

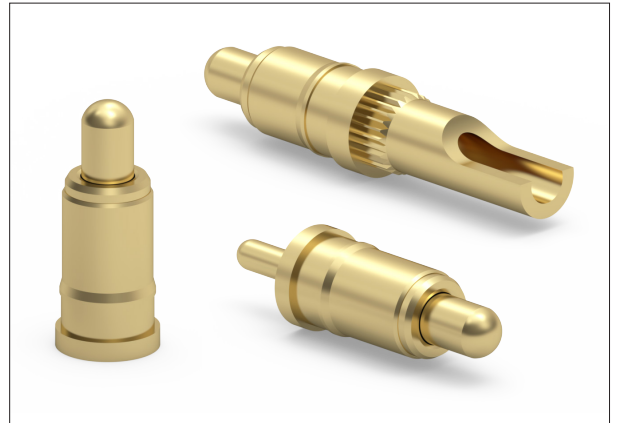
# MAXIMUM SOLUTIONS

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

*Miniature Spring-loaded pins suitable for 8-amp max 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.

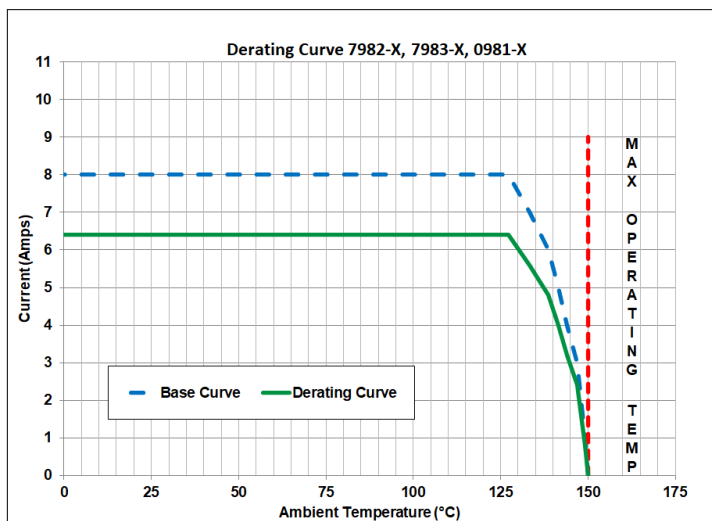
This new product offering is available in three different termination styles: surface mount, through-hole, and solder cup. All three meet two of the most demanding requirements designers currently face: the need for more power and a reduction in overall device size. They have a maximum current carrying capacity of 8 amps, 6.4 amps de-rated (@ 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 current 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).

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



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

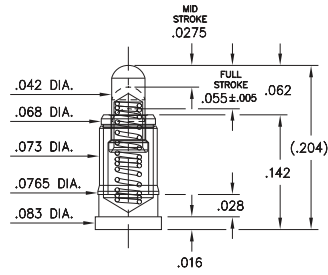
For more information, please visit [www.mill-max.com/PR699](http://www.mill-max.com/PR699).

# SPRING-LOADED PINS

## DISCRETE SPRING-LOADED CONTACTS

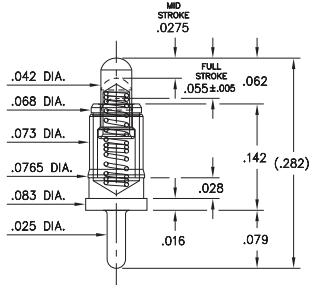
### 0981

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



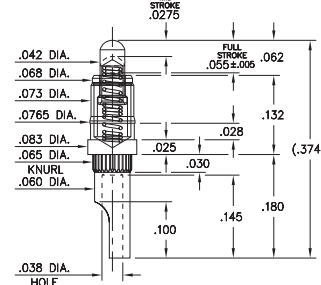
### 7982

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



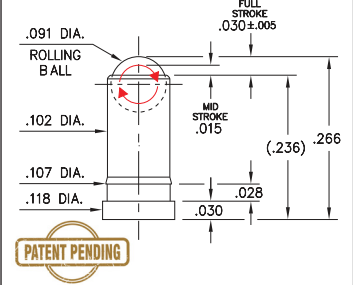
### 7983

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



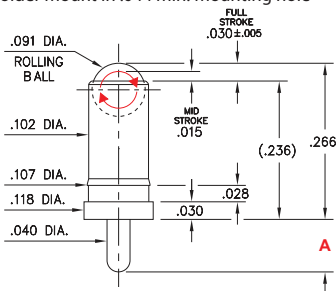
### 0945

**0945-0-15-20-09-14-11-0**  
Omniball®, Surface mount  
For lateral, sliding & rolling contact applications



### 7945

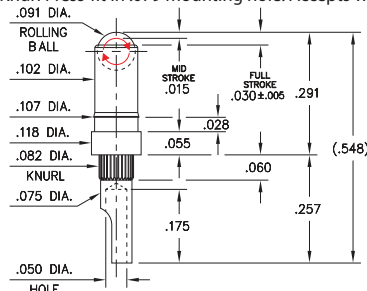
**7945-X-15-20-09-14-11-0**  
Omniball®, For lateral, sliding & rolling contact applications  
Solder mount in .044 min. mounting hole



Basic Part Number	Length A
7945-1	.0787
7945-2	.1181

### 7949

**7949-0-15-20-09-14-11-0**  
Omniball®, For lateral, sliding & rolling contact applications  
Knurl Press-fit in .079 mounting hole. Accepts wire sizes up to 20 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  
**Current Rating:** 2A continuous, 3A peak,  
**(09 spring):** 3.5A continuous, 5A peak  
**Contact Resistance:** 20 mΩ max.

#### Environmental Specifications:

**Operating temperature range:**  
-55/+125° C (discontinuous)

**09, 75 Springs are not interchangeable**

Order Code: XXXX - 0 - 15 - 20 - **XX** - 14 - 11 - 0

Spring Number

Spring Number	Mid. Stroke	Max. Stroke	Force @ Mid. Stroke	Initial Force (Pre-Load)
* 09	.015	.030	55 g	30 g
75	.0275	.055	60 g	25 g

