Battery Interconnects

Product Facts

- 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
- 5.0 mm pitch headers available for 7.2, 10.8, and 12.0 volt rechargeable batteries
- Receptacle connectors available with solder tails or weld tabs
- Consumer friendly mating/unmating of battery
- Produced under a Quality Management System certified to ISO 9001
- Blade Contacts for high durability
- Used Industry-wide for rechargeable battery I/O in laptop computers
- Offered in a variety of key arrangements — for different voltage batteries
- 2.0 mm, 2.5 mm, 3.0 mm and 5.0 mm contact pitch batteries available
- MDI systems designed to mate at any angle
- 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 standard-size NiMH rechargeable battery to the computer and communications industries, Tyco Electronics has played a major role in the development and manufacture of reliable, high performance battery interconnect systems.

As the needs and applications of original equipment manufacturers have evolved, so have Tyco Electronics' battery interconnect systems. Today, we offer several types of connectors including:

- Standard 5-position, 5.0 mm centerline assemblies
- Space efficient battery packs available at 2.0 mm, 2.5 mm, and 3.0 mm centerlines

Multi-Directional Interconnection (MDI) systems

Coin cell battery holders

All battery interconnect assembly housings are made of high temperature, UL 94V-0 rated thermoplastic. Single contacts are rated at 7 Amps with a 30° T-Rise, and have an operating temperature rating of -30° to +70°C. These assemblies can be customized for various applications and are available with many keying and mounting options.

Tyco Electronics answers the need in the portable equipment market for a high density, robust, and versatile interconnection system with the Multi-Directional Interconnection (MDI) System. This durable system, designed to permit mating/unmating at any angle between 0° and 90°, features AMP-DURAGOLD plated contacts for up to 2500 cycles.

Our coin-cell battery holders are ideal for a variety of electronic equipment needing a compact low wattage (typically less than 2 Watts) battery source. These holders are available in both horizontal and vertical mount. Surface-mount and re-flow compatible options are also ready to meet the newer PCB assembly requirements.

Dimensions are in inches and millimeters unless otherwise specified. Values in brackets are metric equivalents. Dimensions are shown for reference purposes only. Specifications subject to change. USA: 1-800-522-6752 Canada: 1-905-470-4425 Mexico: 01-800-733-8926 C. America: 52-55-1106-0803

Mount Type

Surface-Mount

Through Hole

Through Hole

Surface-Mount

Surface-Mount

Surface-Mount

Through Hole

Mount Angle

Vertical

Right-Angle

Right-Angle

Vertical

Vertical

Vertical

Right-Angle

2.0 mm Pitch Battery Assemblies

No. of Positions

3

7

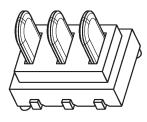
8

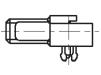
10

2.0 mm Pitch Plug Assemblies

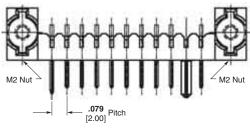
Material and Finish

Housing — Black thermoplastic resin, UL 94V-0 rated Contacts — High conductivity copper alloy, gold plating





Retention Leg (Part Number 1827654-1 Feature)



Part Number

1612898-1

1827654-1

1747785-1

2-1612962-3

1-1612962-3

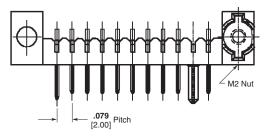
1717458-1 1827501-1 **Special Features**

Retention Leg

Nut Plate (both sides)

One side nut plate



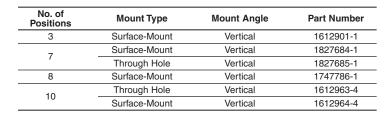


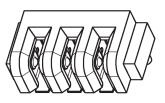
2 mm Plug Assembly with Nut Plate (One Side)

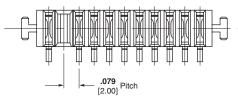
2.0 mm Pitch Receptacle Assemblies Material and Finish

Housing — Black thermoplastic resin, UL 94V-0 rated

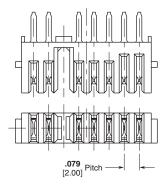
Contacts — High conductivity copper alloy, gold plating







2.0 mm Receptacle Assembly, Surface-Mount



2.0 mm Receptacle Assembly, Through Hole Mount

Note: All part numbers are RoHS compliant. Tin-lead versions are available upon request.

