (Polarized Receptacle)
R - Unpolarized Receptacle
0 - None

Step 6 – Jackscrews/Guide Pins
M - Long Jackscrews/Shields Only
S - Short Jackscrews/No Shield
F - Fixed Jackscrews/No Shield
G - Guide Pin/No Shield
0 - None Included

Step 7 – Contacts (SEE CHART 5)

CHART #2 FEMALE CONNECTORS

PART NUMBER EXPLANATIONS

M28748/4	B	B	1	A	S	1A

Step 1 – Basic Part Number M28748/4

Step 2 – Shell Hardware
A - Long Jackscrew Hardware Only
B - All Other Hardware
- - Insert Only (No Hardware)

Step 3 – Insert Size
B - 9 Contact Variant
C - 14 Contact Variant
D - 20 Contact Variant
E - 26 Contact Variant
F - 34 Contact Variant
G - 42 Contact Variant
H - 50 Contact Variant
J - 66 Contact Variant
K - 75 Contact Variant
L - 104 Contact Variant

Step 4 – Shield/Retaining Plate
Retaining Plate
P

Shield
1 - Top Opening Hood
2 - Side Opening Hood
5 - Top Opening Hood (Size 66 and 104)
6 - Side Opening Hood (Size 66 and 104)
0 - None

Step 5– Shell
A - A (Polarized Plug)
B - B (Polarized Plug)
C - C (Polarized Plug)
D - D (Polarized Plug)
E - E (Polarized Plug)
F - F (Polarized Plug)
G - G (Polarized Plug)
H - Unpolarized Plug
J - A (Polarized Receptacle)
K - B (Polarized Receptacle)
L - C (Polarized Receptacle)
M - D (Polarized Receptacle)
N - E (Polarized Receptacle)
P - F (Polarized Receptacle)
Q - G (Polarized Receptacle)
R - Unpolarized Receptacle
0 - None

Step 6 – Jackscrews/Guide Pins
M - Long Jackscrews/Shields Only
S - Short Jackscrew/No Shield
F - Fixed Jackscrew/No Shield
G - Guide Pin/No Shield
0 - None

Step 7 – Contacts (SEE CHART 5)

See GMCTSeries Connectors and Accessories Pages 1-36

CHART #3 MALE CONNECTORS

PART NUMBER EXPLANATIONS

M28748/5	B	C	0	0	S	1A

Step 1 – Basic Part Number M28748/5

Step 2 – Shell Hardware
A - Long Jackscrew Hardware Only
B - All Other Hardware
- - Insert Only (No Hardware)

Step 3 – Insert Size
A - 7 Contact Variant
B - 9 Contact Variant
C - 14 Contact Variant
D - 20 Contact Variant
E - 26 Contact Variant
F - 34 Contact Variant
G - 42 Contact Variant
H - 50 Contact Variant
J - 75 Contact Variant
K - 104 Contact Variant
0 - None
Q - 34 Contact Variant (Through Hole, Long Jackscrews)
P - 42 Contact Variant (Through Hole, Long Jackscrews)
N - 50 Contact Variant (Through Hole, Long Jackscrews)
M - 75 Contact Variant (Through Hole, Long Jackscrews)
L - 104 Contact Variant (Through Hole, Long Jackscrews)
R - 7 Contact Variant (No Insert)
S - 9 Contact Variant (No Insert)
T - 14 Contact Variant (No Insert)
U - 20 Contact Variant (No Insert)
V - 26 Contact Variant (No Insert)
W - 34 Contact Variant (No Insert)
Y - 42 Contact Variant (No Insert)
1 - 50 Contact Variant (No Insert)
3 - 75 Contact Variant (No Insert)
5 - 104 Contact Variant (No Insert)
X - 34 Contact Variant (No Insert, Through Hole, Long Jackscrews)
Z - 42 Contact Variant (No Insert, Through Hole, Long Jackscrews)
2 - 50 Contact Variant (No Insert, Through Hole, Long Jackscrews)
4 - 75 Contact Variant (No Insert, Through Hole, Long Jackscrews)
6 - 104 Contact Variant (No Insert, Through Hole, Long Jackscrews)

