

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.



2.0 mm Pitch Battery Assemblies

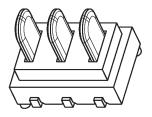
2.0 mm Pitch **Plug Assemblies**

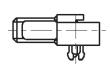
Material and Finish

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

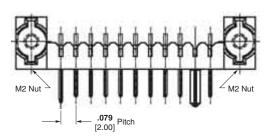
Contacts — High conductivity copper alloy, gold plating

No. of Positions	Mount Type	Mount Angle	Part Number	Special Features
3	Surface-Mount	Vertical	1612898-1	
7	Through Hole	Right-Angle	1827654-1	Retention Leg
8	Through Hole	Right-Angle	1747785-1	
	Surface-Mount	Vertical	2-1612962-3	Nut Plate (both sides)
10	Surface-Mount	Vertical	1-1612962-3	
10	Surface-Mount	Vertical	1717458-1	One side nut plate
	Through Hole	Right-Angle	1827501-1	

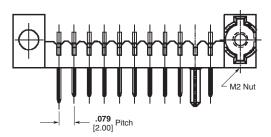




Retention Leg (Part Number 1827654-1 Feature)



2 mm Plug Assembly with Nut Plates



2 mm Plug Assembly with Nut Plate (One Side)

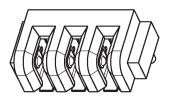
2.0 mm Pitch **Receptacle Assemblies**

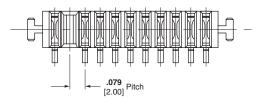
Material and Finish

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

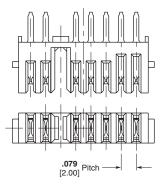
Contacts — High conductivity copper alloy, gold plating

No. of Positions	Mount Type	Mount Angle	Part Number
3	Surface-Mount	Vertical	1612901-1
7	Surface-Mount	Vertical	1827684-1
,	Through Hole	Vertical	1827685-1
8	Surface-Mount	Vertical	1747786-1
10	Through Hole	Vertical	1612963-4
10	Surface-Mount	Vertical	1612964-4





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.

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



2.0 mm Pitch Multi-Directional Interconnection (MDI) Systems

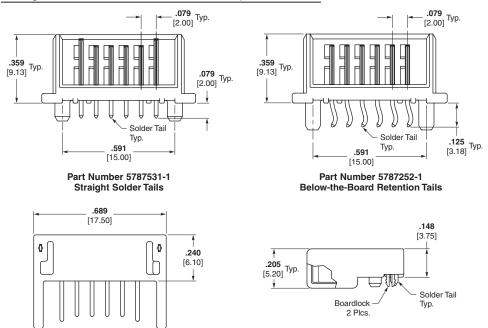
6-Position Multi-Directional Headers

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

Mount TypeBoardlocksPart NumberSpecial FeaturesThrough HoleWith5146877-1Sequenced contactsRetention TailsWithout5787252-1Straight SolderWithout5787531-1Sequenced contacts



Part Number 5146877-1

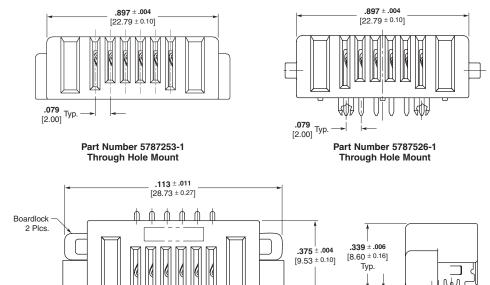
6-Position Multi-Directional Receptacles

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

Mount Type	Boardlocks	Part Number
Surface-Mount	With	5787090-1
Through Hole	Without	5787253-1
	without	5787526-1



Part Number 5787090-1 Surface-Mount with Boardlocks

Note: All part numbers are RoHS compliant.

∠ Solder Tail

Тур.

