

* Please visit the product pages on our website for the most up-to-date product information

TINI Q-G® MINIATURE CONNECTORS

- Series TA(*)F, TA(*)FB, TA(*)FL and TA(*)FLB** – Straight female cord plug
- Series TA(*)M, TA(*)MB, TA(*)ML and TA(*)MLB** – Straight male cord plug
- Series TB(*)M and TB(*)MB** – Chassis/panel mount male receptacle
- Series TY(*)F and TY(*)FPC** – Chassis/panel, female receptacle, choice of solder lugs or P.C. terminations.
- Series TLP** – Looping Plugs
- Series TBA(* *)** – Audio Adapters
- Series TRA(*)M** – PC Mount Male Receptacles
- Series TRG(*)** – Reverse Gender Panel Mount, Cord Mount

DESIGN FEATURES

STYLE – Streamlined, miniaturized with nickel-plated metal and contrasting black plastic parts. Designed for light weight and unobtrusiveness. Also available in conductive black chrome finish.

CONSTRUCTION – Metal parts are rugged die-cast or precision machined with nickel-plating; plastic parts are molded of high dimensional-stability thermoplastic. Advanced design assures minimum weight consistent with strength and durability of cord plug housings of .413" (10.5 mm) diameter. Weight: Series TA(*)F plug = .25 ounce (7 g); Series TA(*)M = .3 ounce (8.5 g).

INSERTS – Precision molded of thermoplastic for high mechanical and dielectric strength. Contacts and terminals are precision formed and plated for intimate contact and low resistance connections. Terminal numbers are molded on rear of male insert and on face of female insert for easy identification (except 6-pin male insert). Inserts can be supplied for OEM installation in microphones and instrumentation for optimum connecting reliability. For cord plugs, inserts can also be supplied for replacements.

LATCHLOCK – Positive latch system assures high integrity, vibration-resistant mating and transfer of shielding connection between housing, combined with simple, easy fingertip release.

STRAIN RELIEF – Rugged internal clamp holds cable tightly, while making a secure, low resistance connection between cable shield and housing.



FLEX RELIEF – Protects by minimizing cable bending stress at point of cable entry. Maximum recommended cable diameter is .115" (2.92 mm) when flex relief is used. By omitting flex relief (Series T(*)FL and T(*)ML only), cable up to .170" (4.32 mm) diameter can be used.

ASSEMBLY – Connector parts are mechanically keyed for simple assembly.

POLARIZATION – Mating male and female connectors are also mechanically keyed (latch and groove) so that it is impossible to mate them incorrectly.

“SCOOP-PROOF” FEATURE – Fully recessed pins on male plugs and receptacles cannot be “scooped”, bent or damaged by accidental mismating with mating connector.

COLOR ESCUTCHEONS – Attractive color escutcheons, Series TYEF, are recommended for use with Series TY(*)F and TY(*)FPC receptacles (when rear mounted) for attractive panel trim, as well as color coding one or more connectors. Colors are: red, black, gray, green, blue, white and yellow.

CUSTOM Tini Q-G® CABLE ASSEMBLIES – On special order where production quantities warrant, Switchcraft can supply assembled and tested Tini Q-G® cables.

MOUNTING

Panel/Chassis Thickness:

Series TB(*)M: .25" (6.35 mm) maximum

Series TY(*)F:

Front—.375" (9.5 mm) maximum

Rear—.093" (2.3 mm) maximum

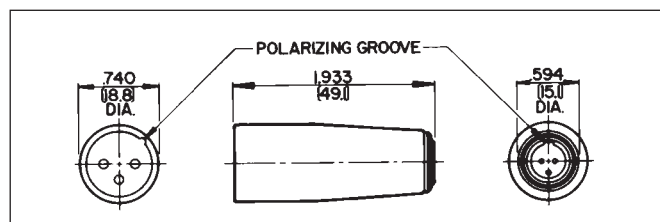
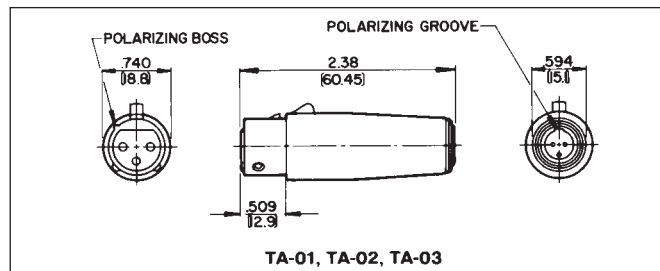
Series TY(*)FPC:

Front—.312" (7.9 mm) maximum

Rear—.093" (2.3 mm) maximum

TINI Q-G® AUDIO ADAPTERS

Series TA Tini Q-G® audio adapters have been designed to adapt Tini Q-G® connections to standard audio connectors. Tini Q-G® adapters convert to Switchcraft Q-G® and QGP connectors and similar full-size connectors.



