

Spring-Loaded Contacts & Connectors



 **Cotelec**
Composants & Technologies pour l'Electronique

OEM Connectors & Probes

Whether it's vibration, shock, rotation, wipe, water, salt, sand, dust, heat or the vacuum of space, you can depend on IDI to deliver products that will withstand adverse conditions and perform on demand. IDI harsh environment probes and connectors offer many other design features including:

- One-piece compression mount connector
- Consistently low resistance < 10 mΩ throughout hundreds of thousands of cycles
- 20 GHz @ -.5db
- High density — .010 (0.25) pitch
- Short signal paths as low as 0.070"
- Blind mate
- Surface mount, through hole mount or cabled termination

IDI custom connectors ensure a reliable, fail-safe connection even in the harshest of environments. At the core of most IDI connectors is the spring contact probe, a connection technology inherently well suited to harsh environments.

SHOCK AND VIBRATION

Spring contact probes provide a constant force against the mating contact surface, easily absorbing and compensating for movement seen during shock and vibration without contact interruption as defined by MIL-STD-810F.

WATER, SALT, SAND AND DUST

IDI utilizes various design features for ingress protection to IP68 and MIL-810F on our connectors. And IDI offers the world's first and only Environmentally Sealed Probe (pg. 21) with ingress protection to IP68 and MIL-STD-810F.

ROTATION AND WIPE

The contact or plunger in the spring contact probe is free to rotate and slide within the housing or barrel of the probe. This inherent design characteristic makes spring probe connectors ideal for bayonet and sliding mate connector designs.

HEAT AND VACUUM OF SPACE

IDI connectors and probes operate under a wide variety of temperature extremes. Most designs are rated from -55° C to 250° C. Alternate materials allow for even more aggressive temperature extremes.

IDI SPRING PROBE CONNECTORS

Spring contact probes provide repeatable contact in the field for modular components, reduce costs, and eliminate cabled connections by providing a dependable direct connection in rotating or sliding joints.



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Connectors & Contacts

IDI is the world leader in spring contact probe design and the industry's expert in applying spring probes as connector contacts. Embodied in IDI's connector product lines, probes are an enabling technology that fundamentally change the capabilities of the products in which they are incorporated.

EXCELLENT FOR BLIND MATE

IDI connectors featuring spring contact probes are compliant on the surface of their mating half, rather than extending into it as with conventional pin and socket connectors. This grants them their unique blind-mate capabilities.

An IDI connector may be designed to engage at a 90° angle to its target, wiping into position to clear contaminants. Conversely, the IDI connector may be disengaged at that same angle, making probe technology the best approach to quick-disconnect applications.

LOW PROFILE, HIGH COMPLIANCE RATIO

IDI's advanced spring contact probe technology permits a very high compliance-to-length ratio. This allows IDI to make connectors as compact as 2 mm, while maintaining 0.5 mm of compliance – low profile connectors have never been so practical or forgiving of mating conditions or vibration.

HIGH FREQUENCY

This short signal path, combined with IDI's industry leading expertise, permits remarkable signal integrity for both analog and digital applications.

Speeds of 12 Gb/S and bandwidths of 20 GHz can be achieved with spring probe interposers, and coaxial arrays and contacts can be used to permit excellent isolation.

LOW STABLE RESISTANCE

Through IDI's decades of probe design experience, our connectors feature several innovations for control of DC performance. Advanced biasing techniques provide excellent stability of contact resistance, even under conditions of heavy shock and vibration. Our connectors can be designed to withstand up to 30 Amps of current.

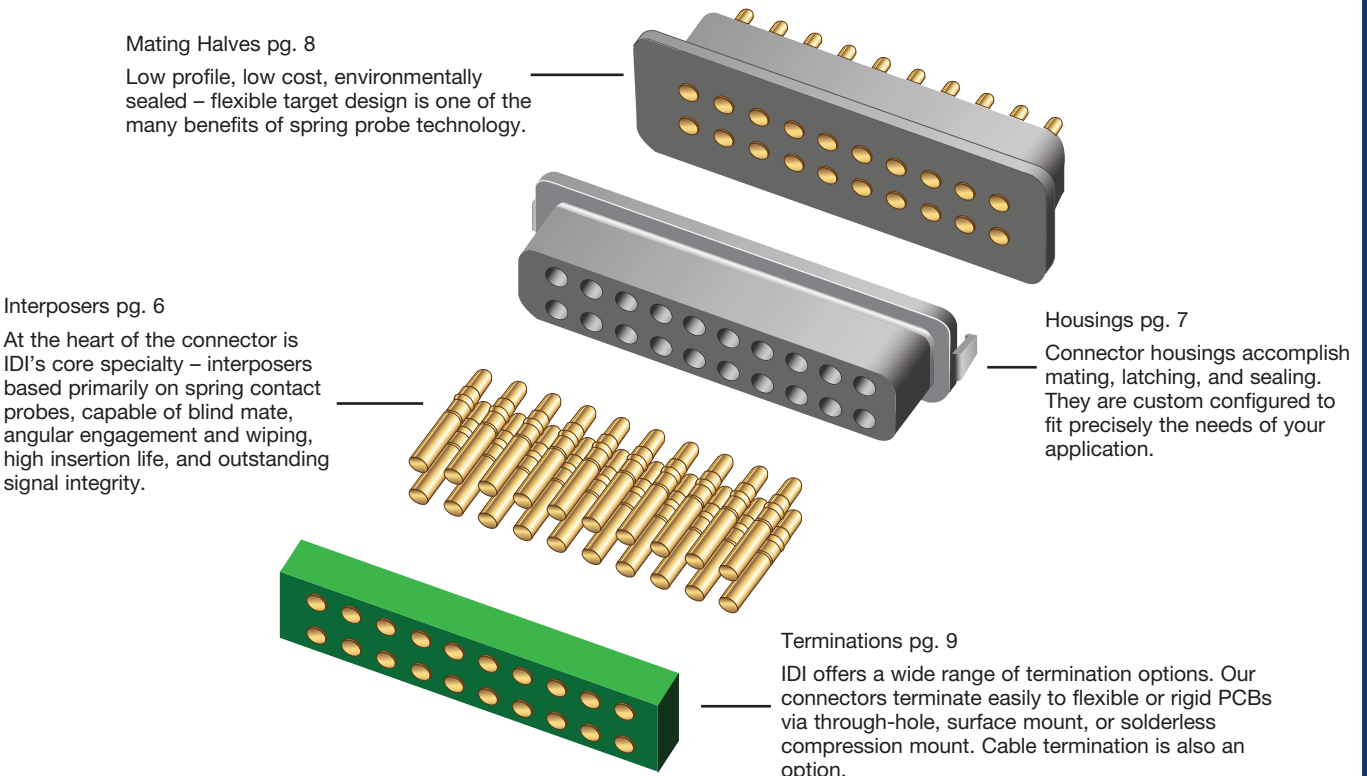
HIGH INSERTION LIFE

Connectors based on spring contact probes are capable of remarkable longevity. Our probes are driven by helical coil springs, which maintain a constant force of contact over millions of cycles. IDI's plating and materials expertise combined with this engineering, delivers contacts that exceed the highest customer specifications for insertion life.

ENVIRONMENTALLY SEALED

IDI's application expertise and the durable nature of our contacts, permits us to design connectors with excellent performance in harsh environments. IP68 and Mil810 requirements can be accommodated without sacrificing performance.

Contact IDI today to find out how we can make your interconnection possible.



Interposers

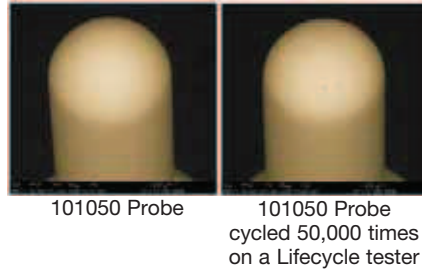
The interposer, or contact array, is the heart of the connector. It is also IDI's specialty – as the world's leading spring contact probe manufacturer we are uniquely positioned to bring the advantages of this contact mechanism to life.

IDI is able to bring our customers the most benefit when providing a total solution, but we can provide our technology at any level. Loose contacts, simple interposers, cabled mating halves, and complex docking solutions are all within our portfolio.

Contact IDI today to find your own unique solution.

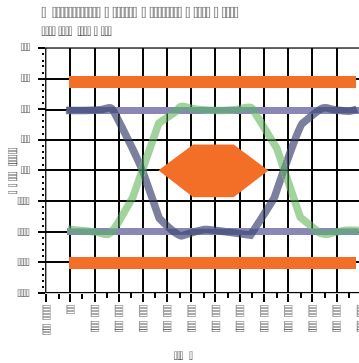
INSERTION LIFE

Spring contact probes are driven by helical coil springs. This, combined with IDI's advanced materials and plating expertise, allows us to offer connectors which are capable of hundreds of thousands of insertions. In addition, wiping interconnects can be made to withstand millions of rotations.



SIGNAL INTEGRITY

Bandwidths of 20 GHz and data rates of 12 Gb/S are possible with simple pin field interposers. This is due to IDI's remarkably short contacts and our expertise in predicting their behavior in application.



Interposers may also be made coaxial through the use of precision-machined insulators and metal interposer bodies. IDI is the inventor of the independent coaxial spring contact probe, featuring a spring-loaded shielding plunger; this may be added to a connector to provide one or more discrete high speed lines.

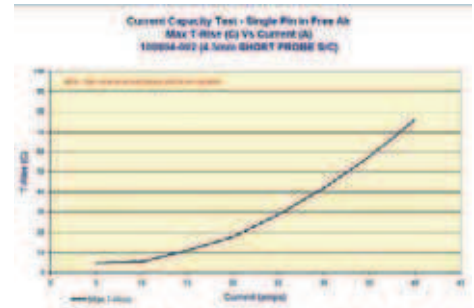
DC STABILITY

Through innovative design features such as our patented Eccentric Drill, IDI's interposers maintain low and consistent contact resistance through their long insertion lives.

Maintaining peak performance through the required life of the interposer requires a careful selection of biasing features. IDI maintains a staff of dedicated experts who can guide you to the optimal contact engine for your application.



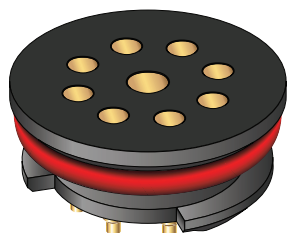
Properly specified interposers can withstand the intense shock and vibration associated with aerospace and military applications, maintaining reliable contact without fail even when launched onboard munitions.



IDI's interposers can be designed to take advantage of spring contact probes' surprising current carrying capacity. Individual contacts are capable of handling as much as 30 Amps in free air; combined with IDI's advanced thermal analysis capabilities, connectors can be designed which can handle substantial amounts of power safely.

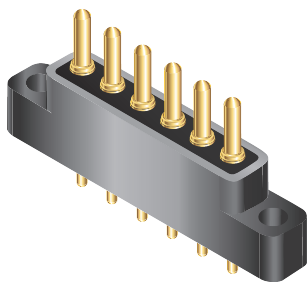
ENVIRONMENTAL SEALING

The ruggedness and reliability of spring contact probes make them ideal for applications in harsh environments. IDI's connectors have a wide array of available features which permit sealing to IP68 or Mil standards in either the mated or unmated condition.



Accomplishing a seal while mated is a process of combining gaskets with a latching mechanism reliable enough to prevent ingress, and IDI has several variations on that architecture to draw from.

Creating an unmated seal is more challenging, but IDI is equal to the task. Contacts may be selected which prevent ingress into the housing or even into the spring cavity. IDI's experience is the key to our success – our experts can easily match your requirements to our product line.

