

# ValuSeal™

## Wire-to-Wire Connector System

**molex®**

**Achieve industry-leading cost efficiencies plus IP65 sealing protection with the innovative, one-piece ValuSeal™ Wire-to-Wire Connector, ideal for consumer, non-automotive transportation and industrial applications**

### Features and Benefits

IP65-rated, integrated wire-and-ring seal (for wire type: 16 AWG UL1061, 18 AWG UL1007, 18 AWG UL1095)

Eliminates ingress of dust and protects against low-pressure jets of water from all directions. Operates in harsh, wet environments. Creates design and cost efficiencies

One-piece housing design

Simplifies assembly process to create cost savings. Boosts efficiency by reducing number of components

Compact 4.00mm pitch

Enhances design flexibility in applications where space is severely limited

Positive latch

Ensures proper mating and high-disengagement force between the plug and receptacle

Integrated wire strain-relief in the connector body

Prevents over-bending and failure of wire at the connector body. Eliminates leak-paths often found in other connector systems

Crimp-and-poke wire assembly

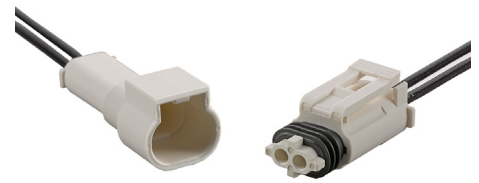
Simplifies wire assembly for added cost efficiency

2-circuit connector currently available; 4-circuit coming in Q2 2017

Two circuit sizes will offer design flexibility



ValuSeal™ Mated Plug and Receptacle



2-Circuit Plug and Receptacle

### Applications

#### Consumer Appliances

- Washers
- Refrigerators
- HVAC Equipment

#### Commercial Vehicle

##### (Non-Automotive Transportation)

- ATV / Motorcycles / Watercraft
- Marine; Under Dash Wiring, Engines
- Forklifts, Trucks, Trailers, Buses
- Aviation
- RVs

#### Industrial

- Robotics
- Industrial Machines and Motors
- Food Processing Equipment/Plants
- Industrial Controls

#### Medical

- Disposable Equipment
- In-Room / Patient Monitoring Equipment

#### Others

- Outdoor Lighting
- Smart Metering
- Lawn and Garden Tractors



Robotics



Marine



HVAC Equipment



Tractors



Home Appliance

### Target Specifications

#### REFERENCE INFORMATION

Packaging: Bulk  
 UL File No.: E29179  
 Designed In: Millimeters  
 RoHS: Yes  
 Halogen Free: No  
 Glow Wire Compliant: No  
 NEMA Rating: IP65 (wire types: 16 AWG UL1061, 18 AWG UL1007, 18 AWG UL1095)

#### MECHANICAL

Contact Insertion Force (max.): 40N  
 Contact Retention to Housing (min.): 60N  
 Mating Force (max.): 50N  
 Unmating Force (min.): 14N  
 Durability (min.): 25 cycles

Housing: Polypropylene  
 Contact: Copper (Cu) Alloy  
 Plating:  
     Contact Area — Tin  
 PCB Thickness: TBD  
 Operating Temperature: -40 to +85°C

#### ELECTRICAL

Voltage (max.): 250V  
 Current (max.): 11.0A  
 Contact Resistance: 10 milliohms  
 Dielectric Withstanding Voltage: TBD  
 Wire Gauge Range: 16 to 18 AWG

#### PHYSICAL

### Ordering Information

Series No.	Component	Gender	Circuit Size	Wire Gauge
<a href="#">172877</a>	Housing	Male	2 (1x2)	---
<a href="#">172878</a>		Female		
<a href="#">173041</a>	Terminal	Male	---	16 to 18 AWG
<a href="#">173042</a>		Female		
<a href="#">173061</a>	Cavity Plug	Used in Plug and Receptacle	All	---

4 (2x2) coming in Q2 2017

### Application Tooling Information

*Tooling specifications and manuals are found by selecting the products below.*

*Crimp Height Specifications are then contained in the Application Tooling Specification document:*

FineAdjust™ Applicator for 16 to 18 AWG  
 ValuSeal terminals (series 173041, 173042)  
 Hand Crimp Tool for 16 to 18 AWG wires

Product number: [63903-8900](#)  
 Product number: [63827-8200](#)

Molex offers a wide variety of production equipment designed and tested to ensure a high quality electrical connection. Using Molex's tooling is essential to meeting industry standards and to maintain the connector's warranty. For more information:

[www.molex.com/link/applicationtooling.html](http://www.molex.com/link/applicationtooling.html) | Application Tooling FAQ

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