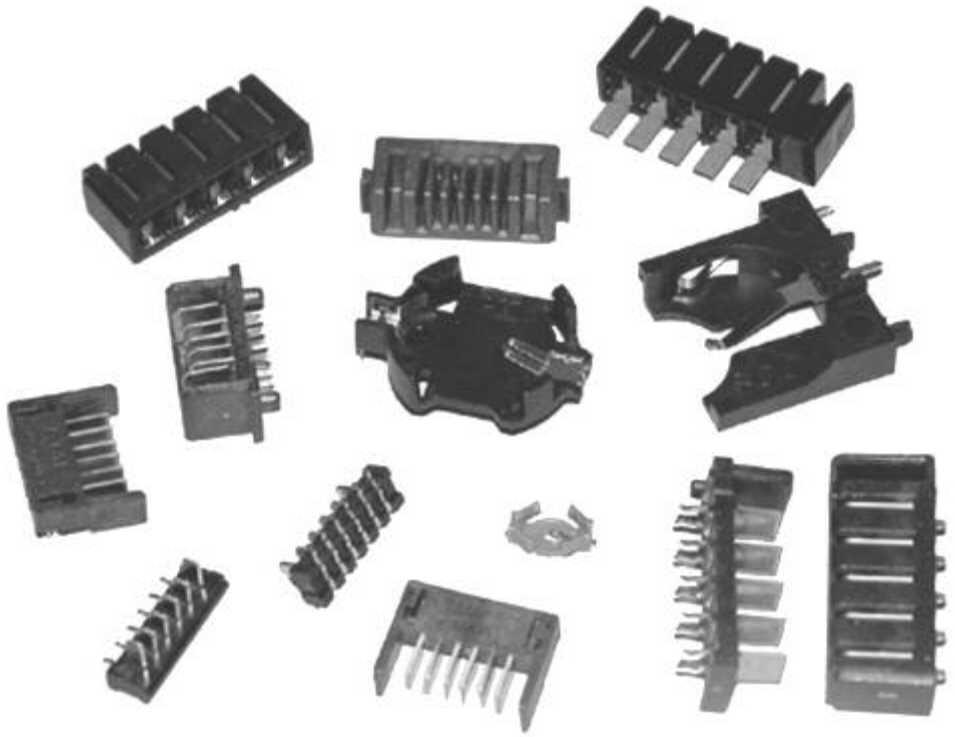
Battery Interconnects

Product Facts

- **Multi-directional mating — all angles between 0° and 90°**
- **Standard 5-position system**
- **Total interface solution**
- **Current capacity — 7 Amps/ single contact at 30°C T-Rise**
- **Choice of right angle or vertical mount headers with left, right or keyless polarization**
- **Headers available for 7.2, 10.8, and 12.0 volt rechargeable batteries**
- **Receptacle connectors with solder tails or weld tabs**
- **Consumer friendly mating/unmating of battery**
- **Reduces design cycle time**
- **Reduces overall costs**
- **Produced under a Quality Management System certified to ISO 9001**
- **Two-Piece Connector**
- **Blade Contacts — for high durability**
- **Used Industry-wide for rechargeable battery I/O — in laptop computers**
- **Offered in a variety of key arrangement — for different voltage batteries**
- **2.5mm, 3.0mm and 5.0mm contact pitch**
- **Up to 7 Amps per contact**
- **Up to 2500 cycle durability**
- **Two pc tails per blade — for better current distribution**



Since the introduction of the Duracell, standard-sized nickel-metal hydride rechargeable battery to the computer and communications original equipment manufacturers (OEMs), Tyco Electronics has played a major role in the development and manufacture of a reliable, high performance multi-directional interconnect system.

