**SPRING-LOADED PINS**

**DISCRETE SPRING-LOADED CONTACTS • SURFACE MOUNT**

**0900-0**
0900-0-15-20-76-14-11-0
"Legacy P/N 0900-0-00-00-00-1-0"
Standard stroke, Surface mount. Also available on 16mm wide carrier tape: 2,000 parts per 330mm reel. See pg. 28.2 for Tape & Reel details

**0900-1**
0900-X-15-20-7X-14-11-0
Standard stroke, Surface mount. Also available on 16mm wide carrier tape: 1,700 parts per 330mm reel (0900-1) or 24mm wide carrier tape: 1,100 parts per 330mm reel (0900-2) and (0900-3). See page 28.2 for Tape & Reel details

**0936**
0936-0-15-20-7X-14-11-0
Standard stroke, Surface mount

**0907-0**
0907-X-15-20-75-14-11-0
Standard stroke, Surface mount, Mid profile
Also available with insulated sleeve, see page 19.4

**0913-0**
0913-0-15-20-77-14-11-0
Long stroke, Surface mount, Mid profile
Also available on 24mm wide carrier tape: 1,000 parts 330mm reel. See page 28.8 for Tape & Reel details

**0925**
0925-0-15-20-7X-14-11-0
Standard stroke, Surface mount, Reduced plunger

**0927**
0927-0-15-20-7X-14-11-0
Standard stroke, Surface mount, Mid profile

**0905**
0905-0-15-20-7X-14-11-0
"Legacy P/N 0905-0-00-00-00-11-0"
Standard stroke, Surface mount, High profile

**Order Code: 09XX - X - 15 - 20 - 7X - 14 - XX - 0**

**Material Specifications:**
- **Sleeve & Plunger Material:** Copper Alloy
- **Spring Material:** Beryllium Copper
- **Sleeve & Plunger Finish:** 0.5μm Gold over Nickel
- **Spring Finish:** 0.25μm Gold over Nickel
- **Dimensions:** Millimeters
- **Tolerances On:**
  - Lengths: ±0.15
  - Diameters: ±0.051
  - Angles: ±2°

**Mechanical & Electrical Specifications:**
- **Durability:** Up to 1,000,000 cycles
- **Current Rating:** 2A continuous, 3A peak
- **Contact Resistance:** 20 mΩ max.
- **Environmental Specifications:**
  - Operating temperature range: -55° to +125°C (discontinuous)
  - 74, 75, 76, 77 Springs are not interchangeable

**Order Code Details:**
- **Spring Number**
- **Mid. Stroke**
- **Max. Stroke**
- **Force @ Mid. Stroke**
- **Initial Force (Pre-Load)**

**Environment Specifications:**
- **Durability:**
  - **Contact Resistance:** 20 mΩ max.
- **Operating temperature range:** -55° to +125°C (discontinuous)
- **74, 75, 76, 77 Springs are not interchangeable**

**Tape & Reel Details:**
- **1,000 parts 330mm reel.**
- **Also available on 24mm wide carrier tape: 2,000 parts per 330mm reel.**

**RoHS - 2**
- **Compliant to RoHS Directive 2002/95/EC**

**2011/65/EU**
- **Compliant to the RoHS Directive 2011/65/EU**

---

Mill-Max Mfg. Corp. • 190 Pine Hollow Road, P.O. Box 300, Oyster Bay, NY 11771 • 516-922-6000 • Fax: 516-922-9253 • www.mill-max.com
### Material Specifications:

- **Sleeve & Plunger Material:** Copper Alloy
- **Spring Material:** BeCu or Stainless Steel 302 *
- **Sleeve & Plunger Finish:** 0,5μm Gold over Nickel
- **Spring Finish:** 0,25μm Gold over Nickel
- **Dimensions:** Millimeters
- **Tolerances On Lengths:** ±0,15
- **Diameters:** ±0,0051
- **Angles:** ±2°

### Mechanical & Electrical Specifications:

- **Durability:** 1,000,000 cycles
- **Current Rating:** 2A continuous, 3A peak
- **Contact Resistance:** 20 mΩ max.

### Environmental Specifications:

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

### Spring Loaded Contacts

#### 72 or 75

<table>
<thead>
<tr>
<th>Basic Part Number</th>
<th>Length A</th>
</tr>
</thead>
<tbody>
<tr>
<td>0919-0</td>
<td>9,63</td>
</tr>
<tr>
<td>0919-2</td>
<td>10,64</td>
</tr>
</tbody>
</table>

#### 0964

**0964-0-15-20-85-14-11-0**

- Long stroke, Surface mount, Mid profile
- Stainless steel spring

<table>
<thead>
<tr>
<th>Basic Part Number</th>
<th>Length A</th>
</tr>
</thead>
<tbody>
<tr>
<td>0919-X</td>
<td>3mm</td>
</tr>
</tbody>
</table>

#### 7966-0

**7966-0-15-20-7T-14-11-0**

- Long stroke, Surface mount. Also available in HSMT connector series: 1,450 parts per 330mm reel. Order as: 810-22-01/40-005191

- Standard stroke, Horizontal surface mount

#### 7913

**7913-0-15-20-7T-14-11-0**

- Long stroke

<table>
<thead>
<tr>
<th>Basic Part Number</th>
<th>Length A</th>
</tr>
</thead>
<tbody>
<tr>
<td>0919-X</td>
<td>3mm</td>
</tr>
</tbody>
</table>