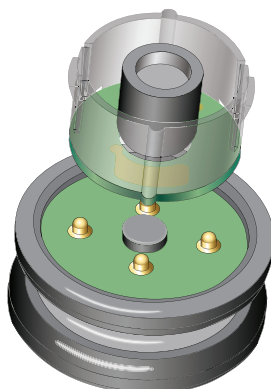


OTHER FEATURES

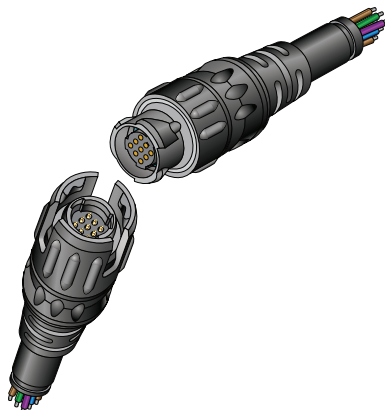
Connectors can be created which feature metal housings for shielding. Special latching designs can be employed to overcome significant engagement or sealing forces. Bayonet designs which wipe the contacts across a field of targets are uniquely possible with spring contact probes.

QUICK DISCONNECT

IDI capitalizes on the unique engagement of spring contact probes with our innovative quick disconnect connector designs.



Magnets may be used to draw the connector into engagement. This, combined with the blind mate characteristic of probes, allows the connector to be disengaged safely and instantly. Magnetic engagement features almost no wear of the engaging surfaces, and may be mated and demated repeatedly with no degradation in performance.



Where magnets are impractical for reasons of engagement force, sealing, or other considerations, IDI can create special latching features which also permit a quick disconnection. These may be designed for a single break or for repeated disengagement, depending on the requirements of the application.

Spring contact probes are a flexible, adaptable contact technology, and IDI has extensive experience in creating solutions to unusual problems.

That design agility often finds its application in the housing of the connector, which provides the alignment and latching functions for the connector.

Special features to accommodate environmental sealing, low-force insertion or quick-disconnect extraction, or a host of other requirements are at your disposal.

Contact IDI to find out more about how we can make your application a success.

Mating Halves

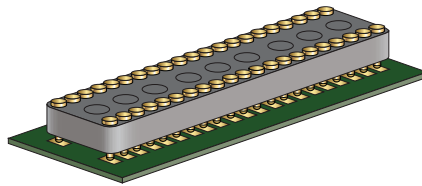
IDI's spring contact probe based connectors have the unique advantage of requiring only a flat pad as their target. This greatly simplifies the design of the complete connector.

The mating halves for our connectors are often customer-created by simply exposing pads on a printed circuit board.

IDI can provide target pins, or can supply a complete mating half which accomplishes alignment and sealing functions.

PCB MATE

Simple gold-plated pads on a printed circuit board are a reliable, easy-to-implement, and very low profile target structure for a spring contact probe based connector; this is also often a nearly zero-cost option for our customers. IDI can provide design guidelines to help our customers easily integrate our mating half into their design.



TARGET PINS

IDI can construct a plastic mating half for the connector with solid metal pins for target contacts. This allows for an extremely robust and repeatable interconnection, and is often a good way to extend the interconnection into the customer's device in a manner which permits sealing and a short Z-axis transfer. A selection of pins is available from IDI for those customers who wish to create their own mating half.

ENVIRONMENTAL SEALING

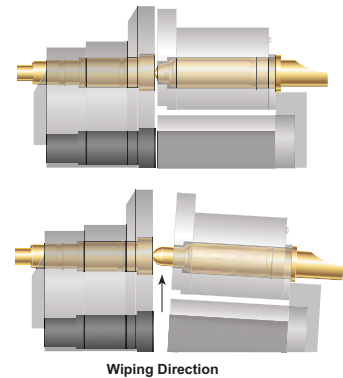
The mating half of the connector can incorporate features which help to protect the customer's device from the ingress of water and other contaminants. IDI has the experience in sealing target pins, and in providing gaskets and design guidelines to make customer applications safe for harsh environments.



BLIND MATE CAPABILITY

Spring contact probes contact only the surface of their target; they do not engage into the target in the manner of a pin and socket connector. This permits IDI's connectors to mate at up to a 90° angle. Our connectors can rotate after the fashion of brush contacts for millions of cycles.

Critically, it is difficult to harm a spring probe based connector through mismatching, and this makes our connector designs uniquely attractive in blind mate applications.



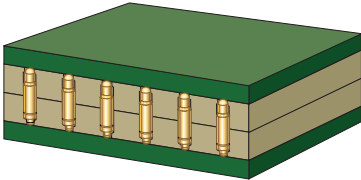
A spring contact probe requires only a flat pad for its target. It will safely mate to that target if its tip strikes within the target's diameter, and that diameter is only limited by the desired pitch of the connector. A probe-based connector is thus very forgiving of X-Y misalignment; and if the probe strikes off the pad, little harm comes to the connector and it may be safely re-engaged.



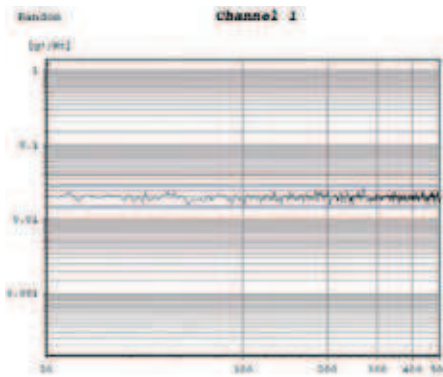
Terminations

COMPRESSION MOUNT

IDI's extensive involvement in the semiconductor test industry provides us with a wellspring of expertise in the creation of spring contact interposers that are compliant from each side.



IDI's compression-mount interposers feature highly developed contact designs. Our contacts, even when used in interposers having thousands of pins, mate faultlessly to their mounting PCB on the first insertion. They retain their excellent electrical characteristics through as much as 58G of shock and 9G RMS of vibration.



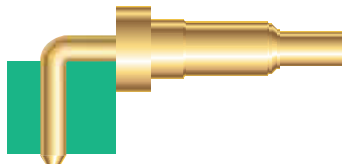
Sample random vibration profile at 3.1GRMS, Y Axis
* Consult factory for detailed reports

IDI's compression mount connectors greatly simplify the manufacturing process, and are often used where space or a path to manufacturing constraints make soldering or cabling prohibitive. By choosing a compression mount contact, users can simply drop the connector into place, assemble the unit, and be assured that all connections will be secure on the first attempt.

PCB TERMINATION

IDI offers two highly refined options for termination by solder to a rigid or flexible printed circuit board. Our thru-hole designs offer a tremendous design flexibility and are ideal for a simple, tooling-free approach to custom connector implementation. IDI's surface mount connectors integrate easily with the modern manufacturing processes, and keep connector profile to a minimum.

Through-hole contacts require no plastic body for the interposer; individual contacts may be populated directly into the PCB and soldered by hand. This is ideal for quick-turn, instantly implemented customized solutions.



Our surface mount contacts are supported by a plastic interposer body. IDI's expertise in press fitting and insert molding contacts guarantees the user a reliable, trouble-free interposer.

CABLE TERMINATION

When termination to cable is desired, IDI offers crimp tails and solder tails for its contacts. IDI is well equipped to supply cabling to meet customer requirements as well.

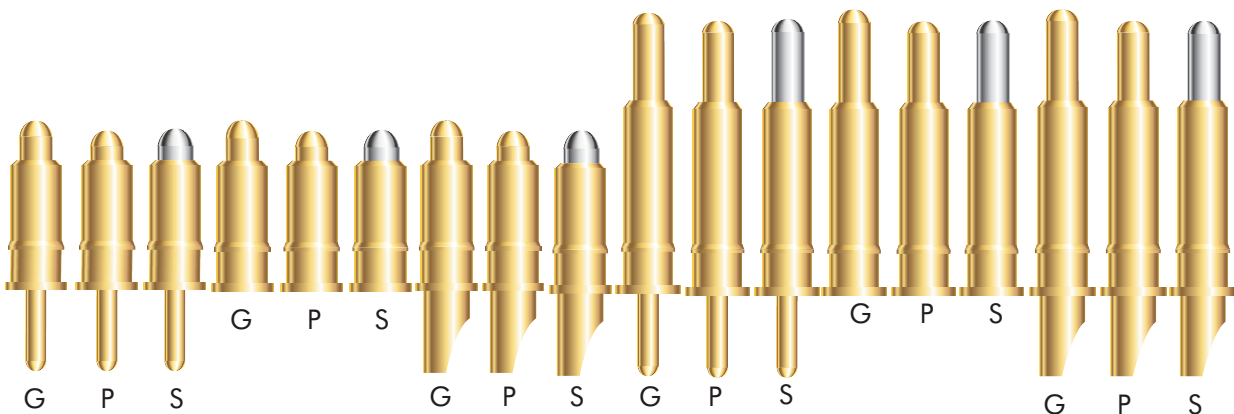
IDI offers termination options that are designed to preserve the many unique advantages of our connectors.

Our highly reliable compression mount technology offers a solderless solution that you can count on; our PCB termination options are refined to ensure manufacturability and keep our profile low; and our cabling options are robust and adaptable.

C Series Connectors

IDI's C Series Connectors ensure a reliable, rugged connection in the harshest environments. Based on our C Series Probe technology, they provide:

- Standard pins offered in custom configurations to meet your applications exact footprint
- 0.100 (2.54) pitch
- Ground, Power & Signal options
- 6mm & 4mm lengths
- Up to 10 amps current rating
- Contact resistance < 10 mΩ typical
- Great for RF, high speed and mixed signal connectors
- Consistently low resistance through tens of thousands of connections
- Ground contacts mate first, break last to support hot swap applications.
- Power contacts probe design supports increased current carrying capacity
- Surface mount, thru hole and solder cup termination options
- Consistent performance throughout broad temperature ranges
- Blind mates
- Superior continuity in high shock and vibration environments
- Minimal insertion and return loss for signals up to 10 GHz
- Resistance to dust and a range of chemicals
- Ingress protection under the most stringent requirements
- Direction connections for rotating or sliding joints

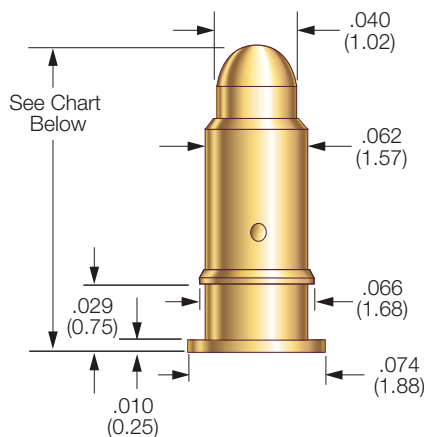


C-SERIES EXAMPLES

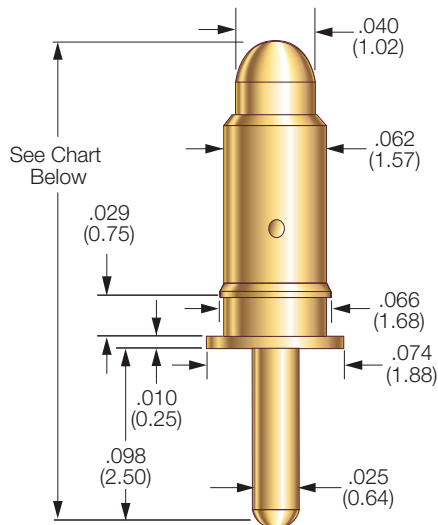


.100 CENTERS C Series Probes

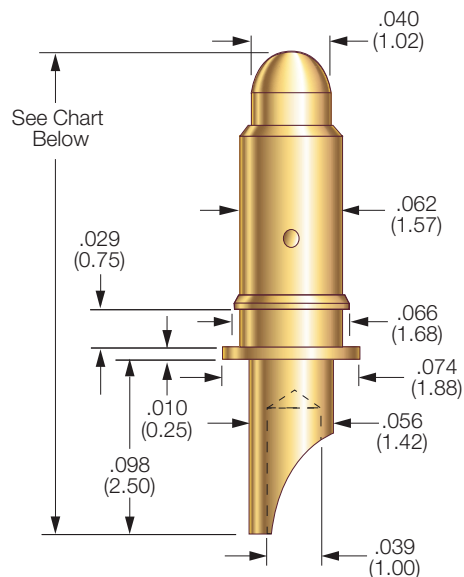
SURFACE MOUNT



THRU HOLE MOUNT



SOLDER CUP



PROBE SPECIFICATIONS

Minimum Centers: .100 (2.54)