Step 4 – Shield/Retaining Plate
Shield
1 - Top Opening (With Shell)
2 - Side Opening (With Shell)
3 - Top Opening
4 - Side Opening
0 - None
Retaining Plate
A - Size 9
B - Size 14
C - Size 20
D - Size 26
F - Size 34
H - Size 50
J - Size 75
K - Size 104
0 - None

Step 5– Shell
A - A (Polarized Receptacle)
B - B (Polarized Receptacle)
C - C (Polarized Receptacle)
D - D (Polarized Receptacle)
E - E (Polarized Receptacle)
F - F (Polarized Receptacle)
G - G (Polarized Receptacle)
H - Unpolarized Receptacle
J - A (Polarized Plug)
K - B (Polarized Plug)
L - C (Polarized Plug)
M - D (Polarized Plug)
N - E (Polarized Plug)
P - F (Polarized Plug)
Q - G (Polarized Plug)
R - Unpolarized Plug
0 - None

Step 6 – Jackscrews/Guide Pins
M - Long Jackscrews (Shields Only)
L - Long Jackscrews (One Piece, Shields Only)
S - Short Jackscrews (No Shield)
F - Fixed Jackscrews (No Shield)
G - Guide Pins (No Shield)
0 - None

Step 7 – Contacts
1A - Size 20 Contacts
1L - None

CHART #4 FEMALE CONNECTORS

PART NUMBER EXPLANATIONS

M28748/6	B	C	0	0	S	1A

Step 1 – Basic Part Number M28748/6

Step 2 – Shell Hardware
A - Long Jackscrew Hardware Only
B - All Other Hardware
- - Insert Only (No Hardware)

Step 3 – Insert Size
A - 7 Contact Variant
B - 9 Contact Variant
C - 14 Contact Variant
D - 20 Contact Variant
E - 26 Contact Variant
F - 34 Contact Variant
G - 42 Contact Variant
H - 50 Contact Variant
J - 75 Contact Variant
K - 104 Contact Variant
0 - None
Q - 34 Contact Variant (Through Hole, Long Jackscrews)
P - 42 Contact Variant (Through Hole, Long Jackscrews)
N - 50 Contact Variant (Through Hole, Long Jackscrews)
M - 75 Contact Variant (Through Hole, Long Jackscrews)
L - 104 Contact Variant (Through Hole, Long Jackscrews)
R - 7 Contact Variant (No Insert)
S - 9 Contact Variant (No Insert)
T - 14 Contact Variant (No Insert)
U - 20 Contact Variant (No Insert)
V - 26 Contact Variant (No Insert)
W - 34 Contact Variant (No Insert)
Y - 42 Contact Variant (No Insert)
1 - 50 Contact Variant (No Insert)
3 - 75 Contact Variant (No Insert)
5 - 104 Contact Variant (No Insert)
X - 34 Contact Variant (No Insert, Through Hole, Long Jackscrews)
Z - 42 Contact Variant (No Insert, Through Hole, Long Jackscrews)
2 - 50 Contact Variant (No Insert, Through Hole, Long Jackscrews)
4 - 75 Contact Variant (No Insert, Through Hole, Long Jackscrews)
6 - 104 Contact Variant (No Insert, Through Hole, Long Jackscrews)

Step 4 – Shield/Retaining Plate
Shield
1 - Top Opening (With Shell)
2 - Side Opening (With Shell)
3 - Top Opening
4 - Side Opening
0 - None
Retaining Plate
A - Size 9
B - Size 14
C - Size 20
D - Size 26
F - Size 34
H - Size 50
J - Size 75
K - Size 104
0 - None

Step 5– Shell
A - A (Polarized Receptacle)
B - B (Polarized Receptacle)
C - C (Polarized Receptacle)
D - D (Polarized Receptacle)
E - E (Polarized Receptacle)
F - F (Polarized Receptacle)
G - G (Polarized Receptacle)
H - Unpolarized Receptacle
J - A (Polarized Plug)
K - B (Polarized Plug)
L - C (Polarized Plug)
M - D (Polarized Plug)
N - E (Polarized Plug)
P - F (Polarized Plug)
Q - G (Polarized Plug)
R - Unpolarized Plug
0 - None