#### 7928

**7928-0-54-20-7T-14-11-0**

- Receptacle spring pin, Standard stroke
- Accepts 0,94 - 1,09 Dia. pins

### Order Code: X9XX - X - 15 - 20 - XX - 14 - 11 - 0

<table>
<thead>
<tr>
<th>Spring Number</th>
<th>Mid. Stroke</th>
<th>Max. Stroke</th>
<th>Force @ Mid. Stroke</th>
<th>Initial Force (Pre-Load)</th>
</tr>
</thead>
<tbody>
<tr>
<td>72</td>
<td>0,7</td>
<td>1,4</td>
<td>35 g</td>
<td>15 g</td>
</tr>
<tr>
<td>75</td>
<td>0,7</td>
<td>1,4</td>
<td>60 g</td>
<td>25 g</td>
</tr>
<tr>
<td>77</td>
<td>1,14</td>
<td>2,29</td>
<td>60 g</td>
<td>25 g</td>
</tr>
<tr>
<td>85</td>
<td>1,02</td>
<td>2,03</td>
<td>60 g</td>
<td>25 g</td>
</tr>
<tr>
<td>89</td>
<td>1,5</td>
<td>3,0</td>
<td>100 g</td>
<td>25 g</td>
</tr>
</tbody>
</table>

---

*These parts are compliant with RoHS-2, 2011/65/EU.
SPRING-LOADED PINS

DISCRETE SPRING-LOADED CONTACTS

Material Specifications:
- **Sleeve & Plunger Material**: Copper Alloy
- **Spring Material**: Beryllium Copper
- **Sleeve & Plunger Finish**: 0.5µm Gold over Nickel
- **Spring Finish**: 0.25µm Gold over Nickel
- **Dimensions**: Millimeters
- **Tolerances On**: Lengths: ±0.15mm, Diameters: ±0.0051mm, 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

<table>
<thead>
<tr>
<th>Spring Number</th>
<th>Mid. Stroke</th>
<th>Max. Stroke</th>
<th>Force @ Mid. Stroke</th>
<th>Initial Force (Pre-Load)</th>
</tr>
</thead>
<tbody>
<tr>
<td>09</td>
<td>0.38</td>
<td>0.76</td>
<td>55 g</td>
<td>30 g</td>
</tr>
<tr>
<td>75</td>
<td>0.7</td>
<td>1.4</td>
<td>60 g</td>
<td>25 g</td>
</tr>
</tbody>
</table>

Solder mount in 0.74 min. mounting hole
Standard stroke, Knurl Press-fit in 1.57 mounting hole. Accepts wire sizes up to 22 AWG
Omniball™, Surface mount For lateral, sliding & rolling contact applications
Solder mount in 1.12 min. mounting hole
Standard stroke, Knurl Press-fit in 2.0 mounting hole. Accepts wire sizes up to 20 AWG
Solder mount in 0.74 min. mounting hole
Standard stroke, Knurl Press-fit in 1.57 mounting hole. Accepts wire sizes up to 22 AWG
Omniball™, Surface mount For lateral, sliding & rolling contact applications
Solder mount in 1.12 min. mounting hole
Standard stroke, Knurl Press-fit in 2.0 mounting hole. Accepts wire sizes up to 20 AWG

ORDER CODE

<table>
<thead>
<tr>
<th>Basic Part Number</th>
<th>Length A</th>
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<tbody>
<tr>
<td>7945-1</td>
<td>2,0</td>
</tr>
<tr>
<td>7945-2</td>
<td>3,0</td>
</tr>
</tbody>
</table>

**SPRING-LOADED CONNECTORS**

Mill-Max Mfg. Corp. • 190 Pine Hollow Road, P.O. Box 300, Oyster Bay, NY 11771 • 516-922-6000 • Fax: 516-922-9253 • www.mill-max.com
**SPRING-LOADED PINS**

**DISCRETE SPRING-LOADED CONTACTS**

**Material Specifications:**
- **Sleeve & Plunger Material:** Copper Alloy
- **Spring Material:** BeCu or Stainless Steel 302 *
- **Sleeve & Plunger Finish:** 0.5µm Gold over Nickel
- **Spring Finish:** 0.25µm Gold over Nickel
- **Dimensions:** Millimeters
- **Tolerances On:** Lengths: ± 0.15
  - Diameters: ± 0.0051
  - Angles: ± 2°

**Mechanical & Electrical Specifications:**
- **Durability:** Up to 1,000,000 cycles
- **Current Rating:** 2A continuous, 3A peak
- **Contact Resistance:** 20 mΩ max.
- **Environmental Specifications:**
  - Operating temperature range: 75/°C (discontinuous)
  - RoHS - 2

**Order Code:** 09XX - X - 15 - 20 - XX - 14 - 11 - 0

<table>
<thead>
<tr>
<th>Spring Number</th>
<th>Mid. Stroke</th>
<th>Max. Stroke</th>
<th>Force @ Mid. Stroke</th>
<th>Initial Force (Pre-Load)</th>
</tr>
</thead>
<tbody>
<tr>
<td>72</td>
<td>0.7</td>
<td>1.4</td>
<td>35 g</td>
<td>15 g</td>
</tr>
<tr>
<td>75</td>
<td>0.7</td>
<td>1.4</td>
<td>60 g</td>
<td>25 g</td>
</tr>
<tr>
<td>76</td>
<td>0.5</td>
<td>0.99</td>
<td>60 g</td>
<td>25 g</td>
</tr>
<tr>
<td>* 80</td>
<td>0.3</td>
<td>0.61</td>
<td>115 g</td>
<td>25 g</td>
</tr>
<tr>
<td>* 86</td>
<td>0.7</td>
<td>1.4</td>
<td>100 g</td>
<td>25 g</td>
</tr>
</tbody>
</table>

**0921-0**
- **Order Code:** 0921-0-15-20-76-14-11-0
- **Ultra low profile, Short stroke. Solder mount in 1,78 min. mounting hole**
- Also available on 24mm wide carrier tape: 1,500 parts per 330mm reel
- See page 28.4 for Tape & Reel details