Current Rating:

- CG Series: 10 amps continuous
- CP Series: 10 amps continuous
- CS Series: .5 amp continuous
- (Individual probe in free air @ ambient temperature)

Typical Resistances:

- CG Series: < 10 mΩ
- CP Series: < 10 mΩ
- CS Series: < 60 mΩ

Spring Force:

- 3.1 oz. (88g) @ working travel for 4mm compressed length series
- 2.9 oz. (82g) @ working travel for 6mm compressed length series

MATERIALS

Barrel: Brass, gold plated

Spring: Stainless steel

Plunger:

- CG Series: Brass, gold plated
- CP Series: Brass, gold plated
- CS Series: Brass, Duralloy™ plated

Special Features:

- CG Series: Bias plunger design
- CP Series: Bias plunger design
- CS Series: Standard design

Recommendations:

- Mounting hole: .064/.065 (1.62/1.65)
- Pad size for Surface Mount: .085 (2.20)
- Wire gage for Solder Cup: 20 gage max.
- Drill size for Thru Hole Tail: .035 (0.89)

Overall Length

Series	SURFACE Mount	Thru Hole	Solder Cup
CG-2.5-4	.197 (5.00)	.295 (7.50)	.295 (7.50)
CG-2.5-6	.335 (8.50)	.433 (11.00)	.433 (11.00)
CP-2.5-4	.185 (4.70)	.283 (7.20)	.283 (7.20)
CP-2.5-6	.315 (8.00)	.413 (10.50)	.413 (10.50)
CS-2.5-4	.185 (4.70)	.283 (7.20)	.283 (7.20)
CS-2.5-6	.315 (8.00)	.413 (10.50)	.413 (10.50)

Travel

Series	Working Travel	Maximum Travel
CG-2.5-4	.039 (1.00)	.039 (1.00)
CG-2.5-6	.098 (2.50)	.098 (2.50)
CP-2.5-4	.028 (0.71)	.028 (0.71)
CP-2.5-6	.079 (2.00)	.079 (2.00)
CS-2.5-4	.028 (0.71)	.028 (0.71)
CS-2.5-6	.079 (2.00)	.079 (2.00)

HOW TO ORDER

CS

SERIES

2.5

PITCH (MM)

4

COMPRESSED LENGTH (MM)

SM

TERMINATION

SERIES:
CG: Ground Connector Probe
CP: Power Connector Probe
CS: Signal Connector Probe

4: 4 mm
6: 6 mm

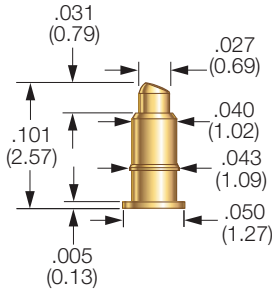
SM: Surface Mount
TH: Thru Hole
SC: Solder Cup

View updates of this information at www.idinet.com

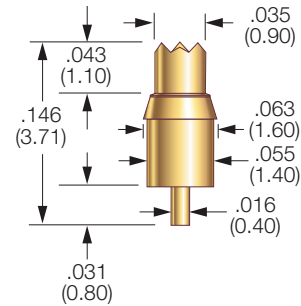
Specifications subject to change without notice. Dimensions in inches (millimeters)

Battery and Connector Probes

101582 PROBE



101438 PROBE



PROBE SPECIFICATIONS

Minimum Centers: .070 (1.78)
 .050 (1.27) staggered rows
Current Rating: 20 amps continuous
 (Individual probe in free air @ ambient temperature)
Spring Force: 1.7 oz. (48g) @ .030 (0.76) travel
Typical Resistance: < 10 mΩ
Maximum Travel: .030 (0.76)
Working Travel: .030 (0.76)

MATERIALS

Barrel: Brass, gold plated
Spring: Stainless steel
Plungers: Beryllium copper, gold plated

PROBE SPECIFICATIONS

Minimum Centers: .080 (2.03)
Current Rating: 1 amp continuous
 (Individual probe in free air @ ambient temperature)
Spring Force: 3.5 oz. (99g) @ .020 (0.51) travel
Typical Resistance: < 10 mΩ
Maximum Travel: .039 (0.99)
Working Travel: .020 (0.51)

MATERIALS

Barrel: Brass, gold plated
Spring: Stainless steel, gold plated
Plunger: Beryllium copper, gold plated

HOW TO ORDER

101582-000

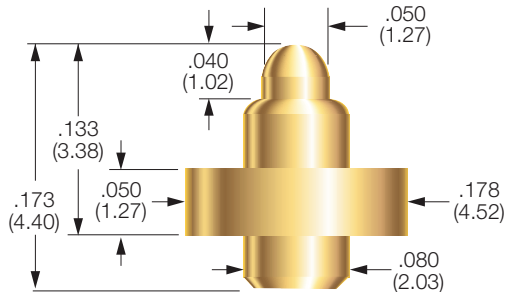
HOW TO ORDER

101438-000

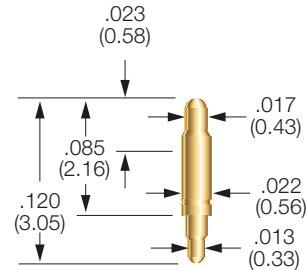
Specifications subject to change without notice. Dimensions in inches (millimeters)

Battery and Connector Probes

100671 PROBE



101111 PROBE



PROBE SPECIFICATIONS

Minimum Centers: .175 (4.45)
Current Rating: 3 amps continuous
 (Individual probe in free air @ ambient temperature)
Spring Force: 5.1 oz. (145g) @ .027 (0.69) travel
Typical Resistance: < 10 mΩ
Maximum Travel: .040 (1.02)*
Working Travel: .027 (0.69)

MATERIALS

Barrel: Nickel/silver, gold plated
Spring: Stainless steel, gold plated
Plunger: Beryllium copper, gold plated

* not recommended for use at maximum travel

HOW TO ORDER

100671-000

PROBE SPECIFICATIONS

Minimum Centers: .029 (0.75)
Current Rating: 6 amps continuous
 (Individual probe in free air @ ambient temperature)
Spring Force: 1.5 oz. (43g) @ .022 (0.55) travel
Typical Resistance: < 50 mΩ
Maximum Travel: .025 (0.58)
Working Travel: .022 (0.55)

MATERIALS

Barrel: Phosphor bronze, gold plated
Spring: Music wire, gold plated
Plunger: Phosphor bronze, gold plated

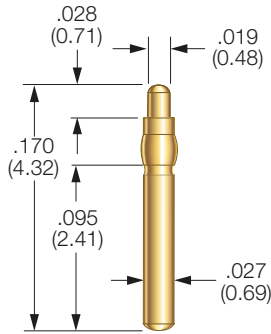
HOW TO ORDER

101111-008

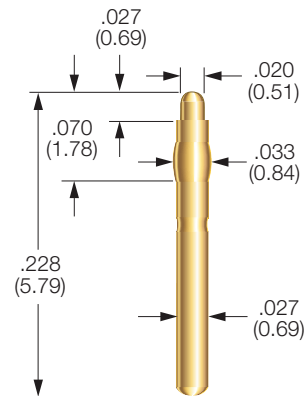
Specifications subject to change without notice. Dimensions in inches (millimeters)

Battery and Connector Probes

101506



101294 PROBE



PROBE SPECIFICATIONS

Minimum Centers: .050 (1.27)
Current Rating: 5 amps continuous
 (Individual probe in free air @ ambient temperature)
Spring Force: 1.38 oz. (39g) @ .020 (0.51) travel
Typical Resistance: < 20 mΩ
Maximum Travel: .028 (0.71)
Working Travel: .020 (0.51)

MATERIALS

Barrel: Nickel/silver, gold plated
Spring: Stainless steel, gold plated
Plunger: Beryllium copper, gold plated

PROBE SPECIFICATIONS

Minimum Centers: .050 (1.27)
Current Rating: 5 amps continuous
 (Individual probe in free air @ ambient temperature)
Spring Force: 0.9 oz. (26g) @ .020 (0.51) travel
Typical Resistance: < 20 mΩ
Maximum Travel: .027 (0.69)
Working Travel: .020 (0.51)

MATERIALS

Barrel: Nickel/silver, gold plated
Spring: Stainless steel, gold plated
Plunger: Beryllium copper, gold plated

HOW TO ORDER

101506-000

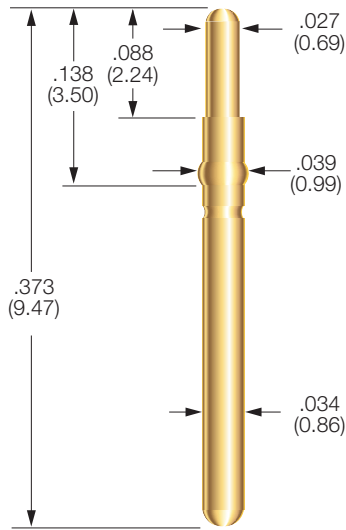
HOW TO ORDER

101294-000

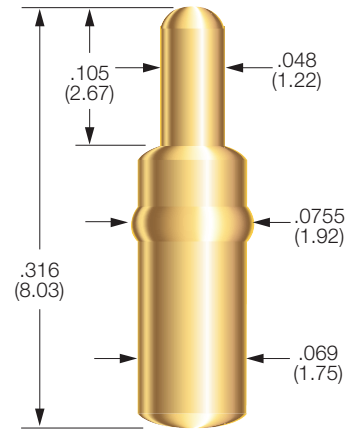
Specifications subject to change without notice. Dimensions in inches (millimeters)

Battery and Connector Probes

100803 PROBE



101190 PROBE



PROBE SPECIFICATIONS

Minimum Centers: .050 (1.27)
Current Rating: 5 amps continuous
 (Individual probe in free air @ ambient temperature)
Spring Force: 1.2 oz. (34g) @ .050 (1.27) travel
Typical Resistance: < 50 mΩ
Maximum Travel: .060 (1.52)
Working Travel: .050 (1.27)

MATERIALS

Barrel: Nickel/silver, gold plated
Spring: Stainless steel, gold plated
Plunger: Beryllium copper, gold plated

PROBE SPECIFICATIONS

Minimum Centers: .100 (2.54)
Current Rating: 15 amps continuous
 (Individual probe in free air @ ambient temperature)
Spring Force: 2.6 oz. (74g) @ .067 (1.70) travel
Typical Resistance: < 6 mΩ
Maximum Travel: .100 (2.54)
Working Travel: .067 (1.70)

MATERIALS

Barrel: Nickel/silver, gold plated
Spring: Stainless steel
Plungers: Beryllium copper, gold plated