As the Duracell line of rechargeable batteries expanded to newer and more diversified uses, so have Tyco Electronics Battery Interconnect Systems. Today, systems are available for:

- DR17 (7.2 Volts)
- DR30 (7.2 Volts)
- DR15 (10.8 Volts)
- DR35 (10.8 Volts)
- DR36 (12.0 Volts)

These 5-position headers and the Tyco Electronics 5-position receptacle connectors provide reliable, easy mate/unmate interconnects.

Single contacts are rated at 7 amperes with a 30°C T-Rise, and have an operating temperature rating of -30°C to +70°C. Headers feature sturdy brass contacts with duplex plated tin-lead solder tails and nickel on the mating area to ensure the life of the system and to provide high cycle mating/unmating.

Housings are made of high temperature, U.L. 94V-0 rated thermoplastic and are available with left or right hand keying, or with keyless mounting configurations. Keyless headers are designed to minimize board space requirements, and require the battery manufacturer to provide voltage key in the battery rack compartment. Keyless headers accept all 3 voltage battery packs.

Tyco Electronics “Drop-In” receptacle connectors fit securely within the battery pack compartment. They are offered in a choice of weld tab or solder tail versions for PC board mounting. Housings are made from high impact U.L. 94V-0 rated thermoplastic with high temperature housings available for solder tail versions.

The Tyco Electronics Battery Interconnection systems provide variable direction mating and voltage/form factor polarization for safe, friendly operation.

Catalog 1773096
Revised 7-07

www.tycoelectronics.com

Dimensions are in inches and millimeters unless otherwise specified. Values in brackets are metric equivalents.

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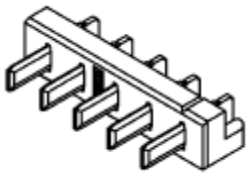
Battery Interconnects (Continued)

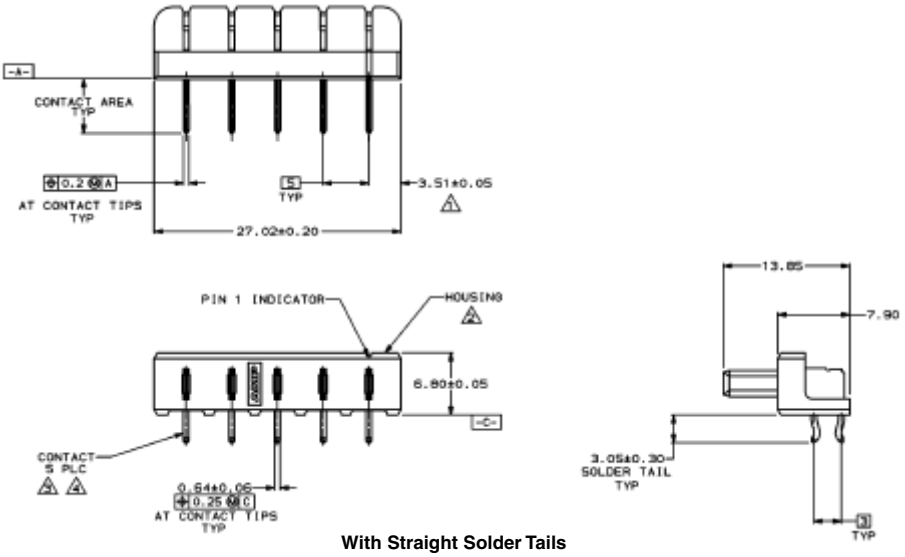
Right Angle Headers, 5.0 Centers, Left-Hand Key



Material and Finish

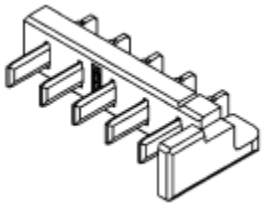
Housing — Polyphthalamide 94 V-0 rated, black

Contacts — Brass, plated 0.00254 min. tin-lead on the solder tail over 0.00190 min. nickel overall