**0926-0**
- **Order Code:** 0926-0-15-20-76-14-11-0
- **Low profile, Short stroke. Solder mount in 1,88 min. mounting hole**
- Also available on 16mm wide carrier tape: 3,000 parts per 330mm reel
- See page 28.4 for Tape & Reel details

**0977**
- **Order Code:** 0977-0-15-20-7X-14-11-0
- **Ultra low profile, Surface mount**
- Also available on 24mm wide carrier tape: 1,100 parts per 330mm reel
- See page 28.4 for Tape & Reel details

**0921-1**
- **Order Code:** 0921-1-72 or 75-15-20-7X-14-11-0
- **Low profile, Standard stroke. Solder mount in 1,78 min. mounting hole**
- Also available on 24mm wide carrier tape: 1,500 parts per 330mm reel
- See page 28.4 for Tape & Reel details

**0911**
- **Order Code:** 0911-0-15-20-86-14-11-0
- **Standard stroke, Surface mount**
- Stainless steel spring

**0980**
- **Order Code:** 0980-0-15-20-7X-14-11-0
- **Double action, 1,4 Combined stroke**
  - Mount between parallel circuit boards

**0965**
- **Order Code:** 0965-0-15-20-80-14-11-0
- **Ultra low profile, Surface mount. Stainless steel spring**
- Also available on 16mm wide carrier tape: 3,000 parts per 330mm reel
- See page 28.4 for Tape & Reel details

**7911**
- **Order Code:** 7911-0-15-20-86-14-11-0
- **Standard stroke, suitable for 2mm spacing**
- Stainless steel spring
**Spring-Laid Contacts • Through-Hole Mount**

**0906-0**
0906-0-15-20-76-14-11-0
Short stroke. Solder mount in 0.51 min. mounting hole. Also available with insulated sleeve, see page 19.5

**0906-1**
0906-1-15-20-7X-14-11-0
Standard stroke. Solder mount in 0.51 min. mounting hole. Also available on 24mm wide carrier tape: 0906-1 & 0906-2. 1,200 parts per reel. 0906-3 & 0906-4 1,000 parts per reel. See page 28.3 for Tape & Reel details

**0908-0**
0908-0-15-20-7X-14-11-0
Long stroke. Solder mount in 0.74 min. mounting hole.

**0914**
0914-0-15-20-77-14-11-0
Long stroke. Solder mount in 0.74 min. mounting hole.

**0932**
0932-0-15-20-77-14-11-0
Long stroke. Solder mount in 0.74 min. mounting hole.

**0901**
0901-0-15-20-7X-14-11-0
“Legacy P/N 0901-0-00-00-00-11-0” Solder mount in 0.74 min. mounting hole.

**0929**
0929-0-15-20-7X-14-11-0
Standard stroke. Solder mount in 0.74 min. mounting hole.

**0930**
0930-0-15-20-7X-14-11-0
Solder mount in 0.51 min. mounting hole. Also available on carrier tape: 1,500 parts per 330mm reel. See pg.28.5 for Tape & Reel details

**Material Specifications:**
- **Sleeve & Plunger Material:** Copper Alloy
- **Spring Material:** Beryllium Copper
- **Sleeve & Plunger Finish:** 0.5µm Gold over Nickel
- **Spring Finish:** 0.25µm Gold over Nickel
- **Dimensions:** Millimeters
- **Tolerances On:** Lengths: ±0.15, Diameters: ±0.005, Angles: ±2°

**Mechanical & Electrical Specifications:**
- **Durability:** Up to 1,000,000 cycles
- **Current Rating:** 2A continuous, 3A peak
- **Contact Resistance:** 20 mΩ max.
- **Environmental Specifications:** Operating temperature range: -55°/+125°C (discontinuous)
- **Springs are not interchangeable:** 75, 76, 77

**Order Code:** 09XX - X - 15 - 20 - 7X - 14 - 11 - 0
**SPRING-LOADED PINS**

**DISCRETE SPRING-LOADED CONTACTS • SURFACE MOUNT**

---

**SPRING-LOADED CONNECTORS**

---

**0910-0**

**0910-0-57-20-76-14-11-0**

Short stroke, Surface mount
Packaged on 16mm wide carrier tape: 2,000 parts per 330mm reel
See page 28.5 for Tape & Reel details

---

**0910-1-4**

**0910-X-57-20-7X-14-11-0**

72 or 75
Standard stroke, Surface mount
Packaged on carrier tape. See chart for tape width & qty. per reel
See page 28.5 for Tape & Reel details

---

**0990-0**

**0990-0-50-20-76-14-11-0**

Short stroke, Surface mount, Large base
Also available on 16mm wide carrier tape: 2,150 parts per 330mm reel
See page 28.4 for Tape & Reel details

---

**0990-1-4**

**0990-X-50-20-7X-14-11-0**

72 or 75
Standard stroke, Surface mount, Large base
Also available on 16mm wide carrier tape: 850 parts per 330mm reel
ONLY 0990-4 currently available. See page 28.4 for Tape & Reel details

---

**0997-0-9**

**0997-X-50-20-7X-14-11-0**

72 or 75
Standard stroke, Surface mount, Large base, Mid profile

---

**Material Specifications:**

- **Sleeve & Plunger Material:** Copper Alloy
- **Spring Material:** Beryllium Copper
- **Sleeve & Plunger Finish:** 0,5μm Gold over Nickel
- **Spring Finish:** 0,25μm Gold over Nickel
- **Dimensions:** Millimeters
- **Tolerances On:**
  - Lengths: ± 0,15
  - Diameters: ± 0,051
  - Angles: ± 2°

---

**Mechanical & Electrical Specifications:**

- **Durability:** Up to 1,000,000 cycles
- **Current Rating:** 2A continuous, 3A peak
- **Contact Resistance:** 20 mΩ max.