HOW TO ORDER

100803-011

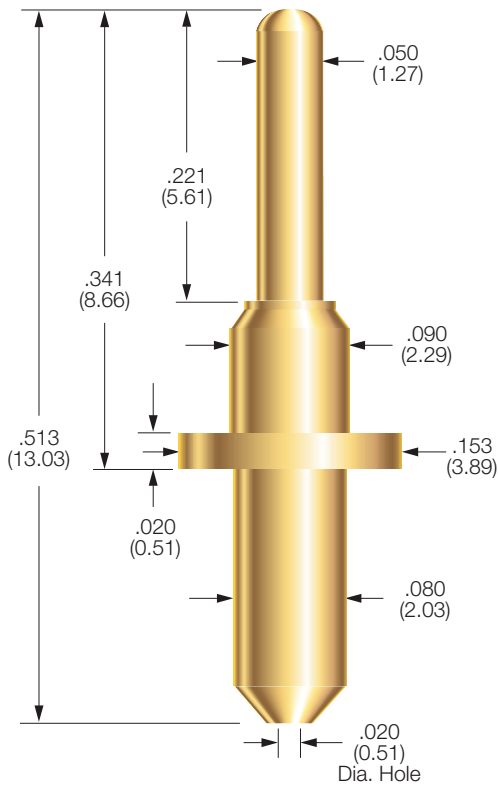
HOW TO ORDER

101190-002

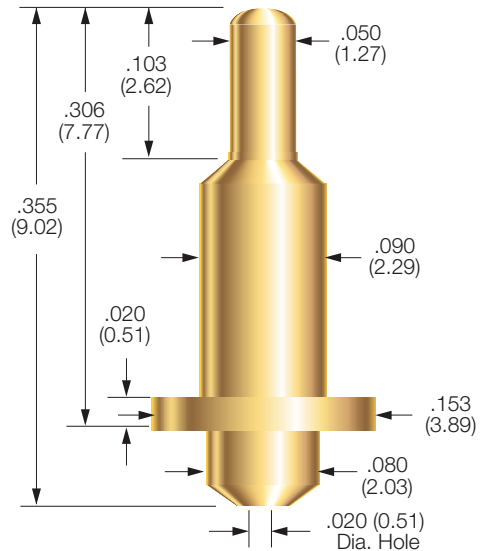
Specifications subject to change without notice. Dimensions in inches (millimeters)

Battery and Connector Probes

100606 PROBE



100891 PROBE



PROBE SPECIFICATIONS

Minimum Centers: .175 (4.45)
Current Rating: 15 amps continuous
 (Individual probe in free air @ ambient temperature)
Spring Force: 6.2 oz. (176g) @ .060 (1.52) travel
Typical Resistance: < 10 mΩ
Maximum Travel: .090 (2.29)
Working Travel: .060 (1.52)

MATERIALS

Barrel: Nickel/silver, gold plated
Spring: Stainless steel, passivated
Plunger: Beryllium copper, gold plated
Bias Ball: Stainless steel

PROBE SPECIFICATIONS

Minimum Centers: .175 (4.45)
Current Rating: 15 amps continuous
 (Individual probe in free air @ ambient temperature)
Spring Force: 9.0 oz. (256g) @ .067 (1.70) travel
Typical Resistance: < 5 mΩ
Maximum Travel: .100 (2.54)
Working Travel: .067 (1.70)

MATERIALS

Barrel: Nickel/silver, gold plated
Spring: Stainless steel, gold plated
Plunger: Beryllium copper, gold plated

HOW TO ORDER

100606-000

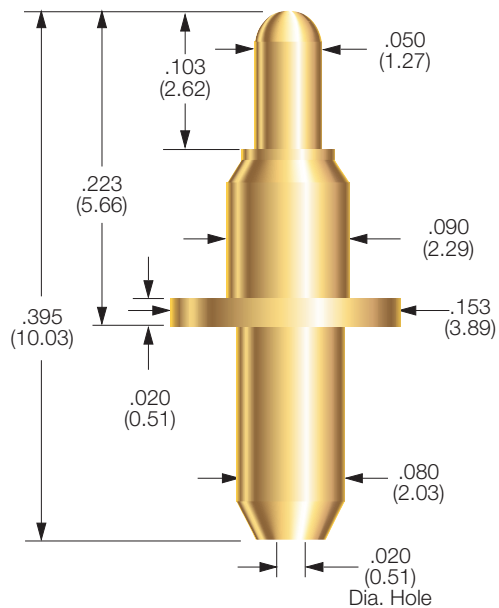
Specifications subject to change without notice. Dimensions in inches (millimeters)

HOW TO ORDER

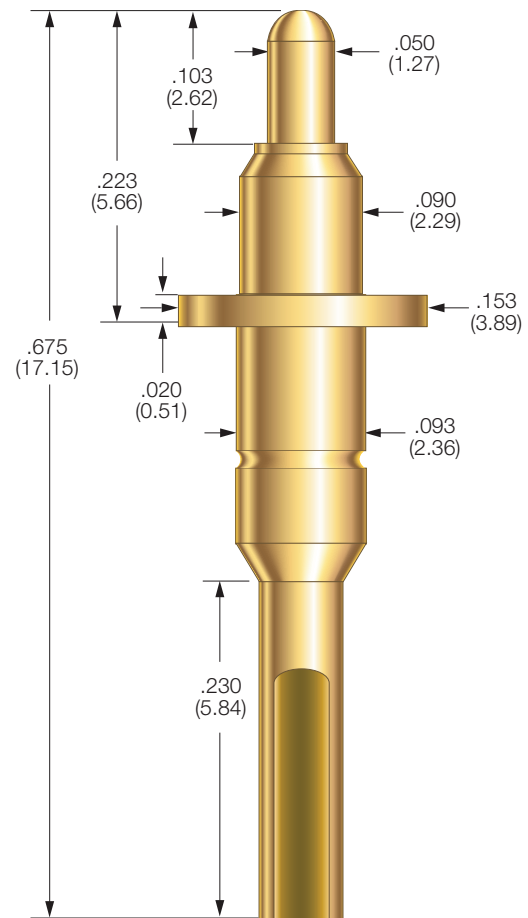
100891-002

Battery and Connector Probes

100410 PROBE



101119 PROBE



PROBE SPECIFICATIONS

Minimum Centers: .175 (4.45)
Current Rating: 15 amps continuous
 (Individual probe in free air @ ambient temperature)
Spring Force: 6.2 oz. (176g) @ .060 (1.52) travel
Typical Resistance: < 5 mΩ
Maximum Travel: .090 (2.29)
Working Travel: .060 (1.52)

MATERIALS

Barrel: Nickel/silver, gold plated
Spring: Stainless steel
Plunger: Beryllium copper, gold plated
Bias Ball: Stainless steel

HOW TO ORDER

100410-005

PROBE SPECIFICATIONS

Minimum Centers: .175 (4.45)
Current Rating: 15 amps continuous
 (Individual probe in free air @ ambient temperature)
Spring Force: 6.2 oz. (176g) @ .060 (1.52) travel
Typical Resistance: < 10 mΩ
Maximum Travel: .090 (2.29)
Working Travel: .060 (1.52)

MATERIALS

Barrel: Nickel/silver, gold plated
Spring: Stainless steel
Plunger: Beryllium copper, gold plated
Bias Ball: Stainless steel
Receptacle: Nickel/silver, gold plated

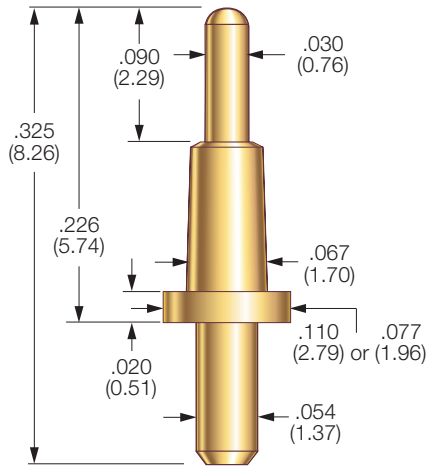
HOW TO ORDER

101119-001

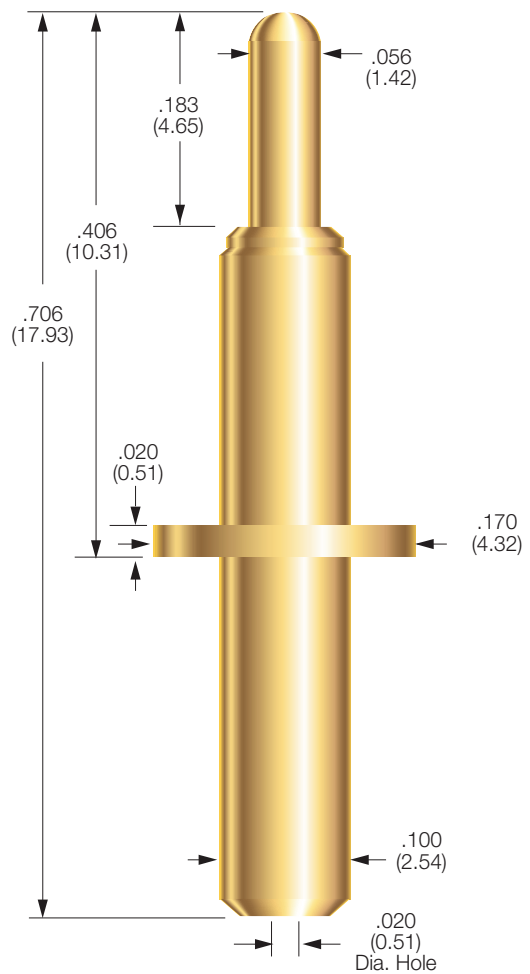
Specifications subject to change without notice. Dimensions in inches (millimeters)

Battery and Connector Probes

101050 PROBE



101247 PROBE



PROBE SPECIFICATIONS

Minimum Centers: .125 (3.18)
Current Rating: 10 amps continuous
 (Individual probe in free air @ ambient temperature)
Spring Force: 2.3 oz. (65g) @ .060 (1.52) travel
Typical Resistance: < 10 mΩ
Maximum Travel: .090 (2.29)
Working Travel: .060 (1.52)

MATERIALS

Barrel: Nickel/silver, gold plated
Spring: Stainless steel, passivated
Plunger: Beryllium copper, gold plated
Ball: Stainless steel, gold plated

PROBE SPECIFICATIONS

Minimum Centers: .200 (5.08)
Current Rating: 20 amps continuous
 (Individual probe in free air @ ambient temperature)
Spring Force: 11.7 oz. (256g) @ .147 (3.73) travel
Typical Resistance: < 10 mΩ
Maximum Travel: .180 (4.57)
Working Travel: .147 (3.73)

MATERIALS

Barrel: Brass, gold plated
Spring: Stainless steel, passivated
Plunger: Beryllium copper, gold plated

HOW TO ORDER

101050-003 for .110 dia. flange
 101050-005 for .077 dia. flange

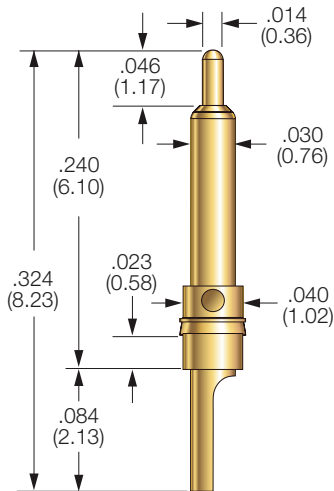
Specifications subject to change without notice. Dimensions in inches (millimeters)

HOW TO ORDER

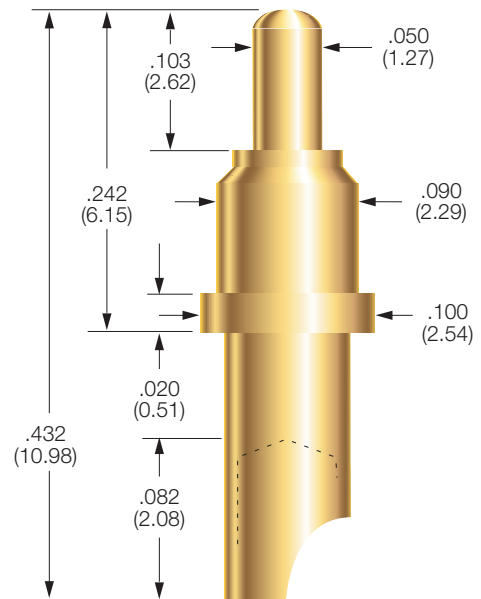
101247-001

Battery and Connector Probes

101679 PROBE



101628 PROBE



PROBE SPECIFICATIONS

Minimum Centers: .055 (1.40)
Current Rating: 3 amps continuous
 (Individual probe in free air @ ambient temperature)
Spring Force: 1.3 oz. (37g) @ .023 (0.58) travel
Typical Resistance: < 25 mΩ
Maximum Travel: .023 (0.58)
Working Travel: .023 (0.58)