With Straight Solder Tails

Right Angle Headers, 5.0 Centers, Right Hand Key



Material and Finish

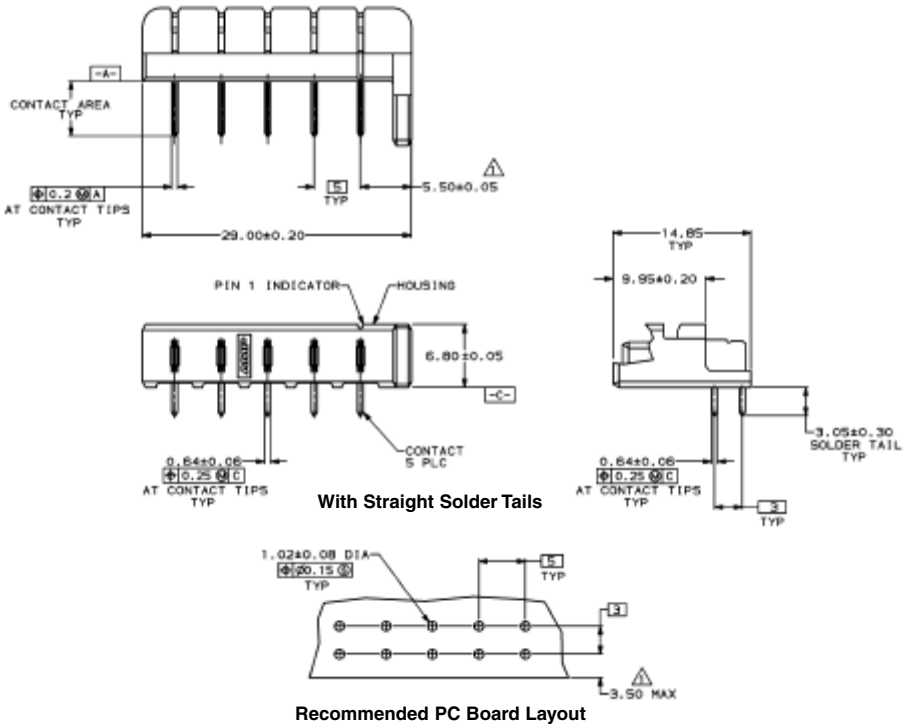
Housing — Polyphthalamide 94 V-0 rated, black

Contacts — Brass, plated 0.00254 min. tin-lead on the solder tail over 0.00190 min. nickel overall

Technical Documents

Product Specification
108-1501

Application Specification
114-24005



With Straight Solder Tails

Recommended PC Board Layout

Voltage	Voltage Key	Part Numbers		Dia. A	With Mounting Holes
		Straight Solder Tails	Retentive Solder Tails		
7.2	Right Hand	787142-1●	—	5.5	No
10.8	Left Hand	787259-1●	—	10.0	No
12.0	Left Hand	787428-1●	—	7.5	Yes*
	Right Hand	787366-1●	—		
NA	Keyless	787441-1●	787443-1●	3.51	No

*See Tyco Electronics Customer Drawings for specific hole layout.

Notes:
1. Connector side of pc board layout shown.
2. PC board layout and connector dimensions illustrated above serve as a guide only; they are not to be used for actual design or construction of equipment,. Consult Tyco Electronics customer drawings for detailed pc board layout and connector dimension requirements.
3. Voltage keying reg. IEC connector study group (IEC 488).

Note: Part Numbers are RoHS compliant except: ●Indicates "5 of 6 compliant" (lead in solderable interface only).