Catalog 1773096 Revised 2-10

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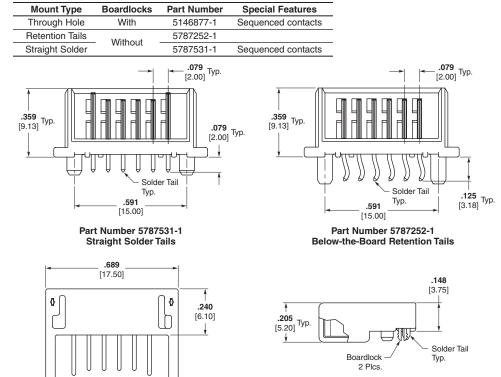
2.0 mm Pitch Multi-Directional Interconnection (MDI) Systems

6-Position Multi-Directional **Headers**

Material and Finish

Housing — Black liquid crystal polymer, UL 94V-0 rated Contacts — Brass, plated .000030

[0.00076] min. gold on mating area, .00015 [0.0038] min. tin on solder tail, all over .000050 [0.00127] min. nickel



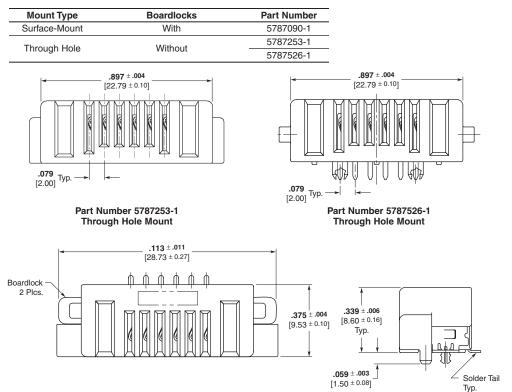
Part Number 5146877-1

6-Position Multi-Directional **Receptacles**

Material and Finish

Housing — Black liquid crystal polymer, UL 94V-0 rated

Contacts — Phosphor bronze, plated .000030 [0.00076] min. gold on mating area, .00015 [0.0038] min. tin on solder tail, all over .000050 [0.00127] min. nickel



Part Number 5787090-1 Surface-Mount with Boardlocks

Note: All part numbers are RoHS compliant.

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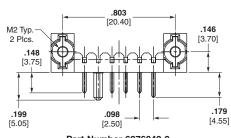
2.5 mm Pitch Battery Assemblies

2.5 mm Pitch **Plug Assemblies**

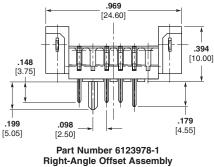
Material and Finish Housing — Black thermoplastic resin, UL 94V-0 rated

Contacts — High conductivity copper alloy, gold plating

			Special Features
Through Hole	Right-Angle Offset	6123987-1	M2 Nut Plate
Through Hole	Right-Angle Offset	6123978-1	
Through Hole	Right-Angle On Board	6376042-2	M2 Nut Plate
Through Hole	Right-Angle On Board	9-1612503-1	
Through Hole	Right-Angle Offset	6318792-1	
Through Hole	Vertical	6473451-1	
Through Hole	Right-Angle Offset	6318977-3	M2 Nut Plate
Through Hole	Right-Angle On Board	6318573-4	
Through Hole	Right-Angle On Board	1747602-1	M2 Nut Plate
Through Hole	Right-Angle On Board	1717445-2	
Through Hole	Right-Angle On Board	6123738-7	
Through Hole	Right-Angle On Board	1123822-7	M2 Nut Plate
Through Hole	Right-Angle On Board	1123684-7	One Side M2 Nut Plate
Through Hole	Right-Angle Offset	6473539-7	M2 Nut Plate
	Through Hole Through Hole	Through HoleRight-Angle OffsetThrough HoleRight-Angle On BoardThrough HoleRight-Angle On BoardThrough HoleRight-Angle On BoardThrough HoleRight-Angle OffsetThrough HoleRight-Angle OffsetThrough HoleRight-Angle OffsetThrough HoleRight-Angle On BoardThrough HoleRight-Angle On Board	Through HoleRight-Angle Offset6123978-1Through HoleRight-Angle On Board6376042-2Through HoleRight-Angle On Board9-1612503-1Through HoleRight-Angle Offset6318792-1Through HoleRight-Angle Offset6318792-1Through HoleVertical6473451-1Through HoleRight-Angle Offset6318977-3Through HoleRight-Angle On Board6318573-4Through HoleRight-Angle On Board1747602-1Through HoleRight-Angle On Board1717445-2Through HoleRight-Angle On Board6123738-7Through HoleRight-Angle On Board1123822-7Through HoleRight-Angle On Board1123684-7



