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NH N&H Technology

POGO PINS



SYSTEM SUPPLIER FOR INPUT DEVICES

CONSTRUCTION | PRODUCTION | LOGISTICS

MODULES & SYSTEM SOLUTIONS

KEYPADS & SWITCHES

CABLE ASSEMBLY & CONNECTORS

ELECTRONIC COMPONENTS

MOULDED PARTS & TOOLING



Management
System
ISO 9001:2015

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Firmensitz im Stahlwerk Becker in Willich

ABOUT

N&H Technology GmbH was founded in 2001 and supplies components, and complete solutions for customer-specific user interfaces (HMI), according to our guideline: Single Source Supply.

STRENGTHEN

We see ourselves as a link between production plants in Asia and our customers in Europe. On the one hand, our strengths lie in the technical advice and support of our customers projects and on the other hand in professional procurement, quality assurance and logistics. Through highly qualified German and Chinese engineers in our company, we communicate excellently with our customers and suppliers, even about complex technical issues. On customer demand, we also can take over entire development and design tasks.

PRODUCTION

Our production processes economically take place in selected factories, mainly in China. All production plants are certified according to DIN ISO 9001, DIN ISO 14001, DIN TS 16949 and DIN ISO 13845. The European quality standards of our products are ensured by a comprehensive quality management system in the production plants and in-house.

QUALITY

We are certified according to DIN ISO 9001. In January 2013 we set up a second N&H location in China (Shanghai) to continuously improve our ongoing commitment to quality and service. In addition, we can carry out technical tests and analyzes for our customers in our own laboratory in Willich.

OUR CONCEPT

FROM THE FIRST IDEA TO THE SERIAL DELIVERY

- Development according to customers specifications
- Production in Asia according to European quality standards
- Procurement of external components
- Complete assembly and preassembly in Asia
- Project-specific final testings in Asia or Germany
- Reliable warehouse logistics in Germany





About Pogo Pins

In the connectors' world, the Pogo-pin connector is a special type of contact technology. In the past few years, this reliable technology has been accepted by many world-class customers and applied for a hundred different kinds of electronic products, such as mobile phones, GPS devices, car stereos, notebooks, TV game peripherals, LED road lamps, hearing aids, mobile radios, etc.

Advantages

- long life span
- customized solutions
- adjustable and measurable spring force
- small grid size
- SMT assembly possible
- good performance in high frequency applications
- RoHs compliant and halogen-free

Application

Spring loaded connectors can be used for a wide variety of applications. Their versatility make them true allrounders, from charging applications to high frequency signal transmission.

Particularly suitable for contacting uneven surfaces.

QM

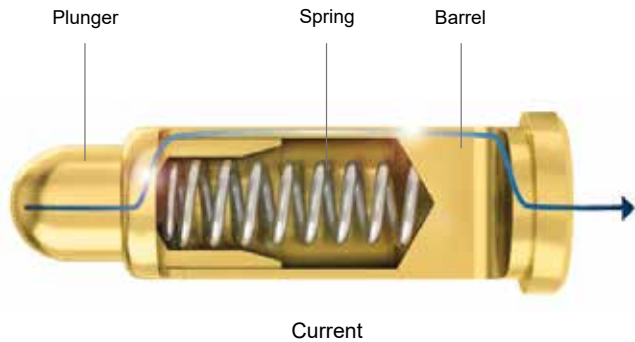
Our manufacturing partners in the field of spring contacts are certified according to ISO9001:2015, ISO14001:2015, ISO16949:2016 und QC08000.



SPEZIFIKATIONEN

Construciton

The pogo pin connector consists of 3 parts – Plunger, Spring and Barrel (based on customer's need, we can match with housing an cap)



Electrical Specifications

Current: 1A / 2A Standard
up to max. 13A customited design

Contact resistance: < 100mΩ (Depends on Design)

DESIGN VARIANTEN

Back-Drill

The drilled tail makes extra space for spring and creates a shorter pogo pin. For smaller designs, the so-called Back Drill Design is used. In order to achieve the customer-specific desired spring force, the spring used in this design is longer than the hollow plunger.

Bias-Design

The bias tail of plunger creates lateral force and better contact. To ensure a 100% contact of the plunger with the barrel, the bias design is used. In this design, the plunger is bevelled at its end at an angle of up to 18 ° and inserted into the pen case. As a result, a 100% contact of the plunger with the barrel is ensured upon actuation of the spring contact pin. This significantly reduces the signal disturbance due to vibrations. The bias design is applied to almost all spring contact pins from a length of 3.5mm.



Back-Drill Design
Pin Length: ~2.5 mm
Current: 1A

Bias-Design
Pin Length: ~3.5 mm
Current: 2A

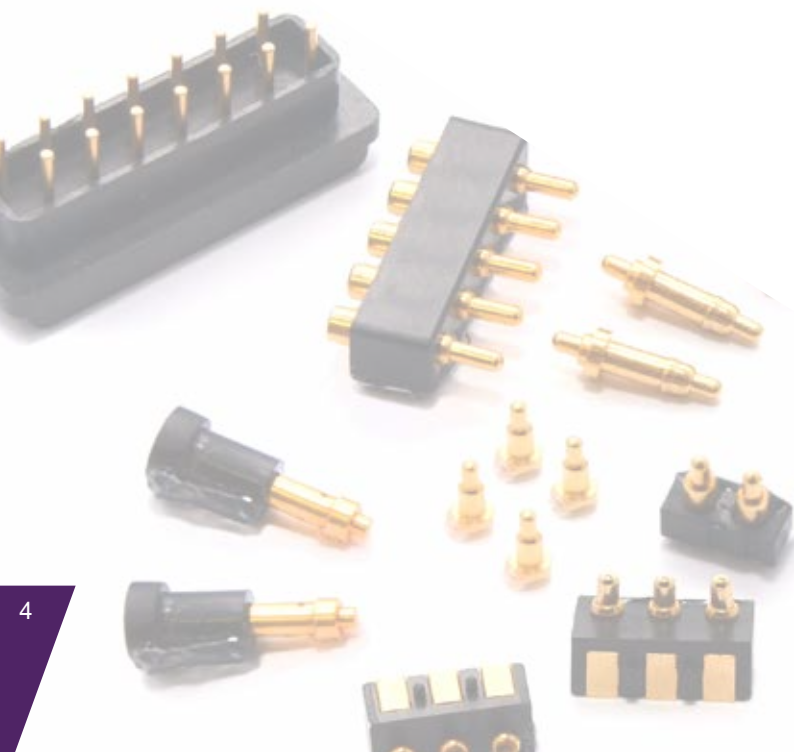
4P-Design (Ball / Cap)
Pin Length: ~ 4.5 mm
Current: 3A - 5A

4P-Design

With high current carrying capacity requirements (> 3A) and vibration resistance, the bias design is complemented by the 4P design. If the plunger and the barrel of a spring contact pin do not connect properly at high currents due to insufficient lateral forces, the spring could burn out.

To avoid this, the previous three components of a spring contact pin are complemented by a stainless steel ball as a fourth component in the 4P design. This ball is integrated between the plunger and the compression spring.

The flow of current is conducted to the sleeve via the stainless steel ball and the signal disturbance as a result of vibrations is significantly reduced. As an alternative to the stainless steel ball, a cap can also be used in the 4P design.



High-Current Design

For high current applications from 5A up to max. 13A, the 4P design with cap is used. The barrel is additionally reinforced. In addition, a special structure in the interior of the spring contact serves to increase the contact area.

The service life of the high-current spring contacts is at least 10,000 cycles. The sizes are in the standard range between 5.4 - 15.0mm in length.

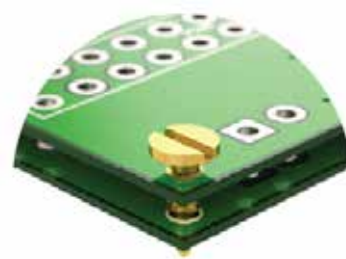


Screw-Design

Electronic devices are getting smaller, faster and more efficient. This miniaturization places the highest demands on the production technology, because more and more functions have to be integrated into the small devices.