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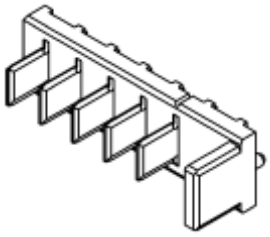
Battery Interconnects (Continued)

Vertical Headers, 5.0 Centers



Material and Finish

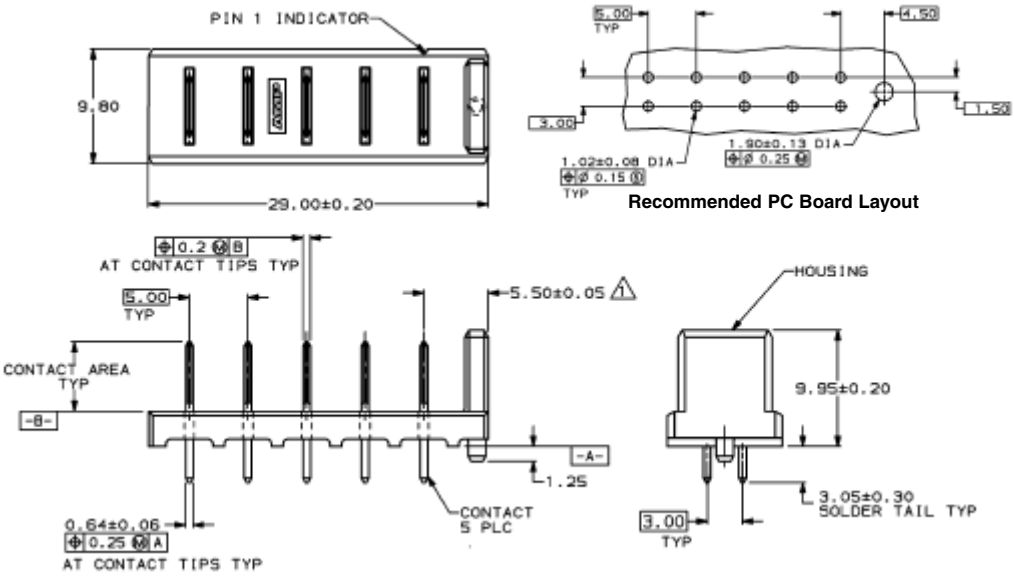
Housing — Polyphthalamide 94 V-0 rated, black

Contacts — Brass, plated 0.00254 min. tin-lead on the solder tail over 0.00190 min. nickel overall

Technical Documents

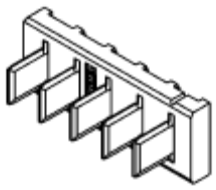
Product Specification
108-1501

Application Specification
114-24005



Vertical Headers, 5.0 Centers, Keyless*

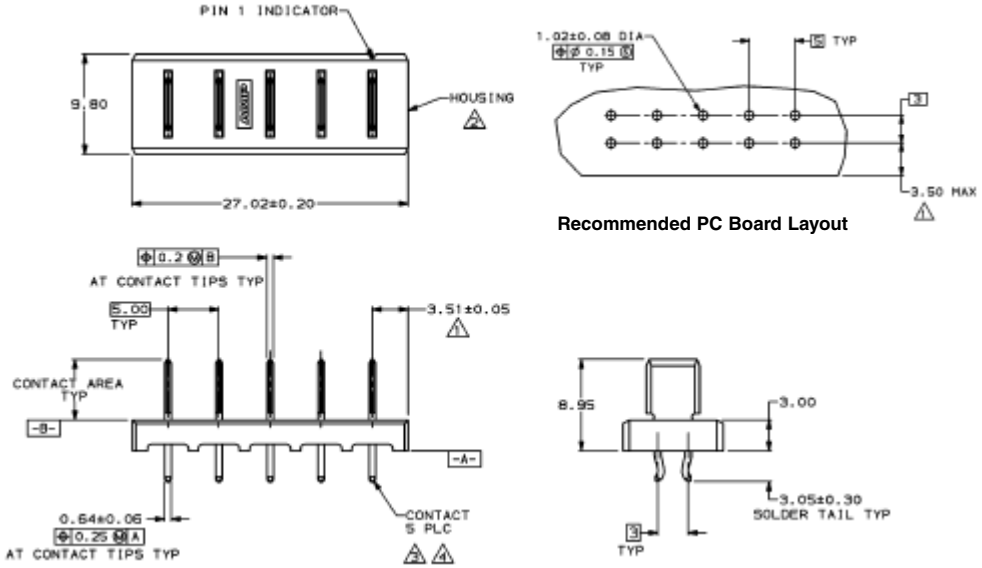
*Keyless headers are designed for any voltage battery pack, and to minimize pc board space requirements. The use of a keyless header requires the equipment manufacturer to provide voltage key in the battery pack compartment.



