

FlexFast™ Flex-to-Board

SMT/SMD AUTOMOTIVE-GRADE FLEX-TO-BOARD CONNECTOR SYSTEM

The FlexFast™ Flex-to-Board connector is an innovative solution with right-angle SMT/SMD termination, compatible with both FPC (Flexible Printed Circuit) and FFC (Flexible Flat Cable). Lightweight and space-saving, it serves a key role in battery pack applications such as battery packs used in EV and ESS, and in automotive applications such as connecting CCS to BMS and in powertrain internal connections. This connector ensures high assembly efficiency and easy operation by allowing direct flex insertion. Its design, offering a lower profile and reduced mating & unmating force, allows customization of pitch and pin counts up to 68 positions. Compliant with USCAR2 and LV214, it also comes with CPA (Connector Position Assurance) and FPA (Flex Position Assurance). It supports 1A nominal current per contact and a compact, 1.80mm pitch is available in 40 single flex positions.



TARGET MARKETS



- Direct flex insertion for high assembly efficiency and easy operation
- Low profile and low mating&unmating force
- Flexible customization of pitch and pin counts, up to 68 positions
- Automotive grade, compliant with USCAR2 and LV214
- CPA (Connector Position Assurance)
- FPA (Flex Position Assurance)
- Both FPC and FFC compatible

FEATURES

- Gold plating process for terminal
- Low height of 8.0mm max.
- CPA (Connector Position Assurance)
- FPA (Flex Position Assurance)
- Double beams and contacts

BENEFITS

- Low mating and un-mating force
- Space saving
- Ensures that connectors are properly mated and locked together
- Ensures proper flex insertion position and retention
- Better vibration and contact performance

TECHNICAL INFORMATION

MATERIAL

- Connector Contact: Copper Alloy
- Housing: High temperature UL94V-0
- Plating: Gold plated

MECHANICAL PERFORMANCE

- Durability: 100 cycles (Gold)
- Mating/Un-mating Force: 75N max.
- Connector Retention Force: 110N min.
- Flex Retention Force: 110N min.

ELECTRICAL PERFORMANCE

- Voltage Rating: 60VAC/VDC
- Insulation Resistance: 100M Ω min.
- Contact Resistance: 25m Ω max. (initial)
- Current Rating: 1A
- Low Level Contact Resistance: <25m Ω
- Dielectric Withstand Voltage: 500VAC

PACKAGING

- Header: Tape and reel
- Receptacle Housing: Tape and reel

APPROVALS AND CERTIFICATIONS

- USCAR2
- LV214

SPECIFICATION

- Product Pitch: 1.80mm, 2.00mm
- Flex Stiffener Thickness: 0.45mm
- PCB Termination: 1.60mm

ENVIRONMENTAL

- Operating Temperature Range: -40°C to +125°C

TARGET MARKETS/APPLICATIONS



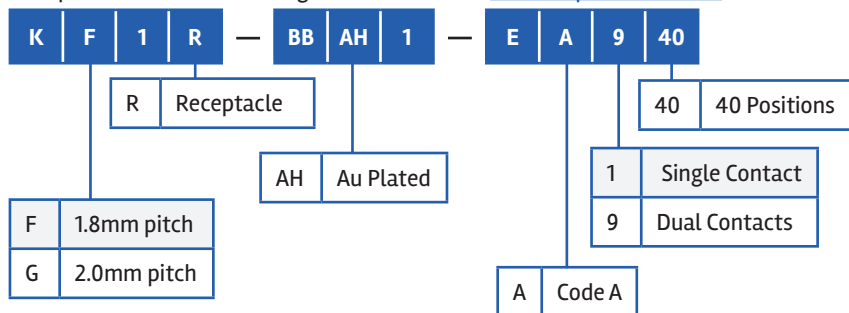
BMS (Battery Management Systems)
OBC (On-board Charger)
MCU (Micro Control Unit)



ESS (Energy Storage Systems)
Robotics

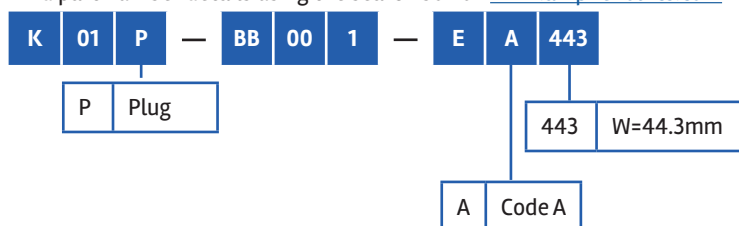
PART NUMBER SELECTOR-RECEPTACLE

Find part number details using the search box on www.amphenol-cs.com



PART NUMBER SELECTOR-PLUG

Find part number details using the search box on www.amphenol-cs.com



PART NUMBERS

Description	Part Numbers
FlexFast™, Receptacle R/A, 1.8mm pitch , 40 Position, Code A, Dual contact	KF1R-BBAH1-EA940
FlexFast™, Receptacle R/A, 1.8mm pitch , 20 Position, Code A, Single contact	KF1R-BBAH1-EA120
FlexFast™, Plug, 1.8mm pitch , 40 Position	K01P-BB001-EA443

Find part number details using the search box on www.amphenol-cs.com