.059 ± .003

 $[1.50 \pm 0.08]$



2.5 mm Pitch Battery Assemblies

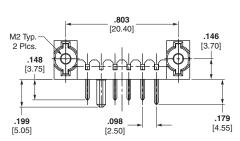
2.5 mm Pitch Plug Assemblies

Material and Finish

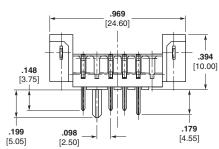
Housing — Black thermoplastic resin, UL 94V-0 rated

Contacts — High conductivity copper alloy, gold plating

No. of Positions	Mount Type	Mount Angle	Part Number	Special Features
4	Through Hole	Right-Angle Offset	6123987-1	M2 Nut Plate
4	Through Hole	Right-Angle Offset	6123978-1	
	Through Hole	Right-Angle On Board	6376042-2	M2 Nut Plate
5	Through Hole	Right-Angle On Board	9-1612503-1	
5	Through Hole	Right-Angle Offset	6318792-1	
	Through Hole	Vertical	6473451-1	
6	Through Hole	Right-Angle Offset	6318977-3	M2 Nut Plate
7	Through Hole	Right-Angle On Board	6318573-4	
/	Through Hole	Right-Angle On Board	1747602-1	M2 Nut Plate
8	Through Hole	Right-Angle On Board	1717445-2	
	Through Hole	Right-Angle On Board	6123738-7	
10	Through Hole	Right-Angle On Board	1123822-7	M2 Nut Plate
10	Through Hole	Right-Angle On Board	1123684-7	One Side M2 Nut Plate
	Through Hole	Right-Angle Offset	6473539-7	M2 Nut Plate



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



Part Number 6123978-1 Right-Angle Offset Assembly

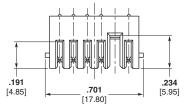
2.5 mm Pitch Receptacle Assemblies

Material and Finish

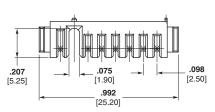
Housing — Black thermoplastic resin, UL 94V-0 rated

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
0	Through Hole	Vertical	1717478-1
8	Through Hole	Right-Angle	1717620-1
10	Surface-Mount	Vertical	1123688-7
10	Through Hole	Vertical	1674231-1



Part Number 6318430-2 Right-Angle Through Hole Mount



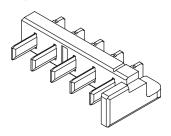
Part Number 1318574-4 Vertical Surface-Mount

Note: All part numbers are RoHS compliant.

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

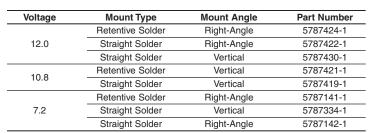
5.0 mm Pitch Right-Hand Key Plug Assemblies

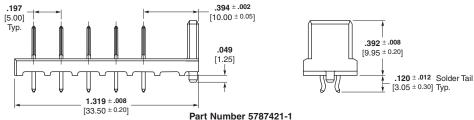


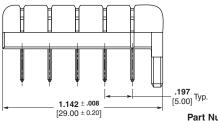
Material and Finish

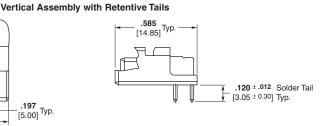
Housing — Polyphthalamide, UL 94V-0 rated, black

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









Part Number 5787142-1 Right-Angle Assembly with Straight Tails

5.0 mm Pitch Left-Hand Key Plug Assemblies

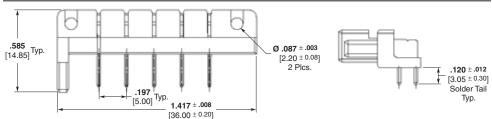


Material and Finish

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

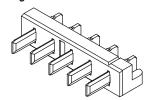
Contacts — Brass, plated .000100 [0.00254] min. tin on solder tail over .000075 [0.00190] min. nickel overall

Voltage	Mount Type	Mount Angle	Part Number	Special Features
12.0	Straight Solder	Right-Angle	5787428-1	Mounting Holes
10.0	Retentive Solder	Right-Angle	5787418-1	
10.8	Straight Solder	Right-Angle	5787246-1	



Part Number 5787428-1 Right-Angle Assembly with Mounting Holes

5.0 mm Pitch Keyless Plug Assemblies

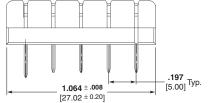


Material and Finish

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

Voltage	Mount Type	Mount Angle	Part Number	Special Features
	Straight Solder	Right-Angle	5787441-1	
	Retentive Solder	Right-Angle	5787443-1	
N/A	Straight Solder	Right-Angle	5796078-1	Sequenced Contacts
	Retentive Solder	Vertical	5787446-1	
	Straight Solder	Vertical	5787444-1	



.120 ± .012 [3.05 ± 0.30] Solder Tail Typ.