The new spring contact design with integrated screw thread on the barrel helps to meet these requirements. In addition to the function as a screw, also power and signal currents can be transmitted.

The screw thread can be integrated with all custom spring contacts with a piston length from 3.5mm.



INFO



HIGH CURRENT PINS - UP TO 500A

In the product range high current contacts we offer both standard high current contacts (2A - 250A) as well as customer specific solutions (up to 500A).

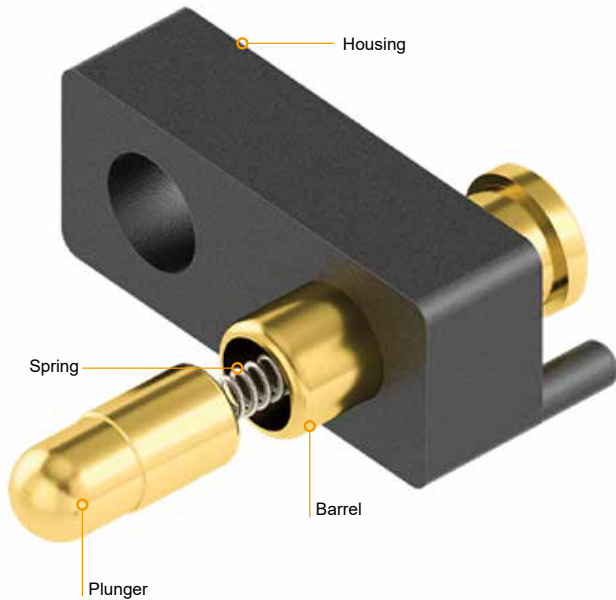
The contacts are equipped with a patented „crown-type“ spring. This creates a 100% contact between plug and socket and this at the highest shock and vibration resistance, as well as low contact resistance and high current loads. Depending on the application, the socket can be made of a highly conductive copper alloy with silver or gold.

If you are interested in our high current contacts, we are happy to advise you and develop a suitable solution with you.

SPECIFICATIONS

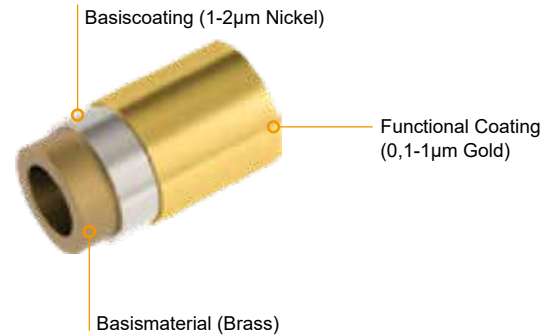
MATERIAL

By default, plunger and barrel are made of brass and the spring is made of stainless steel. Optionally, other materials are available to meet the requirements of specific applications.



COATING

The spring contact pin is gold plated in the standard version because it has excellent electrical conductivity and provides high protection against corrosion and oxidation.



The Plunger and the barrel are usually double coated (first with nickel 1-2µm and then with gold 0.1-1µm). Depending on the application, other precious metal coatings are also possible - even partial coatings of single spring contact components.

Part	Material
Plunger	Brass (Standard) Beryllium Copper Phosphor-Bronze SK4 - Steel
Barrel	Brass (Standard) Beryllium Copper Phosphor-Bronze
Spring	Stainless Steel
Housing	Polyoxyethylen (Standard) HTN Polyphthalamide LCP Liquid-crystal polymers PBT Polybutylene terephthalate PA10T

Plating	Hardness (HV)	Function (Color)
Gold	200	Low resistance
Super AP	400	Superior corrosion resistance, low electrical resistance (silver)
Nickel	150 - 200	Low cost, corrosion resistant (silver)
Palladium-Nickel	330 - 380	Improved signal transmission (silver)
Red Brass (CuSnZn)	600	Replace Nickel (silver)
Palladium Cobalt	450 - 600	Replace Pd-Ni (silver)
Palladium Cobalt	600 - 800	Black color requirement



SUPER AP COATING

The Super AP coating is extremely resistant to electrolytic or galvanic corrosion while maintaining very low resistance.

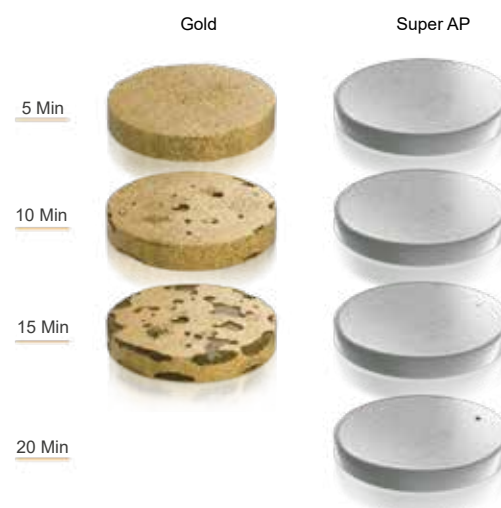
This makes it particularly suitable for all electrical applications. Compared to a gold coating, the Super AP coating is:

- 2 x more resistant to salt water
- 5 x resistant to transpiration
- 30 x more resistant to electrolysis
- Nickel-Free



Comparison Coatings	Testing Standard	Gold (50u")	Super AP
Nickel Release	EN 12472:2005 A1:2009	Nickel-containing process	Nickel-free process
Impedance	EIA-364-23	< 50 mΩ	< 50 mΩ
Salt Spray Resistance	EIA-362-26	96 HR	168 HR
Artificial Sweat Resistance	ISO-3160	96 HR	168 HR
Surface Hardness	ISO 6507-1:2005	200 HV	400 HV
Electrolysis Resistance Time	1mA, 5V, Pitch=0.60mm	< 1 Min	60 Min

Example: Electrolysis Resistance Time



INFO

GALVANIC CORROSION

Galvanic corrosion occurs, when two different metals of different nobility get into close contact in the presence of an electrolyte such as water. Dissimilar metals have different electrode potentials which cause one of the metals to act as a cathode and the other as an anode. The resulting current flow is the main cause for the dissolve of the lesser noble (anode) metal. Acid or alkali environments, for example on human skin, can accelerate galvanic corrosion significantly and attack even metals such as gold and platinum.

TYPES

ABOUT 500 POGO PIN TYPES

On our website you will find an overview of our standard range of over 500 spring contact types.

The smallest spring contact has a length of 1.39 mm, the largest 21.5 mm. The spring force varies depending on the type between 50 - 400g. In addition to individual pins, we also offer a number of connectors.

CAPS



On customer request, we can offer almost all spring contacts cost-effectively with mounting caps. The spring contacts are supplied on a roll and are therefore easy to use in automated PCB assembly.

