

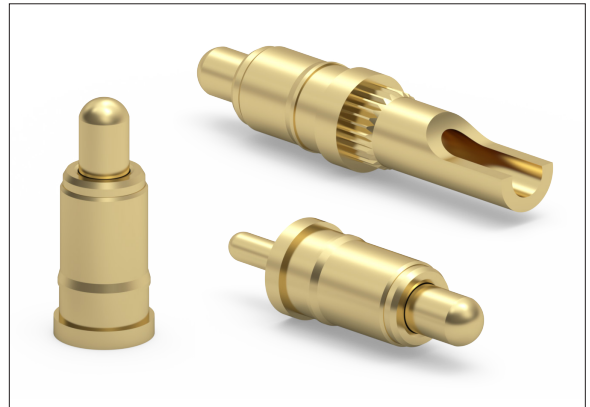
# MAXIMUM SOLUTIONS

## Mill-Max Introduces High Current, Small-Scale Spring-loaded Pins

*Miniature Spring-loaded pins suitable for 6-amp applications*

Announcing the development of new spring-loaded pins delivering high current carrying capacity in a small form factor. They are ideal for charging applications as well as for directly delivering power via cable or board-to-board interconnects. The reduced size makes them attractive for use in low profile and dense packaging designs.

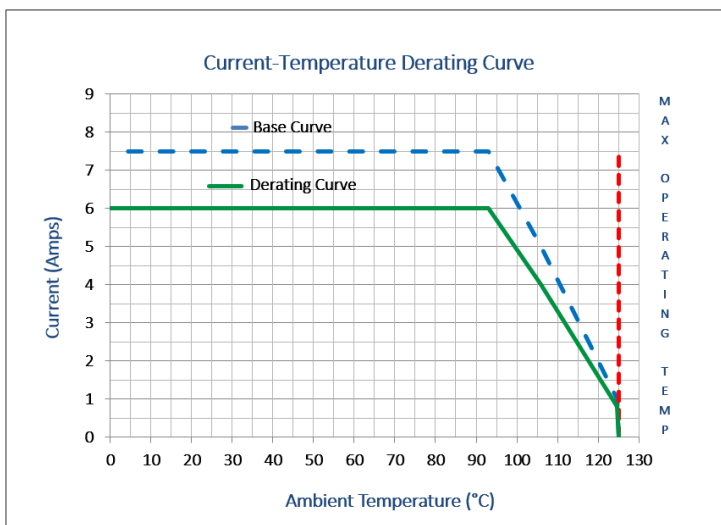
This new product offering is available in three different termination styles: surface mount, through-hole, and solder cup. All three meet two of the most demanding requirements designers carrying capacity of 6 amps (@ 30°C Temperature rise) with an above-board height of just .204" (5,2 mm) for the surface mount and through-hole versions. The solder cup version has a total length of .374" (9,5 mm), all have a maximum diameter of .083" (2,1 mm). The 6-amp rating is based on the current-temperature derating curve shown below. We designed and constructed these spring-loaded pins to have more mass and greater



contact surface area between the components. These design features result in lower overall bulk resistance, more

efficient heat dissipation and electrical conductivity, all while delivering smooth operation throughout the stroke of the pin. Other attributes include gold plating on all components; cycle life rating of 1,000,000 at half stroke; contact resistance of 20m-ohms max. and spring force of 60 grams at mid stroke (.0275", .7 mm).

These spring-loaded contacts are an excellent choice for docking stations, quick connects and blind mating applications, as well as in board-to-board and cable connectors. To choose the termination style that suits your application, reference the following part numbers: 0981-0-15-20-75-14-11-0 (Surface mount); 7982-1-15-20-75-14-11-0 (through-hole mount); 7983-1- 15-20-75-14-11-0 (Solder Cup).



*(The testing and de-rating curve are in accordance with IEC 60512-5-1 & 2: Tests 5A & 5B.)*

Contact our technical services staff to discuss your application and how we may be able to address your needs.

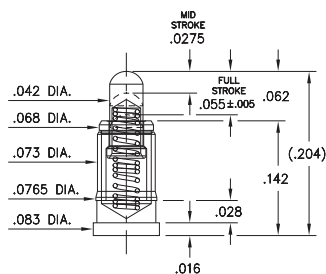
For more information, please visit [www.mill-max.com/PR699](http://www.mill-max.com/PR699).

# SPRING-LOADED PINS

## DISCRETE SPRING-LOADED CONTACTS

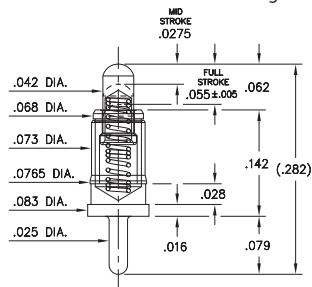
### 0981

0981-0-15-20-75-14-11-0  
Standard stroke, Surface mount



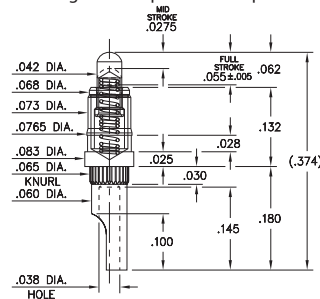
### 7982

7982-1-15-20-75-14-11-0  
Standard stroke  
Solder mount in .029 min. mounting hole



### 7983

7983-1-15-20-75-14-11-0  
Standard stroke, Knurl Press-fit in .062  
mounting hole. Accepts wire sizes up to 22 AWG



#### Material Specifications:

**Sleeve & Plunger Material:** Copper Alloy  
**Spring Material:** Beryllium Copper  
**Sleeve & Plunger Finish:** 20 μ" Gold over Nickel  
**Spring Finish:** 10 μ" Gold over Nickel  
**Dimensions: Inches**  
**Tolerances On:** Lengths: ± .006  
 Diameters: ± .002  
 Angles: ± 2°



#### Mechanical & Electrical Specifications:

**Durability:** Up to 1,000,000 cycles  
**Rated Current per IEC 60512-5:**  
 Continuous 6 amps @ 30° C temperature rise  
**Contact Resistance:** 20 mΩ max.  
**Environmental Specifications:**  
**Operating temperature range:**  
 -55/+125° C (discontinuous)

Order Code: XXXX - 0 - 15 - 20 - 75 - 14 - 11 - 0

Spring Number 75

Spring Number	Mid. Stroke	Max. Stroke	Force @ Mid. Stroke	Initial Force (Pre-Load)
75	.0275	.055	60 g	25 g