Material and Finish

Housing — Polyphthalamide 94 V-0 rated, black

Contacts — Brass, plated 0.00254 Min. tin-lead on the solder tail over 0.0190 min. nickel overall



Voltage	Part Numbers		Dia. A	With Mounting Holes
	Straight Solder Tails	Retentive Solder Tails		
7.2	787334-1●	—	5.5	Yes
10.8	787419-1●	787421-1●	10.0	Yes
12.0	787430-1●	—	7.5	Yes
Keyless	787444-1●	787446-1●	3.51	No

Note: Part Numbers are RoHS compliant except: ●Indicates "5 of 6 compliant" (lead in solderable interface only).

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Battery Interconnects (Continued)

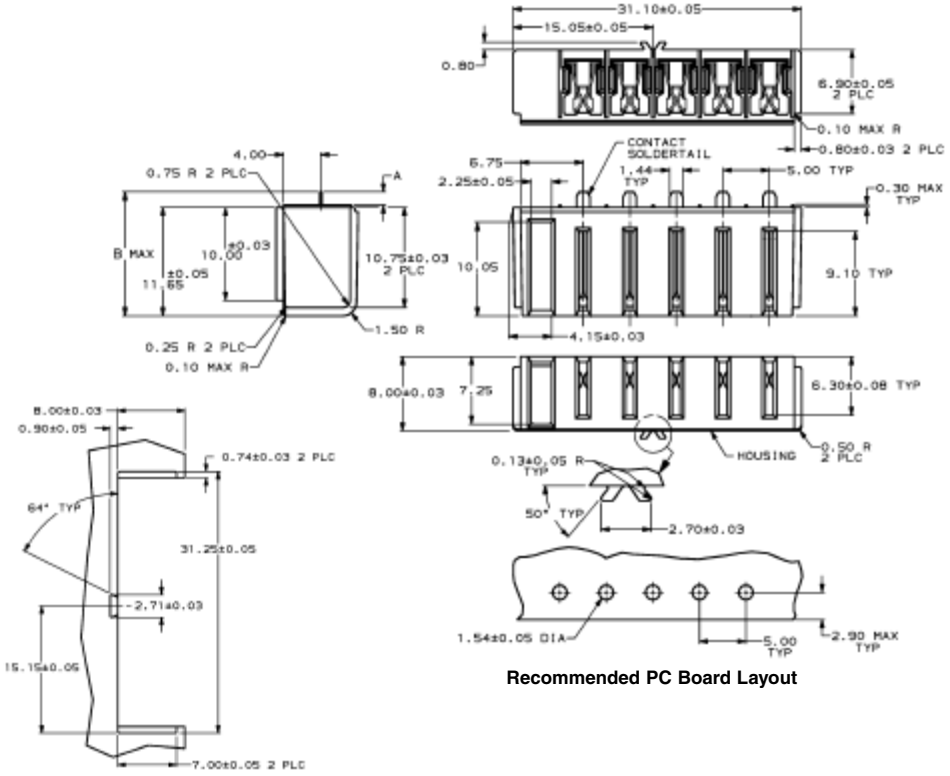
Receptacle Connectors, 7.2 Voltage, with Solder Tail for PC Board Mounting

Part No. 787590-1●

Material and Finish

Housing — Polyphthalamide 94 V-0 rated, black

Contacts — Copper alloy, duplex plated 0.00254 min. tin-lead on solder tails over 0.00190 min. nickel overall