Step 6 – Jackscrews/Guide Pins
M - Long Jackscrews (Shields Only)
L - Long Jackscrews (One Piece, Shields Only))
S - Short Jackscrews (No Shield)
F - Fixed Jackscrews (No Shield)
G - Guide Pins (No Shield)
0 - None

Step 7 – Contacts
1A - Size 20 Contacts
1L - None

See GM Series Connectors Pages 53-58 and Accessories Pages 23-36

ORDERING INFORMATION
FOR MIL-DTL-28748/3 and MIL-DTL-28748/4

CHART #5

CONTACT SIZE PERCENT
(FOR M28748/3 CONNECTORS)

CONTACT	SIZE 16-16 M39029/34-273	SIZE 16-20 M39029/34-272	SIZE 20-20 M39029/34-271
1A	100	0	0
1B	90	0	0
1C	80	0	0
1D	70	0	0
1E	60	0	0
1F	50	0	0
1G	40	0	0
1H	30	0	0
1J	20	0	0
1K	10	0	0
1L	0	0	0
2A	0	100	0
2B	0	90	0
2C	0	80	0
2D	0	70	0
2E	0	60	0
2F	0	50	0
2G	0	40	0
2H	0	30	0
2J	0	20	0
2K	0	10	0
3A	0	0	100
3B	0	0	90
3C	0	0	80
3D	0	0	70
3E	0	0	60
3F	0	0	50
3G	0	0	40
3H	0	0	30
3J	0	0	20
3K	0	0	10

CHART #6

CONTACT SIZE PERCENT
(FOR M28748/4 CONNECTORS)

CONTACT	SIZE 16-16 M39029/35-276	SIZE 16-20 M39029/35-275	SIZE 20-20 M39029/35-274
1A	100	0	0
1B	90	0	0
1C	80	0	0
1D	70	0	0
1E	60	0	0
1F	50	0	0
1G	40	0	0
1H	30	0	0
1J	20	0	0
1K	10	0	0
1L	0	0	0
2A	0	100	0
2B	0	90	0
2C	0	80	0
2D	0	70	0
2E	0	60	0
2F	0	50	0
2G	0	40	0
2H	0	30	0
2J	0	20	0
2K	0	10	0
3A	0	0	100
3B	0	0	90
3C	0	0	80
3D	0	0	70
3E	0	0	60
3F	0	0	50
3G	0	0	40
3H	0	0	30
3J	0	0	20
3K	0	0	10

See GMCT Series Contacts Pages 7-17.

MIL-DTL-28748 & MIL-C-39029
QUALIFIED PRODUCTS LISTING

Positronic Industries' Federal Supply Code for Manufacturers is number 28198.

Positronic Industries offers the listing below of connectors and connector accessories, which are products qualified under Military Specifications MIL-DTL-28748 and MIL-C-39029. For additional Q.P.L. connectors, please consult the factory sales office.
Positronic GMCT series connectors are Q.P.L. approved to MIL-DTL-28748 per test report number 28748-1228-84.
Positronic GMCT series crimp removable contacts are Q.P.L. approved to MIL-C-39029 per test report number 39029-1131-84.
Positronic GM series connectors are Q.P.L. approved to MIL-DTL-28748 per test report number 28748-1229-84.

