

LOW PROFILE SPRING CONTACTS

Standard and custom solutions to meet your needs

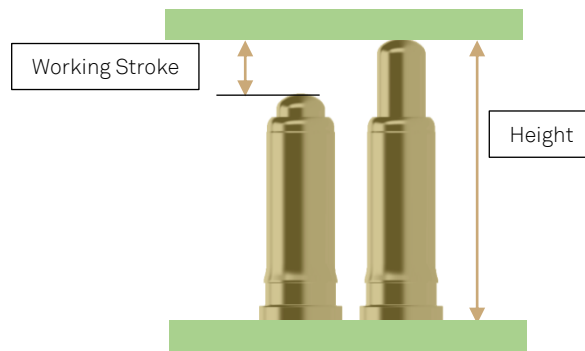


preci-dip

KEY DATA OF A SPRING PIN

Spring loaded contacts are used to make reliable connections in case of misalignment and high tolerance issues between two boards. They are mainly defined by three characteristics: Working Stroke, Height, and Operating force:

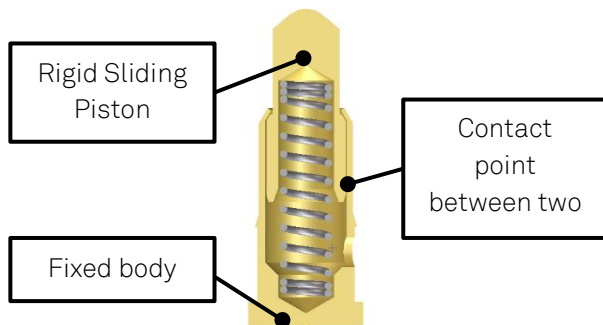
- The working stroke is equal to the tolerance present between the two boards; a standard working range is 1.4 mm (.055").
- The height of a spring pin is a little bit bigger than the maximum distance between the two boards, in order to have a buffer area to guarantee an operational contact in all cases.
- The operating force must be larger than 0.5N in order to guarantee the reliability of the contact between pad and piston.



SPRING LOADED CONTACT: STANDARD DESIGN

A spring loaded contact is composed of a barrel, a spring, and a piston. These are engineered to meet specific application requirements (height, stroke and force, as well as environmental constraints).

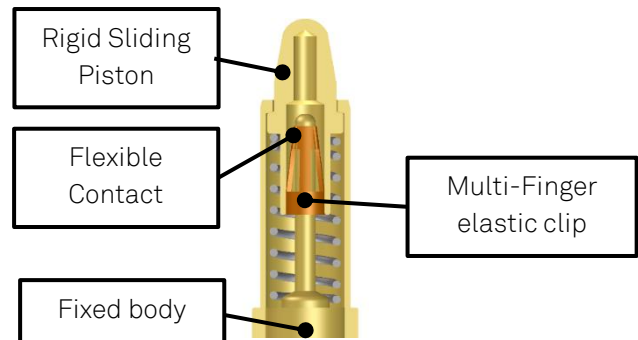
Spring Loaded Contacts With Standard design



Main advantage of this design is its **compactness**: the minimal length is 2.5 mm for a 0.6 mm stroke and a mid-stroke force of 0.7N. See 90173-AS for reference.

Main disadvantage is that this contact will disconnect under shock and vibration conditions. This solution is only suitable in static-mode, and low current applications.

PRECI-DIP Spring Loaded Contacts With an Integrated CLIP

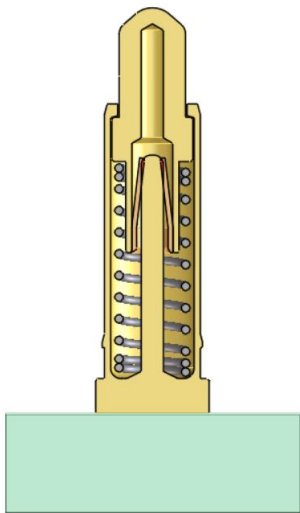


An integrated Multi-Finger elastic clip establishes a reliable and efficient multi point connection between body and piston. Flexible contact is compliant to shock and vibration up to 2000Hz or more, and accommodates currents up to 20A.

This high tech solution requires more space; see typical dimension for a SLC with clip on our [Series-0900-CLIP](#).

LOW PROFIL MOUTING ALTERNATIVE

Standard Surface Mount Design



Advantage:

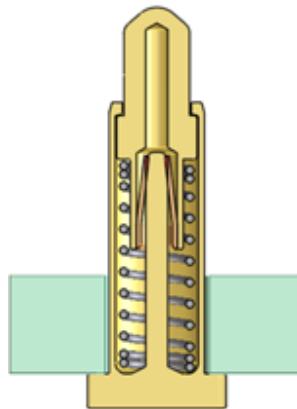
- Easy to implement with tape and reel option; see 0907-0-CLIP-02



Disadvantage:

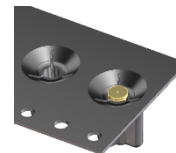
- The entire height of the Spring Loaded Contact must remain over the board.

Reverse Surface Mount Design



Advantage:

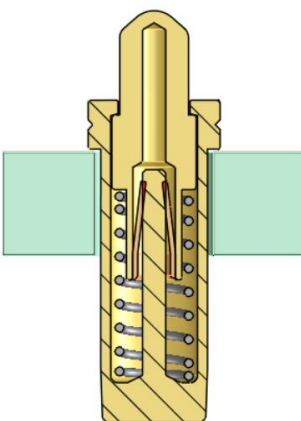
- Easy to implement with reverse tape and reel option.



Disadvantage:

- A portion of the height of the Spring Loaded Contact remains within the board.

Pin and paste Design



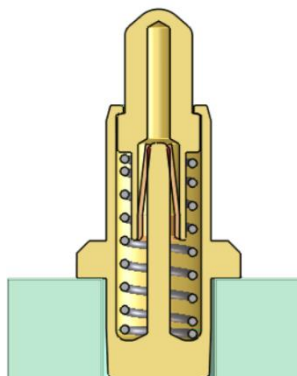
Advantage:

- The board height of this SLC can be adapted easily by moving the shoulder over Spring Loaded Contact body.
- Board to board distance can be as little as 2.5mm

Disadvantage:

- Pin and Paste technology requires a portion of the SLC body within the board.

Surface Mount Design



Advantage:

- The stop shoulder can be moved up to have the bottom of the SLC flush with the board

Disadvantage:

- External Diameter of the SLC needs to be increased to guaranty good soldering integrity.

SOLUTION PROVIDER FOR ALL CONNECTIONS



As a vertically integrated company, with processes that include screw machining, stamping, plating, plastic molding, spring manufacturing, and automatic assembly, coupled with manufacturing sites in Switzerland, the USA and China, PRECI-DIP is best positioned to design and produce a solution adapted to your needs.

Our R&D team will analyze your specifications and give you the necessary support to meet your requirements. Do not hesitate to contact us! sales@precidip.com