

# MAXIMUM SOLUTIONS

## Mill-Max Offers New 4mm Pitch Rugged Spring Connector



Mill-Max announces a new ruggedized long stroke 4mm pitch spring-loaded connector (SLC) that is aimed at tough applications in rough environments. The [new 858 series](#) are ideal for applications where the connector will experience side loading, great variation in vertical engagement, high levels of shock and vibration, high cycle counts and extremes of temperature.

The 858 series features heavy-duty spring pins with 0.050" (1.27 mm) diameter plungers that resist bending during the application of side loads. The gold-plated stainless steel spring ensures reliable operation over 1 million cycles and is less prone to stress relaxation when operating at higher temperatures over time (260°C max. @ 1 hour, 180°C max. @ 24 hours). Each spring pin is rated for 9 amps at a 10°C temperature rise with a contact resistance of less than 20 milli-ohms.

Offered in through-hole, SMT and SMT with alignment pin versions, the 858 series features a high temperature molded Nylon 46 housing that is compatible with RoHS soldering processes. Mounting tabs, integrated into the housing, provide a means for secure attachment to the PCB or product assembly. The tab holes may be specified with threaded inserts or left empty for other hardware requirements. The flanged base provides stability.

In common with all Mill-Max products, the new SLCs employ high-speed precision turning with extremely tight tolerances. Established in-house manufacturing and assembly techniques produce a reliable, low resistance and consistent performance spring pin. Extensive testing and screening ensures that only high quality spring pins are used in these connectors.

Please visit [www.mill-max.com/PR676](http://www.mill-max.com/PR676) for samples and more detailed information on this and other Mill-Max products.

(5/17 -- PR676)

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516-922-6000 • Fax: 516-922-9253 • [www.mill-max.com](http://www.mill-max.com)



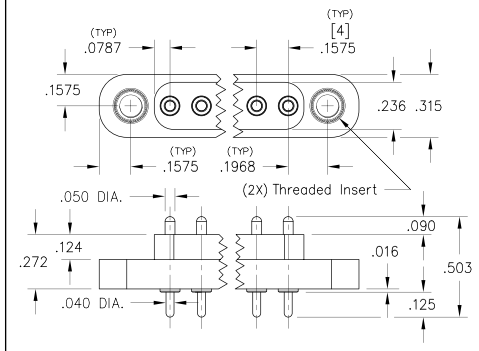
# SPRING-LOADED CONNECTORS

## SERIES 858 • 4MM GRID RUGGED CONNECTOR • SURFACE MOUNT AND THROUGH HOLE MOUNT

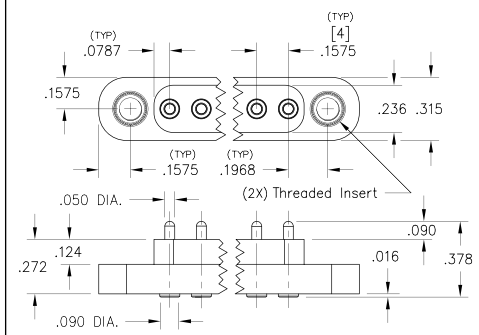


- Rugged Modular contacts for use on 4mm grid, supplied in 2 - 6 position connectors
- Precision-machined piston / base and gold-plated components assure up to 1,000,000 cycle life durability. Pistons have a .045" mid. stroke and a .090" max. stroke
- Mounting tabs provide a means for secure attachment to the PCB and may be specified with or without threaded inserts
- Low resistance, high current contacts are rated at 9 amps @ 10°C Temperature rise
- High temperature thermoplastic insulators are suitable for wave and reflow processes
- Series 858-22-00X-10-0X1101 connectors are designed for manual placement into .048±.003" Ø plated through-holes in the circuit board prior to soldering
- Series 858-22-00X-30-0X1101 and 858-22-00X-30-6X1101 connectors are designed for manual placement onto .100" Ø solder pads

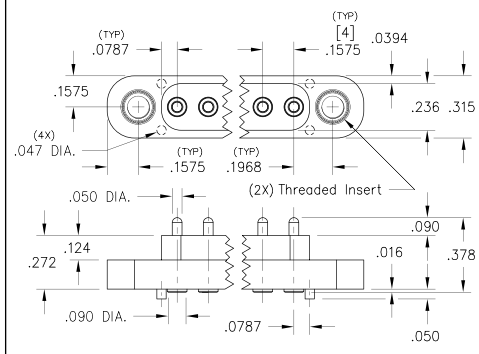
### Series 858-22-00X-10-0X1101



### Series 858-22-00X-30-0X1101



### Series 858-22-00X-30-6X1101



## ORDERING INFORMATION

### Series 858 (Through-Hole Mount)

858-22-00X-10-0X1101  
 Specify number of pins 2-6      No Threaded inserts = 0  
 (#4-40) Threaded inserts = 1

### Series 858 (Surface Mount)

858-22-00X-30-0X1101  
 Specify number of pins 2-6      No Threaded inserts = 0  
 (#4-40) Threaded inserts = 1

### Series 858 (Surface Mount with Alignment Pins)

858-22-00X-30-6X1101  
 Specify number of pins 2-6      No Threaded inserts = 0  
 (#4-40) Threaded inserts = 1

## Technical Specifications

### Materials:

Contact piston & base: Machined copper alloy plated 20µ" gold over 100µ" nickel  
 Spring: Stainless Steel 302  
 Insulator: High temperature thermoplastic, rated UL94 V-0

### Mechanical:

Spring force @ initial height: 35 grams  
 Spring force @ mid stroke: 120 grams  
 Durability: Up to 1,000,000 cycles

### Electrical:

Current rating: 9A @ 10° C Temp. rise above ambient (20°C)  
 Contact resistance: 20mΩ max.  
 Insulation resistance: 10,000MΩ min.

RoHS-2  
 2011/65/EU

