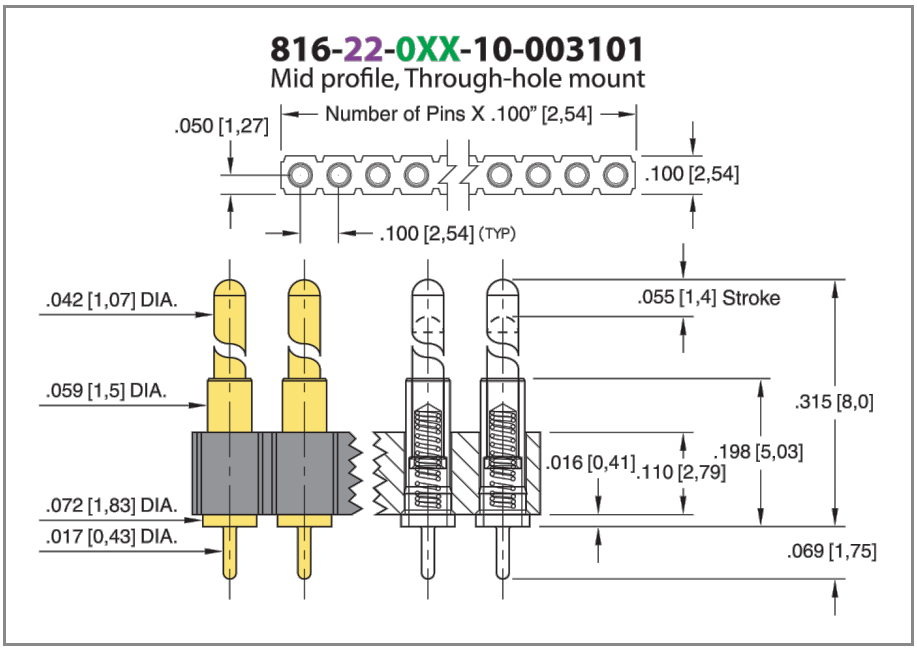
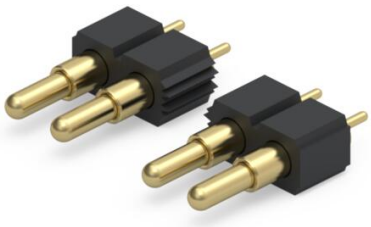
## PRODUCT NUMBER: 816-22-021-10-003101

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:** | 21 |
| | **Head Type:** | Plunger |
| | **Tail Type:** | Solder Tail |
| 3 | **Operating Temperature Range:** | -55/+125° C |
| | **Country of Origin:** | USA |
| 4 | **ROHS:** | Yes |

# 816-22-021-10-003101 - 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: | 75 - Standard Force Beryllium Copper |
| Plunger Type: | Round |
| Stroke: | .055" (1,397mm) |
| Mid Stroke: | 0.0275 |
| Mounting Tab: | N/A |

| Key Dimensions | |
|---|---|
| Above Board Height: | .315" (8,001mm) |
| Head Diameter: | .042" (1,067mm) |
| Initial Height: | .315" (8,001mm) |
| Insulator Height: | .110" (2,794mm) |
| Tail Diameter: | .017" (0,432mm) |
| Tail Length: | .069" (1,753mm) |

| Electrical Specifications | |
|---|---|
| 6 Current Rating (Amps): | 6.5 Amps |
| 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 |
| 7 Shock: | No Elect. Discontinuity > 1µs @ 50g |
| 8 Vibration: | No Elect. Discontinuity > 1µs @ 10-2000HZ, 15 G |

| Mounting Specifications | |
|---|---|
| **Mounting Type:** | Through Hole Solder Mount |
| **Mounting Hole:** | .025" (0,635mm) |
| **Mounting Tab:** | N/A |
| **SMT Pad Size:** | N/A |

| 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 | |
|---|---|
| 9 **Packaging:** | Packaged in Box or Tube |
| **Tape Width:** | N/A |

## NOTES:

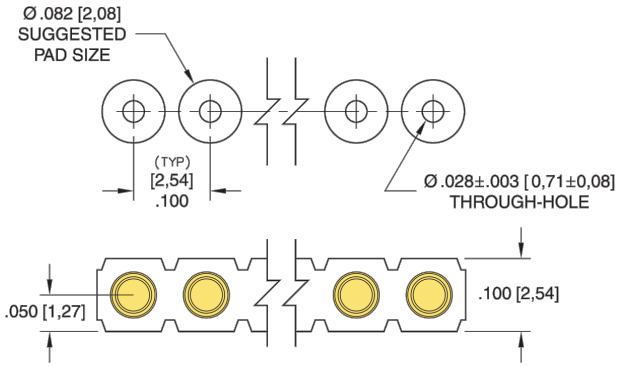
1. Part is Active and in Production, No Scheduled Obsolescence
2. **Standard Tolerances**
   Assembly tolerance: +/-.010" (.25mm)
   Connector Length "L"

| Connector Length "L" | Tolerance |
|---|---|
| L ≤ 2" (L ≤ 50.8 mm) | +/- .005" (+/- .127 mm) |
| 2< L ≤ 3" (50.8 < L ≤ 76.2 mm) | + .007/ - .006" (+ .178/ -.152 mm) |
| 3< L ≤ 4" (76.2 < L ≤ 101.6 mm) | + .009 / - .007" (+ .229 / - .178 mm) |
| 4< L ≤ 5" (101.6 < L ≤ 127 mm) | + .011 / - .008" (+ .279 / - .203 mm) |
| 5< L ≤ 6.4" (127 < L ≤ 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. Click the Link for Force vs. Travel and Current-Temperature Derating Curve
6. Maximum Current Per Pin = 6.5A @ 30˚ C Temp. Rise
7. For discrete pin only. Per IEC 60512-6-3: Test 6c: Shock
8. For discrete pin only. Per IEC 60512-6-4: Test 6d: Vibration (sinusoidal)
9. 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: 816-22-021-10-003101 - Spring-Loaded Header
- Engineering Notebook: **Introduction to Spring-Loaded Pogo Pins & Connectors**
- Environmental Compliance: https://www.mill-max.com/rohs