Part Number	Tini Q-G® End Mates With	Q-G® End Mates With
◇TA01	TA3F	A3M
◇TA02	TA4F	A4M
◇TA03	TA5F	A5M
◇TA04	TA3F	A3F
◇TA05	TA4F	A4F
◇TA06	TA5F	A5F

DIMENSIONS ARE FOR REFERENCE ONLY Inch
(mm)

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TINI Q-G® MINIATURE CONNECTORS (continued) 

SPECIFICATIONS: (3 – 5 CORD MOUNT ONLY)

ELECTRICAL

Contact Resistance: .010 ohms maximum after life (and after salt spray).

Current Rating (Carry Only): 5 A, 125 V AC (4 A, 125 V AC on 5 circuit) based on 30°C maximum.

Insulation Resistance: 510,000 megohms minimum @ 500 V DC (initial); 10,000 megohms minimum (after humidity test).

Dielectric Strength: 1,000 V (rms).

MECHANICAL

Life: 5,000 operations minimum

Insertion/Withdrawal Forces (after life): 6.1 lb./2.77 kg after life, insertion; 5.6 lb/2.54 kg, withdrawal.

Solderability Standard: Meets EIA RS-186-9E.

Mechanical Shock: Meets MIL-STD-202, method 213B.

Vibration: Meets MIL-STD-202, method 201A.

Wire Size: #22 wire gauge solid; #24 wire gauge stranded.

ENVIRONMENTAL

Thermal Range: -55°C to + 85°C.

Humidity: Meets MIL-STD-202, method 106D.

Thermal Shock: Meets MIL-STD-202, method 107D.

Salt Spray: Meets MIL-STD-202, method 101.

MATERIAL

Housing, Plugs and Male Receptacles: Copper alloy, nickel-plated. Female Receptacle—Die-cast zinc, nickel-plated.

Black Tini Q-G® Housing: Copper alloy, black chrome-plated.

Pin and Socket Contacts: Copper alloy, silver-plated.

Flex Relief: Molded black thermoplastic elastomer.

Latch Button: Molded black thermoplastic.

Release Lever and Mounting Washer: Steel, nickel-plated.

Standoff/Ground Terminal and Cable Clamp:

Steel, electroplated.

Inserts and Insulating Spacer: Molded, high strength thermoplastic.

Latch (Female): Copper alloy, nickel-plated.

Mounting Nut: Copper alloy, nickel-plated.

SPECIFICATIONS:

(6 – 8 Cord Mount and all Receptacles and Adapters)

ELECTRICAL

Contact Resistance: .010 ohm maximum after life.

Current Rating (Carry only): 1.5A, 125 VAC, based on 30° maximum

Insulation Resistance: 510,000 MΩ minimum @ 500 VDC (initial).

Dielectric Strength: 250 V rms.

MECHANICAL

Life: 2,000 operations

Insertion/Withdrawal Forces (after life): -13 pound insertion; -13 pound maximum withdrawal

Solderability Standard: Meets EIA RS-186-9E.

Wire Size: 28 wire gauge stranded.

MATERIAL

Housings, Plugs and Male Receptacles: Copper alloy, nickel-plated.

Socket Contacts: Copper alloy, silver-plated.

Pin Contacts: Copper alloy, electroplated.

Flex Relief and Latch Button: Molded thermoplastic.

Ground Terminal: Copper alloy, electroplated.

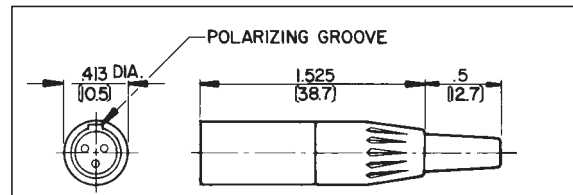
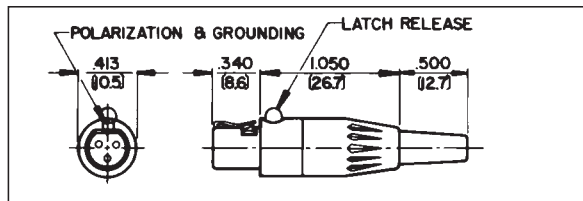
Inserts and Insulating Spacer: Molded high strength thermoplastic, UL 94 V-0.