MATERIALS

Barrel: Brass, gold plated
Spring: Stainless steel
Plunger: Brass, gold plated

PROBE SPECIFICATIONS

Minimum Centers: .125 (3.18)
Current Rating: 25 amps continuous
 (Individual probe in free air @ ambient temperature)
Spring Force: 5.3 oz. (150g) @ .040 (1.02) travel
Typical Resistance: < 5 mΩ
Maximum Travel: .040 (1.02)
Working Travel: .040 (1.02)

MATERIALS

Barrel: Brass, gold plated
Spring: Music wire, nickel plated
Plunger: Beryllium copper, gold plated
Ball: Stainless steel

HOW TO ORDER

101679-000

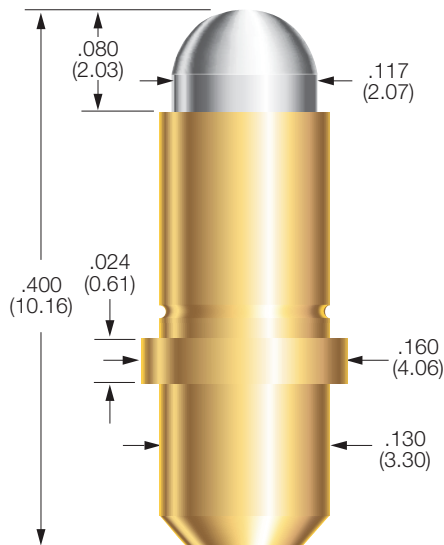
HOW TO ORDER

101628-000

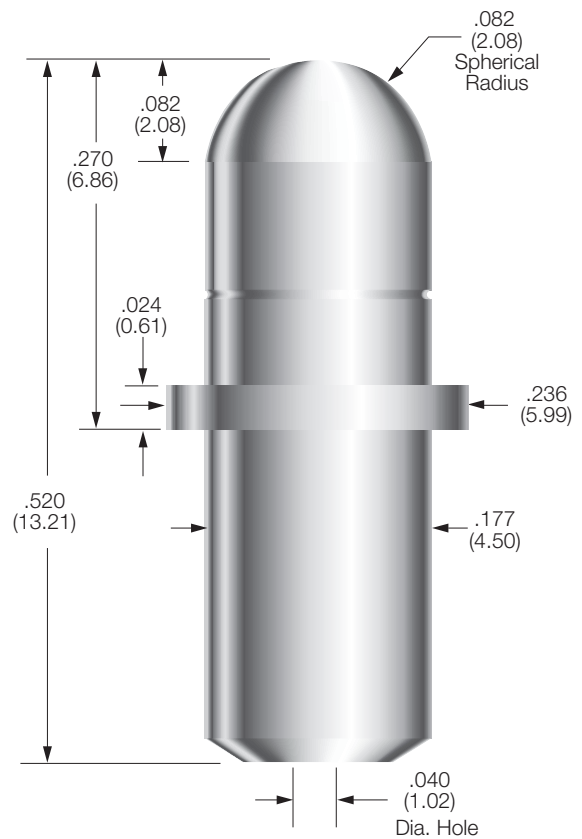
Specifications subject to change without notice. Dimensions in inches (millimeters)

Battery and Connector Probes

101402 PROBE



100804 PROBE



PROBE SPECIFICATIONS

Minimum Centers: .175 (4.45)
Current Rating: 20 amps continuous
 (Individual probe in free air @ ambient temperature)
Spring Force: 9.7 oz. (275g) @ .050 (1.27) travel
Typical Resistance: < 10 mΩ
Maximum Travel: .080 (2.03)
Working Travel: .050 (1.27)

MATERIALS

Barrel: Nickel silver, gold plated
Spring: Stainless steel, passivated
Plunger: Brass, Duralloy™

PROBE SPECIFICATIONS

Minimum Centers: .250 (6.35)
Current Rating: 30 amps continuous
 (Individual probe in free air @ ambient temperature)
Spring Force: 8.9 oz. (252g) @ .054 (1.37) travel
Typical Resistance: < 5 mΩ
Maximum Travel: .082 (2.08)
Working Travel: .054 (1.37)

MATERIALS

Barrel: Brass, Duralloy™ plated
Spring: Stainless steel, passivated
Plunger: Brass, Duralloy™ plated

HOW TO ORDER

101402-000

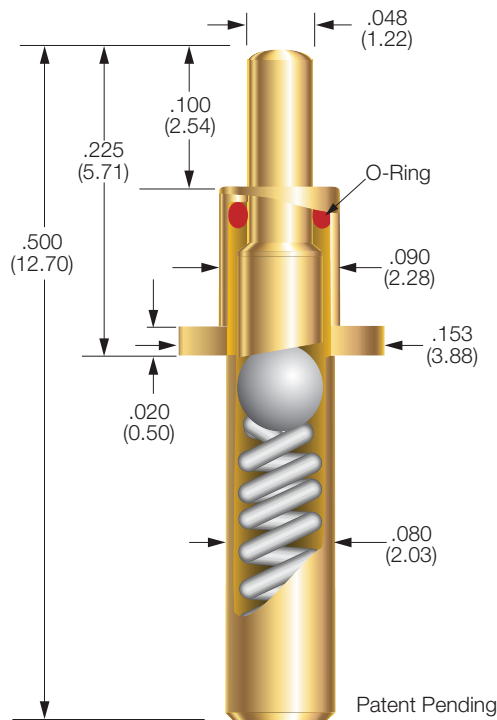
HOW TO ORDER

100804-002

Specifications subject to change without notice. Dimensions in inches (millimeters)

Battery and Connector Probes

101602 ENVIRONMENTALLY SEALED PROBE



PROBE SPECIFICATIONS

Minimum Centers: .175 (4.44)
Current Rating: 10 amps with 80° C rise
 (Individual probe in free air @ ambient temperature)
Typical Resistance: < 10 mΩ
Spring Force: 6.7 oz. (190 g) @ .070 (1.77) travel
Maximum Travel: .100 (2.54)
Working Travel: .070 (1.77)

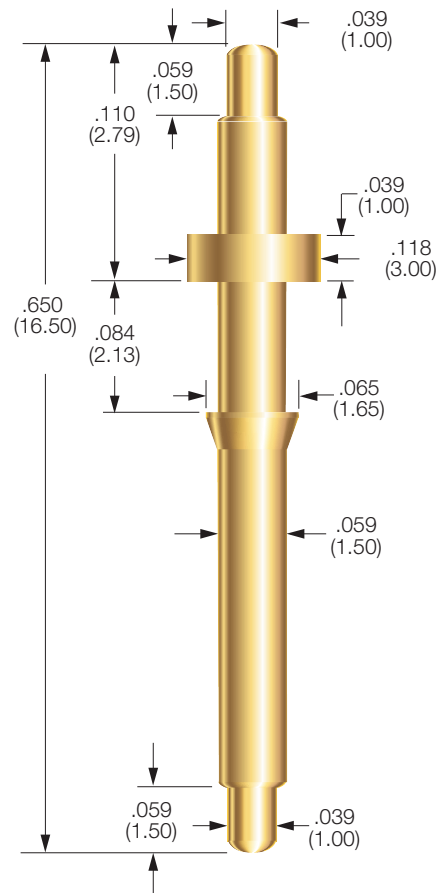
MATERIALS

Barrel: Nickel silver, gold plated
Plunger: Full-hard beryllium copper, gold plated
Spring: Stainless steel
Bias Ball: Stainless steel
O-ring: Silicone
Cap & Plug: Stainless steel, gold plated

HOW TO ORDER

101602-000

101549 PROBE



PROBE SPECIFICATIONS

Minimum Centers: .125 (3.18)
Current Rating: 3 amps with 80° C rise
 (Individual probe in free air @ ambient temperature)
Typical Resistance: < 50 mΩ
Spring Force: 3.5 oz. (100 g) @ .039 (1.00) travel, each end
Maximum Travel: .059 (1.50) travel, each end
Working Travel: .039 (1.00) travel, each end

MATERIALS

Barrel: Nickel silver, gold plated
Plunger: Full-hard beryllium copper, gold plated
Spring: Stainless steel

HOW TO ORDER

101549-000

Specifications subject to change without notice. Dimensions in inches (millimeters)

GKS 941/GKS 064/GKS 986

Solderable Test Probes

Grid:

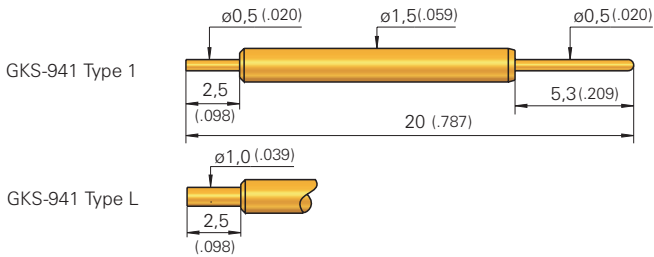
≥ 1,91 mm

≥ 75 Mil

Installation Height: 17,5 mm (.689)

Recommended Stroke: 3,2 mm (.126)

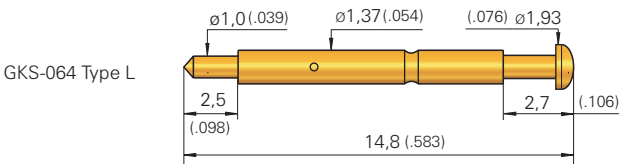
GKS 941



Available Tip Styles

Material	Tip Style	Plating	Further Versions	
			∅	∅ (inch)
3	01	R	∅ 0,50 (.020)	
3	05	A	∅ 0,50 (.020)	

GKS 064



Grid:

≥ 2,54 mm

≥ 100 Mil

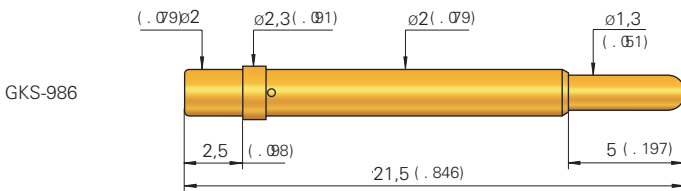
Installation Height: 12,3 mm (.484)

Recommended Stroke: 1,4 mm (.055)

Available Tip Styles

Material	Tip Style	Plating	Further Versions	
			∅	∅ (inch)
3	05	A	∅ 1,93 (.076)	

GKS 986



Grid:

≥ 2,54 mm

≥ 100 Mil

Installation Height: 19,0 mm (.748)

Recommended Stroke: 3,0 mm (.118)

Available Tip Styles

Material	Tip Style	Plating	Further Versions	
			∅	∅ (inch)
1	05	A	∅ 1,30 (.051)	

Mechanical Data	GKS 941	GKS 064	GKS 986
Working Stroke:	3,2 mm (.126)	1,4 mm (.055)	3,0 mm (.118)
Maximum Stroke:	4,0 mm (.157)	1,7 mm (.067)	5,0 mm (.197)
Spring Force at Work. Stroke:	0,8 N (2.9oz)	0,4 N (1.4oz)	1,0 N (3.6oz)
alternative:	1,7 N (6.1oz); 3,5 N (12.6oz)	0,2 N (0.7oz); 0,6 N (2.2oz)	
Electrical Data	GKS 941	GKS 064	GKS 986
Current Rating:	5 - 8 A	5 - 8 A	5 - 8 A
R_i typical:	<100 mΩ	<100 mΩ	<100 mΩ
Materials	GKS 941	GKS 064	GKS 986
Plunger:	BeCu, gold- or rhodium-plated	see GKS 941	Brass, gold-plated
Barrel:	Brass, gold-plated	see GKS 941	Brass, gold-plated
Spring:	Steel, gold-plated	see GKS 941	Steel, gold-plated

Other Solderable Test Probes:
see GKS-913 and others on request

Warning:
Soldering the Probes demands great care. High temperatures must not reach the inside of the barrel, because this could destroy the spring.

