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

ValuSeal™ Mated Plug and Receptacle

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

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

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

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

Ordering Information

Series No.	Component	Gender	Circuit Size	Wire Gauge
172877	Housing	Male	2 (1x2)	---
172878		Female		
173041	Terminal	Male	---	16 to 18 AWG
173042		Female		
173061	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
ValueSeal terminals (series 173041, 173042)   Product number: 63903-8900
Hand Crimp Tool for 16 to 18 AWG wires   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 | Application Tooling FAQ

www.molex.com/link/valuseal.html