Latch (Female): Copper alloy, nickel-plated.

Mounting Nut: Copper alloy, nickel-plated.

Ferrite: 43 material, shielded head.

Frame: Molded thermoplastic, UL 94 V-0.



STRAIGHT FEMALE CORD PLUG

Part Number	Insert Contacts	Part Number	Insert Contacts ²
TA3F	3	TA4FLB ¹	4
TA3FB*	3	TA5F	5
TA3FL ¹	3	TA5FL ¹	5
TA3FLB*	3	TA5FLB*	5
TA4F	4	TA6FL ¹	6
TA4FB*	4	TA7FL	7
TA4FL ¹	4	TA8FL	8

1 Flex relief omitted for larger diameter cable

2. Add AU to Part Number for Gold Contacts.

* B indicates black housing

STRAIGHT MALE CORD PLUG

Part Number	Insert Pins	Part Number	Insert Pins
TA3M	3	TA5M	5
TA3MB*	3	TA5ML	5
TA3ML	3	TA5MLB*	5
TA4M	4	TA6ML ¹	6
TA4MB*	4	TA7ML	7
TA4ML ¹	4	TA8ML	7

1. Add AU to Part Number for Gold Contacts.

* B indicates black housing

◇ Available on special order only; contact Switchcraft for price and delivery.

DIMENSIONS ARE FOR REFERENCE ONLY Inch
(mm)

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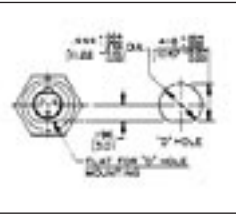
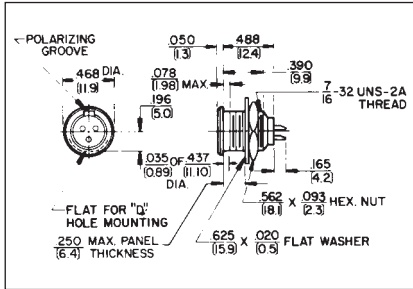
TINI Q-G® MINIATURE CONNECTORS (continued) 

CONNECTORS & RECEPTACLES Switchcraft®

TB(*)M AND TB(*)MB RECEPTACLE



Male receptacle for chassis/panel mounting. Specially designed flange permits close (front) mount on crowded panels. Mounting hardware supplied. Available with PC terminals. Call factory for details.

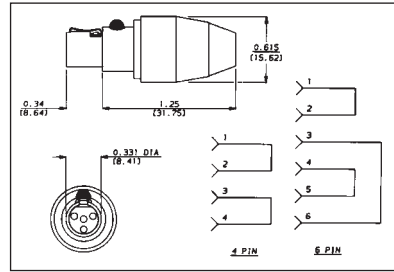


Part Number	Insert Pins	Part Number	Insert Pins
TB3M	3	TB5MB*	5
TB3MB*	3	TB6M	6
TB4M	4	TB7M	7
TB4MB*	4	TB8M	8
TB5M	5		

TLP(*) LOOPING PLUG



Looping plug is designed for circuit testing. Other inserts and wiring patterns are possible; contact Switchcraft.



STRAIGHT FEMALE LOOPING PLUG

Part Number	Insert Contacts
◇TLP4	4
◇TLP6	6

* B indicates black housing

◇ Available on special order only; contact Switchcraft for price and delivery.

* Number of insert contacts or pins must be specified to complete Part Number.



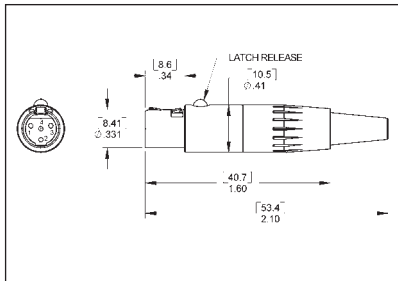
TRG4M

REVERSE GENDER TQG SERIES

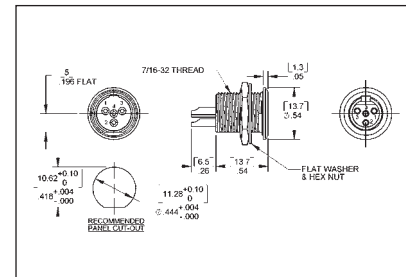
Same specifications as the original TQG Series, however, the latch is on the male cord mount. Available in 4 pin only.



