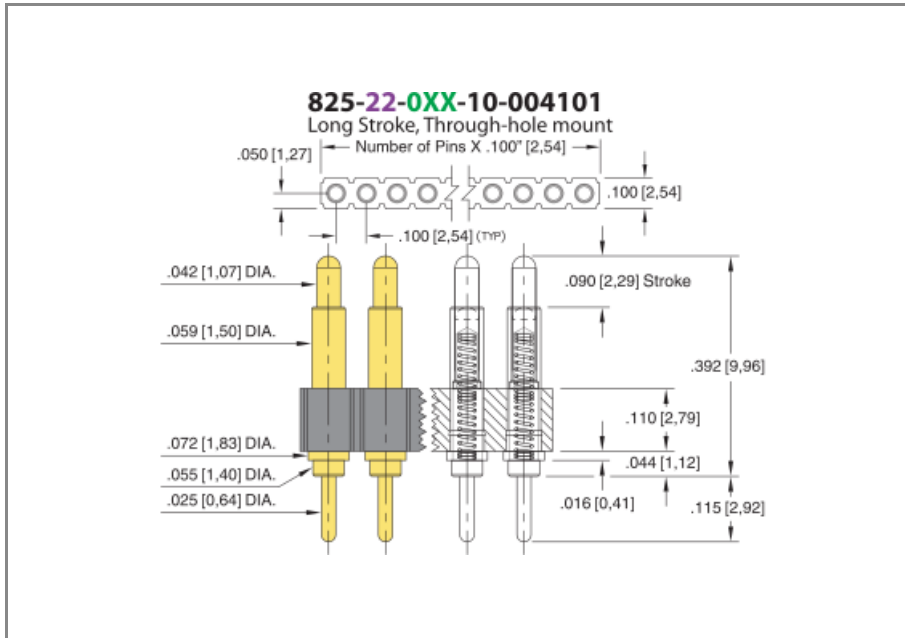




PRODUCT NUMBER: 825-22-012-10-004101

www.mill-max.com  
DATA SHEET



| General Information            |                                |
|--------------------------------|--------------------------------|
| 1 Product Lifecycle:           | Active                         |
| Product Family:                | Spring-Loaded Connector        |
| Type:                          | Pogo Pin Header Strip          |
| 2 Description:                 | PCB Mount Spring-Loaded Header |
| Description2:                  | Vertical Mount Through-Hole    |
| Pitch:                         | .100" (2,540mm)                |
| Number of Pins:                | 12                             |
| Head Type:                     | Plunger                        |
| 3 Operating Temperature Range: | -55/+125° C                    |
| Country of Origin:             | USA                            |
| 4 ROHS:                        | Yes                            |

## 825-22-012-10-004101 - SPECIFICATIONS

| Product Attributes  |  |
|---------------------|--|
| Plating Code:       | 22 - Body/Plunger Plating: 20μ" Gold - Spring Plating: 10μ" Gold |
| Insulator Material: | Nylon 4/6  |
| Rows:               | Single Row   |
| Frame Type:         | N/A  |
| 5 Spring Number:    | 77 - Standard Force Beryllium Copper (Click For Graphs)          |
| Plunger Type:       | Round  |
| Stroke:             | .090" (2,286mm)  |
| Mid Stroke:         | .045   |

| Key Dimensions    |                 |
|-------------------|-----------------|
| Head Diameter:    | .042" (1,067mm) |
| Initial Height:   | .392" (9,957mm) |
| Insulator Height: | .110" (2,794mm) |
| A Dim:            | .392" (9,957mm) |
| B Dim:            | .090" (2,286mm) |

| Electrical Specifications        |                  |
|----------------------------------|------------------|
| Contact Resistance:              | 20.00mΩ Max      |
| Insulation Resistance:           | 10,000 MΩ min.   |
| Rated Voltage:                   | 100 VRMS/150 VDC |
| Dielectric Withstanding Voltage: | 1,000 VRMS min.  |

| Mechanical Specifications     |   |
|-------------------------------|---|
| Mechanical life (Durability): | Up to 1,000,000 Cycles @ Mid-Stroke             |
| 6 Shock:                      | No Elect. Discontinuity > 1μs @ 50g             |
| 7 Vibration:                  | No Elect. Discontinuity > 1μs @ 10-2000HZ, 15 G |

| Mounting Specifications |                           |
|-------------------------|---------------------------|
| Mounting Type:          | Through Hole Solder Mount |

