



**Halving the tooling and operational costs of plug-and-receptacle power systems, Ditto wire-to-wire interconnects and pre-assembled harnesses increase cost-savings and operational efficiency of low-amperage consumer and lighting applications**

**Features and Benefits**

**Connector**

Anti-twist housing feature	Ensures proper seating of terminal in the housing
Terminal stoppers on housing	Prevent lifting of terminal while providing robust, physical and electrical contact with mated terminals
Polarized housing geometry	Prevents mis-mating of connectors
Friction lock	Prevents accidental disengagement of mated connectors

**Crimp Terminal**

Terminals polarized to the housing silos (that, terminals cannot be inserted upside down in a housing)	Ensures correct terminal orientation
Low mating force terminals	Minimize operator fatigue when mating cable assemblies
IPC/WHMA-A-620*-compliant conductor and insulator sections	Ensures mechanically and electrically secure connection between the wires and terminals (when using UL 1007 or UL 1061 wire)

**Pigtail Harnesses**

Pre-assembled wire-harnesses	Allow integration into applications straightaway
6 and 12-inch wire configuration	Offer maximum design flexibility to suit custom applications

**Ditto™ Wire-to-Wire Interconnects**

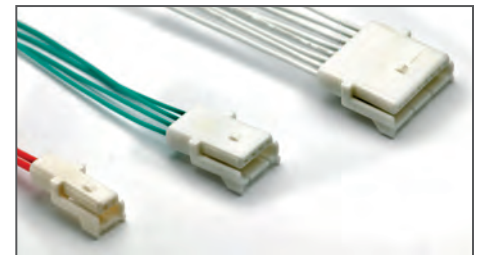
- 36876** Genderless crimp terminal
- 36877** Genderless crimp housing, 2 to 8 circuits
- 172578** Crimped Pigtail Harnesses



Mated Ditto Connector Housings



Ditto Crimp Terminals



Ditto Pigtail Harnesses

**Standardization Benefits of Harnesses Using Ditto Connectors**

**HARNESSES USING NON-STANDARD CONNECTORS**

- Typically use more connectors, possibly from different sources, with potential compatibility problems
- Need more follow-up with different suppliers and part-tracking in case of obsolescence
- Need to keep stock of both male and female components—high inventory and costs
- Operations and costs needed to maintain numerous applicators and spares
- Higher number of change-overs and more set-up time needed before entire connector assembly can be used
- Pre-assembled harness using different connector and wire configurations are not easy to assemble or readily available for use 'as is'

**HARNESSES USING DITTO CONNECTORS**

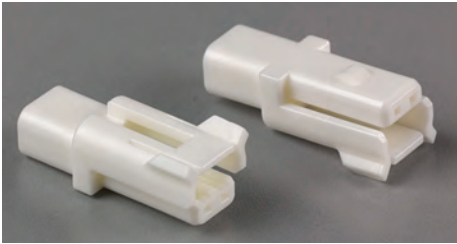
- Use of only a single, hermaphroditic connector (with same circuit size) ensures compatibility and mateability
- One-stop-shop supplier and source; less demand on logistics, fewer follow-ups needed and no concern with parts going obsolete
- Less inventory needed – 1 housing, 1 terminal interconnect system
- Reduced number and variety of applicators and cost of spares; increased operational efficiency for fast setup
- No change-over involved as there's only 1 preset applicator machine used (as opposed to two); customers enjoy significant time and cost-savings
- Pre-assembled pigtail harness is easy to configure with Ditto and ready for use to cut time and operational cost

\*IPC/WHMA-A-620 is first industry consensus (and certification-based) standard for cable and wire harness fabrication and installation. Published by IPC it is titled "Requirements and Acceptance for Cable and Wire Harness Assemblies" and covers acceptability criteria for crimped, mechanically secured and soldered interconnection and corresponding lacing/restraining criteria associated with cable and harness assemblies.

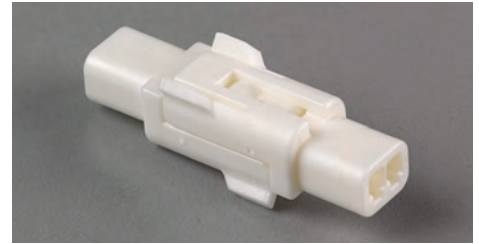
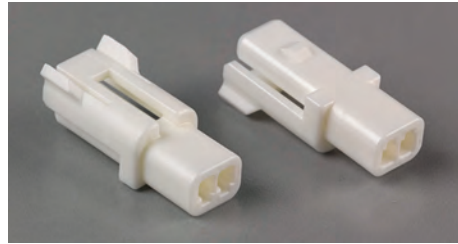