TRGS4F



Part Number	Insert Pins	Description
TRGS4F	4	Panel mount female
TRG4M	4	Cord mount male w/latch



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TINI Q-G® MINIATURE CONNECTORS (continued)

TRA(*M) PC MOUNT MALE RECEPTACLE

The TRA(*M) low profile male receptacles mount in minimum space from the rear of panel or chassis, and feature space-saving right-angle construction and PC type terminals. The TRA3M is a cost-effective choice for audio equipment, medical instrumentation, computer equipment and test/measurement applications. Also available with 6 pins.

TRA3M

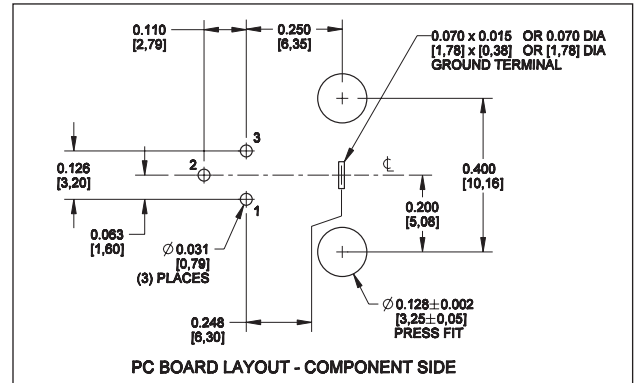
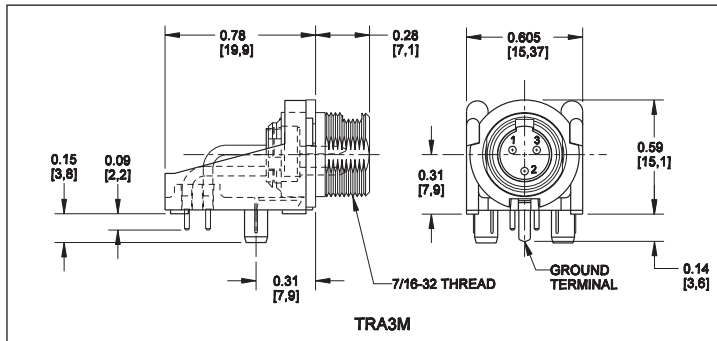


TRA6M



Part Number	Insert Pins
TRA3M	3
TRA6M	6
TRA6MF*	6

*F designates ferrite shielding.



TRASM*M, TRAPC*M SERIES

Switchcraft introduces an expansion of its popular TQG Series of connectors. The TRASM*M and TRAPC*M offers low profile, right angle PC board mount connectors. The TRASM*M versions are true surface mount connectors, while the TRAPC*M versions are through-hole PC mount connectors. Both versions are available in 3-8 pins. All plastic connectors, the TRASM*M and TRAPC*M series have flats on the top of the connectors to facilitate pick and place assembly. As an added option, a non-threaded bushing version is also available.

FEATURES AND BENEFITS

- Low profile, compact design reduces PC board space
- Mates with TQG female cord plugs
- Rated at 5A for 3-6 pins, 3A for 7 and 8 pin versions

MARKETS

- Wireless microphone systems
- Medical Instrumentation
- Test Instrumentation

SPECIFICATIONS

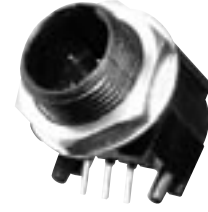
MATERIALS

- Housing: Thermoplastic
- Contacts: Brass, tin-plated
- Nut and Washer: Brass, nickel-plated

