MAXIMUM SOLUTIONS

Mill-Max Expands .118” (3 mm) Stroke Spring-Loaded Product Line

New through-hole mount pins and connectors providing increased stroke and force while delivering optimal electrical and mechanical performance

Mill-Max introduces the addition of new spring-loaded pins and connectors featuring a max stroke of .118” (3 mm). These pins and connectors are designed for through-hole mounting, providing increased stability and strength for more demanding interconnect requirements.

Addressing Critical Market Needs

Mill-Max’s extended stroke spring-loaded products are ideal for tolerance stack-up compensation, mitigating the impacts of shock and vibration environments and providing high force to make reliable connections. With the introduction of these new .118” (3 mm) stroke pins and connectors, Mill-Max now offers both surface mount and through-hole options for a variety of interconnect arrangements. The new solder tail products are desirable for making more robust interconnect systems where the strength and reliability of a through-hole solder joint exceeds that of a surface mount pad connection. These products offer the greatest amount of working travel in the Mill-Max spring-loaded lineup, while also providing ample force throughout the range. Some applications these connectors are a good fit for:

- Board-to-board interconnects in assemblies with large tolerance stack ups
- Where shock and vibration or rough handling of devices is a concern, such as in industrial instruments and equipment and mobile devices, the through-hole mount solder tails provide the reliable solder joints required while the higher force at mid-stroke stabilizes the electrical connections
- Due to their long stroke capability, higher forces can be generated through greater compression making them useful for maintaining clean contact in low level signal circuits, and may help to reduce arcing in high voltage circuits

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This new product release includes a discrete spring-loaded pin, P/N: 7939-0-15-20-77-14-11-0, and single and double row connectors with .100" (2,54 mm) pin-to-pin spacing. The part numbers for the connectors are: 837-22-0XX-10-001101 (single row) and 839-22-0XX-10-001101 (double row). Gold plated brass components, and stainless-steel springs ensure the highest reliability, corrosion resistance and durability. The spring-loaded plungers are suitable for mating with gold plated PCB pads or Mill-Max target pins and connectors.

Product Specifications

- Max stroke capability: .118" (3 mm)
- Rated travel (mid-stroke): .059" (1.5 mm)
- Force at rated travel: 100 grams
- Recommended working travel range: .020" - .100" (.51 mm – 2.54 mm)
- Contact resistance: ≤ 20 milliohms per pin
- Current rating: 8.8* amps per pin
- Mechanical life (Durability): 100,000 to 1,000,000 cycles @ mid-stroke
- Initial height (above board): .379" (9.6 mm)
- Termination style: Solder tail
- Connector pitch: .100" (2.54 mm)
- Connector configurations: single row (1-64 positions); Double row (4-72 positions)

* Current rating is a de-rated value based on an individual pin in free air. Maximum current rating is 11 amps @ 30°C temperature rise

About Mill-Max Manufacturing Corp.

Mill-Max is the leading US manufacturer of machined interconnect components with a vertically integrated manufacturing facility headquartered in Oyster Bay, NY. Its full product line includes spring-loaded connectors, SIP, DIP, PGA and BGA sockets, board-to-board interconnects and pin headers, surface mount and custom products, PCB pins and receptacles, solder terminals, wrapost receptacles and terminals. The company's complete manufacturing facility includes engineering, tooling, primary and secondary machining, stamping, plating, injection molding, and assembly.

Contact Information

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For technical specifications and additional information, visit: www.mill-max.com/PR718.

To discuss specific applications and requirements, contact Mill-Max technical services staff.