

Flexi-Latch+ Connectors for EV and Battery Management

Designed to meet industry standards and ensure a streamlined assembly process, Flexi-Latch+ Connectors transform high-impact EV signal connectivity. These connectors are built for EV battery management and power control systems; they also align with the latest battery management system technologies and accommodate diverse battery configurations for future expansions. Lightweight, compact and touch proof, these products withstand harsh conditions for long-term reliability. Avoid compromising on performance, efficiency or safety—choose Flexi-Latch+ Connectors to elevate automotive and commercial vehicle applications.

ADVANTAGES AND FEATURES

Simplifies manufacturing process through ease of assembly

Connector is used to insert the FPC into housing, streamlining the overall assembly procedure.

Helps prevent connector mis-mating

Scoop-proof plug/jacket, mechanical keying and a reverse polarity design contribute to proper mating. Integrated connector position assurance (CPA), polarization and optional integrated secondary lock (ISL) also ensure reliable mating.

Reliable in shock and vibration environments

Connector is USCAR-2 V2/LV214 S1 compliant and PG19 compliant, depending on FPC conditions, for a robust solution.

Provides cable locking and visual confirmation of mating

There are inspection windows on the plug/jacket to view for quality control.

Pitch	1.50 (single row) 2.00mm (dual row)
Current	1.0A
Voltage (IEC 60664-1 pollution degree 1)	250V (1.50mm pitch, single row) 400V (2.00mm pitch, dual row)
Ingress Protection (IP) Rating	IP2xB (plug/jacket, mating area of header/receptacle)
Operating Temperatures	-40 to +105°C

Protects from impurities and helps prevent moisture cross contamination

An optional silicon wall acts as a barrier to isolate each terminal area.

Improves contact reliability

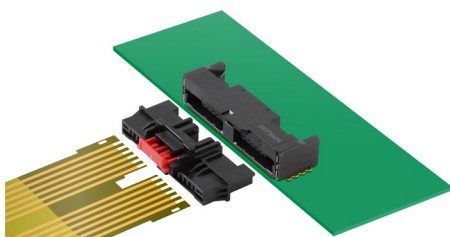
Multiple points of contact increase the overall reliability of the connection, as they reduce the chance of dust significantly impacting connectivity.

Provides protection with insulation for operator safety

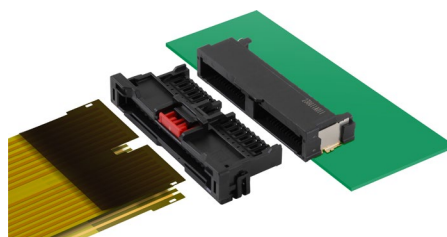
These connectors are IP2xB compliant, inhibiting workers from coming in contact with terminal connections during operations.

Enhances mating security

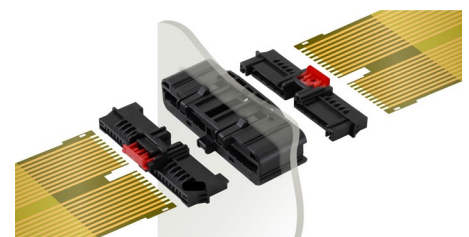
For an additional layer of protection, ISL is an option.



Single-Cable Version



Double-Cable Version



Relay Version for FFC/FPC-to-FFC/FPC

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MARKETS AND APPLICATIONS

Automotive

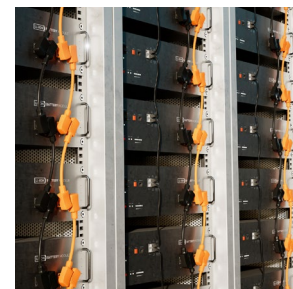
Battery management systems
BEV, PHEV, Hybrid
12V/48V Li-ion batteries (ICE/mild hybrid)
Electric vehicles
Cell sensing units
Motor controllers
Inverters
Power conversions
E-motorcycles
Junction boxes



Battery Management Systems



ATVs



Data Center/Battery
Backup Infrastructure

Commercial Vehicle

ATVs
Forklifts
Marine: under-dash wiring, lighting
HD trucks

Industrial

Energy storage systems
Data center/battery backup infrastructure

SPECIFICATIONS

	Pitch (mm)	Circuit	Row	Rated Voltage (max.)	Rated Current (max.)	Operating Temperatures	Dielectric Strength	Vibration
Dual Row	2.00	32, 40	Dual	400V*	1.0A	-40 to +105°C	1,000V	LV214 S1/ USCAR-2 V2
Single Row	1.50	12, 20, 24	Single	250V*	1.0A	-40 to +105°C	1,000V	LV214 S1/ USCAR-2 V2

	Lock	CPA/ISL	Polarization	Terminal Isolation	Plating	Height (mm)	Width (mm)	Depth (mm)
Dual Row	Top	CPA and ISL	4	Available (Elastomer barrier)	Gold (Au)	9.44 (mated 10.28)	52.2 (40 circuits)	16.75 (footprint depth: 15.3) (mated 25.6)
Single Row	Top	CPA	2	None	Gold (Au)	7.45 (mated 8.56)	51.25 (24 circuits)	12.02 (footprint depth: 10.52) (mated 17.77)

* IEC 60664-1 pollution degree 1

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