---

**Environmental Specifications:**

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

---

**Springs are not interchangeable**

---

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

---

**Mechanical & Electrical Specifications:**

- **Spring Number**
  - Mid. Stroke
  - Max. Stroke
  - Force @ Mid. Stroke
  - Initial Force (Pre-Load)

---

**Spring Number**

- 72: 0,7, 1,4: 35 g, 15 g
- 75: 0,7, 1,4: 60 g, 25 g
- 76: 0,5, 0,99: 60 g, 25 g

---

**Material Specifications:**

- **Sleeve & Plunger Material:** Copper Alloy
- **Spring Material:** Beryllium Copper
- **Sleeve & Plunger Finish:** 0,5μm Gold over Nickel
- **Spring Finish:** 0,25μm Gold over Nickel

---

**Dimensions:** Millimeters

- **Tolerances On:**
  - Lengths: ± 0,15
  - Diameters: ± 0,051
  - Angles: ± 2°

---

**Environmental Specifications:**

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

---

**Springs are not interchangeable**

---

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

---

**Mechanical & Electrical Specifications:**

- **Spring Number**
  - Mid. Stroke
  - Max. Stroke
  - Force @ Mid. Stroke
  - Initial Force (Pre-Load)

---

**Spring Number**

- 72: 0,7, 1,4: 35 g, 15 g
- 75: 0,7, 1,4: 60 g, 25 g
- 76: 0,5, 0,99: 60 g, 25 g

---

**Material Specifications:**

- **Sleeve & Plunger Material:** Copper Alloy
- **Spring Material:** Beryllium Copper
- **Sleeve & Plunger Finish:** 0,5μm Gold over Nickel
- **Spring Finish:** 0,25μm Gold over Nickel

---

**Dimensions:** Millimeters

- **Tolerances On:**
  - Lengths: ± 0,15
  - Diameters: ± 0,051
  - Angles: ± 2°

---

**Environmental Specifications:**

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

---

**Springs are not interchangeable**

---

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

---

**Mechanical & Electrical Specifications:**

- **Spring Number**
  - Mid. Stroke
  - Max. Stroke
  - Force @ Mid. Stroke
  - Initial Force (Pre-Load)

---

**Spring Number**

- 72: 0,7, 1,4: 35 g, 15 g
- 75: 0,7, 1,4: 60 g, 25 g
- 76: 0,5, 0,99: 60 g, 25 g

---

**Material Specifications:**

- **Sleeve & Plunger Material:** Copper Alloy
- **Spring Material:** Beryllium Copper
- **Sleeve & Plunger Finish:** 0,5μm Gold over Nickel
- **Spring Finish:** 0,25μm Gold over Nickel

---

**Dimensions:** Millimeters

- **Tolerances On:**
  - Lengths: ± 0,15
  - Diameters: ± 0,051
  - Angles: ± 2°

---

**Environmental Specifications:**

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

---

**Springs are not interchangeable**

---

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

---

**Mechanical & Electrical Specifications:**

- **Spring Number**
  - Mid. Stroke
  - Max. Stroke
  - Force @ Mid. Stroke
  - Initial Force (Pre-Load)

---

**Spring Number**

- 72: 0,7, 1,4: 35 g, 15 g
- 75: 0,7, 1,4: 60 g, 25 g
- 76: 0,5, 0,99: 60 g, 25 g

---

**Material Specifications:**

- **Sleeve & Plunger Material:** Copper Alloy
- **Spring Material:** Beryllium Copper
- **Sleeve & Plunger Finish:** 0,5μm Gold over Nickel
- **Spring Finish:** 0,25μm Gold over Nickel

---

**Dimensions:** Millimeters

- **Tolerances On:**
  - Lengths: ± 0,15
  - Diameters: ± 0,051
  - Angles: ± 2°

---

**Environmental Specifications:**

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

---

**Springs are not interchangeable**

---

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

---

**Mechanical & Electrical Specifications:**

- **Spring Number**
  - Mid. Stroke
  - Max. Stroke
  - Force @ Mid. Stroke
  - Initial Force (Pre-Load)

---

**Spring Number**

- 72: 0,7, 1,4: 35 g, 15 g
- 75: 0,7, 1,4: 60 g, 25 g
- 76: 0,5, 0,99: 60 g, 25 g
**0851**  
**0851-0-15-20-82-14-11-0**  
Solder Mount in 2.29 min. mounting hole or Surface Mount, 2.21Ø minimum pad  
Also available on 24mm wide carrier tape: 540 parts per 330mm reel  
See page 28.6 for Tape & Reel details

**0853**  
**0853-0-15-20-82-14-11-0**  
Solder Mount in 2.29 min. mounting hole or Surface Mount, 2.21 Ø minimum pad  
Also available on 24mm wide carrier tape: 500 parts per 330mm reel  
See page 28.6 for Tape & Reel details

**0855**  
**0855-0-15-20-82-14-11-0**  
Power spring pin, Wire crimp termination for wire sizes 16 AWG Max. / 20 AWG Min.

