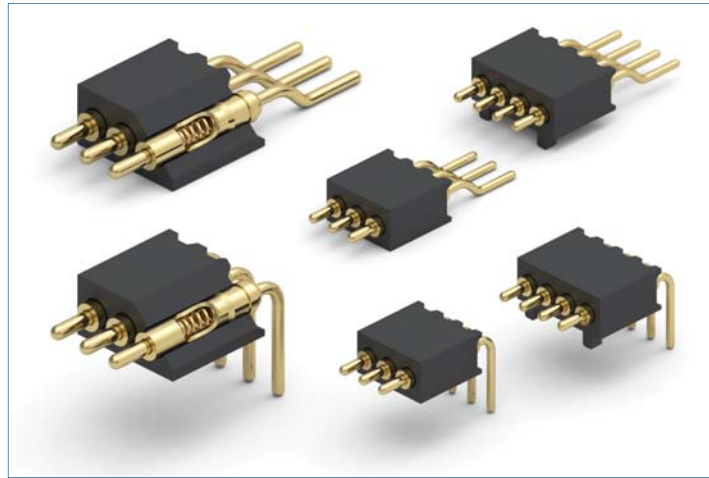


# MAXIMUM SOLUTIONS

## Fine Pitch Right Angle & Horizontal SMT Spring-Loaded Connectors



Mill-Max is pleased to introduce new .050" (1,27 mm) pitch spring-loaded right angle and horizontal SMT connectors to its standard product lineup. These new connectors offer space saving spring-loaded solutions for a variety of interconnect applications.

Both connector series are ideal for mating boards in a perpendicular orientation or for parallel, daisy chaining applications. The centerline mating height is .0435" (1,1 mm) from the board surface with a total profile height of .087" (2,21 mm). The fine pitch and low profile are desirable for dense packaging requirements while maintaining the durability and reliability expected of quality interconnect components.

The right angle, [854-22-0XX-20-001101](#), is a through-hole mount connector with .016" (0,41 mm) diameter solder tails suitable for board thickness up to .100" (2,54 mm). The [854-22-0XX-40-001101](#) is a horizontal surface mount (HSMT) with .016" (0,41 mm) diameter termination leads held to a .005" (0,13 mm) co-planarity. They each have a .0275" (0,7 mm) working travel (mid-stroke) and a maximum stroke capability of .055" +/- .005" (1,4 mm - 0,13 mm).

Each series is single row and has standard availability of 1 to 20 positions (higher pin counts available upon request). These connector series are also available with mounting pegs on the insulator housing to provide additional strength and alignment. To specify connectors with mounting pegs, modify the part numbers as follows: right angle series, [854-22-0XX-20-601101](#); horizontal SMT series, [854-22-0XX-40-601101](#). (See the attached datasheets for pad and hole layouts, as well as part number information). These connectors, along with soon to be released right angle and HSMT target connectors, provide great versatility for diverse mating configurations.

These two new series also maintain the quality and reliability of current Mill-Max spring pin connectors by utilizing the same precision-machined external components and internal spring technology. Gold-plated components and springs ensure the highest conductivity, corrosion resistance and durability. The spring-loaded pins used in these connectors have a current rating of 2 amps continuous use (3 amps maximum). The high temperature plastic housing is suitable for all soldering processes and the connectors are RoHS compliant.

For more information, please visit: [www.mill-max.com/PR661](http://www.mill-max.com/PR661).

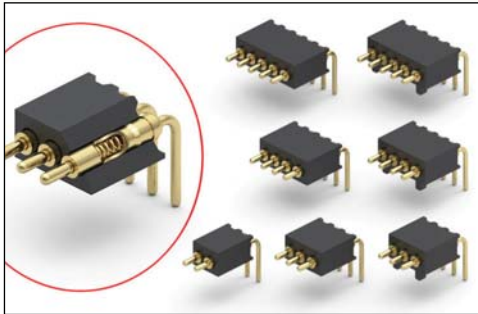
(1/16 -- PR661)

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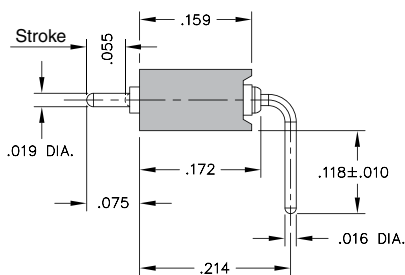
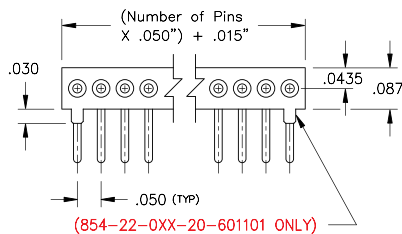
# SPRING-LOADED CONNECTORS

## SERIES 854 • .050" GRID RIGHT ANGLE MOUNT • SINGLE ROW STRIPS

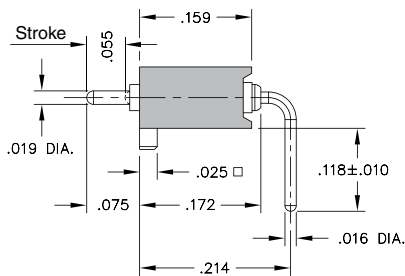


- Modular contacts for use on .050" grid. Supplied in single row strips with or without mounting pegs
- Precision-machined piston / base and gold-plated components assure a 1,000,000 cycle life durability
- Pistons have a .0275" mid. stroke & .055" max. stroke
- Low resistance, high current contacts are rated at 2 amps continuous, 3 amps peak
- High temperature thermoplastic insulators are suitable for wave and reflow soldering processes
- 854 series contact strips are designed for through-hole mounting in the circuit board