STANDARD-TYPES

Flat Type (SMD)

Length: 1,0 - 21,5 mm
Spring Force: 25g - 400g
Standard Connector with up to 6 Pins



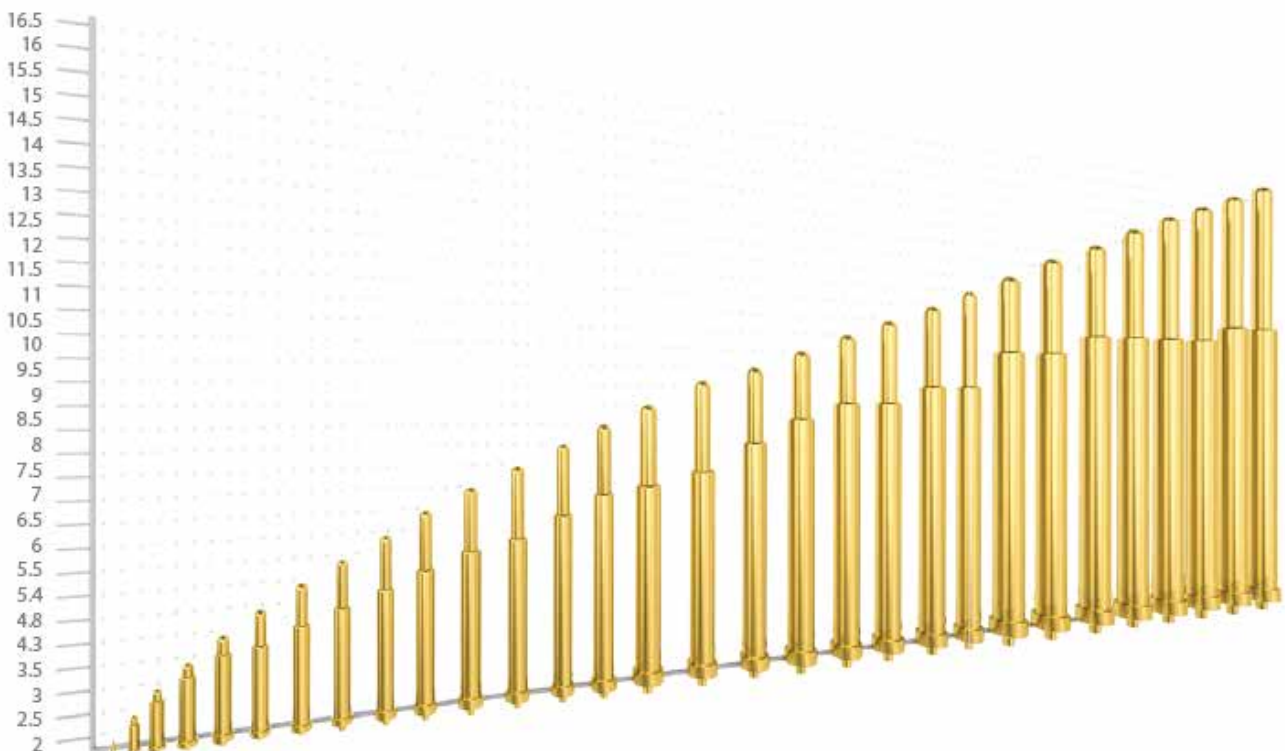
Plug-In Type (THT)

Length: 1,39 - 19,0 mm
Spring Force: 35g - 500g
Standard Connector with up to 14 Pins



Right Angle Type (SMD)

Length: 4,9 - 5,6 mm
Spring Force: 80g - 120g
Standard Connector with up to 4 Pins



SPECIAL TYPES

Rolling Pin 360°

Keeping a stable connection to a moving target can be a challenge.

The Ball-Point Connector solves this problem by a radically new 360° design that offers totally new engineering possibilities and a simplified assembly without cables.

Length: 3,5 - 15,0 mm

Spring Force: 60g - 150g

Standard Connector with up to 3 Pins



We offer Rolling Pins in different sizes and types.

Double Ended Pin

Spring contact with two plunger for contacting e.g. two or more circuit boards.

Length: 5,8 - 17,3mm

Spring Force: 100g - 500g



Customized Connector with mit Rolling Pins in Right Angle Design.

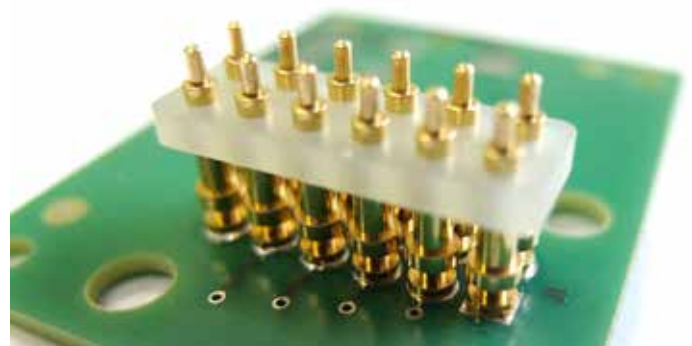
Bending Type

The right-angled spring-contact connector with a bent end provides more space savings when mounted on a printed circuit board.

Length: 11,5 - 21,5 mm

Spring Force: 35g - 120g

Standard Connector with up to 8 Pins



CONNECTOR

Several spring contact pins can be assembled in a plastic housing to form a connector.

In addition to a number of standard solutions, we also offer you the production of customer-specific connectors.



The connectors can be customized with regard to pitch, number of pins and housing dimensions. Different connection types allow a variety of mounting options on SMD PCBs.

Due to the multiplicity of spring contacts, e.g. especially small connectors, waterproof solutions (IPX6 / IPX7) and special solutions for high current applications.

Thanks to our many years of experience and a specialized network of suppliers, we can also assemble any type of cable to match your connector.

Waterproof Connectors



Various designs allow the connectors to meet IPx7 or IPx8 protection classes. The spring contacts are either molded directly over or supplemented or sealed with special seals.

References - Customized Connectors





MAGNETIC CONNECTORS

The plug is made of spring contact probes and a magnetic connection system. By implementing the spring contact pins, the contact is not generated by inserting the pins into a socket but already during the probing of the contact pins with the contact points. The contact points are soldered in the device with the board.

Advantage of this technique is the high reliability at a very high number of cycles of up to 10,000 re fortifications. The strong permanent magnet consists of a neodymium iron boron alloy (NdFeB) and ensures rapid shock and vibration resistant, and self-guiding connection or simple solution of plug and device.

The magnetic force can be adjusted by various custom magnets. The connector shown in the example has a magnet with a magnetic strength of N48 and a flux density of $430\text{mt} \pm 35\text{mt}$.

DEVELOPEMENT

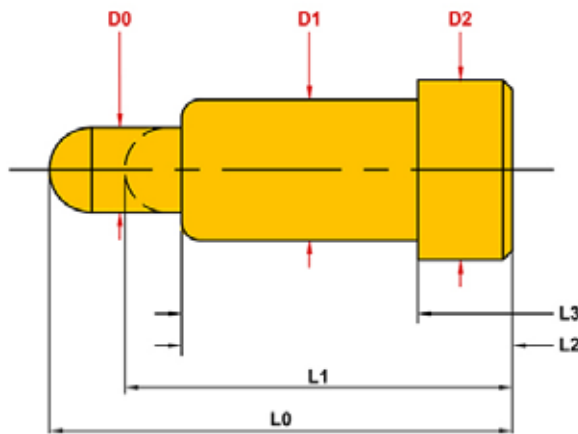
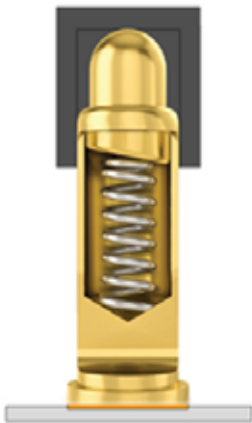
Due to the creation of tools, the development of a customer-specific plug is already available from a production quantity of 5,000 pieces.

We support you in the construction of a suitable magnetic solution for your system and accompany you up to series delivery and beyond.