**0856**  
**0856-0-15-20-82-14-11-0**  
Power spring pin  
Solder Mount in 1.14 min. mounting hole

**0859**  
**0859-0-15-20-82-14-11-0**  
Power spring pin, Surface Mount  
2.54 Ø suggested pad size. Also available on 24mm wide carrier tape: 500 parts per 330 mm reel. See page 28.6 for Tape & Reel details

**0873**  
**0873-0-15-20-82-14-11-0**  
Solder Mount in 2.29 min. mounting hole or Surface Mount, 2.21 Ø min. pad size. Also on 24mm wide carrier tape: 500 parts per 330 mm reel. See page 28.6 for Tape & Reel details

**0850**  
**0850-0-15-20-83-14-11-0**  
Power spring pin, Solder Mount in 2.29 min. mounting hole  
Also available on 32mm wide carrier tape: 500 parts per 330mm reel  
See page 28.7 for Tape & Reel details

**0858**  
**0858-0-15-20-82-14-11-0**  
Power spring pin  
Solder Mount in .045 min. mounting hole

**0878**  
**0878-0-15-20-82-14-11-0**  
Power spring pin  
Solder Mount in .045 min. mounting hole

---

**Material Specifications:**
- **Sleeve & Plunger Material:** Copper Alloy
- **Spring Material:** Stainless Steel 302
- **Sleeve & Plunger Finish:** 0.5µm Gold over Nickel
- **Spring Finish:** 0.25µm Gold over Nickel
- **Dimensions:** Millimeters
- **Tolerances On:** Lengths: ± 0.15
  - Diameters: ± 0.051
  - Angles: ± 2°

**Mechanical & Electrical Specifications:**
- **Durability:** Up to 1,000,000 cycles
- **Rated Current (Free air):** Continuous 9 amps @ 10° C temperature rise
- **Contact Resistance:** 20 mΩ max.
- **Environmental Specifications:**
  - Operating temperature range: -55/+125° C (discontinuous)
  - Springs are not interchangeable

**Order Code:** 08XX - X - XX - 20 - 8X - 14 - 11 - 0

<table>
<thead>
<tr>
<th>Spring Number</th>
<th>Mid. Stroke</th>
<th>Max. Stroke</th>
<th>Force @ Mid. Stroke</th>
<th>Initial Force (Pre-Load)</th>
</tr>
</thead>
<tbody>
<tr>
<td>82</td>
<td>1.14</td>
<td>2.29</td>
<td>120 g</td>
<td>25 g</td>
</tr>
<tr>
<td>83</td>
<td>1.14</td>
<td>2.29</td>
<td>120 g</td>
<td>25 g</td>
</tr>
</tbody>
</table>
**SPRING-LOADED PINS**

**DISCRETE SPRING-LOADED CONTACTS • POWER SPRING PINS**

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**0871**
0871-0-15-20-82-14-11-0
Long stroke, Surface mount  *Force @ Mid. Stroke 100g*
Also available on 24mm wide carrier tape: 330 parts per 330mm reel
See page 28.6 for Tape & Reel details

---

**0861**
0861-0-15-20-82-14-11-0
Solder Mount in 1,09 min. mounting hole
*Force @ Mid. Stroke 100g*

---

**0868**
0868-0-15-20-82-14-11-0
Long stroke, Soldercup
Accepts wire sizes up to 16 AWG

---

**0852**
0852-X-15-20-83-14-11-0
Power spring pin, Solder mount in 1,14 min. mounting hole
Also available on 44mm wide carrier tape: 425 parts per 330mm reel
See page 28.7 for Tape & Reel details

---

**0880**
0880-1-15-20-82-14-11-0
Double action, 2,29 Max. combined stroke
Mount between parallel circuit boards

---

**0854**
0854-0-15-20-82-14-11-0
Power spring pin, Soldercup
Accepts wire sizes up to 16 AWG

---

**0881**
0881-1-15-20-82-14-11-0
Double action, 2,29 Max. combined stroke
Mount between parallel circuit boards

---

**0881**
0881-2-15-20-82-14-11-0
Double action, 2,29 Max. combined stroke
Mount between parallel circuit boards

---

**Material Specifications:**
- **Sleeve & Plunger Material:** Copper Alloy
- **Spring Material:** Stainless Steel 302
- **Sleeve & Plunger Finish:** 0,5 μm Gold over Nickel
- **Spring Finish:** 0,25 μm Gold over Nickel
- **Dimensions:** Millimeters
- **Tolerances On:**
  - Lengths: ± 0,15
  - Diameters: ± 0,051
  - Angles: ± 2°

**Mechanical & Electrical Specifications:**
- **Durability:** Up to 1,000,000 cycles
- **Rated Current (Free air):** Continuous 9 amps @ 10° C temperature rise
- **Contact Resistance:** 20 mΩ max.
- **Environmental Specifications:**
  - Operating temperature range: -55/+125° C (discontinuous)
- **Springs are not interchangeable**

**Order Code:** 08XX - X • XX - 20 - 8X • 14 - 11 - 0

---

**SPRING-LOADED CONNECTORS**
SPRING-LOADED PINS

SPRING-LOADED PINS ON TAPE & REEL PACKAGING

0900-0
0900-0-57-20-76-14-11-0
Short stroke, Surface mount
16mm wide X 8mm pitch carrier tape: 2,000 parts per 330mm reel.

0900-1
0900-1-57-20-7X-14-11-0
72 or 75
Standard stroke, Surface mount
16mm wide X 8mm pitch carrier tape: 1,500 parts per 330mm reel.

0900-2
0900-2-57-20-7X-14-11-0
72 or 75
Standard stroke, Surface mount
24mm wide X 8mm pitch carrier tape: 1,100 parts per 330mm reel.

0900-3
0900-3-57-20-7X-14-11-0
72 or 75
Standard stroke, Surface mount
24mm wide X 8mm pitch carrier tape: 1,100 parts per 330mm reel.

0967
0967-0-58-20-7X-14-11-0
72 or 75
Standard stroke, Horizontal surface mount. 16mm wide X 8mm pitch carrier tape: 2,800 parts per 330mm reel.