Recommended PC Board Layout

Suggested Cavity

Receptacle Connector, 7.2 Voltage with Weld Tabs

Part No. 787613-1

Material and Finish

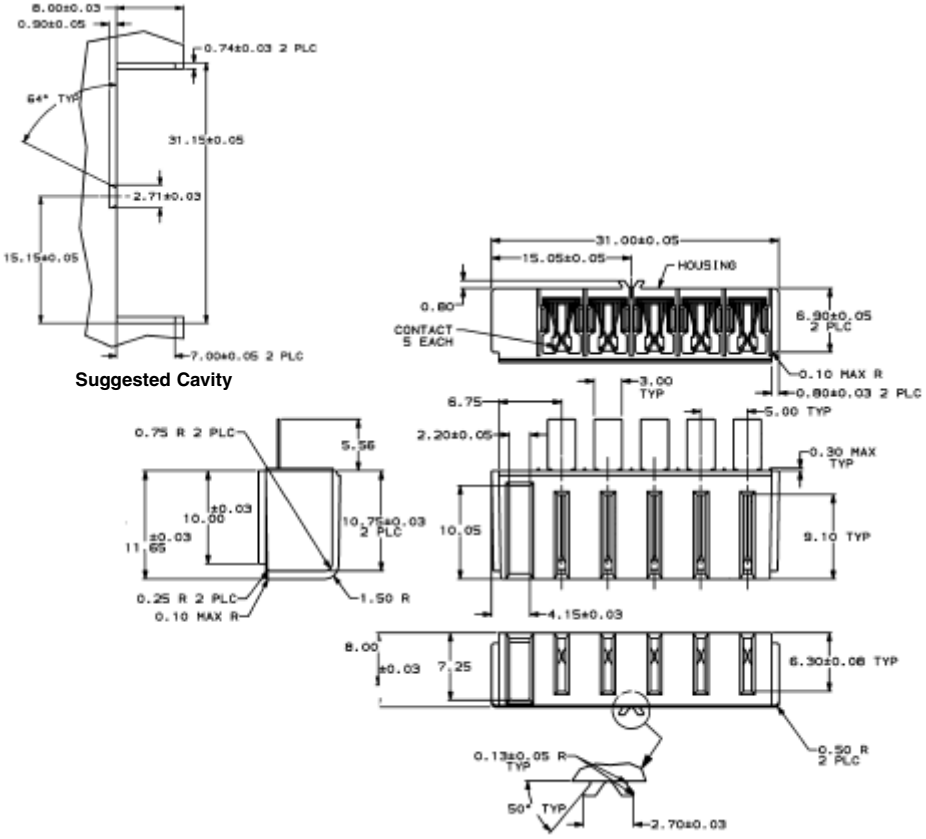
Housing — Polycarbonate 94 V-0 rated, black