Part Number 5796078-1 Right-Angle Assembly with Straight Tails & Sequenced Contacts

Note: All part numbers are RoHS compliant.

Catalog 1773096 Revised 2-10

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



5.0 mm Pitch Battery Receptacle Assemblies

5.0 mm Pitch Right-Hand **Key Receptacle Assemblies**

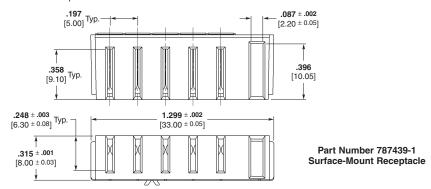
Material and Finish

Housing — Black polycarbonate, UL 94V-0 rated

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

Voltage	Mount Type	Part Number
12 0	Surface-Mount	787439-1
12.0	Weld Tabs	787615-1
10.8	Weld Tabs	787614-1

Note: All receptacles include a dovetail locator.



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

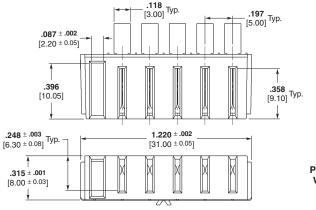
Material and Finish

Housing — Black polycarbonate, UL 94V-0 rated

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

Voltage Part Number **Mount Type** 5787590-1 Solder Tail 7.2 Surface-Mount 787328-1 Weld Tab 787613-1

Note: All receptacles include a dovetail locator.



Part Number 787613-1 Weld Tab Receptacle

5.0 mm Pitch Keyless Receptacle Assemblies

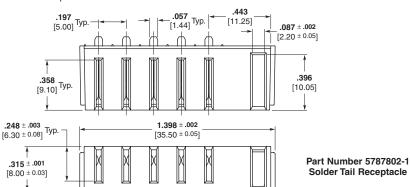
Material and Finish

Housing — Black polycarbonate, UL 94V-0 rated

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

Voltage	Mount Type	Part Number
N/A	Solder Tail	5787802-1
IN/A	Surface-Mount	146845-1

Note: All receptacles include a dovetail locator.



Note: All part numbers are RoHS compliant.

232

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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

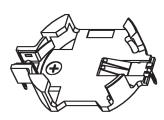


Coin Cell Battery Holders

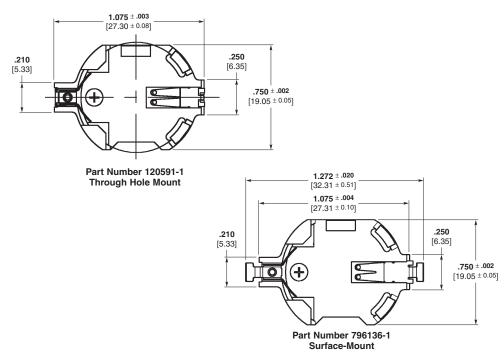
Horizontal Mount Battery Holders

Material and Finish

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



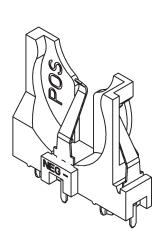
Mount Type	Part Number	Special Features
Surface-Mount	796136-1	
Through Hole	1734178-1	Flexible housing for easy removal
Tillough Hole	120591-1	



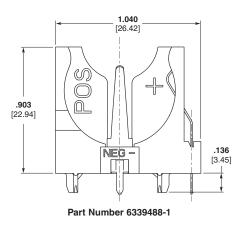
Vertical Mount Battery Holders

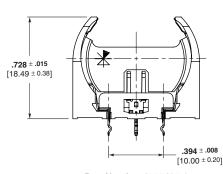
Material and Finish

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



Mount Type	Part Number	Special Features
Through Hole	6339488-1	
	1775485-1	Low Profile





Part Number 1775485-1 Low Profile

Note: All part numbers are RoHS compliant.