### SINGLE ROW Series 854

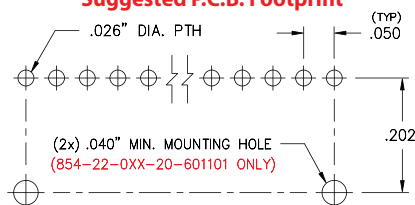


### 854 Series without Mounting Pegs



### 854 Series with Mounting Pegs

### Suggested P.C.B. Footprint



## ORDERING INFORMATION

### Single Row Series 854

854-22-0XX-20-001101

Specify number of contacts 02-20

### Single Row with Mounting Pegs Series 854

854-22-0XX-20-601101

Specify number of contacts 02-20

## Technical Specifications

### Materials:

Contact piston & base: Machined copper alloy plated 20 $\mu$ " gold over 100 $\mu$ " nickel  
 Spring: Beryllium copper-plated 10 $\mu$ " gold  
 Insulator: High temperature thermoplastic, rated UL94 V-0

### Mechanical:

Spring force @ initial height: 25 grams  
 Spring force @ mid stroke (.0275"): 60 grams  
 Durability: 1,000,000 cycles

### Electrical:

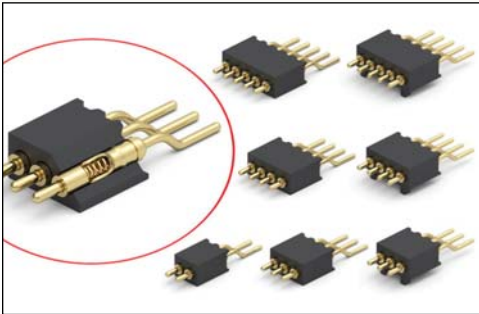
Voltage rating: 100Vrms/150Vdc  
 Current rating: 2A (continuous), 3A (peak) per contact  
 Contact resistance: 20m $\Omega$  max.  
 Insulation resistance: 10,000M $\Omega$  min.  
 Dielectric strength: 700Vrms min.  
 Capacitance: 1pF max.

RoHS-2  
2011/65/EU



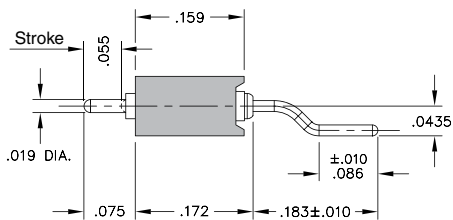
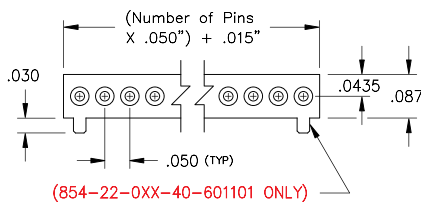
# SPRING-LOADED CONNECTORS

## SERIES 854 • .050" GRID Z-BEND SURFACE MOUNT • SINGLE ROW STRIPS

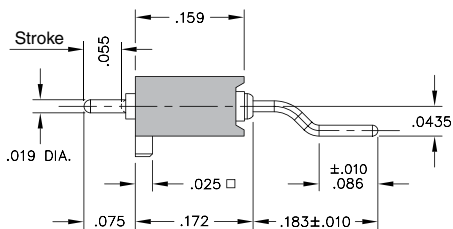


- Modular contacts for use on .050" grid, supplied in single row contact strips. Piston action is parallel to the board surface
- Precision-machined piston / base and gold-plated components assure a 1,000,000 cycle life durability
- Pistons have a .0275" mid. stroke & .055" max. stroke
- Low resistance, high current contacts are rated at 2 amps continuous, 3 amps peak
- High temperature thermoplastic insulators are suitable for surface mount soldering processes
- 854 series contact strips are designed for SMT termination onto printed circuit boards

### SINGLE ROW Series 854



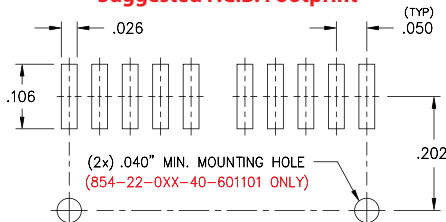
854 Series without Mounting Pegs



854 Series with Mounting Pegs

Coplanarity .005". For pin counts >20 positions, consult Technical Support.

### Suggested P.C.B. Footprint



## ORDERING INFORMATION

### Single Row Series 854

854-22-0XX-40-001101

Specify number of contacts 02-20

### Single Row with Mounting Pegs Series 854

854-22-0XX-40-601101

Specify number of contacts 02-20

## Technical Specifications

### Materials:

Contact piston & base: Machined copper alloy plated 20μ" gold over 100μ" nickel  
 Spring: Beryllium copper-plated 10μ" gold  
 Insulator: High temperature thermoplastic, rated UL94 V-0

### Mechanical:

Spring force @ initial height: 25 grams  
 Spring force @ mid stroke (.0275"): 60 grams  
 Durability: 1,000,000 cycles

### Electrical:

Voltage rating: 100Vrms/150Vdc  
 Current rating: 2A (continuous), 3A (peak) per contact  
 Contact resistance: 20mΩ max.  
 Insulation resistance: 10,000MΩ min.  
 Dielectric strength: 700Vrms min.  
 Capacitance: 1pF max.

RoHS-2  
2011/65/EU