References



FLAT TYPE SINGLE PINS



Length: 1,0 - 21,5 mm
Spring Force: 25g - 400g

Current:
1A / 2A Standard
up to max. 13A customited design

Dimension: mm / *SF: Spring Force (g) $\pm 20\%$

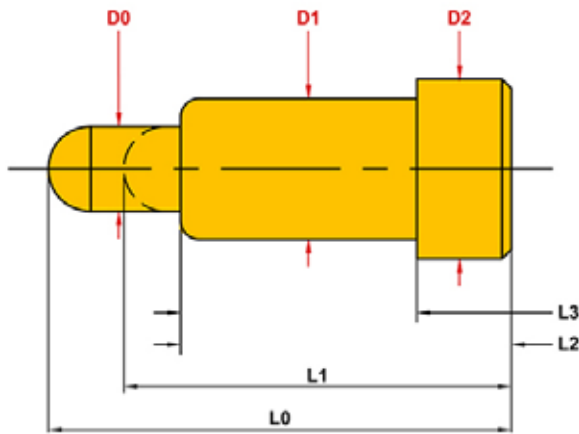
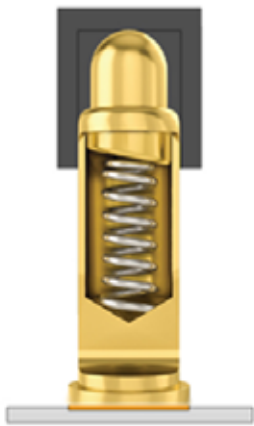
PIN	SF*	L0	L1	L2	L3	D0	D1	D2
SVPC-F-CS97175M7	25	1,0	0,8	0,78	0,75	0,4	0,6	0,6
SVPC-F-CS97175M2	25	1,0	0,8	0,75	0,68	0,4	0,6	0,8
SVPC-F-P6925FP03A	35	1,25	1,15	0,85	0,85	0,5	0,83	0,9
SVPC-F-F3366AA01	60	1,6	1,2	1,1	0,9	0,77	1,25	1,4
SVPC-F-H199M0	100	2,1	1,5	1,45	1,25	0,8	1,25	1,4
SVPC-F-H126M0	80	2,2	1,75	1,55	0,75	1	1,48	2,2
SVPC-F-N018M9	80	2,2	1,75	1,55	1,15	1	1,51	1,8
SVPC-F-H199M2	30	2,3	2,18	1,5	1,2	0,8	1,25	1,4
SVPC-F-H027M0	40	2,5	1,95	1,55	1,2	1	1,4	1,6
SVPC-F-H062M0	100	2,6	2	1,6	1,3	0,9	1,47	2
SVPC-F-H192M1	100	2,6	2	1,6	1,05	0,9	1,47	1,62
SVPC-F-H265M0	50	2,63	2,43	2,23	2,23	0,4	0,7	0,7
SVPC-F-F651AA01	100	2,8	2	1,9	1,5	0,9	1,5	2
SVPC-F-F030AA00	30	2,95	2,8	1,8	1,82	0,8	1,25	1,7
SVPC-F-N080M1	55	2,95	2,7	2,6	2,6	1	1,5	N
SVPC-F-H038M0	110	3,1	2,4	2,1	1,7	0,9	1,41	1,8
SVPC-F-N018M1	110	3,1	2,5	2,3	1,9	1	1,51	1,8
SVPC-F-N002M1	80	3,2	2,2	2	1,6	1	1,51	1,8
SVPC-F-H287M0	30	3,25	3,15	2	1,7	0,8	1,25	2
SVPC-F-H061M0	110	3,4	2,6	2,5	2,5	1	1,5	2,1
SVPC-F-H072M0	100	3,4	2,7	2,45	1,65	0,9	1,48	1,6
SVPC-F-H318M0	110	3,4	2,8	2,5	2,1	1	1,51	2
SVPC-F-N002M5	110	3,4	2,6	2,5	2,1	1	1,51	1,8
SVPC-F-H077M0	120	3,5	2,8	2,49	2,08	1	1,63	1,83
SVPC-F-H134M0	50	3,5	3	2,3	0,5	0,8	2,5	1,5
SVPC-F-H173M0	50	3,5	3	2,3	1,9	0,8	1,32	1,5
SVPC-F-H267M0	110	3,5	3	2,4	2	1	1,51	1,8
SVPC-F-N002M6	110	3,5	2,7	2,6	2,1	1	1,51	1,8
SVPC-F-N018M4	50	3,5	3	2,5	2	0,75	1,32	1,5
SVPC-F-N080M0	25	3,5	3	2,8	2,8	0,7	1,2	1,25
SVPC-F-F2557MF1	60	3,6	3,05	2,45	2,3	0,8	1,25	2
SVPC-F-N002M4	110	3,7	2,9	2,6	2,2	1	1,51	1,8
SVPC-F-N018M7	110	3,7	3	2,4	2	1	1,51	1,8
SVPC-F-H299M1	120	4	3	2,8	2,4	1	1,51	1,8
SVPC-F-N002M2	100	4	3	2,5	2,1	1	1,51	1,8
SVPC-F-N050M2	80	4	3	2,3	1,2	1	1,5	1,8
SVPC-F-N103M7	110	4	3,2	2,9	2,5	1	1,51	1,8
SVPC-F-H008M1	100	4,1	3,2	3,5	2,2	0,8	1,3	1,4
SVPC-F-F292AA01	40	4,2	3,7	2,9	2,35	1	1,48	1,8

We will send you data sheets and technical drawings on request.

PIN	SF*	L0	L1	L2	L3	D0	D1	D2
SVPC-F-N019M0	120	4,2	3,4	2,9	2,6	1	1,51	1,65
SVPC-F-N103H5	140	4,2	3,4	2,9	2,5	1	1,51	1,8
SVPC-F-N103M1	80	4,2	3,4	2,9	2,5	0,9	1,51	1,8
SVPC-F-N103M5	120	4,2	3,4	2,9	2,5	1	1,51	1,8
SVPC-F-N200M4	130	4,2	3,2	2,7	2,3	1	1,53	1,8
SVPC-F-H311M0	70	4,3	3,75	3,3	2,75	0,9	1,5	1,83
SVPC-F-N038M0	110	4,3	3,8	3,1	2,6	0,7	1,1	1,4
SVPC-F-N008M0	100	4,4	3,4	3,2	2,6	0,9	1,6	1,8
SVPC-F-N050M3	80	4,4	3,4	2,7	1,2	1	1,53	1,8
SVPC-F-H168M0	100	4,5	3,7	2,9	2,5	1	1,51	1,8
SVPC-F-N067M0	60	4,5	3,7	3,5	3	1	1,51	2,5
SVPC-F-N103M2	120	4,5	3,2	2,9	2,5	1	1,51	1,8
SVPC-F-N103M6	120	4,5	3,7	2,9	2,5	1	1,51	1,8
SVPC-F-N114M0	40-60	4,5	4	3	3	0,9	1,4	1,4
SVPC-F-H041M0	120	4,7	3,6	3,3	2,6	0,9	1,65	1,8
SVPC-F-N016M0	75	4,7	3,8	3,4	0,9	0,9	1,48	2,4
SVPC-F-N066M1	80	4,7	3,5	3,5	2,7	0,7	1,2	1,6
SVPC-F-N119M1	100	4,7	3,3	2,8	2,4	1	1,7	2,1
SVPC-F-N005M8	80	4,8	3,8	3,3	2,8	0,9	1,51	1,9
SVPC-F-H137M0	70	4,9	4,1	3,5	2	0,9	1,55	2,12
SVPC-F-N005M6	110	4,9	3,9	3,6	3,1	1	1,51	1,9
SVPC-F-N010M0	80	4,9	4,1	3,5	2,5	0,9	1,49	1,9
SVPC-F-H223M0	110	5	4	3,6	3,1	0,9	1,51	1,9
SVPC-F-H268M0	60	5	4	3,6	3,1	1	1,51	1,6
SVPC-F-H246M0	110	5,1	4,1	3,6	3,1	1	1,51	1,9
SVPC-F-P3068FH01	65	5,1	4,35	4,25	3,25	0,6	1	1,4
SVPC-F-N010M2	80	5,2	4,4	4	3,2	0,9	1,6	1,9
SVPC-F-N010M5	80	5,2	4,4	4	3,2	1,2	1,6	1,9
SVPC-F-P07286FH1	120	5,3	4,3	3,5	3,1	1	1,5	1,9
SVPC-F-H010M0	60	5,4	4,3	4,1	3,6	0,9	1,5	1,6
SVPC-F-H203M0	400	5,4	3,8	3,6	3,1	0,9	1,51	1,9
SVPC-F-N005M1	110	5,4	4,4	3,9	3,4	0,9	1,51	1,9
SVPC-F-N005M0	110	5,5	4,5	4	3,5	0,9	1,51	1,9
SVPC-F-N006M1	120	5,5	4,4	4	3,5	0,9	1,51	1,9
SVPC-F-N048M1	80	5,5	4,5	4	3,4	1	1,5	1,9
SVPC-F-P2078MF1	110	5,6	4,4	4	3,2	1	1,6	2
SVPC-F-H229M0	80	5,7	4,7	4,3	3,95	1	1,51	1,8
SVPC-F-N114M2	30-40	5,7	5,2	4,2	4,2	0,42	0,8	0,8
SVPC-F-H345M0	60	5,8	4,8	4	3,55	0,9	1,35	1,9
SVPC-F-N005M4	110	5,8	4,8	4	3,5	1	1,5	1,9
SVPC-F-N007M1	80	5,8	5	4,3	3,6	0,9	1,51	2,3
SVPC-F-N007M0	120	5,9	4,9	4,4	3,6	0,9	1,5	1,9
SVPC-F-H223M4	110	6	5	4,6	3,1	0,9	1,51	1,9
SVPC-F-N044M0	120	6	4,8	4,5	4	1	1,51	1,9
SVPC-F-H094M0	120	6,1	5,35	4,4	4,4	0,8	1,37	1,56
SVPC-F-N096M0	110	6,2	5,5	4	3,5	0,96	1,51	1,9
SVPC-F-H069M0	120	6,3	5,1	4,5	4	1	1,51	1,9
SVPC-F-H179M0	110	6,3	5,2	4,5	3,9	1	1,51	2
SVPC-F-N144M0	110	6,3	5,2	4,5	3,5	1	1,51	2,5
SVPC-F-H042M0	100	6,4	5,5	5	4,5	1	1,5	2
SVPC-F-F755AA01	110	6,5	5,5	4,7	4,25	1,07	1,5	1,83
SVPC-F-N042M3	110	6,5	5,5	5	4,5	1	1,51	1,8
SVPC-F-N042M7	110	6,5	5,5	5	4	1	1,51	1,8
SVPC-F-H247M1	80	6,6	4,6	4,2	2,3	1	1,5	1,8
SVPC-F-N042M0	110	6,7	5,5	5	4	0,9	1,51	2
SVPC-F-H028M0	65	6,8	5,7	5,3	3,8	0,9	1,65	2,12
SVPC-F-H056M0	120	6,8	5,8	5,3	2,6	0,9	1,95	2,1
SVPC-F-H136M0	70	6,8	5,7	5,3	3,8	0,9	1,55	2,12