TRASM3M



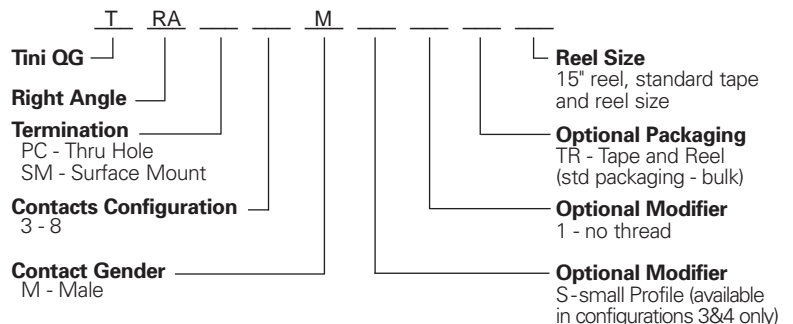
TRAPC3MS



ELECTRICAL

- Current Rating: 5A for 3-5 pins, 1.5A for 6-8
- Contact Resistance: 10 m Ohm max
- Insulation Resistance: 100 m Ohm min
- Dielectric Withstanding Voltage: 250VAC
- Mechanical Life: 2,000 cycles

TINI Q-G® CONNECTORS ORDERING INFORMATION



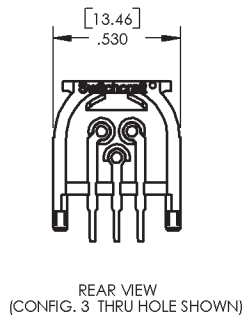
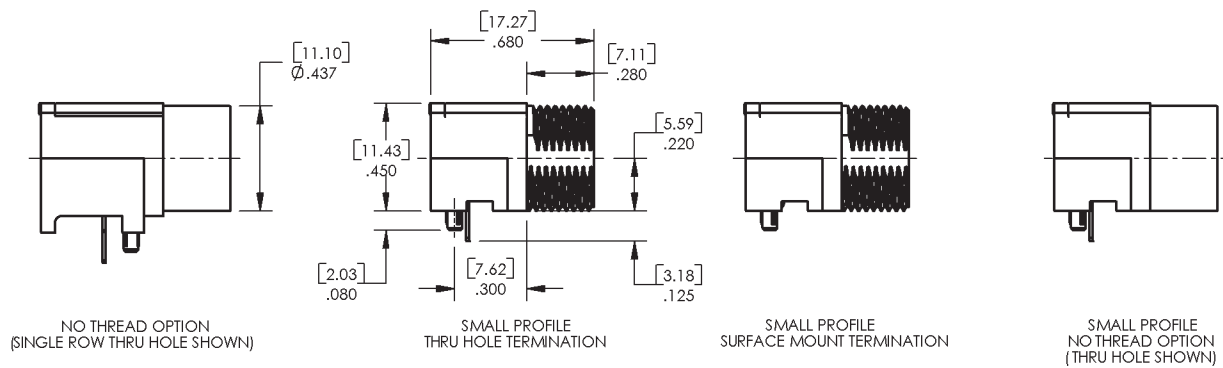
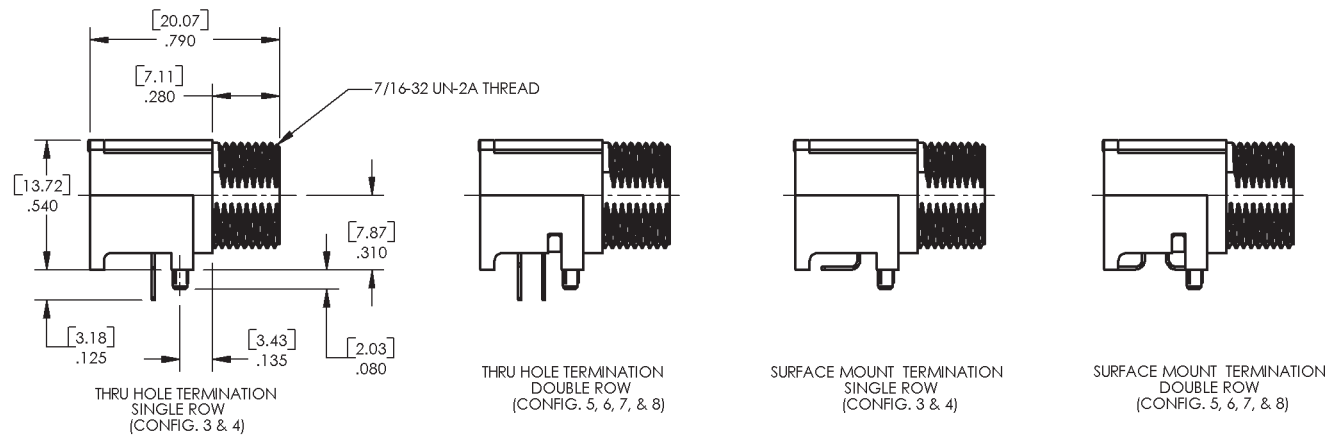
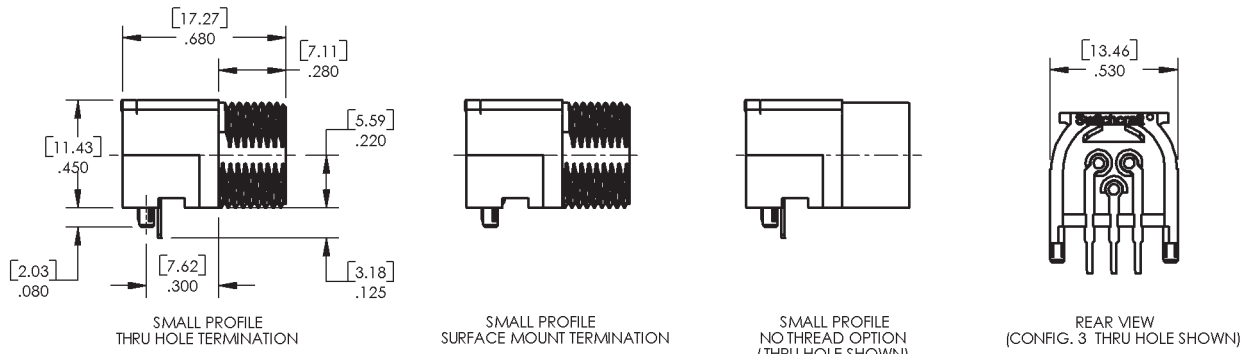
See next pages for drawings

