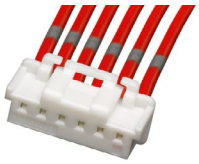
DATASHEET

DuraClik 2.00mm Wire-to-Board Connector System ›

DuraClik 2.00mm-Pitch Wire-to-Board Connectors provide superior electrical contact reliability, space savings and high PCB retention force capability. These connectors are designed to improve connection security and performance in challenging environments subject to high vibration and high temperatures.

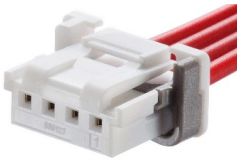
DuraClik Feature	DuraClik Standard	DuraClik TPA	DuraClik ISL	DuraClik Robust Dual-Row
Receptacle Size (Depth)	6.50mm	7.45mm	8.50mm	17.70mm
Current (max.)	3.0A	3.0A	3.0A	3.3A
Temperature Rating	-40 to +105°C	-40 to +125°C	-40 to +130°C	-40 to +125°C
Receptacle Termination	Crimp	Crimp	Crimp	Crimp
Retention Force	9.8N	20N	50N	100N
Retainer	-	Y	Y	Y
Available Circuit Sizes	2 to 15	2 to 15	2 to 10, 12, 13, 15	16, 24
Plating	Tin, gold	Tin, gold	Tin, gold	Tin
Header Size (Depth)	8.00mm (vertical), 9.40mm (right angle)			18.30mm
Header Termination	Surface-mount technology (SMT)			SMT
Available Header Circuit Sizes	2 to 15			16, 24
Header Temperature Rating	-40 to +130°C			-40 to +125°C

Standard/TPA/ ISL Header



Standard Receptacle

TPA Receptacle



ISL Receptacle

Robust Dual-Row Receptacle

Robust Dual-Row Header

ADVANTAGES AND FEATURES

Ensures secure connector-to-PCB header retention
Robust secondary lock variants and wide solder tabs can withstand an upward pull force of 100N (10kgf) to meet automotive vibration requirements and help prevent accidental disconnections.

Confirms correct and secure mating: durability + click (sound) = DuraClik
An audible click sound on mating and built-in inertia lock available in versions up to 15 circuits help prevent mis-mating errors and ensure a reliable connection.

Offers greater design flexibility
Different header options of 2 to 24 circuits—in vertical, horizontal, single- and dual-row configurations—are available, reducing design challenges.

Provides secure mating and space savings; helps prevent latch breakage from wire tangling
An inner positive lock helps prevent unintended disconnection.

Delivers automotive-grade robustness
The independent secondary lock (ISL) receptacle conforms to LV214 (S2 vibration), ES91500-03 and SAE/ USCAR-21 standards, reducing validation and testing requirements.

Permits use in high-level automotive passenger compartment applications
The DuraClik design's operating temperature range of -40 to +130°C (depending on version) ensures reliability and helps prevent failures in challenging conditions.

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APPLICATIONS

Automotive
Battery management systems
Camera modules
DC-DC converters
Door modules
Electric vehicle controllers
Gear shifts
Headlamps and tail lamps
Head-up displays
Infotainment systems
Interior lights
Inverter components
LED driver modules
LED lights
Meter systems
Navigation systems
Onboard chargers
Power distribution units
Rear combination lamps
Rearview mirrors
Seat adjusters
Sensors
Speakers and microphones
Steering switches
Telematics modules
Vehicle connectivity systems

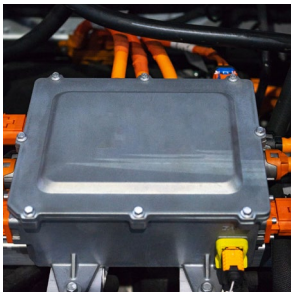
Commercial Vehicle
Cranes
Industrial machinery
Tractors

Consumer
E-bike battery management systems
Energy storage systems
Induction cooking heaters
LED lighting
Vending/gaming machines
White goods

LED Lighting

Gear Shifts

White Goods



Battery Management Systems

Energy Storage Systems

Induction Cooktops

DATASHEET

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SPECIFICATIONS

REFERENCE INFORMATION

Packaging:
- Header—embossed tape and reel
- Housing, retainer—bag, tray
- Terminal—reel

Designed In: Millimeters
RoHS: Yes
Low Halogen: Yes
Ethernet Protocols (ISL Version):
- 100BASE-T1, 10BASE-T1

ELECTRICAL

Voltage (max.): 125V
Current (max.): 3.0A (Standard, TPA, ISL);
- 3.3A (Robust)

Contact Resistance (max.): 10 milliohms
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance (min.): 1,000 Megohms

MECHANICAL

Contact Retention to Housing:
- Standard version—9.8N
- Terminal position assurance (TPA) version—20N
- ISL version—50N
- Robust version—100N

PHYSICAL

Housing:
- Standard, ISL, Robust—PBT
- TPA—PA

Retainer: PBT
Header Housing: Polyamide
Header Attachment: Surface-mount technology
Header Terminal: Copper alloy
Terminal Contact: Phosphor bronze
Plating:
- Contact area—tin or gold
- Solder tail area—tin
- Underplating—nickel

Operating Temperatures:
- -40 to +105°C (Standard)
- -40 to +125°C (TPA, Robust)
- -40 to +130°C (ISL)

ORDERING INFORMATION

DuraClik Connectors

Version	Circuits	Housing	Retainer	Terminal		
				Series	Plating	Wire Gauge
Standard	2 to 15	502351 (natural or black)	-	50212	Tin	30 to 24 AWG
				560085	Tin	26 to 22 AWG
				56161	Gold	26 to 22 AWG
TPA	2 to 15	505151 (black or white)	505152 (gray)	505153	Tin	24 and 22 AWG
				505487	Gold	24 and 22 AWG
ISL	2 to 15	560123 (white, black, red, blue)	560125 (gray, black)	560124	Tin or gold	AVSS 0.30mm² FLRY-A 0.35mm² Mocar150C 0.35mm² 0.22mm²
Robust	16 or 24	206583 (black)	-	503116	Tin	0.30 to 0.50mm²

DuraClik Headers

Version	Circuits	Header Direction	Plating	Color
Standard	2 to 15	502352 (right angle)	Tin	Natural, black, red, blue
			Gold	Natural
		560020 (vertical)	Tin	Natural, black, red, blue
			Gold	Natural
Robust	16 or 24	206584	Tin	Black

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