DC Power Jacks

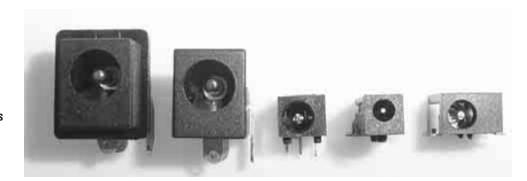
Product Facts

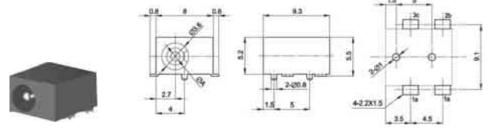
- Low Profile Design
- Accepts industry standard DC power plugs
- Available with:
 - Solder tabs
 - Through-hole solder tails
 - SMT leads
- Available to accept these plug sizes:
 - 0.65 mm
 - 1.0 mm
 - 1.3 mm
 - 1.47 mm
 - 1.87 mm
 - 2.0 mm
 - 2.35 mm
 - 2.5 mm
- Ideal for portable electric devices

Surface-Mount Power Jacks

Pin Diameters — 0.65 mm and 1.3 mm

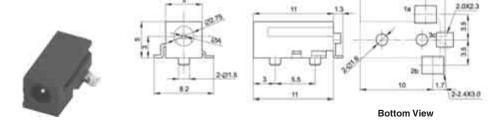
Part Number 1775638-1





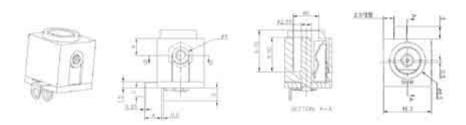
CENTER PIN DIAMETERIA 1.3 DIA

Part Number 1775639-1





Vertical DC Jack Part Number 1470390-1



Note: All part numbers are RoHS compliant.

Laptops/Portables

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

Bottom View

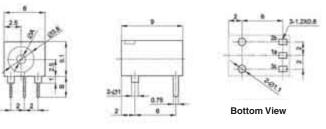


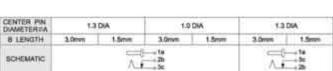
DC Power Jacks (Continued)

Right-Angle DC Jacks Miniature Jacks

For specific part numbers, contact Tyco Electronics

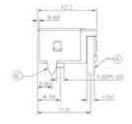
Center Dia.	Tail Length	Part Number
1.30	3.00	1775529-1
1.30	1.50	1775529-2
1.00	3.00	1-1775529-1
1.00	1.50	1-1775529-2

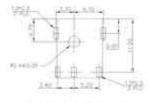




Shielded Jack





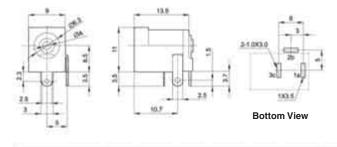


PCB Layout
(Tolerance ± 0.05)

Dia. A	N.W. (q)	Part Number
2.0	1.8	1734894-1
2.5	2.0	1734894-2

Standard Jacks

Center Diameter	Part Number
2.00	1775069-1
2.35	1775069-2
2.50	1775069-3



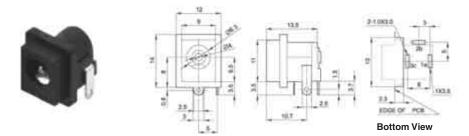
CENTER PIN DIAMETERIA	1.35 DIA	1.47 DIA	1.7 DIA	1.87 DIA	2.0 DIA	22 DIA	2.35 DW	2.5 DIA
SCHEMATIC				_0 ∧.i	18 20 20			

9

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



CENTER PIN DIAMETERIZA	1.47 DIA	1.87.DIA	2.0 D(A	2.35 DIA	2.45 DIA
SCHEMATIC	1 18 A 1 28				

Note: All part numbers are RoHS compliant.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

TE Connectivity:

787613-1 5787428-1 5787446-1 5787531-1