Ordering Example

	Series	Tip Material 1 = Brass 3 = BeCu	Tip Style	Tip Diameter (1/100 mm)	Plating A = Gold R = Rhodium	Spring Force (dN)	Collar Height (mm)	Type „1“ resp. „L“
Test Probe with Terminal Post ∅ 0,5 or 1,0 mm:	G K S	9 4 1	3 0 1	0 5 0	R	0 8	0 0	1 or L
Test Probe with Terminal Post ∅ 1,0 mm:	G K S	0 6 4	3 0 5	1 9 3	A	0 4	0 0	L
Test Probe GKS-986:	G K S	9 8 6	1 0 5	1 3 0	A	1 0	0 1	

GKS 967

Short-stroke and Charging Test Probes

Grid:

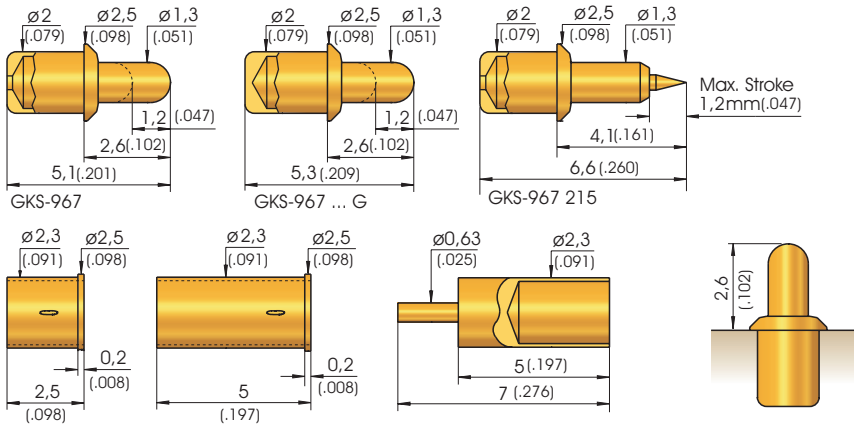
≥ 3,00 mm

≥ 120 Mil

Installation Height: 2,6 resp. 4,1 mm (.102/ .161)

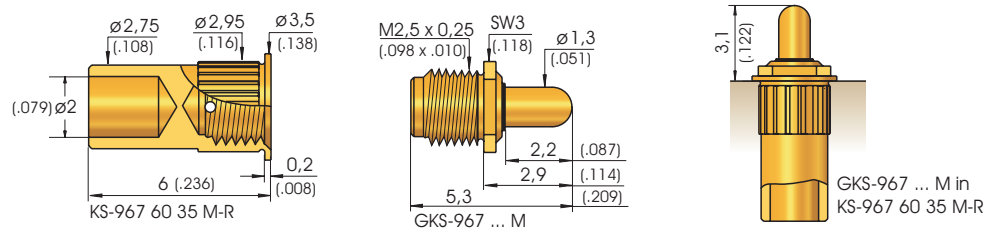
Recommended Stroke: 1,0 mm (.039)

Mounting and Functional Dimensions



		Available Tip Styles		
Material	Tip Style	Plating	Further Versions	
			∅	∅ (inch)
3	02	∅ 1,30 (.051)	A	
3	03	∅ 1,30 (.051)	A	
3	04	∅ 1,30 (.051)	A	
3	05	∅ 1,30 (.051)	A	
3	06	∅ 1,30 (.051)	A	
2	15*	∅ 1,30 (.051)	A	

* Installation Height: 4,1 mm (.161)



Mechanical Data

Working Stroke: 1,0 mm (.039)
Maximum Stroke: 1,2 mm (.047)
Spring Force at Work. Stroke: 2,0 N (7.2oz)
alternative: 1,0 N (3.6oz)

Electrical Data

Current Rating: 5 - 8 A
R_i typical: < 10 mΩ

Materials

Plunger: BeCu or steel, gold-plated
Barrel: Brass, gold-plated
Spring: Steel, gold-plated
Receptacle: Brass, gold-plated

Mounting Hole Size

GKS 967
in CEM1 and FR4
with Receptacle: ∅ 2,28 - 2,29 mm (.0898 - .0902)
without Receptacle: ∅ 2,00 mm (.0787)

Mounting Hole Size

GKS 967 ... M
in CEM1 und FR4
with Receptacle: ∅ 2,92 - 2,94 mm (.1150 - .1157)

Note:

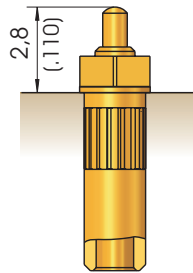
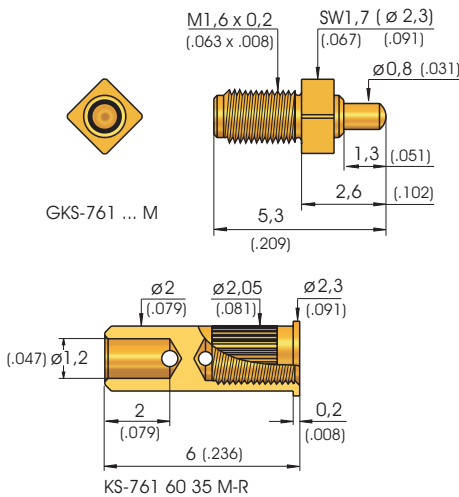
GKS-967 ... M will be screwed into Receptacle KS-967 60 35 M-R; using special tools (see Page 170/171).

Recommended Screw-in Torque:
 Min.: 10 Ncm / Max.: 20 Ncm

Ordering Example

	Series	Tip Material 1 = Brass 3 = BeCu	Tip Style	Tip Diameter (1/100 mm)	Plating A = Gold R = Rhodium	Spring Force (dN)	Collar Height (mm)	Typ3 "G" resp. "M"
Test Probe:	G K S	9 6 7	3 0 4	1 3 0	A	2 0	0 1	
Receptacles:	K S - 9 6 7 2 5	K S - 9 6 7 5 0	K S - 9 6 7 7 0					
Test Probe (Seite 69):	G K S	7 6 1	3 0 5	0 8 0	A	1 0	0 1	M
Receptacle (Seite 69):	K S - 7 6 1 6 0 3 5 M - R							
Test Probe (Seite 69):	G K S	9 7 0	3 0 5	1 3 0	A	2 0	0 1	
Test Probe (Seite 69):	G K S	9 6 1	3 0 5	0 5 0	A	0 6	0 1	
Receptacle (Seite 69):	K S - 9 6 1 3 5							

GKS 761 M



GKS-761 ... M in
KS-761 60 35 M-R

Grid:

≥ 2,54 mm

≥ 100 Mil

Installation Height: 2,6 mm (.102) resp. 2,8 mm (.110)

Recommended Stroke: 1,0 mm (.039)

Available Tip Styles

Material	Tip Style	Plating	Further Versions	
			∅	∅ (inch)
3 05		A	∅ 0,80 (.032)	

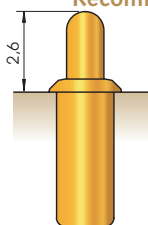
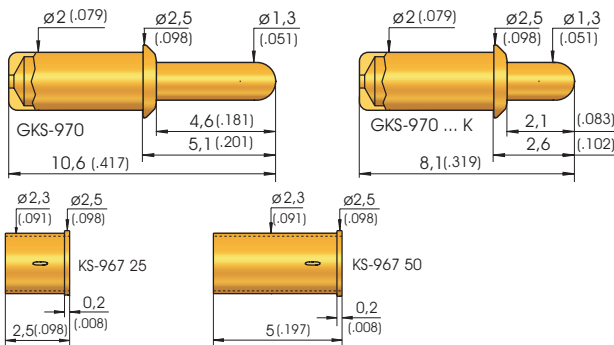
NEW

Note:

GKS-761 ... M will be screwed into Receptacle KS-761 60 35 M-R; using special tools (see Page 170/171).

Recommended Screw-in Torque:
Min.: 3 Ncm / Max.: 5 Ncm

GKS 970



GKS-970 ... K
ohne KS

Installation Height: 2,6 mm (.102) bzw. 5,1 mm (.201)

Recommended Stroke: 1,0 mm (.039) bzw. 2,8 mm (.110)

Grid:

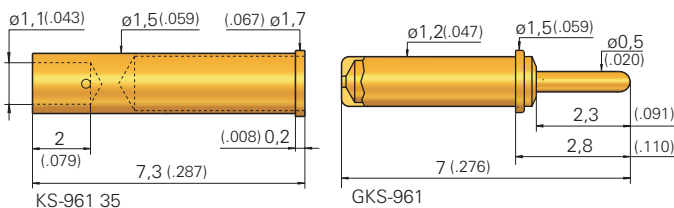
≥ 3 mm

≥ 120 Mil

Available Tip Styles

Material	Tip Style	Plating	Further Versions	
			∅	∅ (inch)
3 05		A	∅ 1,30 (.051)	

GKS 961



Grid:

≥ 1,91 mm

≥ 75 Mil

Installation Height: 2,8 mm (.110)

Recommended Stroke: 1,0 mm (.039)

Available Tip Styles

Material	Tip Style	Plating	Further Versions	
			∅	∅ (inch)
3 05		A	∅ 0,50 (.020)	

Mechanical Data	GKS 761 M
Working Stroke:	1,0 mm (.039)
Maximum Stroke:	1,2 mm (.047)
Spring Force at Work.Stroke:	1,0 N (3.6oz)

Mechanical Data	GKS 961
Working Stroke:	1,0 mm (.039)
Maximum Stroke:	1,3 mm (.051)
Spring Force at Work.Stroke:	0,6 N (2.2oz)

Mechanical Data	GKS 970 (970...K)
Work. Stroke:	2,8 mm (.110) (1,0 mm(.039))
Max. Stroke:	3,3 mm (.130) (1,7 mm (.067))
Spring Force at Work.Stroke:	2,0 N (7.2oz)

Electrical Data	GKS 761 M
Current Rating:	5 A
R _i typical:	< 20 mΩ

Electrical Data	GKS 961
Current Rating:	2 A
R _i typical:	< 100 mΩ

Electrical Data	GKS 970
Current Rating:	5 - 8 A
R _i typical:	< 20 mΩ

Materials	GKS 761 M
Plunger:	BeCu, gold-plated
Barrel:	Brass, gold-plated
Spring:	Steel, gold-plated
Receptacle:	Brass, gold-plated

Materials	GKS 961
Plunger:	BeCu, gold-plated
Barrel:	Brass, gold-plated
Spring:	Stainless Steel, gold-plated
Receptacle:	Brass, gold-plated

Materials	GKS 970
Plunger:	BeCu, gold-plated
Barrel:	Brass, gold-plated
Spring:	Steel, gold-plated
Receptacle:	Brass, gold-plated

Mounting Hole Size	GKS 761 M
in CEM1 and FR4	
with KS-761 60 35 M-R	∅ 2,00 - 2,02 mm (.0787 - .0866)

Mounting Hole Size	GKS 961
in CEM1 and FR4	
with Receptacle:	∅ 1,49 - 1,50 mm (.0587 - .0591)
without Receptacle:	∅ 1,2 mm (.0472)

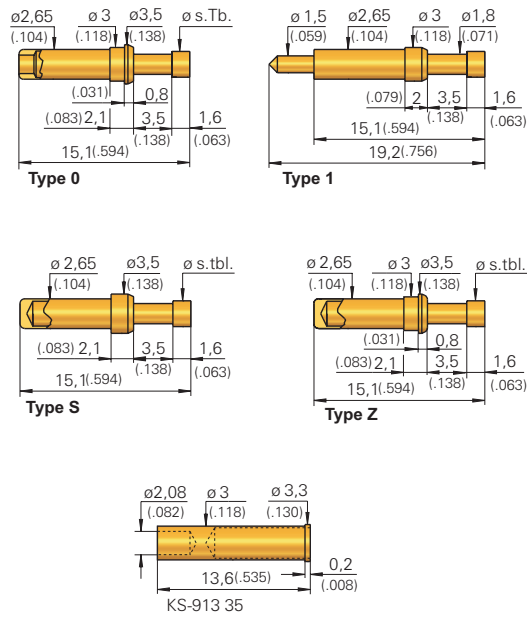
Mounting Hole Size	GKS 970
in CEM1 and FR4	
with Receptacle:	∅ 2,28 - 2,29 mm (.0898 - .0902)
without Receptacle:	∅ 2,0 mm (.0787)

Grid:
 ≥ 4,00 mm
 ≥ 160 Mil

Installation Height: 7,2 / 8,7 mm (.283/ .343)
Recommended Stroke: 2,8 mm (.110)

Mounting and Functional Dimensions

GKS-913



Available Tip Styles

Material	Tip Style	Plating	Further Versions	
			ϕ	ϕ (inch)
1 02		A	3,50	(.138)
3 03		A		
3 05		A		
3 06*		A		
3 06		A	3,50 2,30 R	(.138) (.091)
3 08		R		
3 58**		R		

Tip Length: 3,4 mm (.134)

Collar Height and Installation Height

The Installation Height of the Tip is defined by the Collar Height.

