



Delivering 13.0A and 600V per circuit, the KK® 396 Reflow Process Compatible (RPC) Connector System supports a lead-free solder process and is ideal for low- to mid-power wire-to-board and board-to-board applications

Electronics manufacturers are being driven by consumers and environmental agencies to be environmentally conscious; one way to do so is to reduce the amount of lead in components whenever possible. Removing lead from the connector solder-paste process is one way to conform and adhere to RoHS initiatives. KK® RPC connectors are lead-free and designed with high-temperature nylon that can withstand temperatures up to +260°C while maintaining the standard KK header footprint (lead-filled solder-paste-process connectors withstand only up to +235°C).

Features and Benefits

High-temperature nylon housing	Withstands lead-free high-temperature solder processing up to +260°C. Does not require the drying needs of normal nylon
Optional MarKK terminal with four points of contact	Supports up to 13.0A per circuit. Ideal for higher power and high-vibration applications
Polarized friction-lock header	Prevents mismatching and ensures secure mating
Standard KK header footprint design	Allows for drop-in replacement on existing header applications. Mates with standard KK receptacles
Matte-tin over nickel plating	Inhibits tin whiskering
PCB receptacles are available in standard KK® connectors	Ensures secure mating between headers and receptacles
Tape-and-reel packaging with pick-and-place caps available	Enables highly automated termination processing and accurate PCB placement

KK® 396 Reflow Process Compatible (RPC) Connector System

171813 Vertical Header

171814 Right-Angle Header



KK® 396 RPC Vertical and Right-Angle Headers with Friction Lock

Applications

Consumer

- Home appliances
 - Washer/dryer
 - Dishwashers
- Fire/smoke detectors
- HVAC
- Gaming
 - Coin changers, ATM
 - Gaming consoles
 - Vending
- Voting machines

Data/Computing and

- Telecommunications/Networking
 - Scanners/multi-function machines
 - Printers
 - Workstations
 - Mainframes

Medical

- Respirators
- Blood warming bags

Automotive

- Control modules
- Stereos



Office Scanner



Home Appliances



Medical Equipment



Specifications

Reference Information

Packaging: Bag; tape-and-reel
 UL File No.: E29179
 CSA File No.: LR19980
 Mates With:
 any KK® 3.96mm housing or PCB
 receptacle
 Designed In: Millimeters
 RoHS: Yes
 Low Halogen: Yes
 Glow Wire Compliant: Yes

Electrical

Voltage (max.): 600V
 Current (max.): 13.0A
 Contact Resistance (max.): 10mΩ
 Dielectric Withstanding Voltage:
 500V AC (RMS)
 Insulation Resistance (min.):
 1000MΩ

Mechanical

Contact Insertion Force: 17.8N
 Contact Retention to Housing: 36.8N
 Mating Force: 10.7N per circuit
 Unmating Force: 3.4N per circuit
 Durability (min.): 25 cycles

KK® 396 Reflow Process Compatible (RPC) Connector System

Physical

Housing: High-temperature Nylon
 Contact: Brass
 Plating:
 Contact Area — Matte Tin (Sn) or
 Select Gold (Au)
 Solder Tail Area — Matte Tin (Sn)
 Underplating — Nickel (Ni)
 PCB Thickness: 1.60mm
 Operating Temperature:
 Brass: -40 to +80°C
 Phosphor Bronze: -40 to +105°C

Ordering Information

Reflow Process Compatible Connectors

Series No.		Circuits	Pitch	Plating	Packaging
Vertical	Right-Angle				
171813	171814	2 to 12	3.96mm	Tin (Sn)	Bag or Tape-and-Reel
171813	171814			15 μm Gold (Au)	

Standard PCB Headers

Series No.	Configuration	Pitch	Application	Friction Lock	PC Peg	Breakaway				
41791	Vertical	3.96mm	Wire-to-Board, Board-to-Board, Power	Yes	No	No				
41792	Right-Angle					Yes	No	Yes		
41671	Vertical							No	No	No
41672	Right-Angle					Yes	No			Yes
42491	Vertical									No
42492	Right-Angle			Yes	No	Yes				
41661	Vertical					No	No	No	Yes	
41662	Right-Angle			Yes	No				No	
41771	Vertical								No	No
41772	Right-Angle			Yes	No	No				

Standard PCB Receptacles

Series No.	Pitch	Application	Material	Configurations
41815	3.96mm	Board-to-Board	UL 94V-0	Top Entry, Through Hole, Right-Angle
2145			UL 94V-2	

Standard Crimp Terminals

Series No.	Pitch	Application	Base Material
2478	3.96mm	Power	Phosphor Bronze
2578			Brass
8818			Phosphor Bronze
6838			Copper Alloy
45570			

Standard Crimp Housings

Series No.	Pitch	Application	Friction Lock
2139	3.96mm	Wire-to-Board, Power	Yes
3069			No
6442			Yes
41695			Yes

www.molex.com/link/kk396.html