Material Specifications:
Sleeve & Plunger Material: Copper Alloy
Spring Material: Beryllium Copper
Sleeve & Plunger Finish: 0.5μm Gold over Nickel
Spring Finish: 0.25μm Gold over Nickel
Dimensions: Millimeters
Tolerances On: Lengths: ± 0.15
Diameters: ± 0.0051
Angles: ± 2 °

Mechanical & Electrical Specifications:
Durability: 1,000,000 cycles
Current Rating: 2A continuous, 3A peak
Contact Resistance: 20 mΩ max.

Environmental Specifications:
Operating temperature range: -55/+125°C
75, 76 Springs are NOT interchangeable
72, 75 Springs are interchangeable

Order Code: 09XX - X - 5X - 20 - 7X - 14 - 11 - 0

P.C.B. Layout

Mill-Max Mfg. Corp. • 190 Pine Hollow Road, P.O. Box 300, Oyster Bay, NY 11771 • 516-922-6000 • Fax: 516-922-9253 • www.mill-max.com
Spring-Loaded Pins

Spring-Loaded Pins on Tape & Reel Packaging

0900-0
0900-0-57-20-76-14-11-0
Short stroke, Surface mount
16mm wide X 8mm pitch carrier tape: 2,000 parts per 330mm reel.

0900-1
0900-1-57-20-7X-14-11-0
72 or 75
Standard stroke, Surface mount
16mm wide X 8mm pitch carrier tape: 1,500 parts per 330mm reel.

0900-2
0900-2-57-20-7X-14-11-0
72 or 75
Standard stroke, Surface mount
24mm wide X 8mm pitch carrier tape: 1,100 parts per 330mm reel.

0900-3
0900-3-57-20-7X-14-11-0
72 or 75
Standard stroke, Surface mount
24mm wide X 8mm pitch carrier tape: 1,100 parts per 330mm reel.

0967
0967-0-58-20-7X-14-11-0
72 or 75
Standard stroke, Horizontal surface mount. 16mm wide X 8mm pitch carrier tape: 2,800 parts per 330mm reel.

Material Specifications:
Sleeve & Plunger Material: Copper Alloy
Spring Material: Beryllium Copper
Sleeve & Plunger Finish: 0,5μm Gold over Nickel
Spring Finish: 0,25μm Gold over Nickel
Dimensions: Millimeters

Tolerances On:
Lengths: ± 0,15
Diameters: ± 0,0051
Angles: ± 2 °

Mechanical & Electrical Specifications:
Durability: 1,000,000 cycles
Current Rating: 2A continuous, 3A peak
Contact Resistance: 20 mΩ max.

Environmental Specifications:
Operating temperature range: -55/+125°C

Order Code:
09XX - X - 5X - 20 - 7X - 14 - 11 - 0

Spring Number

<table>
<thead>
<tr>
<th>Spring Number</th>
<th>Mid. Stroke</th>
<th>Max. Stroke</th>
<th>Force @ Mid. Stroke</th>
<th>Initial Force</th>
</tr>
</thead>
<tbody>
<tr>
<td>72</td>
<td>0,7</td>
<td>1,4</td>
<td>35 g</td>
<td>15 g</td>
</tr>
<tr>
<td>75</td>
<td>0,7</td>
<td>1,4</td>
<td>60 g</td>
<td>25 g</td>
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<tr>
<td>76</td>
<td>0,5</td>
<td>0,99</td>
<td>60 g</td>
<td>25 g</td>
</tr>
</tbody>
</table>

75, 76 Springs are NOT interchangeable
72, 75, 76 Springs are interchangeable
SPRING-LOADED PINS ON TAPE & REEL PACKAGING

0921-0
0921-0-57-20-76-14-11-0
Ultra low profile, Short stroke. Solder mount in 1.78 min. mounting hole 24mm wide X 8mm pitch carrier tape: 1,700 parts per 330mm reel.

0921-1
0921-1-57-20-7X-14-11-0
Low profile, Standard stroke. Solder mount in 1.78 min. mounting hole 24mm wide X 8mm pitch carrier tape: 1,500 parts per 330mm reel.

0906-1
0906-1-57-20-7X-14-11-0
Standard stroke, Solder mount in .020 min mounting hole 24mm wide X 8mm pitch carrier tape: 1,200 parts per 330mm reel.

0906-2
0906-2-57-20-7X-14-11-0
Standard stroke, Solder mount in .020 min mounting hole 24mm wide X 8mm pitch carrier tape: 1,200 parts per 330mm reel.

0906-3
0906-3-57-20-7X-14-11-0
Standard stroke, Solder mount in .020 min mounting hole 24mm wide X 12mm pitch carrier tape: 600 parts per 330mm reel.

0906-4
0906-4-57-20-7X-14-11-0
Standard stroke, Solder mount in .020 min mounting hole 24mm wide X 12mm pitch carrier tape: 600 parts per 330mm reel.

Material Specifications:
- Sleeve & Plunger Material: Copper Alloy
- Spring Material: BeCu or Stainless Steel 302 *
- Sleeve & Plunger Finish: 0.5μm Gold over Nickel
- Spring Finish: 0.25μm Gold over Nickel
- Dimensions: Millimeters
- Tolerances On: Lengths: ± 0.15
  Diameters: ± 0.051
  Angles: ± 2 °

Mechanical & Electrical Specifications:
- Durability: Up to 1,000,000 cycles
- Current Rating: 2A continuous, 3A peak
- Contact Resistance: 20 mΩ max.
- Environmental Specifications:
  - Operating temperature range: -55/+125° C (discontinuous)
  - 75, 76 Springs are NOT interchangeable
  - 72, 75 Springs are interchangeable

