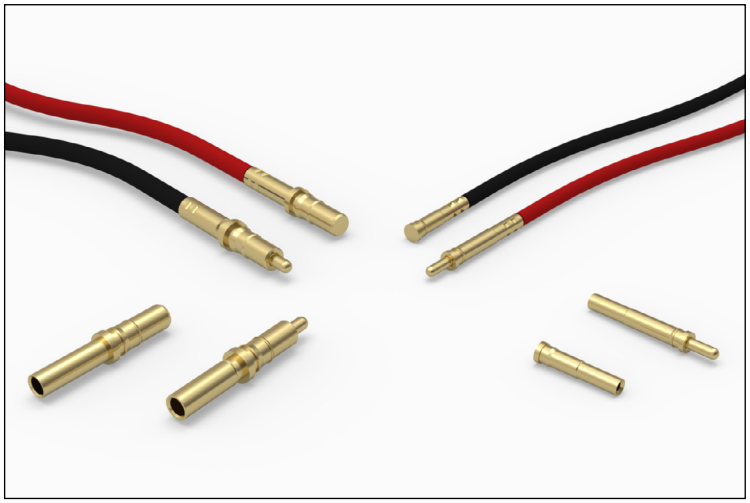
MAXIMUM SOLUTIONS

Mill-Max Expands Pre-Wired Spring-Loaded and Target Pin Lineup for Fast, Reliable Interconnect Assembly

New factory-terminated interconnect options reduce assembly time, improve termination consistency, and simplify wire-to-board and wire-to-component connections.



Mill-Max has expanded its line of discrete pre-wired spring-loaded and target pins with 8-indent crimp termination. The factory-terminated pins are designed to streamline cable assembly, prototyping, test fixtures, and wire-to-board interconnect applications.

Addressing Critical Market Needs

These pre-wired spring-loaded and target pins support integration into wire harnesses, internal wiring for industrial, commercial, and consumer equipment, prototyping and test setups, field wiring, and wire-to-board, wire-to-component and wire-to-wire connections. By eliminating soldering and replacing inconsistent hand crimping with factory-crimped terminations, they help customers simplify assembly while improving connection consistency.

Demand for factory terminated contacts is driven by three practical customer needs:

Convenience: Factory termination eliminates the wire-termination process for field repairs, custom wire harnesses, connector assemblies, wire-to-board and wire-to-component applications. Customers can stock ready-to-use parts and deploy them as needed.

Reliability: Consistent factory-crimped connections reduce variation caused by wire preparation and hand-crimping processes.

Bill-of-materials simplification: Value-added assemblies reduce the need to procure and manage separate wires and pins.

Target markets include medical devices and equipment, prototyping and testing, IoT and smart devices, robotics, industrial automation, and control systems.

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Key product features and benefits include:

Pre-wired pin assemblies feature military-style 8-indent crimps that provide consistent wire retention, with a minimum retention force of 8 pounds for 24 AWG wires and 32 pounds for 18 AWG wires. This helps reduce the risk of wire pull-out and lost connections. P909 and P903 wired contacts include 8-inch (203 mm) long wires for use in smaller cable assemblies, jumper applications, test and prototype environments, and compact equipment such as medical monitors. The contacts are available with black or red UL1007 stranded wire for easy identification during installation. UL1007 hookup wire is PVC-insulated, rated for 300 volts, 105°C and passes the UL VW-1 flame test. It is commonly used in electronics, appliances, and control panels, and offers the durability and flexibility needed for handling and installation.

Mill-Max manufactures spring-loaded pin components using precision high-speed turning, producing durable, low-resistance contacts with consistent performance. These spring-loaded pins have a mechanical life of 100,000- 1,000,000 cycles at mid-stroke and a contact resistance of 20 milliohms maximum. The 0865-0-15-20-82-14-11-0 provides a maximum stroke of .090” (2.3 mm) with a mid-stroke force of 120 grams and a max current rating of 12 amps. The 2075-0-15-20-75-14-11-0 offers .055” (1.4 mm) max stroke with a 60 gram force at mid-stroke and a 6.5 amp max current rating. Precision crimp tooling and automated crimping equipment are used to produce reliable 8-point wire crimps.

Available Configurations

Together, these new products simplify hard-wired interconnect assemblies while giving customers access to Mill-Max spring-loaded and target pin technology in ready-to-use, factory-terminated configurations. The table below summarizes the available offerings.

Part Number	Description
0865-0-15-20-82-14-11-0^	Spring-loaded crimp pin for 16-20 AWG wire; .090” max stroke
2075-0-15-20-75-14-11-0^	Spring-loaded crimp pin for 24-28 AWG wire; .055” max stroke
1975-0-00-15-00-00-03-0	Target crimp pin for 24-28 AWG wire
1962-0-00-15-00-00-03-0	Target crimp pin for 16-20 AWG wire
903-10-701-19-620081	Pre-wired target pin with 8” long, 18 AWG, black wire
903-10-701-19-620082	Pre-wired target pin with 8” long, 18 AWG, red wire
903-10-701-19-750001	Pre-wired target pin with 8” long, 24 AWG, black wire
903-10-701-19-750002	Pre-wired target pin with 8” long, 24 AWG, red wire
909-22-701-08-650081*	Pre-wired spring-loaded pin with 8” long, 18 AWG, black wire; .090” max stroke
909-22-701-08-650082*	Pre-wired spring-loaded pin with 8” long, 18 AWG, red wire; .090” max stroke
909-22-701-20-750001*	Pre-wired spring-loaded pin with 8” long, 24 AWG, black wire; .055” max stroke
909-22-701-20-750002*	Pre-wired spring-loaded pin with 8” long, 24 AWG, red wire; .055” max stroke

^ For low force spring option, see website for details
* For low force spring option, replace 909 series prefixes with 908, see website for details

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About Mill-Max Manufacturing Corp.

Mill-Max is the leading U.S. manufacturer of machined interconnect components, with a vertically integrated manufacturing facility headquartered in Oyster Bay, NY. Its 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 manufacturing capabilities include engineering, tooling, primary and secondary machining, stamping, plating, injection molding, and assembly.

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For technical specifications and additional product information, visit: www.mill-max.com/PR721.

For application-specific guidance, contact Mill-Max Technical Services to discuss design requirements and connector selection.