Collar Height	Tip Style	Install. Height (without KS) in mm	max. Stroke mm
02	02/05/06/08	7,2 (.283)	3,5 (.138)
02	06 180*	7,2 (.283)	3,2 (.126)
02	58**	8,7 (.343)	3,3 (.130)

Operating Temperature

Standard: -40° up to +80° C
***** with Spec. Designation "C":** -100° up to +200° C (1,5 N)

Mechanical Data

Working Stroke: 2,8 mm (.110)
Maximum Stroke: see table on the right
Spring Force at Work. Stroke: 1,5 N (5.4oz)
alternative: 0,8 N (2.9oz); 2,5 N (9.0oz)

Materials

Plunger: Brass or BeCu, gold- or rhodium-plated
Barrel: Brass, gold-plated
Spring: Steel, gold-plated or Stainless Steel **** (C)
Receptacle: Brass, gold-plated

Electrical Data

Current Rating: 5 - 8 A (24 A****)
R_i typical: < 20 m Ω (***> 100 m Ω)

Mounting Hole Size

in Materials CEM 1 and FR 4:
with Receptacle: ϕ 2,98 - 2,99 mm (.1173 - .1177)
without Receptacle: ϕ 2,65 mm (.1043)

Note:

Typ	Version
0	End of Probe Barrel open
1	End of Probe Barrel with solder terminal
S	End of Probe Barrel closed; can be soldered into PCB
Z	End of Probe Barrel closed; can be soldered into PCB

Warning: Soldering the Probes demands great care. High temperatures must not reach the inside of the barrel, because this could destroy the spring.

The Receptacle KS-913 35 can only be combined with the Probe Types 0, S and Z.

For applications up to 24 A:
 HSS-520 (see Page 102).

Screw-in Versions see Page 134.

Tools:

Insertion and Extraction Tools for GKS and KS see Page 112.

Ordering Example

Series	Tip Material	Tip Style	Tip Diameter (1/100 mm)	Plating	Spring Force (dN)	Collar Height (mm)	Type
	1 = Brass 3 = BeCu			A = Gold			1, 0, S, Z, 1C, 0C, SC, ZC

Test Probe:

G K S 9 1 3 3 0 8 2 3 0 R 1 5 0 2 1

Receptacles:

K S - 9 1 3 3 5

GKS 913 M

Short-stroke Screw-in Test Probe

Grid:

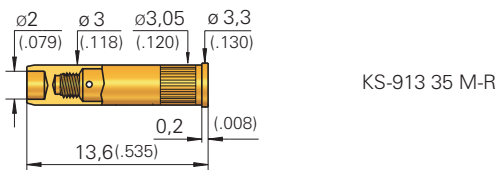
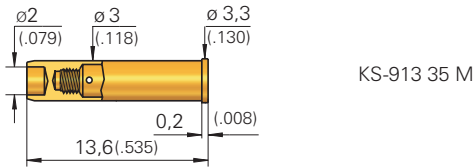
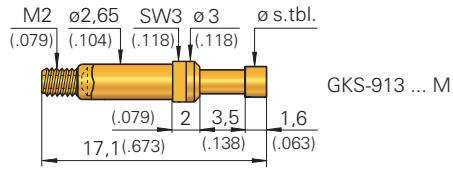
≥ 4,00 mm

≥ 160 Mil

Installation Height: 7,2 / 8,7 mm (.283 / .343)

Recommended Stroke: 2,8 mm (.110)

Mounting and Functional Dimensions



Available Tip Styles

Material	Tip Style	Plating	Further Versions	
			∅	∅ (inch)
1 02		A	3,50	(.138)
3 03		A		
3 05		A		
3 06*		A		
3 06		A	3,50 R 2,30 R	(.138) (.091)
3 08		R		
3 58**		R		

Tip Length 3,4 mm (.134)

Collar Height and Installation Height

The Installation Height of the Tip is determined by the Collar Height.

Collar Height	Tip Style	Install. Height (without KS)	max. Stroke
02	02/05/06/08	7,2 mm (.283)	3,5 mm (.138)
02	06 180*	7,2 mm (.283)	3,2 mm (.126)
02	58**	8,7 mm (.343)	3,3 mm (.130)

Mechanical Data

Working Stroke: 2,8 mm (.110)

Maximum Stroke: see Table

Spring Force at Work. Stroke: 1,5 N (5.4oz)

alternative: 0,8 N (2.9oz); 2,5 N (9.0oz)

Electrical Data

Current Rating: 5 - 8 A

R_i typical: < 20 mΩ (***) > 100 mΩ)

*** Spring force < 1,5 N are not recommended for high-current applications

Operating Temperature

Standard: -40° up to +80° C

*** with Spec. Design. "C": -100° up to +200° C (1,5 N)

Materials

Plunger: Brass or BeCu, gold- or rhodium-plated

Barrel: Brass, gold-plated

Spring: Steel, gold-plated or Stainless Steel*** (C)

Receptacle: Brass, gold-plated

Mounting Hole Size

in CEM 1 and FR 4:
with KS-913 35 M: ∅ 2,98 - 2,99 mm (.1173 - .1177)

for KS-913 35 M- R
in CEM 1 and FR 4: ∅ 3,00 - 3,02 mm (.1181 - .1189)

Note:

The Receptacle KS-913 35 M (-R) can only be combined with the Probe Type „GKS-913 ... M“

For applications up to 24 A:

see HSS-520 on Page 106

Note:

GKS-913 ... M will be screwed into KS-913 35 M (-R) using special tools (see Page 170/171).

Recommended Screw-in Torque:
Min.: 5 Ncm / Max.: 10 Ncm

Ordering Example

Series	Tip Material 1 = Brass 3 = BeCu	Tip Style	Tip Diameter (1/100 mm)	Plating A = Gold R = Rhodium	Spring Force (dN)	Collar Height (mm)	Typ M, MC
--------	---------------------------------------	-----------	----------------------------	------------------------------------	----------------------	-----------------------	--------------

Test Probe:

G K S 9 1 3 3 0 8 2 3 0 R 1 5 0 2 M

Receptacle:

K S - 9 1 3 3 5 M K S - 9 1 3 3 5 M - R

HSS 520 / 520 M

Short-Stroke High-Current Probe up to 24 A

Grid:

≥ 4,0 mm

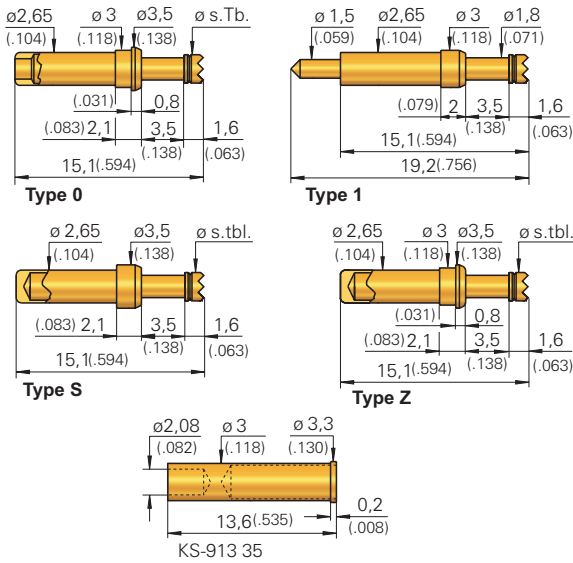
≥ 160 Mil

Installation Height: 7,2 mm (.283)

Recommended Stroke: 2,8 mm (.110)

Mounting and Functional Dimensions

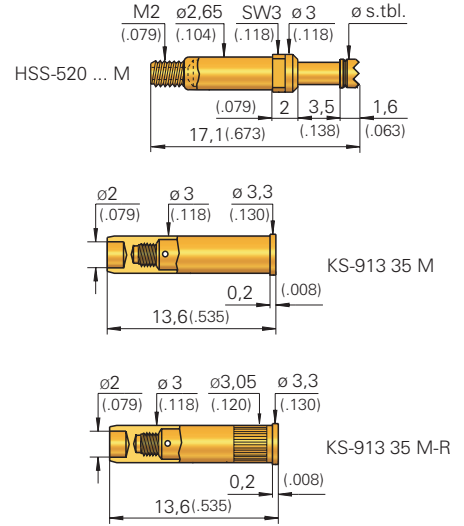
HSS-520



Available Tip Styles

Material	Tip Style	Plating	Further Versions	
			∅	∅ (inch)
3		A	∅ 2,30 (.091)	
3		A	∅ 3,50 (.138)	

HSS-520 ... M



Mechanical Data

Working Stroke: 2,8 mm (.110)
Maximum Hub: 3,5 mm (.138)
Spring Force at Work. Stroke: 1,5 N (5.4oz)

Materials

Plunger: BeCu, gold-plated
Barrel: Brass, gold-plated
Spring: Stainless Steel
Receptacle: Brass, gold-plated

Electrical Data

Current Rating: 24 A
R_i typical: < 20 mΩ

Mounting Hole Size

in Material CEM 1 and FR 4:
for KS-913 35: ∅ 2,98 - 2,99 mm
 (.1173 - .1177)
for KS-913 35 M-R: ∅ 3,00 - 3,02 mm
 (.1181 - .1189)
without Receptacle: ∅ 2,65 mm (.1043)

Collar Height and Installation Height

The Installation Height of the Tip is determined by the Collar Height.

Collar Height	Installation Height
02	7,2 mm (.283)

Operating Temperature

Standard: -100° up to +200° C

Note:

- | | |
|-----|---|
| Typ | Version |
| 0 | End of Probe Barrel open |
| 1 | End of Probe Barrel with solder terminal |
| M | End of Probe Barrel with thread M2 for KS-913 35 M (-R) |
| S | End of Probe Barrel closed; can be soldered into PCB |
| Z | End of Probe Barrel closed; can be soldered into PCB |

Warning: Soldering the Probes demands great care. High temperatures must not reach the inside of the barrel, because this could destroy the spring.

The Receptacle KS-913 35 can only be combined with the Probe Types 0, S and Z. The Receptacle KS-913 35 M can only be combined with the Probe Type M.

Tools:

Insertion and Extraction Tools for GKS and KS see Page 118.

Note:

HSS-520 ... M will be screwed into Receptacle KS-913 35 M (-R), using special tools (see Page 170/171).