Order Code: 09XX - X - 57 - 20 - XX - 14 - 11 - 0
Spring Number

<table>
<thead>
<tr>
<th>Spring Number</th>
<th>Mid. Stroke</th>
<th>Max. Stroke</th>
<th>Force @ Mid. Stroke</th>
<th>Initial Force (Pre-Load)</th>
</tr>
</thead>
<tbody>
<tr>
<td>72</td>
<td>0.7</td>
<td>1.4</td>
<td>35 g</td>
<td>15 g</td>
</tr>
<tr>
<td>75</td>
<td>0.7</td>
<td>1.4</td>
<td>60 g</td>
<td>25 g</td>
</tr>
<tr>
<td>76</td>
<td>0.5</td>
<td>0.99</td>
<td>60 g</td>
<td>25 g</td>
</tr>
<tr>
<td>* 80</td>
<td>0.3</td>
<td>0.61</td>
<td>115 g</td>
<td>25 g</td>
</tr>
</tbody>
</table>
### Material Specifications:

- **Sleeve & Plunger Material:** Copper Alloy
- **Spring Material:** BeCu or Stainless Steel 302 *
- **Sleeve & Plunger Finish:** 0,5μm Gold over Nickel
- **Spring Finish:** 0,25μm Gold over Nickel
- **Dimensions:** Millimeters
- **Tolerances On:**
  - Lengths: ± 0,15
  - Diameters: ± 0,051
  - Angles: ± 2°

### Mechanical & Electrical Specifications:

- **Durability:** Up to 1,000,000 cycles
- **Current Rating:** 2A continuous, 3A peak
- **Contact Resistance:** 20 mΩ max.
- **Environmental Specifications:**
  - Operating temperature range: -55/+125° C (discontinuous)

### Ordering Information:

<table>
<thead>
<tr>
<th>Order Code</th>
<th>09XX - X - 57 - 20 - XX - 14 - 11 - 0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spring Number</td>
<td>Mid. Stroke</td>
</tr>
<tr>
<td>72</td>
<td>0,7</td>
</tr>
<tr>
<td>75</td>
<td>0,7</td>
</tr>
<tr>
<td>76</td>
<td>0,5</td>
</tr>
<tr>
<td>*80</td>
<td>0,3</td>
</tr>
</tbody>
</table>

* Springs are NOT interchangeable

**75, 76, 80** Springs are interchangeable

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**SPRING-LOADED PINS ON TAPE & REEL PACKAGING**

- **0977**
  - 72 or 75
  - 0977-0-57-20-7X-14-11-0
  - Standard stroke, Surface mount
  - 24mm wide X 8mm pitch carrier tape: 1,100 parts per 330mm reel.

- **0926-0**
  - 0926-0-57-20-76-14-11-0
  - Low Profile, Short Stroke. Solder mount in 1,88 min. mounting hole:
    - 16mm wide X 8mm pitch carrier tape: 1,700 parts per 330mm reel.

- **0926-1**
  - 0926-1-57-20-7X-14-11-0
  - Low profile, Standard stroke. Mounting in 1,88 min. mounting hole:
    - 24mm wide X 8mm pitch carrier tape: 1,450 parts per 330mm reel.

- **0965**
  - 0965-0-57-20-80-14-11-0
  - Ultra low profile, Surface mount, * Stainless steel spring
    - 16mm wide X 8mm pitch carrier tape: 3,000 parts per 330mm reel.

- **0990-0**
  - 0990-0-57-20-76-14-11-0
  - Short stroke, Surface mount, Large base
    - 16mm wide X 8mm pitch carrier tape: 2,150 parts per 330mm reel.

- **0990-4**
  - 0990-4-57-20-7X-14-11-0
  - Standard stroke, Surface mount, Large base
    - 16mm wide X 12mm pitch carrier tape: 850 parts per 330mm reel.
SPRING-LOADED PINS ON TAPE & REEL PACKAGING

**Material Specifications:**
- **Sleeve & Plunger Material:** Copper Alloy
- **Spring Material:** Beryllium Copper
- **Sleeve & Plunger Finish:** 0.5 μm Gold over Nickel
- **Spring Finish:** 0.25 μm Gold over Nickel
- **Dimensions:** Millimeters
- **Tolerances On:** Lengths: ± 0.15 mm, Diameters: ± 0.051 mm, Angles: ± 2°

**Mechanical & Electrical Specifications:**
- **Durability:** 1,000,000 cycles
- **Current Rating:** 2A continuous, 3A peak
- **Contact Resistance:** 20 mΩ max.
- **Environmental Specifications:**
  - **Operating temperature range:** -55°/+125°C
  - Springs are NOT interchangeable
  - 72, 75

**Order Code:** 09XX - X - 57 - 20 - 7X - 14 - 11 - 0

<table>
<thead>
<tr>
<th>Spring Number</th>
<th>Mid. Stroke</th>
<th>Max. Stroke</th>
<th>Force @ Mid. Stroke</th>
<th>Initial Force (Pre-Load)</th>
</tr>
</thead>
<tbody>
<tr>
<td>72</td>
<td>0.7</td>
<td>1.4</td>
<td>35 g</td>
<td>15 g</td>
</tr>
<tr>
<td>75</td>
<td>0.7</td>
<td>1.4</td>
<td>60 g</td>
<td>25 g</td>
</tr>
<tr>
<td>76</td>
<td>0.5</td>
<td>0.99</td>
<td>60 g</td>
<td>25 g</td>
</tr>
</tbody>
</table>

**Dimensions:**
- 16mm wide X 8mm pitch carrier tape: 2,000 parts per 330mm reel.
- 24mm wide X 8mm pitch carrier tape: 1,100 parts per 330mm reel.
**SPRING-LOADED PINS ON TAPE & REEL PACKAGING**

**SPRING-LOADED PINS**

**Material Specifications:**
- **Sleeve & Plunger Material:** Copper Alloy
- **Spring Material:** Stainless Steel 302
- **Sleeve & Plunger Finish:** 0.5μm Gold over Nickel
- **Spring Finish:** 0.25μm Gold over Nickel
- **Dimensions:** Millimeters
- **Tolerances On:** Lengths: ± 0.15
  - Diameters: ± 0.051
  - Angles: ± 2°