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TINI Q-G® MINIATURE CONNECTORS (continued)

TRASM*M, TRAPC*M SERIES

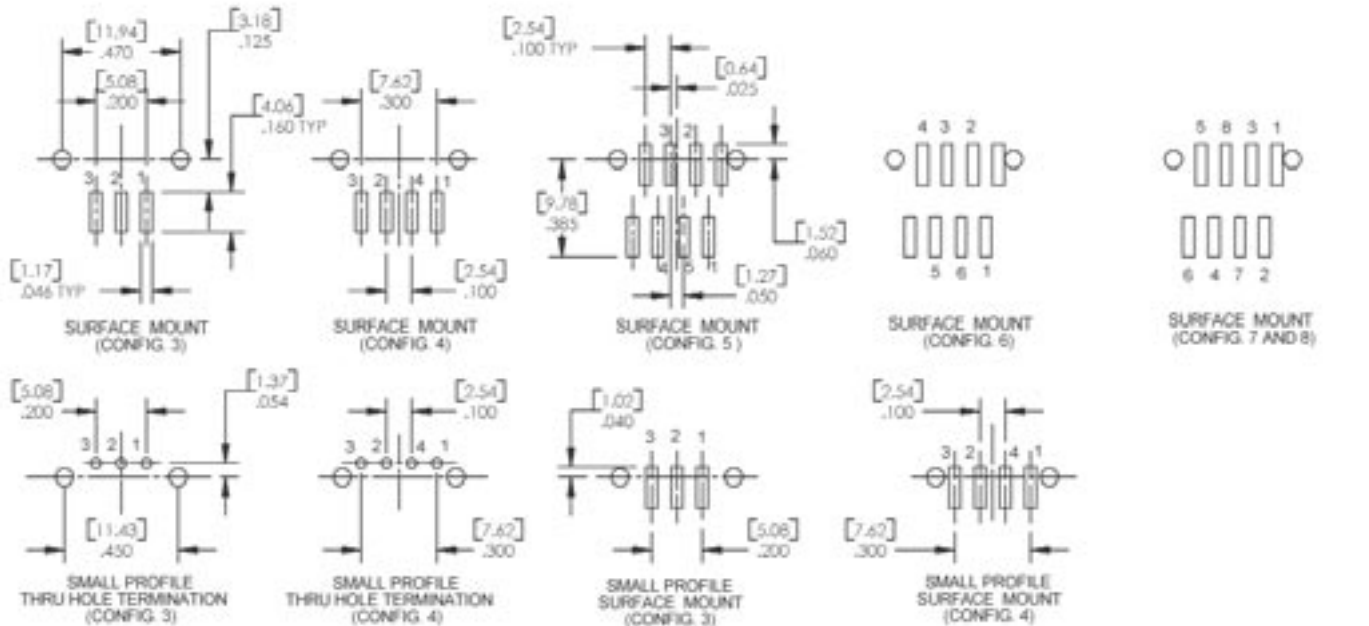
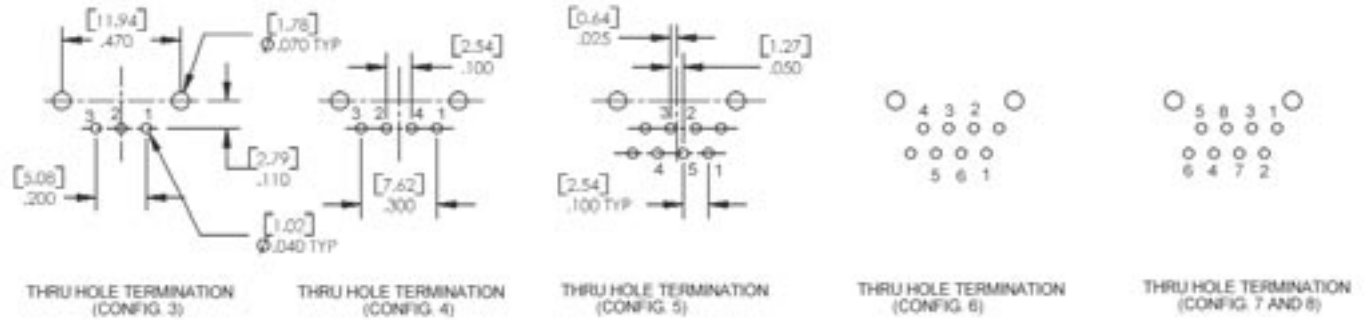
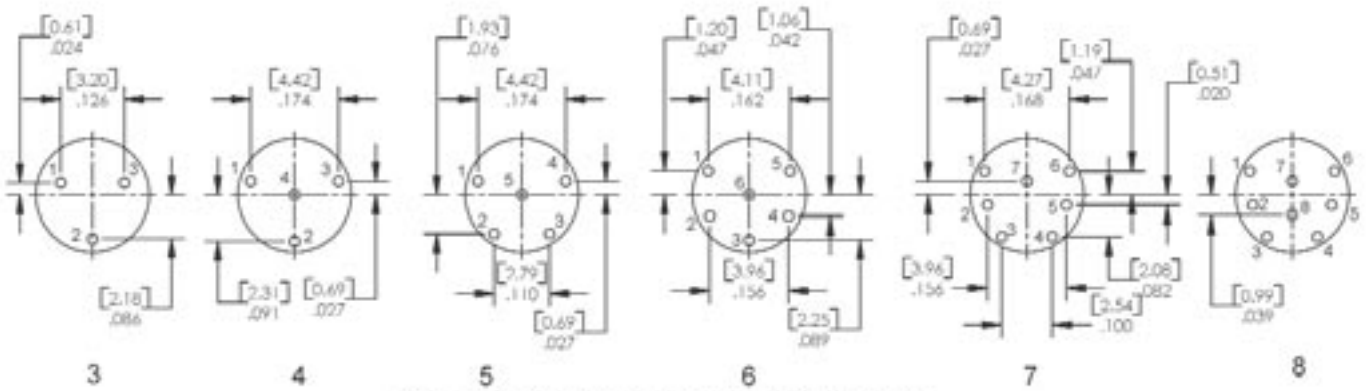


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TINI Q-G® MINIATURE CONNECTORS (continued)

TRASM*M, TRAPC*M SERIES



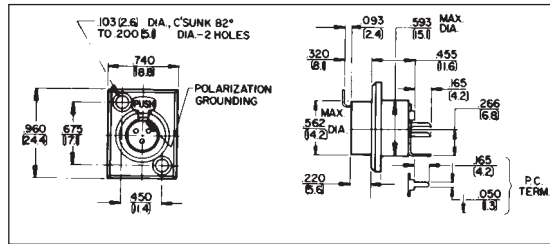
RECOMMENDED PC BOARD LAYOUTS

DIMENSIONS ARE FOR REFERENCE ONLY Inch (mm)

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TINI Q-G® MINIATURE CONNECTORS (continued) 

