

KK 254

Reflow Process Compatible (RPC) Connector System



Ideal for use in industries such as automotive, medical and consumer, KK 254 Reflow Process Compatible (RPC) Connector System supports a lead-free solder process and delivers up to 4.0A and 250V per circuit in a 2.54mm pitch package

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
Polarized friction-lock header	Prevents mis-mating 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

171856 Vertical Header



171857 Right-Angle Header



KK 254 RPC Vertical and Right-Angle Headers with Friction Lock

Applications

Medical

- Patient monitoring
- Portable diagnostics
- Dental equipment

Control Vehicle

- Control modules
- Lighting fixtures
- Stereos
- Display panels

Data/Computing and Telecommunications/ Networking

- Scanners/multi-function machines
- Printers
- Workstations

Consumer

- Home appliances (Washer/dryer and Dishwashers)
- Home security
- HVAC



Office Scanner



Car Console



Dental Equipment

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Specifications

REFERENCE INFORMATION

Packaging:
 Bag; Bag, tape-and-reel
 UL File No.: E29179
 CSA File No.: LR19980
 Mates With:
 any KK 2.54mm housing or PCB receptacle
 Designed In: Millimeters
 RoHS: Yes
 Low Halogen: Yes
 Glow Wire Compliant: No

ELECTRICAL

Voltage (max.): 250V
 Current (max.): 4.0A
 Contact Resistance (max.): 10mΩ
 Dielectric Withstanding Voltage: 500V AC (RMS)
 Insulation Resistance (min.): 1000MΩ

MECHANICAL

Contact Insertion Force: 11.12N
 Contact Retention to Housing: 17.8N
 Mating Force: 7.8N per circuit
 Unmating Force: 2.3N per circuit
 Durability (min.): 25 cycles

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				
171856	171857	2 to 12	2.54mm	Tin (Sn)	Tape-and-Reel
171856	171857			15 μm Gold (Au)	

Standard PCB Headers

Series No.	Pitch	Application	Friction Lock	Tail Type	Orientation				
4030	2.54mm	Wire-to-Board, Board-to-Board, Signal	No	Straight	Right-Angle				
4094					Vertical				
42375					Right-Angle				
42376					Right-Angle				
42377					Right-Angle				
43009					Right-Angle				
47053		Wire-to-Board, Signal	Yes	Yes	Kinked PCB Tail	Vertical			
7395					Straight	Right-Angle			
7478					Straight	Right-Angle			
42009					Staggered	Vertical			
42225					No	No	Straight	Right-Angle	
42226								Right-Angle	
42227								Vertical	
42228								Right-Angle	
6373					Yes	Yes	Yes	Straight	Right-Angle
6410								Vertical	

Standard PCB Receptacles

Series No.	Pitch	Application	Configurations
44812	2.54mm	Board-to-Board	Top Entry, Through Hole
4455			Top Entry, Through Hole, Right-Angle

Standard Crimp Terminals

Series No.	Pitch	Application	Base Material
2759	2.54mm	Signal	Brass
4809			
6459			Phosphor Bronze
8088			
41572			

Standard Crimp Housings

Series No.	Pitch	Application	Friction Lock
6471	2.54mm	Wire-to-Board, Signal	Yes
2695			No
7880			No
47054			Yes

www.molex.com/link/kk254.html