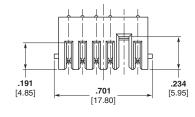
Part Number 6376042-2 Right-Angle On Board Assembly with Nut Plate



2.5 mm Pitch **Receptacle Assemblies Material and Finish**

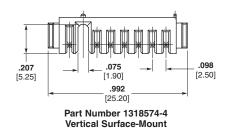
Housing — Black thermoplastic resin, UL 94V-0 rated Contacts — High conductivity copper alloy, gold plating

No. of Positions	Mount Type	Mount Angle	Part Number
4	Through Hole	Right-Angle	6123981-1
5	Through Hole	Right-Angle	6318430-2
5	Surface-Mount	Right-Angle	1612504-1
6	Surface-Mount	Vertical	1123688-3
7	Surface-Mount	Vertical	1318574-4
8	Through Hole	Vertical	1717478-1
0	Through Hole	Right-Angle	1717620-1
10	Surface-Mount	Vertical	1123688-7
	Through Hole	Vertical	1674231-1



Part Number 6318430-2 **Right-Angle Through Hole Mount**

Note: All part numbers are RoHS compliant.



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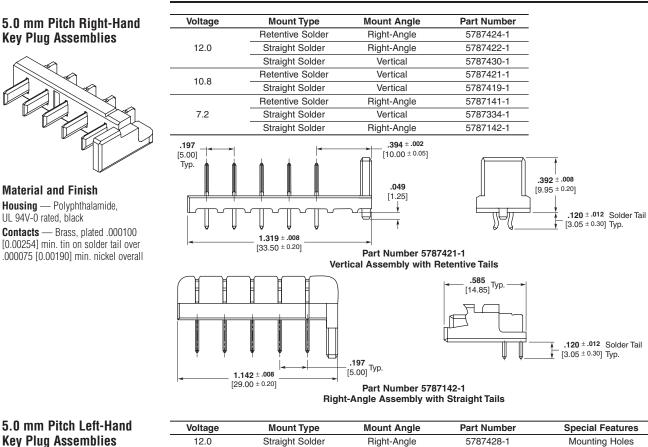
230

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Dimensions are shown for reference purposes only. Specifications subject to change.

USA: 1-800-522-6752 Canada: 1-905-470-4425 Mexico: 01-800-733-8926 C. America: 52-55-1106-0803

5.0 mm Pitch Battery Plug Assemblies



Retentive Solder

Straight Solder

.197 [5.00] ^{Typ.}

Mount Type

Straight Solder

Retentive Solder

Straight Solder

Retentive Solder

Straight Solder

1.064 ± .008 [27.02 ± 0.20] 1.417 ± .008

[36.00 ± 0.20]

10.8

.585

.303 [14.85] ^{Typ.}

Voltage

N/A

Right-Angle

Right-Angle

Part Number 5787428-1

Right-Angle Assembly with Mounting Holes

Mount Angle

Right-Angle Right-Angle

Right-Angle

Vertical

Vertical

.197 [5.00] Typ.

Part Number 5796078-1

Right-Angle Assembly with

Straight Tails & Sequenced Contacts

5787418-1

5787246-1

Part Number

5787441-1

5787443-1

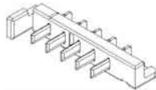
5796078-1

5787446-1

5787444-1

Ø .087 ± .003 [2.20 ± 0.08] 2 Plcs.