## Product Configuration - 2- and 8-Circuit Ditto Connector Housings

## Ditto™ Wire-to-Wire Interconnects



Unmated 2-circuit Ditto connector housings  
from front and rear views



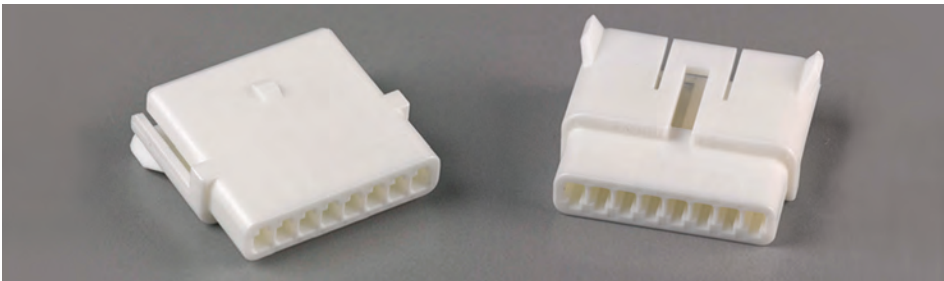
Mated 2-circuit Ditto connectors



Mating interface of an  
8-circuit Ditto connector housing

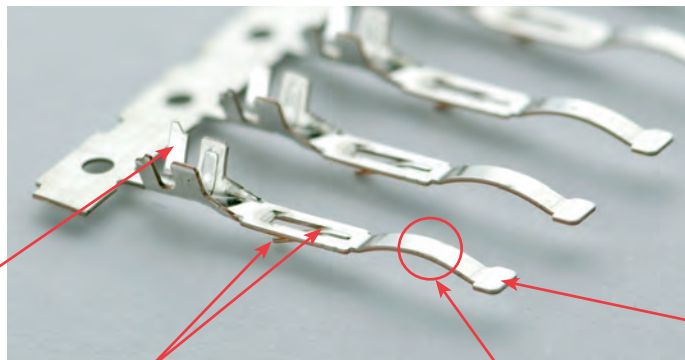


Mated 8-circuit Ditto connectors



Top (left) and reverse (right) views of an  
8-circuit Ditto connector housing

## Product Features - Terminal Design of the Ditto Connector System



Terminal barrel accommodates UL 1061- and 1007-style wires

Reinforced, sheared locking tang ensures no terminal back-out

Contact area of crimp terminal. Terminal geometry enables high normal force for better contact reliability when mated

Single terminal design of Ditto connector system (Series 36876)

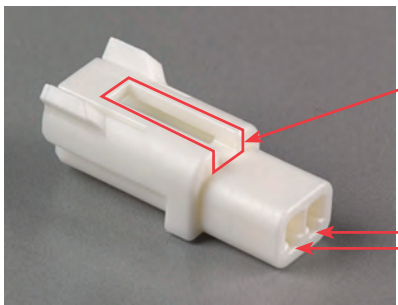
Terminal end fits snugly on the Ditto connector housing

### Applicable Wiring

- The table below shows the range and sizes of UL style wires supported by the Ditto connector system
- Barrel-type terminals are used for universal support of a variety of wire gauge and styles

Wire Size	Max Outer Diameter (mm)	
	UL 1007	UL 1061
26	1.40	1.05
24	1.50	1.15
22	1.70	1.35
20	N.A.	1.55

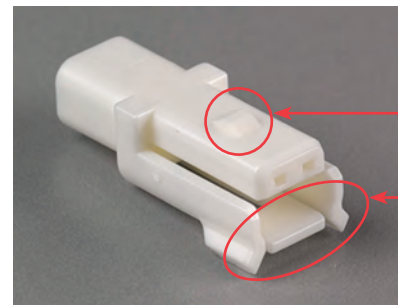
### Additional Product Features – Ditto Connector Housing



Locking window

Anti-twist feature to ensure proper seating of terminal in the housing. Terminal stoppers prevent lifting of terminal while providing robust, physical and electrical contact with mated terminals

**Ditto connector housing design**



Friction lock

Polarization features ensure correct mating orientation

**Polarization and locking features of a typical Ditto connector**

### Additional Product Features – Ditto Connector Housing

Circuits	Applicable Current Rating for 20 AWG wires
2 and 3	8.0 A
4 to 6	6.1 A
7 and 8	5.6 A

### Applications

#### Consumer / Home Appliances

- Fitness
- Home Appliances
- Home Entertainment
- Home Office
- Home Security
- HVAC