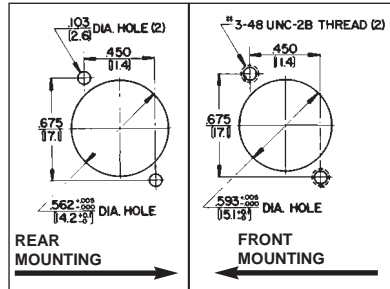
TY(*)F AND TY(*)FPC RECEPTACLES



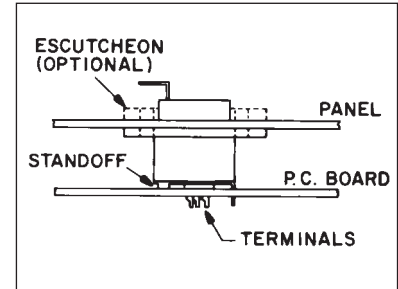
Female receptacle mounts in minimum space from front or rear panel or chassis. Terminals are solder lugs, Series TY(*)F, or P.C., Series TY(*)FPC. All receptacles have separate ground lug.

Part Number	Insert Contacts	Part Number	Insert Contacts
TY3F	3	TY5F	5
TY3FPC	3	TY5FPC	5
TY4F	4		
TY4FPC	4		

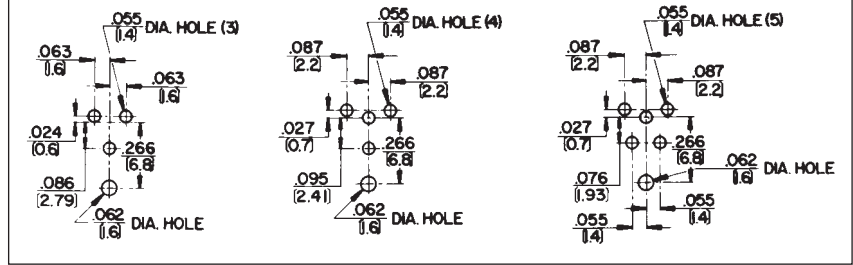
MOUNTING HOLE DETAIL
SERIES TY(*)F, TY(*)FPC



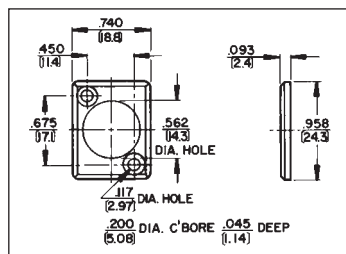
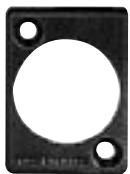
COMBINED P.C./PANEL MOUNTING



RECOMMENDED P.C. BOARD LAYOUT



TYEF ESCUTCHEONS



Trim escutcheons in seven colors for use with Series TY(*)F and TY(*)FPC receptacles, are recommended for rear mount receptacles. Escutcheons must be ordered separately.

Part Number	Color
◇TYEF01	Red
TYEF02	Black
◇TYEF03	Green
◇TYEF04	Blue
◇TYEF05	White
◇TYEF08	Yellow
◇TYEF11	Gray

TQG(*)F AND TQG(*)M
CONNECTOR INSERTS



Male and female inserts with 3, 4, 5 or 6 pins/ contacts. For replacement (cord plugs only) or build-into equipment, such as microphones, transducers and instruments.

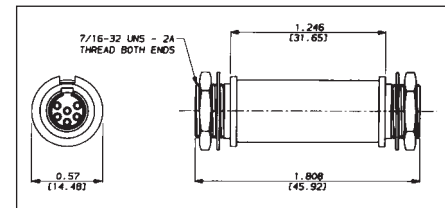
Male Inserts

Part Number	Insert Pins
TQG3M	3
TQG4M	4
TQG5M	5
◇TQG6M	6

Female Inserts

Part Number	Insert Contacts
TQG3F	3
TQG4F	4
TQG5F	5
◇TQG6F	6

TBA(**) AUDIO ADAPTER



3-6 pin male-to-male adapter is designed for through-bulkhead or cable expansion usage. Adapter is prewired pin 1 to pin 1, pin 2 to pin 2, etc. Mounting nuts are supplied for each threaded end. Panel hole diameter required is .45"; maximum panel thickness is .25" (6.35 mm).

Part Number	Insert Pins
◇TBA03	3
◇TBA04	4
◇TBA05	5
◇TBA06	6

◇ Available on special order only; contact Switchcraft for price and delivery.

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(mm)