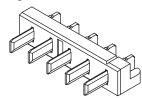
5.0 mm Pitch Left-Hand **Key Plug Assemblies**



Material and Finish Housing — Polyphthalamide, UL 94V-0 rated, black Contacts - Brass, plated .000100

[0.00254] min. tin on solder tail over .000075 [0.00190] min. nickel overall

5.0 mm Pitch Keyless **Plug Assemblies**



Material and Finish

Housing — Polyphthalamide, UL 94V-0 rated, black

Contacts — Brass, plated .000100 [0.00254] min. tin on solder tail over .000075 [0.00190] min. nickel overall



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Note: All part numbers are RoHS compliant.

 $\begin{array}{c} \textbf{.120} \pm .012 \\ [3.05 \pm 0.30] \\ \text{Solder Tail} \end{array}$

Тур

South America: 55-11-2103-6000 Hong Kong: 852-2735-1628 Japan: 81-44-844-8013 UK: 44-(0)8002-67666

231

.120 ± .012

[3.05 ± 0.30]

Solder Tail

Тур.

Special Features

Sequenced Contacts

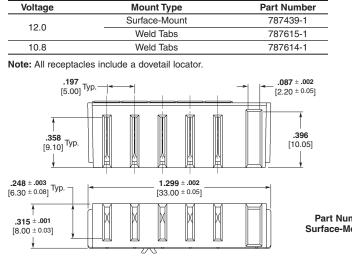
5.0 mm Pitch Battery Receptacle Assemblies

5.0 mm Pitch Right-Hand Key Receptacle Assemblies

Material and Finish

Housing — Black polycarbonate, UL 94V-0 rated

Contacts — Copper alloy, plated .000075 [0.00190] min. nickel



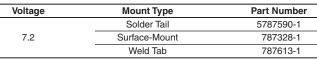
Part Number 787439-1 Surface-Mount Receptacle

5.0 mm Pitch Left-Hand Key Receptacle Assemblies

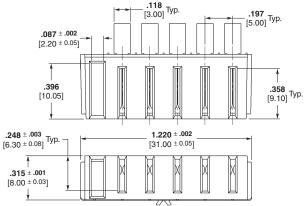
Material and Finish

Housing — Black polycarbonate, UL 94V-0 rated

Contacts — Copper alloy, plated .000075 [0.00190] min. nickel



Note: All receptacles include a dovetail locator.



Mount Type

Solder Tail

Surface-Mount

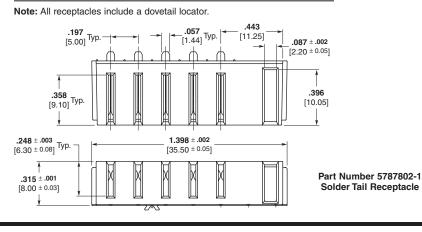
Part Number 787613-1 Weld Tab Receptacle

5.0 mm Pitch Keyless Receptacle Assemblies

Material and Finish

Housing — Black polycarbonate, UL 94V-0 rated

Contacts — Copper alloy, plated .000075 [0.00190] min. nickel



Note: All part numbers are RoHS compliant.

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

Voltage

N/A

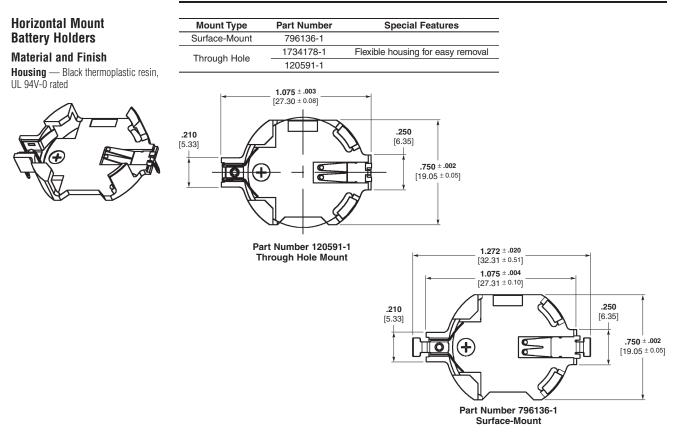
Dimensions are shown for reference purposes only. Specifications subject to change. USA: 1-800-522-6752 Canada: 1-905-470-4425 Mexico: 01-800-733-8926 C. America: 52-55-1106-0803

Part Number

5787802-1

146845-1

Coin Cell Battery Holders



Battery Holders	Through Hole	6339488-1 1775485-1	Low Profile	
		1775485-1	Low Profile	
Material and Finish —			Low I Tollie	
Housing — Black thermoplastic resin, UL 94V-0 rated		1.040 ►		
Sod	.903 [22.94]		.136	394±.008



Note: All part numbers are RoHS compliant.