**Mechanical & Electrical Specifications:**
- **Durability:** Up to 1,000,000 cycles
- **Rated Current (Free air):** Continuous 9 amps @ 10°C temperature rise
- **Contact Resistance:** 20 mΩ max.
- **Environmental Specifications:**
  - **Operating temperature range:** -55/+125°C (discontinuous)

**Order Code:** 08XX - 0 - 5X - 20 - 8X - 14 - 11 - 0

<table>
<thead>
<tr>
<th>Spring Number</th>
<th>Mid. Stroke</th>
<th>Max. Stroke</th>
<th>Force @ Mid. Stroke</th>
<th>Initial Force (Pre-Load)</th>
</tr>
</thead>
<tbody>
<tr>
<td>82</td>
<td>1,14</td>
<td>2,29</td>
<td>120 g</td>
<td>25 g</td>
</tr>
</tbody>
</table>

**0851**
0851-0-57-20-82-14-11-0
Solder Mount in 2.29 min. mounting hole or Surface Mount, 2.21 Ø minimum pad
24mm wide X 12mm pitch carrier tape: 540 parts per 330mm reel.

**0871**
0871-0-57-20-82-14-11-0
Long stroke, Surface mount  Force @ Mid. Stroke 100g
24mm wide X 16mm pitch carrier tape: 330 parts per 330mm reel.

**0859**
0859-0-57-20-82-14-11-0
Power spring pin, Surface Mount, 2.54 Ø suggested pad size
24mm wide X 12mm pitch carrier tape: 500 parts per 330mm reel.

**0853**
0853-0-57-20-82-14-11-0
Solder Mount in 2.29 min. mounting hole or Surface Mount, 2.21 Ø minimum pad
24mm wide X 12mm pitch carrier tape: 500 parts per 330mm reel.
SPRING-LOADED PINS ON TAPE & REEL PACKAGING

0850
0850-0-57-20-83-14-11-0
Power spring pin, Solder Mount in 2.29 min. mounting hole
32mm wide X 12mm pitch carrier tape: 500 parts per 330mm reel.

0852
0852-0-57-20-83-14-11-0
Power spring pin, Solder Mount in 1.14 min. mounting hole
44mm wide X 12mm pitch carrier tape: 425 parts per 330mm reel.

Material Specifications:
- **Sleeve & Plunger Material**: Copper Alloy
- **Spring Material**: Stainless Steel 302
- **Sleeve & Plunger Finish**: 0.5μm Gold over Nickel
- **Spring Finish**: 0.25μm Gold over Nickel
- **Dimensions**: Millimeters
- **Tolerances On**: Lengths: ±0.15
  Diameters: ±0.051
  Angles: ±2°

Mechanical & Electrical Specifications:
- **Durability**: Up to 1,000,000 cycles
- **Rated Current (Free air)**: Continuous 9 amps @ 10°C temperature rise
- **Contact Resistance**: 20 mΩ max.
- **Environmental Specifications**: Operating temperature range: -55/+125°C (discontinuous)

Order Code: 0XXX - 0 - 57 - 20 - 8X - 14 - 11 - 0

<table>
<thead>
<tr>
<th>Spring Number</th>
<th>Mid. Stroke</th>
<th>Max. Stroke</th>
<th>Force @ Mid. Stroke</th>
<th>Initial Force (Pre-Load)</th>
</tr>
</thead>
<tbody>
<tr>
<td>83</td>
<td>1.5</td>
<td>3.0</td>
<td>85 g</td>
<td>25 g</td>
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</tbody>
</table>
SPRING-LOADED Pins on Tape & Reel Packaging

0908-4
0908-4-57-20-72-14-11-0
Standard stroke, Solder mount in 0.51 min, mounting hole 32mm wide X 12mm pitch carrier tape: 450 parts per 330mm reel.

0913-0
0913-0-57-20-77-14-11-0
Long stroke, Surface mount, Mid profile 24mm wide X 8mm pitch carrier tape: 1,000 parts per 330mm reel.

0987
0987-0-58-20-89-14-11-0
Long stroke, Horizontal surface mount. 24mm wide X 8mm pitch carrier tape: 2,800 parts per 330mm reel.

Material Specifications:
Sleeve & Plunger Material: Copper Alloy
Spring Material: BeCu or Stainless Steel 302 *
Sleeve & Plunger Finish: 0.5μm Gold over Nickel
Spring Finish: 0.25μm Gold over Nickel
Dimensions: Inches
Tolerances On: Lengths: ± 0.15
Diameters: ± 0.051
Angles: ± 2 °

Mechanical & Electrical Specifications:
Durability: 1,000,000 cycles
Current Rating: 2A continuous, 3A peak Contact Resistance: 20 mΩ max.
Environmental Specifications:
Operating temperature range: -55/+125°C

72, 77, 89 Springs are not interchangeable

Order Code: 0XXX - 0 - 57 - 20 - XX - 14 - 11 - 0

<table>
<thead>
<tr>
<th>Spring Number</th>
<th>Mid. Stroke</th>
<th>Max. Stroke</th>
<th>Force @ Mid. Stroke</th>
<th>Initial Force (Pre-Load)</th>
</tr>
</thead>
<tbody>
<tr>
<td>72</td>
<td>0,7</td>
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<td>35 g</td>
<td>15 g</td>
</tr>
<tr>
<td>77</td>
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<td>2,29</td>
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<td>25 g</td>
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<tr>
<td>89</td>
<td>1,5</td>
<td>3,0</td>
<td>85 g</td>
<td>25 g</td>
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