We will send you data sheets and technical drawings on request.

FLAT TYPE SINGLE PINS



Length: 1,6 - 21,5 mm
Spring Force: 25g - 400g

Current:
1A / 2A Standard
up to max. 13A customized design

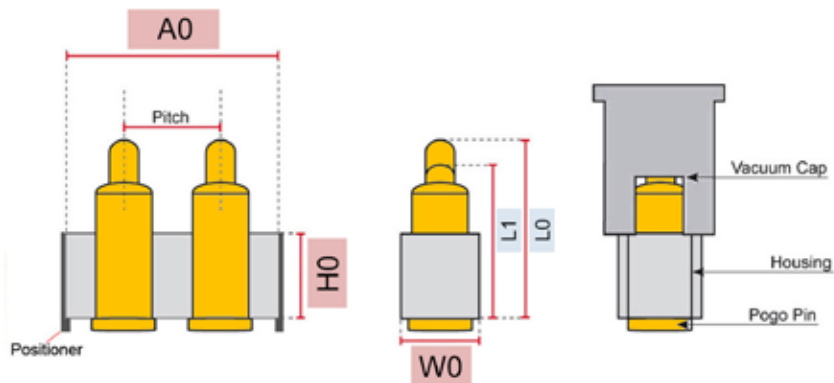
Dimension: mm / *SF: Spring Force (g) $\pm 20\%$

PIN	SF*	L0	L1	L2	L3	D0	D1	D2
SVPC-F-H247M3	80	6,8	4,8	4,5	2,7	1	1,8	1,5
SVPC-F-N122M0	110	6,8	5,8	5,4	4,8	0,9	1,6	1,9
SVPC-F-N042M4	100	6,9	6	5,4	4,6	1	1,51	1,8
SVPC-F-F755AA02	130	7	5,5	4,7	4,25	1,07	1,5	1,83
SVPC-F-H057M0	120	7	5,9	5,3	4,7	0,9	1,51	1,8
SVPC-F-H289M1	200	7	6,5	5	4,3	1	1,48	2
SVPC-F-N020M1	50	7	6	4,5	4,1	1	1,51	1,8
SVPC-F-N072M0	110	7	5,7	5,5	5,5	1	1,5	1,9
SVPC-F-P2552PH01	50	7,05	5,6	5,45	3,8	0,7	1,2	1,05
SVPC-F-H048M0	110	7,2	6,2	5,4	5	1	1,48	1,8
SVPC-F-H294M0	120	7,2	4,6	4,4	4	1	1,51	1,8
SVPC-F-H165M0	95	7,35	6,45	5,65	5,05	0,9	1,48	1,53
SVPC-F-N005M9	60-100	7,4	5,9	5,8	5,4	0,9	1,5	2
SVPC-F-P07098FH1	50	7,4	6	5,9	5,5	0,9	1,48	2
SVPC-F-F810AA05-1ACR	70	7,5	6,8	6,1	5,7	1	1,48	1,8
SVPC-F-H096M1	110	7,5	6,5	5,6	4,1	0,9	1,55	2,12
SVPC-F-N124M1	110	7,5	6,5	5,6	4,1	0,9	1,65	2,12
SVPC-F-H031M0	110	7,6	6,6	6,1	5,3	1	1,58	1,8
SVPC-F-H299M0	120	7,6	6,4	5,6	4,8	1	1,51	2,5
SVPC-F-N036M0	110	7,6	6,6	6,1	5,3	1	1,51	1,8
SVPC-F-H065M0	100	8	7	6,2	5,8	1	1,48	2,2
SVPC-F-N001M0	100	8	7	6,2	5,2	1	1,51	2,2
SVPC-F-N001M2	65	8	6,9	6,2	5,2	1	1,51	2,3
SVPC-F-N065M2	240	8	6,73	5,9	4,9	1,05	1,95	2,4
SVPC-F-N124M3	110	8	7	6,1	4,6	0,9	1,65	2,12
SVPC-F-F083AA06	60	8,2	6,7	6,6	6,56	1	1,5	1,62
SVPC-F-N143M0	110	8,2	6,9	6,2	4,3	1	1,52	2,5
SVPC-F-H015M1	100	8,5	7,3	6,3	5,3	0,9	1,5	1,9
SVPC-F-H064M0	120	8,5	7	6	5,5	1	1,51	2
SVPC-F-N001M7	110	8,5	7,3	6,7	5,7	1	1,51	2,3
SVPC-F-N010M4	70	8,5	7,8	6,3	5,3	0,9	1,6	1,9
SVPC-F-N010M9	100	8,5	7,3	6,3	5,3	0,9	1,6	1,9
SVPC-F-N115M0	100	8,7	7,5	6,2	4,3	1	1,53	2,5
SVPC-F-N079M0	110	8,8	7,7	7	6,2	1	1,51	1,8
SVPC-F-H029M0	100	9	7,8	6,3	5,3	1	1,51	1,9
SVPC-F-N001M3	130	9	7	6,2	5,2	1	1,5	2,2
SVPC-F-N002M0	100	9	7,8	6,3	5,3	1	1,6	1,9
SVPC-F-N017M0	100	9	8	7	6	1	1,51	2,2
SVPC-F-N010M1	120	9,2	7,7	6,3	5,3	0,9	1,6	1,9

We will send you data sheets and technical drawings on request.