Part Number 6339488-1

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DC Power Jacks

Product Facts

- Low Profile Design
- Accepts industry standard DC power plugs
- Available with:
 - Solder tabs
 - Through-hole solder tails
 - SMT leads
- Available to accept these plug sizes:
 - 0.65 mm 1.0 mm
 - 1.3 mm
 - 1.47 mm
 - 1.87 mm
 - 2.0 mm
 - 2.35 mm
 - 2.5 mm

1.3 mm

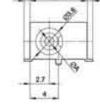
Ideal for portable electric devices

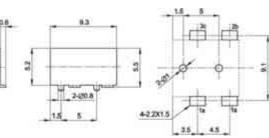
Surface-Mount Power Jacks

Pin Diameters — 0.65 mm and

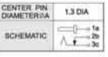
Part Number 1775638-1







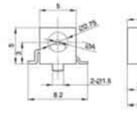


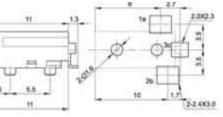




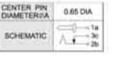
Part Number 1775639-1



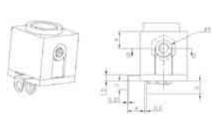




Bottom View



Vertical DC Jack Part Number 1470390-1







Note: All part numbers are RoHS compliant.

234 Catalog 1773096 Revised 2-10

Revised 2-10 millimeters un specified. Val www.tycoelectronics.com are metric eq

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DC Power Jacks (Continued)

Right-Angle DC Jacks Miniature Jacks

For specific part numbers, contact Tyco Electronics

Center Dia.	Tail Length	Part Number
1.30	3.00	1775529-1
1.30	1.50	1775529-2
1.00	3.00	1-1775529-1
	1.50	1-1775529-2



CENTER PIN DIAMETERICA	1.3	DIA	1.0	DIA	1.3	DIA
8 LENGTH	3.Otres	1.5mm	3.0mm	1.5mm	3.0mm	1.Smil
SCHEMATIC	 ∧				→ 1# → 30 → 20	



¢.	1		

Shielded Jack

			1-JA	- 820 - Ab	- 148	A
				101-1	0	S
					28	#] ##E.00 -
			M.C.S.	3 .10.24	S C C C C C C C C C C C C C C C C C C C	2
Dia. A	N.W. (q)	Part Number	_	9.15	4.84	
2.0	1.8	1734894-1	_		1	(1
2.5	2.0	1734894-2				
	2.0	2.0 1.8	2.0 1.8 1734894-1	2.0 1.8 1734894-1	Dia. A N.W. (q) Part Number 2.0 1.8 1734894-1	Dia. A N.W. (q) Part Number 2.0 1.8 1734894-1

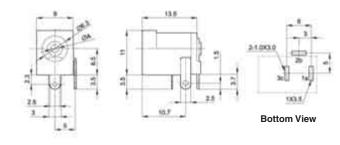
1.35 DIA 1.47 DIA 1.7 DIA

1



PCB Layout (Tolerance ± 0.05)

Standard Jacks		
Part Number		
1775069-1		
1775069-2		
1775069-3		



1.87 DIA



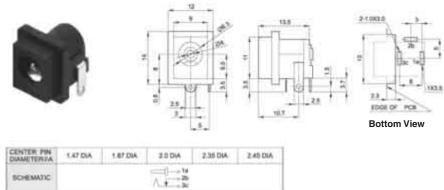
SCHEMADC	

CENTER PIN DIAMETERIJA

Standard Jack — Recessed Flange

For specific part numbers, contact Tyco Electronics

Center Diameter	Part Number	
1.47	1775637-1	
1.87	1775637-2	
2.00	1775637-3	
2.35	1775637-4	
2.45	1775637-5	



2.0 CSA

1.1 30

22 DIA

2.35 DM

2.5 D/A

Note: All part numbers are RoHS compliant.

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Mouser Electronics

Authorized Distributor

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TE Connectivity: 5787531-1