

# **DuraClik 2.00mm Wire-to-Board Connector System**

Molex's DuraClik 2.00mm-Pitch Wire-to-Board SMT Connectors provide superior electrical contact reliability, space savings and high PCB retention force capability. These connectors are developed for high-vibration and high-temperature applications.









DuraClik Feature	Header	Standard Receptacle	TPA Receptacle	ISL Receptacle	
Termination	Surface Mount	Crimp	Crimp	Crimp	
Size (Depth)	8.00mm (vertical) 9.40mm (right angle)	6.50mm	7.45mm	8.50mm	
Current	3.0A	3.0A	3.0A	3.0A	
Temperature Rating	-40 to +125°C	-40 to +105°C	-40 to +125°C	-40 to +125°C	
Retention Force	<u>-</u>	9.8N	20N	50N	
Retainer	-	-	Υ	Υ	
Available Circuit Sizes	2 to 15	2 to 15	2 to 15	2 to 10, 12	
Plating	Tin, Gold	Tin, Gold	Tin, Gold	Tin, Gold	

### **FEATURES AND ADVANTAGES**

Provides protection against foreign objects, lock deformation and unlocking due to external factors
Lock guard

Provides mating confirmation

Durability + Click (sound) = DuraClik

Audible click sound on mating

#### Offer greater design flexibility

Different header circuit options in vertical and horizontal configurations

Helps prevent half mating and ensures secure mating Inertia lock

Provides secure mating and space savings; helps prevent latch breakage from wire tangling wire tangling Inner positive lock

# Provides automotive-grade robustness

ISL receptacle is LV214 (S2 vibration), ES91500-03 and SAE/USCAR-21

Provide secure PCB retention that can withstand an upward pull force of 100N (10kgf) to meet automotive vibration requirements

Wide solder tabs for the header; designed to SAE automotive vibration standards Protects contact against dust and debris; avoids tangling during harness assembly

Enclosed contact design



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# **APPLICATIONS**

#### **Automotive**

Headlights
Rear combination lamps
Steering switches
Gearshifts
Meter systems
Door modules
Navigation systems
Rearview mirrors
Seat adjusters
Sensors

#### EV

Battery management systems (BMSs) Inverter fastener components Vehicle Connectivity Telematics modules Head-up displays

#### **Commercial Vehicle**

Tractors Cranes Industrial machinery

#### Consumer

White goods
LED lighting
IH cooking heaters
Vending/gaming machines



LED Lighting



Gearshift



White Goods



Battery Management System



Inverters



Induction Cooktop

#### **SPECIFICATIONS**

# **REFERENCE INFORMATION**

Packaging:

Header – Embossed tape

Housing, Retainer – Bag

Terminal – Reel

Designed In: Millimeters

RoHS: Yes

Low Halogen: Yes

#### **ELECTRICAL**

Voltage (max.): 125V

Current (max.): 3.0A

Contact Resistance (max.): 10 milliohms

Dielectric Withstanding Voltage: 500V AC

Insulation Resistance (min.): 1000 Megohms

#### **MECHANICAL**

Contact Retention to Housing:

Standard Version - 9.8N

TPA Version – 20N

ISL Version - 50N

Robust Version - 100N

#### **PHYSICAL**

Housing: Standard, ISL and Robust: PBT, TPA: PA

Retainer: PBT

Header Housing: Polyamide

Header Terminal: Copper Alloy

Terminal Contact: Phosphor Bronze

Plating:

Contact Area — Tin or Gold

Solder Tail Area — Tin

Underplating — Nickel

Operating Temperature: -40 to +105°C (Standard)

-40 to +125°C (ISL and TPA)

-40 to +125°C (Robust Series)



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### **ORDERING INFORMATION**

#### **DuraClik Standard**

Housing Natural	Housing, Black	Terminal	Circuit	
		50212 Tin Plating 26 to 30 AWG		
<u>502351</u>	<u>502351</u>	560085 Tin Plating 22 to 26 AWG	2 to 15	
		56161 Gold Plating 22 to 26 AWG		

#### **DuraClik TPA**

Retainer, Gray	Housing, Black	Housing, White	Terminal	Circuits
505152	<u>505151</u>	<u>505151</u>	505153 Tin Plating 22, 24 AWG	2 to 15
<u> </u>			505487 Gold Plating 22, 24 AWG	2 10 13

#### **DuraClik ISL and DuraClik Robust**

Retainer, Gray	Retainer, Black	Housing, White	Housing, Black	Housing, Red	Housing, Blue	Terminal	Circuit
560125	<u>560125</u>	<u>560123</u>	<u>5</u> 60123	<u>560123</u>	<u>560123</u>	560124 Tin Plating AVSS 0.30mm² FLRY-A 0.35mm² Mocar150C 0.35mm²  560124 Gold Plating AVSS 0.30mm² FLRY-A 0.35mm² Mocar150C 0.35mm²  560124 0.22mm²	2 to 10, 12

### **DuraClik Headers**

Series	Header Direction	Circuits	Natural, Tin	Black, Tin	Red, Tin	Blue, Tin	Natural, Gold
502352	Right Angle	2 to 15	✓	✓	✓	✓	✓
<u>560020</u>	Vertical	2 to 15	✓	✓	✓	✓	✓

#### www.molex.com