PIN	SF*	L0	L1	L2	L3	D0	D1	D2
SVPC-F-N011M0	100	9,3	8,3	6,3	5,3	1	1,6	1,9
SVPC-F-N011X0	100	9,3	8,3	6,3	5,3	1	1,6	1,9
SVPC-F-N027M3	110	9,3	8,3	7,5	6,7	1	1,51	2,5
SVPC-F-N083M0	110	9,5	8,5	7,3	6,3	0,9	1,4	1,9
SVPC-F-H018M0	250	9,7	7,7	7	2,2	1	2,32	4
SVPC-F-H028AA00	110	9,7	8,7	7,9	7,4	1	1,5	1,8
SVPC-F-N142M0	125	9,8	8,2	7,3	4,9	1	1,51	2,26
SVPC-F-N017M1	150	10	7,5	7	6	1	1,51	1,8
SVPC-F-H001M0	110	10,3	9	7,8	7,1	0,9	1,5	1,9
SVPC-F-N027M4	110	10,5	9,5	7,5	6,7	1	1,51	2
SVPC-F-N028M1	110	11,2	10,2	9,7	8,9	1	1,51	1,8
SVPC-F-N028M2	145	11,2	9,8	9,4	8,4	1	1,6	1,9
SVPC-F-N028M6	145	11,2	9,8	9,4	9	1	1,51	1,8
SVPC-F-N082M2	130	11,7	9,7	8,1	7,1	0,9	1,4	1,9
SVPC-F-P5773PH01	80	12,1	11,3	9,6	7,1	0,8	1,25	1,6
SVPC-F-N051M0	120	12,5	10,9	10	9,8	0,8	1,37	2
SVPC-F-N082M0	110	12,5	11,5	8,1	7,1	0,9	1,33	1,9
SVPC-F-N082M1	180	12,5	9,5	8,1	7,1	0,9	1,4	1,9
SVPC-F-N128M4	80	12,6	10,9	10,1	7,1	0,8	1,25	1,34
SVPC-F-H118M1	50	14	13,25	12,5	10,4	1	1,5	1,6
SVPC-F-H121M1	120	14,5	13	11,5	8,5	1	1,52	1,8
SVPC-F-N028M0	110	15	14	13,2	12,7	1	1,51	1,8
SVPC-F-N123M0	110	15,2	14,2	13,7	13,1	0,9	1,5	3,1
SVPC-F-N123M1	110	16,5	15,5	15	14,4	0,9	1,45	3,1
SVPC-F-N011M2	100	17,5	16,3	14,55	13,55	1	1,51	2
SVPC-F-P07984FH1	100	19	17,8	16,05	15,05	1	1,51	2
SVPC-F-N021M1	150	21,5	19	18	13,5	0,9	1,5	1,8

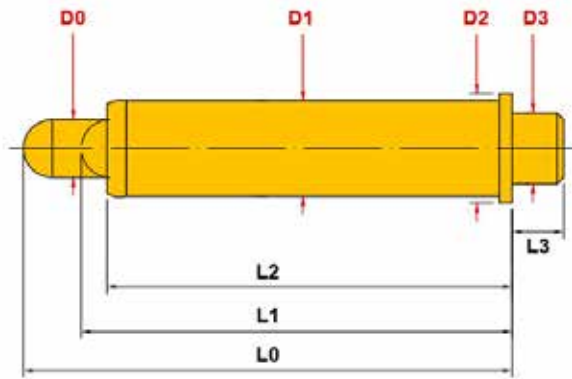
FLAT TYPE CONNECTOR



We can manufacture a suitable connector from almost any pogo pin. Thanks to the large number of pogo pins, particularly small connectors, waterproof solutions and special solutions for high-current applications can be implemented.

We also offer cost-effective manufacturing of complete assemblies with connectors and cable assemblies.

PLUG IN TYPE SINGLE



Länge: 1,39 - 19,0 mm

Federkraft: 35g - 500g

Nennstrom:

1A / 2A bei den Standardausführungen
bis max. 13A durch spezielles Design

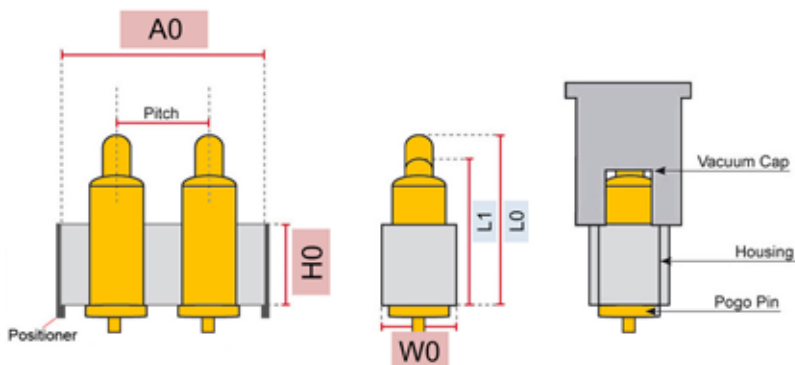
Dimension: mm / *SF: Spring Force (g) ±20%

P/N	SF	L0	L1	L2	L3	D0	D1	D2	D3
SVPC-P-P6269FH01	60	1,39	1,11	1,09	0,1	0,4	0,8	0,8	0,7
SVPC-P-P3852FP01	70	2,65	2,05	1,25	0,55	1	1,6	1,9	1,5
SVPC-P-P08141SH3	110	2,78	2,29	1,91	2,35	0,97	1,5	3,32	1,72
SVPC-P-P08141PH2	110	3,58	2,09	1,71	3,15	0,97	1,5	3,32	1,72
SVPC-P-H166M0	110	4	2,85	2,5	2,5	1	1,48	1,8	1,46
SVPC-P-H008M0	140	4,2	3,6	2,8	0,8	0,8	1,3	1,4	0,8
SVPC-P-H355M0	100	4,2	3,2	2,4	0,5	1	1,5	2,2	1,5
SVPC-P-N059M0	100	4,3	3	3	2,3	0,8	1,6	2,8	1,4
SVPC-P-H247M0	50	4,3	3,5	2,4	0,6	0,9	1,3	1,6	1,35
SVPC-P-N050M0	90	4,35	3,55	3,1	0,4	0,8	1,25	2	1,25
SVPC-P-H044M0	190	4,45	3,15	2,5	4,35	1,5	2,2	2,8	2,2
SVPC-P-N164M0	110	4,5	3,5	3,25	6	0,9	1,5	1,9	0,8
SVPC-P-H308M0	110	4,5	3,5	3,25	6	0,9	1,5	1,9	1,2
SVPC-P-H066M0	80	4,7	3,6	3	2,5	0,9	1,9	1,5	0,4
SVPC-P-H234M1	70	4,8	4,3	2,9	0,8	0,9	1,51	1,7	0,8
SVPC-P-N181M2	110	4,8	4	3,3	0,8	1,03	1,5	2,1	0,8
SVPC-P-H133M7	150	5	3,8	3	1,5	2	3,2	2	2
SVPC-P-H324M0	70	5,2	4,15	3,05	0,65	1,07	1,5	1,83	0,7
SVPC-P-P782AA01	110	5,2	4,2	3	6	0,9	1,75	1,9	0,8
SVPC-P-H284M0	110	5,5	4,5	4	0,8	0,9	1,48	1,9	0,8
SVPC-P-N160M0	140	5,5	4,1	4	2	0,9	1,5	1,5	0,7
SVPC-P-H229M2	100	5,6	4,7	4,2	0,8	1	1,51	2	1
SVPC-P-H016M0	110	5,6	4,6	3,95	1	0,9	1,43	1,43	0,51
SVPC-P-H229M1	80	5,7	4,7	4,3	0,8	1	1,51	1,8	0,6
SVPC-P-N059M5	65	5,7	4,2	3,4	2,55	0,76	1,7	2,8	1,37
SVPC-P-P2525PH02	120	5,7	5,2	4,7	0,6	0,9	1,43	1,43	0,51
SVPC-P-H203M1	80	5,8	5	4,3	0,8	0,9	1,51	1,8	0,6
SVPC-P-H092M0	120	5,8	4,8	4	2	0,9	1,5	1,5	0,6
SVPC-P-H164M0	110	6	4,5	3,8	1,6	2	3	3,5	1,5
SVPC-P-P3721PH01	50	6	5,3	4,1	1,75	0,9	1,5	2	0,5
SVPC-P-P6877PH01	110	6,2	5,2	4,7	5,5	0,9	1,48	1,52	0,8
SVPC-P-H016M2	110	6,2	5,2	3,95	0,6	0,9	1,43	1,43	0,51
SVPC-P-H024M0	100	6,4	5,5	4,5	0,8	1	1,5	2	1
SVPC-P-H181M3	100	6,5	5,7	4,7	0,8	0,9	1,51	2	1
SVPC-P-N059M3	100	6,5	5,5	3,7	2,8	0,8	1,6	2,8	1,4
SVPC-P-N181M8	100	6,7	5,8	5,3	0,8	1	1,5	2	1
SVPC-P-H024M2	100	6,7	5,8	5,3	0,8	1	1,5	2	1
SVPC-P-H232M1	180	6,7	4,9	3,9	3,3	2,5	3,5	4,6	4,1
SVPC-P-H181M0	110	6,76	5,85	5,4	0,8	1	1,51	2,7	1
SVPC-P-N059M1	100	6,8	4,5	4,5	1,3	0,8	1,6	2,8	1,4