## Environmental & Export Classifications

|                                   |                  |
|-----------------------------------|------------------|
| Cage Code:                        | 3N087            |
| ECCN:                             | Contact Factory  |
| HTSUS:                            | 8536.90.4040     |
| Moisture Sensitivity Level (MSL): | 1 (Unlimited)    |
| Prop 65:                          | N                |
| REACH Status:                     | REACH Unaffected |
| Special Handling Code:            | UNDF             |
| Static Sensitive:                 | N                |

## Packaging Information

|              |                         |
|--------------|-------------------------|
| 8 Packaging: | Packaged in Box or Tube |
| Tape Width:  | N/A                     |

## NOTES:

1. Part is Active and in Production, No Scheduled Obsolescence

2. **Standard Tolerances**

Assembly tolerance: +/- .010" (.25mm)

Connector Length "L"

| Connector Length "L"                          | Tolerance                             |
|---|---------------------------------------|
| $L \leq 2"$ ( $L \leq 50.8$ mm)               | +/- .005" (+/- .127 mm)               |
| $2 < L \leq 3"$ ( $50.8 < L \leq 76.2$ mm)    | + .007 / - .006" (+ .178 / - .152 mm) |
| $3 < L \leq 4"$ ( $76.2 < L \leq 101.6$ mm)   | + .009 / - .007" (+ .229 / - .178 mm) |
| $4 < L \leq 5"$ ( $101.6 < L \leq 127$ mm)    | + .011 / - .008" (+ .279 / - .203 mm) |
| $5 < L \leq 6.4"$ ( $127 < L \leq 162.56$ mm) | + .013 / - .009" (+ .330 / - .229 mm) |

Insulator width: +/- .005 (.13mm)

Insulator height: +/- .005 (.13mm)

Co-planarity of SMT connectors: .005" (.13mm) up to 1" (25.4mm) in connector length

Insulator Flatness: .005" (.13mm) up to 1" (25.4mm) in connector length

Pin Length: +/- .006 (.15mm)

Pin Diameter: +/- .002 (.051mm)

Pin Angle: +/- 2°

3. Per IEC 60512-11-(4,-9,-10,-12)

4. Mill-Max products labeled with the RoHS symbol are compliant with all three ROHS Directives. All of our products previously described as RoHS (2002/95/EC) and RoHS-2 (2011/65/EC) are also compliant with RoHS-3 (2015/863/EU).

5. Current ratings are based on the pin tested in free air; the performance may be moderated when used in a connector.

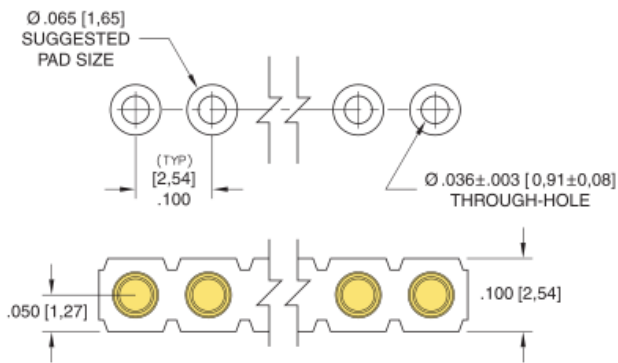
6. For discrete pin only. Per IEC 60512-6-3: Test 6c: Shock

7. For discrete pin only. Per IEC 60512-6-4: Test 6d: Vibration (sinusoidal)

8. Not all part numbers in the series may be packaged in tubes. Some specific part numbers may be packaged in a box.

## ADDITIONAL PARTS, PACKAGING & ASSEMBLY INFO

### Suggested P.C.B. Footprint



## ADDITIONAL NOTES AND SPECIFICATIONS

In the interest of improved design, quality and performance, Mill-Max reserves the right to make changes in its specifications without prior notice. Specifications and tolerances are provided wherever possible. The tolerance on dimensions of critical to function features is typically held tighter than the stated standard tolerances, such as press-fits, holes and lengths affecting the coplanarity of SMT products. Due to the wide variety of interconnects Mill-Max offers, the specific tolerances vary from product to product. If you need information regarding the tolerance of a particular part, please contact Technical Services.

## RELATED LINKS AND DOCUMENTS

- Product Detail: [825-22-012-10-004101 - Spring-Loaded Header](#)
- Engineering Notebook: [Introduction to Spring-Loaded Pogo Pins & Connectors](#)
- Environmental Compliance: <https://www.mill-max.com/rohs>