#### Solid State Lighting

- Indoor and Outdoor Illumination
- Displays and Signage
- Transportation Lighting



Consumer / Home Appliances



Exterior lighting, Displays and Signage



Heating, Ventilation and Air Conditioning (HVAC)

### Specifications

#### Reference Information

Packaging: Tape and reel (terminals);  
Bag (housing)  
Mates With: Ditto housings  
(Series 36877)  
Use With: UL 1007 and 1061 wires  
or equivalent  
Terminal Used: Ditto crimp terminals  
(Series 36876)  
Designed In: Millimeters  
RoHS: Yes  
Halogen Free: Yes  
Glow Wire Compliant: IEC 60695-2-11

#### Electrical

Voltage (max.): 350V AC  
Current (max.): 5.6 to 8 A for  
20AWG wires with 0.053-0.067 inch  
Outside Insulation Diameter  
Low Level Contact Resistance (max.):  
3.5 milliohms  
Dielectric Withstanding Voltage:  
1700V AC  
Insulation Resistance: 1000 Megohms

#### Mechanical

Terminal Insertion to Housing (max.): 15N  
Terminal Retention to Housing (min.): 20N  
Mating Force per terminal (max.): 4N  
Unmating Force per terminal (min.): 0.8N  
Durability (min.): 25 cycles over  
connector lifetime

#### Physical

Housing: PA66, UL94-V0, Natural (White)  
Contact: Copper Alloy  
Plating:  
Contact Area — Tin-plating  
Underplating — Nickel (Ni) overall  
Operating Temperature: -40 to +105°C

### Ordering Information

#### HOUSING

Order No.	Circuit Size	Housing Width (mm)
<a href="#">36877-0002</a>	2	8.60
<a href="#">36877-0003</a>	3	11.10
<a href="#">36877-0004</a>	4	13.60
<a href="#">36877-0005</a>	5	16.10
<a href="#">36877-0006</a>	6	18.60
<a href="#">36877-0007</a>	7	21.10
<a href="#">36877-0008</a>	8	23.60

#### CRIMP TERMINALS

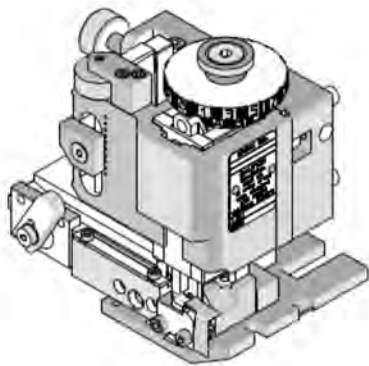
Order No.	AWG
<a href="#">36876-0001</a>	20-22
<a href="#">36876-0002</a>	24-26

#### SINGLE-ENDED PIGTAIL HARNESSSES

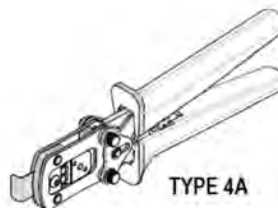
Part No. for pigtail harnesses	Circuit Size	Wire Length (mm)
<a href="#">172578-0005</a>	2	300
<a href="#">172578-0006</a>	3	
<a href="#">172578-0007</a>	4	
<a href="#">172578-0008</a>	5	
<a href="#">172578-0009</a>	6	
<a href="#">172578-0010</a>	7	
<a href="#">172578-0011</a>	8	
<a href="#">172578-0012</a>	2	150
<a href="#">172578-0013</a>	3	
<a href="#">172578-0014</a>	4	
<a href="#">172578-0015</a>	5	
<a href="#">172578-0016</a>	6	
<a href="#">172578-0017</a>	7	
<a href="#">172578-0018</a>	8	

#### APPLICATION TOOLING

Order No.			Terminal	Insulation Diameter	Strip Length
Applicator	Hand Tool	Extract Tool			
<a href="#">63903-0200</a>	<a href="#">63827-3400</a>	<a href="#">63813-1400</a>	36786-0001 (20-22 AWG)	1.70 to 1.35mm (0.0669 to 0.053")	2.3 to 2.8mm (0.0906 to 0.110")
<a href="#">63903-0300</a>	<a href="#">63827-3500</a>		36786-0002 (24-26 AWG)	1.50 to 1.05mm (0.0590 to 0.0413")	



**FineAdjust™ Applicator for Ditto™ Interconnects Terminals (Series 63903)**



**Hand Crimp Tool For Ditto™ Crimp Terminals (Series 63827)**



**Manual Extraction Tool (Series 63813-1400)**

[www.molex.com/link/ditto.html](http://www.molex.com/link/ditto.html)