Contacts — Copper alloy, plated 0.00190 min. nickel

Technical Documents

Product Specification
108-1501

Application Specification
114-24005



Suggested Cavity

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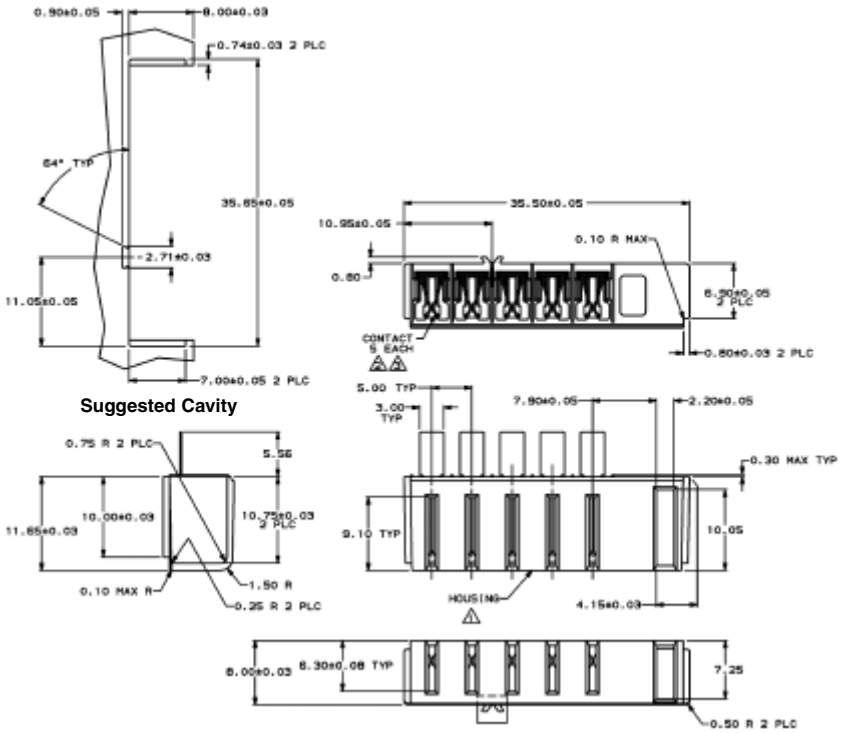
Battery Interconnects (Continued)

Receptacle Connectors, 10.8 Voltage, with Weld Tabs

Part No. 787614-1

Material and Finish
Housing — Polycarbonate 94 V-0 rated, black
Contacts — Copper alloy, plated 0.00190 min. nickel

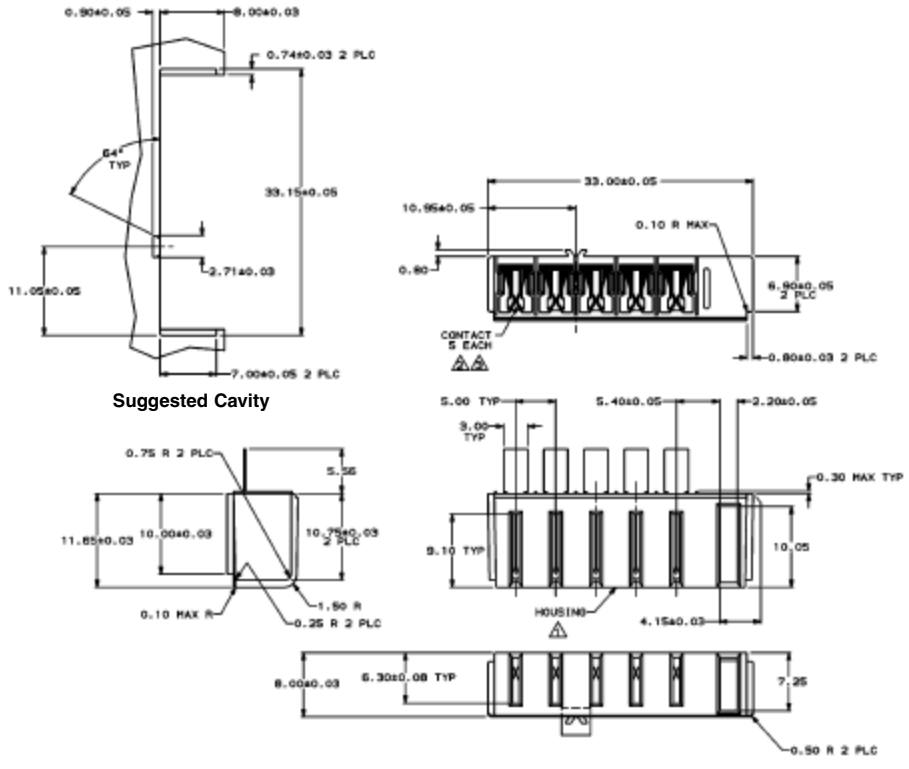


Receptacle Connector, 12.0 Voltage with Weld Tabs

Part No. 787615-1

Material and Finish
Housing — Polycarbonate 94 V-0 rated, black
Contacts — Copper alloy, plated 0.00190 min. nickel

Technical Documents
Product Specification
108-1501
Application Specification
114-24005



Note: All part numbers are RoHS compliant.