We will send you data sheets and technical drawings on request.

P/N	SF	L0	L1	L2	L3	D0	D1	D2	D3
SVPC-P-N183M0	150-200	7	5,7	4,8	1,4	1,7	2,5	2,7	1,5
SVPC-P-N130M1	50	7,1	6,4	5,3	0,8	0,8	1,2	1,3	1
SVPC-P-N181M0	110	7,2	6,2	5,4	0,6	1	1,48	1,8	1,3
SVPC-P-N130M2	50	7,3	6,4	5,3	0,8	0,8	1,2	1,3	1
SVPC-P-P07149MP	50	7,4	6	5,8	2	1	1,51	2	1
SVPC-P-H181M2	100	7,5	6,7	6	0,8	0,9	1,51	2	1
SVPC-P-H256M0	110	7,6	6,6	6,1	0,8	1	1,48	1,8	1
SVPC-P-H007M2	90	7,6	6,7	6,3	0,8	0,9	1,51	1,7	1,1
SVPC-P-N065M0	240	8	6,73	5,9	1,2	1,05	1,93	2,4	1,65
SVPC-P-P2791PH01	100	8,1	6,7	6,2	1	0,8	1,28	1,7	0,8
SVPC-P-H114M0	150	8,2	6,9	6,3	2	0,9	1,6	1,9	1,2
SVPC-P-N182M0	100	8,3	6,8	5,8	1,2	1,2	1,75	1,9	1,75
SVPC-P-H114M1	150	8,5	7,2	6,3	1,7	0,9	1,6	1,9	1,2
SVPC-P-N181M4	110	8,7	7,7	6,7	0,8	1	1,48	2	1,3
SVPC-P-H200M0	170	8,74	7,24	3,54	3,86	1	1,5	3,9	2
SVPC-P-H046M0	100	9	7,8	6,3	0,8	1	1,59	1,9	1
SVPC-P-H007M0	90	9,1	8,2	7,8	0,8	0,9	1,51	1,7	1,1
SVPC-P-H236M0	120	10	7,2	7	2	2	3	3	0,9
SVPC-P-H181M1	90-150	10,5	9,5	8,8	1	1	1,51	1,8	1
SVPC-P-H054M0	85	10,5	8,98	7,63	2,5	1,37	1,98	2,5	1,02
SVPC-P-N029M3	110	10,9	9,5	8,7	2,5	1	1,51	1,8	0,6
SVPC-P-H180M0	35-55	11,1	9,6	8,5	10,7	1	1,48	1,51	0,6
SVPC-P-H121M4	150	11,8	9,5	8,8	1,7	1	1,47	1,8	1,23
SVPC-P-H150M0	130	12,5	9	8,3	1,7	0,9	1,62	1,9	1,23
SVPC-P-N029M2	110	13,7	12,5	11	2,5	1	1,51	1,8	0,6
SVPC-P-P07603PH1	120	14,1	11,1	10,8	4	1,3	2	2,2	1,2
SVPC-P-H180M5	100	14,5	12,5	11	4	0,9	1,49	2	0,6
SVPC-P-N029M0	100	14,7	13,7	13,2	2,5	1	1,51	1,8	0,6
SVPC-P-P1763AA03	120	15	14	12,5	3	1,3	2,2	3,8	2
SVPC-P-N029M1	130	15,5	13,5	11	2,5	1	1,51	1,8	0,6
SVPC-P-H131M0	130	16,3	14,3	12,7	2	1	1,51	1,8	0,6
SVPC-P-P07408PH2	150	16,5	12,5	9	10,2	1,4	3,3	4	3,3
SVPC-P-P851AA01	100	19	18,1	16,05	1,7	1	1,48	2	1
SVPC-P-N165M0	500	19,66	16,06	12,66	0,5	5,33	6,56	6,56	1
SVPC-P-P08560SH1	90	25,4	22,8	18,2	10	3,7	6,9	6	2,2

PLUG-IN TYPE CONNECTOR

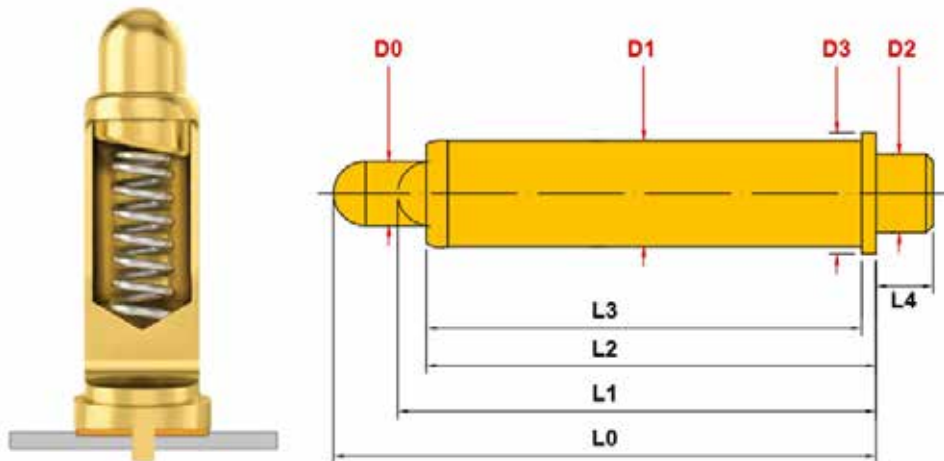


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HIGH CURRENT PINS (>5A)