MILITARY PART NUMBER	MILITARY PART NUMBER	MILITARY PART NUMBER	MILITARY PART NUMBER	MILITARY PART NUMBER
M28748/3ABXXM*	M28748/3BHXXG*	M28748/4BEXXS*	M28748/4-LXX0*	M28748/6BB00S1A
M28748/3BBXXS*	M28748/3-HXX0*	M28748/4BEXXF*	M28748/5BA00S1A	M28748/6BB00F1A
M28748/3BBXXF*	M28748/3AJXXM*	M28748/4BEXXG*	M28748/5BA00F1A	M28748/6BB00G1A
M28748/3BBXXG*	M28748/3BJXXS*	M28748/4-EXX0*	M28748/5BA00G1A	M28748/6-B0001A
M28748/3-BXX0*	M28748/3BJXXF*	M28748/4AFXXM*	M28748/5-A0001A	M28748/6BC00S1A
M28748/3ACXXM*	M28748/3BJXXG*	M28748/4BFXXS*	M28748/5BB00S1A	M28748/6BC00F1A
M28748/3BCXXS*	M28748/3-JXX0*	M28748/4BFXXF*	M28748/5BB00F1A	M28748/6BC00G1A
M28748/3BCXXF*	M28748/3AKXXM*	M28748/4BFXXG*	M28748/5BB00G1A	M28748/6-C0001A
M28748/3BCXXG*	M28748/3BKXXS*	M28748/4-FXX0*	M28748/5-B0001A	M28748/6BD00S1A
M28748/3-CXX0*	M28748/3BKXXF*	M28748/4AGXXM*	M28748/5BC00S1A	M28748/6BD00F1A
M28748/3ADXXM*	M28748/3BKXXG*	M28748/4BGXXS*	M28748/5BC00F1A	M28748/6BD00G1A
M28748/3BDXXS*	M28748/3-KXX0*	M28748/4BGXXF*	M28748/5BC00G1A	M28748/6-D0001A
M28748/3BDXXF*	M28748/3ALXXM*	M28748/4BGXXG*	M28748/5-C0001A	M28748/6BE00S1A
M28748/3BDXXG*	M28748/3BLXXS*	M28748/4-GXX0*	M28748/5BD00S1A	M28748/6BE00F1A
M28748/3-DXX0*	M28748/3BLXXF*	M28748/4AHXXM*	M28748/5BD00F1A	M28748/6BE00G1A
M28748/3AEXXM*	M28748/3BLXXG*	M28748/4BHXXS*	M28748/5BD00G1A	M28748/6-E0001A
M28748/3BEXXS*	M28748/3-LXX0*	M28748/4BHXXF*	M28748/5-D0001A	M28748/6BF00S1A
M28748/3BEXXF*	M28748/4ABXXM*	M28748/4BHXXG*	M28748/5BE00S1A	M28748/6BF00F1A
M28748/3BEXXG*	M28748/4BBXXS*	M28748/4-HXX0*	M28748/5BE00F1A	M28748/6BF00G1A
M28748/3-EXX0*	M28748/4BBXXF*	M28748/4AJXXM*	M28748/5BE00G1A	M28748/6-F0001A
M28748/3AFXXM*	M28748/4BBXXG*	M28748/4BJXXS*	M28748/5-E0001A	M28748/6BH00S1A
M28748/3BFXXS*	M28748/4-BXX0*	M28748/4BJXXF*	M28748/5BF00S1A	M28748/6BH00F1A
M28748/3BFXXF*	M28748/4ACXXM*	M28748/4BJXXG*	M28748/5BF00F1A	M28748/6BH00G1A
M28748/3BFXXG*	M28748/4BCXXS*	M28748/4-JXX0*	M28748/5BF00G1A	M28748/6-H0001A
M28748/3-FXX0*	M28748/4BCXXF*	M28748/4AKXXM*	M28748/5-F0001A	
M28748/3AGXXM*	M28748/4BCXXG*	M28748/4BKXXS*	M28748/5BH00S1A	M39029/34-271
M28748/3BGXXS*	M28748/4-CXX0*	M28748/4BKXXF*	M28748/5BH00F1A	M39029/34-272
M28748/3BGXXF*	M28748/4ADXXM*	M28748/4BKXXG*	M28748/5BH00G1A	M39029/34-273
M28748/3BGXXG*	M28748/4BDXXS*	M28748/4-KXX0*	M28748/5-H0001A	M39029/35-274
M28748/3-GXX0*	M28748/4BDXXF*	M28748/4ALXXM*	M28748/6BA00S1A	M39029/35-275
M28748/3AHXXM*	M28748/4BDXXG*	M28748/4BLXXS*	M28748/6BA00F1A	M39029/35-276
M28748/3BHXXS*	M28748/4-DXX0*	M28748/4BLXXF*	M28748/6BA00G1A	
M28748/3BHXXF*	M28748/4AEXXM*	M28748/4BLXXG*	M28748/6-A0001A	

XX Refer to charts #1 or #2 as applicable
* Refer to charts #5 or #6 as applicable