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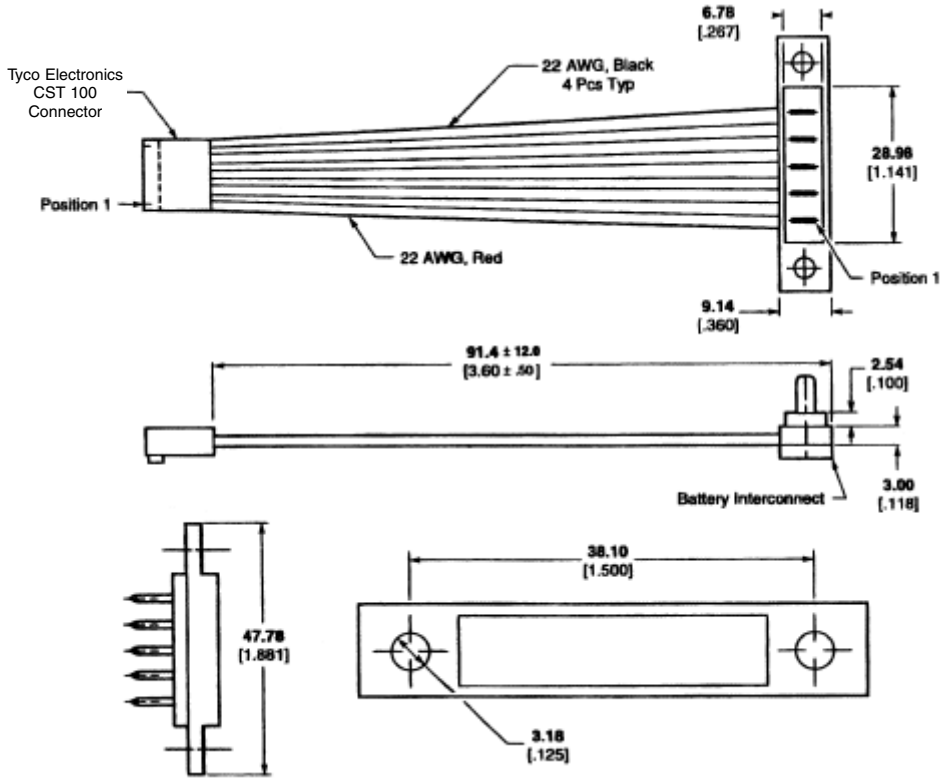
Tyco Electronics Battery Interconnection System, Cable-to-Board Connector Assembly

Product Facts

- Offers OEM manufacturers complete design flexibility
- Tyco Electronics cable assembly design engineers assist on your specific assembly requirements
- Standard or customized mounting options
- Double or single ended assemblies
- Wide choice of other end Tyco Electronics connectors to complete your assembly
- Manufacturing labor and overhead cost savings
- Inventory cost savings with Tyco Electronics Just-In-Time Delivery
- Eliminates Down-Time, all assemblies individually inspected prior to shipping



Tyco Electronics Battery Interconnect System, Cable-to-Board Connector Assembly is designed to maximize your manufacturing capabilities, and offers greater flexibility in your design cycle.

This assembly is presently available with a keyless battery connector on the mating end and a Tyco Electronics CST-100 connector on the internal connection end.

Tyco Electronics will consult with you, in the design or post-design stage, to introduce our complete cable-to-board connector assembly design and manufacturing capabilities to meet your specific battery interconnect system connector assembly requirements.

Call the Tyco Electronics Product Information Center, for immediate information on this new, exciting service for the OEM systems designer.

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