Dimension: mm / *SF: Spring Force (g) ±20%

P/N	Typ	SF*	Lebensdauer Zyklen (min.)	Strom max.	L0	L1	L2	L3	L4	D0	D1	D2	D3
SVPC-F-F1911AA03	Flat	90	10.000	8A	5,40	4,70	4,20	3,70	-	0,90	1,53	1,70	-
SVPC-P-P2859SH01	Plug-In	100	20.000	5A	6,45	5,50	5,20	4,70	2,70	1,00	2,50	1,20	2,90
SVPC-P-P07567PH2	Plug-In	100	10.000	10A	6,55	5,90	5,70	4,75	0,75	1,30	3,30	3,30	4,00
SVPC-P-P07567PH1	Plug-In	100	10.000	10A	6,55	5,90	5,70	4,75	0,75	1,30	2,41	2,21	3,18
SVPC-P-P2776PS07	Plug-In	50	10.000	5A	6,65	5,95	4,80	4,80	1,35	0,90	1,48	0,85	2,00
SVPC-P-P2110PS01	Plug-In	90	10.000	5A	8,00	6,00	5,90	5,65	2,50	1,02	1,30	0,90	1,45
SVPC-P-P5650FH01	Plug-In	120	10.000	9A	8,08	6,94	5,79	5,03	1,53	1,27	1,57	1,42	1,88
SVPC-P-P07238PH1	Plug-In	120	10.000	8A	8,50	7,00	6,50	6,00	2,00	1,50	2,38	1,00	3,50
SVPC-P-P5650FH05	Plug-In	120	10.000	15A	9,61	8,67	5,79	5,03	1,53	1,27	2,41	3,18	2,21
SVPC-P-P1182AA02	Plug-In	90	10.000	5A	11,50	9,65	8,95	5,25	1,65	1,00	2,00	0,70	2,00
SVPC-P-P07650SH1	Plug-In	120	10.000	5A	13,25	11,35	10,80	8,80	3,00	1,75	2,40	0,90	2,90
SVPC-P-P07408PH1	Plug-In	150	10.000	12A	14,50	11,50	8,50	8,00	10,20	1,40	1,35		1,70
SVPC-P-P1763AA01	Plug-In	110	10.000	5A	15,00	14,00	12,50	10,50	3,00	1,30	2,20	2,00	3,80

ROLLING PIN

Dimension: mm / *SF: Spring Force (g) ±20%

P/N	Type	Length	Plug	Current max.	Lifetime min. (Cycles)
SVPC-RF-P5079FP04	Flat Type	3,50		2A	2.000
SVPC-RF-P5079FP06	Flat Type	4,00		2A	2.000
SVPC-RF-P5079FP02	Flat Type	4,50		2A	2.000
SVPC-RF-P08575FP4	Flat Type	8,05		2A	10.000
SVPC-RF-P08575FP5	Flat Type	9,30		2A	10.000
SVPC-RF-P6783FH02	Flat Type	41,00		6A	10.000
SVPC-RP-P5079PP08	Plug-In Type	3,90	0,50	1A	10.000
SVPC-RP-P5079PP07	Plug-In Type	4,00	2,70	1A	10.000
SVPC-RPS-P5079PP07	Plug-In Type / Solder Cup	4,20	2,00	2A	2.000
SVPC-RP-P08435PP1	Plug-In Type	5,20	1,70	3A	10.000
SVPC-RPS-P07393PH1	Plug-In Type / Solder Cup	7,90	2,20	2A	10.000
SVPC-RPS-P07319PP1	Plug-In Type / Solder Cup	8,40	3,00	3A	10.000
SVPC-RP-P07562PP1	Plug-In Type	9,25	5,23	3A	10.000
SVPC-RP-P5982PP02	Plug-In Type	9,45	1,10	1A	5.000
SVPC-RP-P5982PP03	Plug-In Type	9,45	1,10	1A	5.000
SVPC-RPS-P07429SP1	Plug-In Type / Solder Cup	9,45	3,00	1A	10.000
SVPC-RP-P6217PP01	Plug-In Type	15,00	1,50	1A	200.000
SVPC-RP-P5982MP53CHR	Plug-In Connector	23,00	1,10	1A	200.000



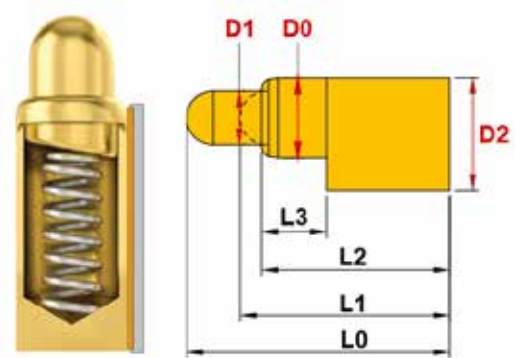
We will send you data sheets and technical drawings on request.

RIGHT ANGLE TYPE

SINGLE PIN

Dimension: mm / *SF: Spring Force (g) ±20%

P/N	SF*	L0	L1	L2	L3	D0	D1	D2
SVPC-R-H003M6	120	4,9	3,9	3,5	1,2	1,0	1,5	2,8
SVPC-R-H003M2	120	4,9	3,9	3,5	1,2	1,0	1,5	3,3
SVPC-R-H003M0	120	4,9	3,9	3,5	1,2	1,0	1,5	2,1
SVPC-R-H050M0	80	5,1	4,2	3,6	1,5	1,2	0,8	2,0
SVPC-R-H003M1	120	5,2	4,2	3,5	1,2	1,0	1,5	2,1
SVPC-R-H036M0	120	5,3	4,3	3,5	1,2	1,2	1,0	2,1
SVPC-R-H003M3	120	5,3	4,3	3,5	1,2	1,0	1,5	2,1
SVPC-R-H012M7	90	5,6	4,2	3,9	1,7	1,0	1,5	2,7



Length: 4,9 - 5,6 mm

Spring Force: 80g - 120g

Current:

1A / 2A Standard

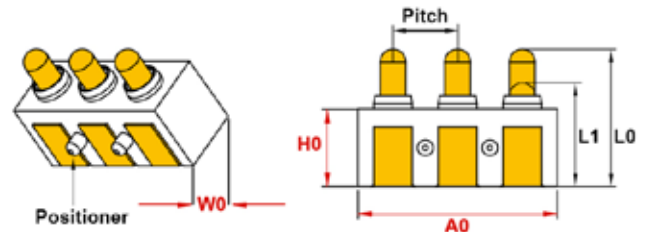
up to max. 13A customited design

RIGHT ANGLE TYPE STECKER

We can manufacture a suitable connector from almost any pogo pin. Thanks to the large number of pogo pins, particularly small connectors, waterproof solutions and special solutions for high-current applications can be implemented.

We also offer cost-effective manufacturing of complete assemblies with connectors and cable assemblies.

DOUBLE-ENDED PINS



For the contacting of e.g. two PCB'S, we also offer so-called double-ended pins. Please contact us if you are interested.





CUSTOMIZED COMPONENTS

MODULES & SYSTEM SOLUTIONS

- Development & Construction
- Procurement of third-party components
- Manufacturing & Delivery

INPUT UNITS

- Silicone Rubber Keypads
- Membrane Switches
- Stainless Steel Keyboards
- Push / Piezo Buttons

CABLE ASSEMBLY

- Cable harness
- Data communication cable
- Coax cable
- Special / Hybrid cables
- Single cables, etc.

CONNECTORS

- Magnetic connectors
- Customized connectors

PCB

- Flexible & rigid circuits
- Multilayer

PLASTIC PARTS

- Single & multiple injection molding

METAL PARTS

- Die-Cast metal parts
- Punched, Turned, Milled parts
- Deep drawn parts

RUBBER PARTS

- Silicone Safety Covers
- O-Rings, Grommet, Seals
- Precision Parts

COMBINED 2K / 3K PARTS

GLASS PARTS

- Front glass
- Glass panels

STANDARD COMPONENTS

- Pogo Pins
- Pogo Pin Connectors
- High Current connector
- Vandal-resistant Keyboards
- Hygienic keyboards
- Micro Switches for SMD
- Vandal-resistant Push Buttons
- LC-Display
- Buzzer, Transducer
- Speaker, Microphones



YOUR PROJECT

We advise you in detail on the selection of suitable materials and materials and support you in the design phase and accompany you to the series delivery and beyond.

For a technical consultation, please contact us by phone. Also a personal consultation in our house or at your place is possible by appointment.

We are looking forward to your inquiries and we are always keen on submitting you an offer as quickly as possible. For an individual offer we need:

- technical drawing, sketch or sample
- technical specifications
- required quantity

Please send us the data to our email: info@nh-technology.de

One of our engineers will contact you immediately.



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