Recommended Screw-in Torque:
 Min.: 5 Ncm / Max.: 10 Ncm

Ordering Example

Series	Tip Material	Tip Style	Tip Diameter (1/100 mm)	Plating	Spring Force (dN)	Collar Height (mm)	Type
	3 = BeCu			A = Gold R = Rhodium			1, 0, S, M, Z

Test Probe:

H S S 5 2 0 3 0 6 2 3 0 A 1 5 0 2 M

Receptacles:

K S - 9 1 3 3 5 K S - 9 1 3 3 5 M K S - 9 1 3 3 5 M - R

GKS 364

Test Probe with continuous Plunger

Grid:

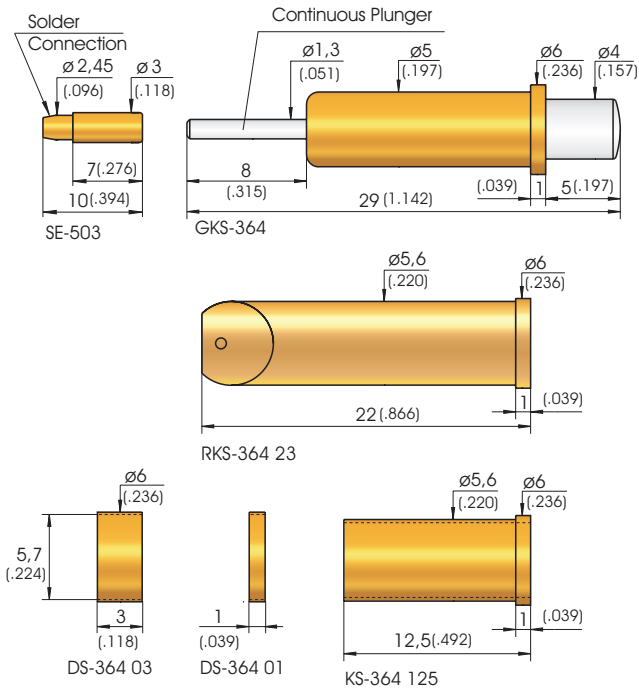
≥ 6,50 mm

≥ 260 Mil

Installation Height: 6,0 mm (.236)

Recommended Stroke: 4,0 mm (.157)

Mounting and Functional Dimensions



Available Tip Styles

Material	Tip Style	Plating	Further Versions	
			\varnothing	\varnothing (inch)
2 01*		N	$\varnothing 4,00$ (.157)	
2 04		N	$\varnothing 4,00$ (.157)	
2 05		N	$\varnothing 4,00$ (.157)	
2 06		N	$\varnothing 4,00$ (.157)	

* Angle of Tip 60°

Mechanical Data

Working Stroke: 4,0 mm (.157)

Maximum Stroke: 5,0 mm (.197)

Spring Force at Work. Stroke: 1,5 N (5.4oz)
alternative: 0,6 N (2.2oz); 3,0 N (10.8oz),
 8,0 N (28.9oz)

Electrical Data

Current Rating, Conn. to Plunger: 15-20 A

Current Rating, Connection to KS: 5 - 8 A

R_i typical, Connection to Plunger: < 10 m Ω

R_i typical, Connection to KS: < 30 m Ω

(** > 100 m Ω)

Materials

Plunger: Steel, nickel-plated

Barrel: Brass, gold-plated

Spring: Steel, gold-plated
 or Stainless Steel**

Receptacles:

RKS-364 23: Brass, not plated

KS-364 125: Brass, gold-plated

Mounting Hole Size

with Receptacle: $\varnothing 5,59 - 5,60$ mm
 (.2201 - .2205)

without Receptacle: $\varnothing 5,00$ mm (.1969)

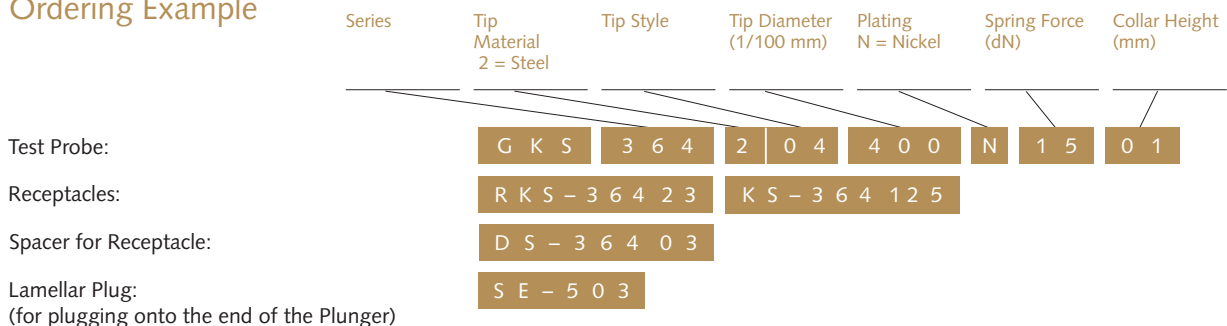
Operating Temperature

Standard: -40° up to +80° C

****with 1,5 and 3,0 N-Spring:** -100°

up to +200° C

Ordering Example



NEW

GKS 365 / GKS 366

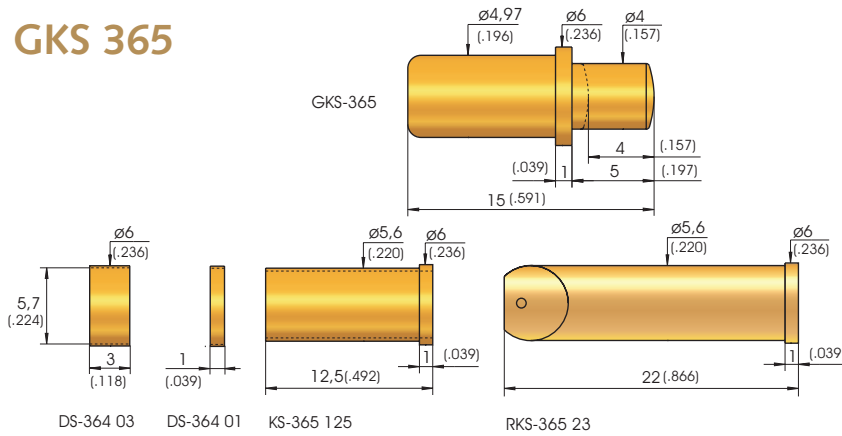
Test Probe with high Stability

Grid:
≥ 6,50 mm
≥ 260 Mil

Installation Height: 6,0 mm (.236) resp. 11,0 mm (.433)
Recommended Stroke: 3,2 mm (.126) reps. 8,0 mm (.315)

Mounting and Functional Dimensions

GKS 365



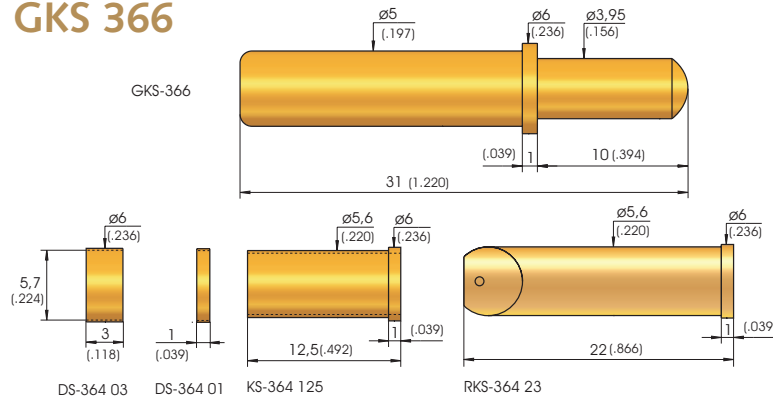
Available Tip Styles GKS 365

Material	Tip Style	Plating	Further Versions	
			∅	∅ (inch)
2 04		N		
1 05		A		
2 06		A		
1 13 *		N		
1 13S **		A		

* No radial Forces allowed. Plunger can get stuck
** Ordering Example: GKS-365 113 400 A xx01 S

Metric Stand.

GKS 366



Available Tip Styles GKS 366

Material	Tip Style	Plating	Further Versions	
			∅	∅ (inch)
NEW 1 05		N		
NEW 3 05		A		
NEW 3 56		A		

Mechanical Data GKS 365

Working Stroke: 3,2 mm (.126)
Maximum Stroke: 4,0 mm (.157)
Spring Force at Work. Stroke: 1,5 N (5.4oz)
alternative: 0,6 N (2.2oz); 3,0 N (10.8oz), 4,0 N (14.4oz); 8,0 N (28.9oz)

Mechanical Data GKS 366

Working Stroke: 8,0 mm (.315)
Maximum Stroke: 10,0 mm (.394)
Spring Force at Work. Stroke: 1,5 N (5.4oz)
alternative: 3,0 N (10.8oz); 6,0 N (21.6oz); 8,0 N (28.9oz); 16,0 N (57.5oz)

Electrical Data

Current Rating: 5 - 8 A
R_i typical: < 30 mΩ (** > 100 mΩ)

Materials

Plunger: Brass or Steel, gold- or nickel-plated
Barrel: Brass, gold-plated
Spring: Steel, gold-plated or Stainless Steel**

Receptacle for GKS-365:

RKS-365 23: Brass, not plated
KS-365 125: Brass, gold-plated

Receptacle for GKS-366:

RKS-364 23: Brass, not plated
KS-364 125: Brass, gold-plated

Operating Temperature

Standard: -40° up to +80° C
****with 8,0 N-Spring:** -100° up to +200° C (GKS-365)

Mounting Hole Size

with Receptacle: ∅ 5,59 - 5,60 mm (.2201 - .2205)
without Receptacle for GKS-365: ∅ 4,97 mm (.1957)
without Receptacle for GKS-366: ∅ 5,00 mm (.1969)

Note: Other comparable Versions on request.

Ordering Example

Series	Tip Material 1 = Brass 2 = Steel	Tip Style	Tip Diameter (1/100 mm)	Plating A = Gold N = Nickel	Spring Force (dN)	Collar Height (mm)	Special Designation „S“
--------	--	-----------	----------------------------	-----------------------------------	----------------------	-----------------------	----------------------------

Test Probe:

G K S 3 6 5 1 0 5 4 0 0 A 1 5 0 1

Test Probe:

G K S 3 6 6 1 0 5 4 0 0 A 1 5 0 1

Receptacles for GKS-365:

R K S - 3 6 5 2 3 K S - 3 6 5 1 2 5

Receptacles for GKS-366:

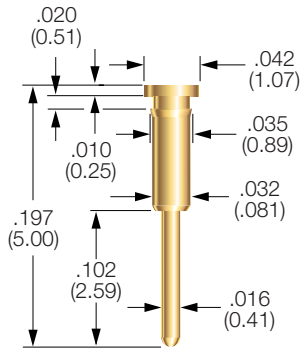
R K S - 3 6 4 2 3 K S - 3 6 4 1 2 5

Spacer for Receptacle:

D S - 3 6 4 0 1 D S - 3 6 4 0 3

Target Contact

PI-5328



PIN SPECIFICATIONS

Mounting Hole: .034 (0.86)

MATERIALS

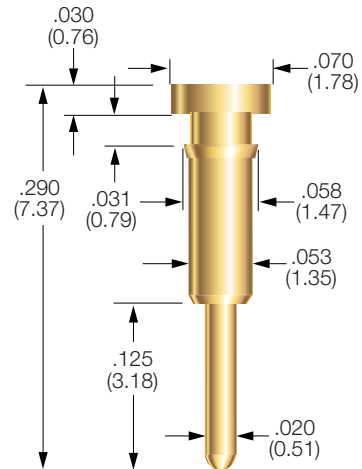
Material: Brass

Plating: Gold over nickel

HOW TO ORDER

PI-5328

PI-5329



PIN SPECIFICATIONS

Mounting Hole: .057 (1.45)

MATERIALS

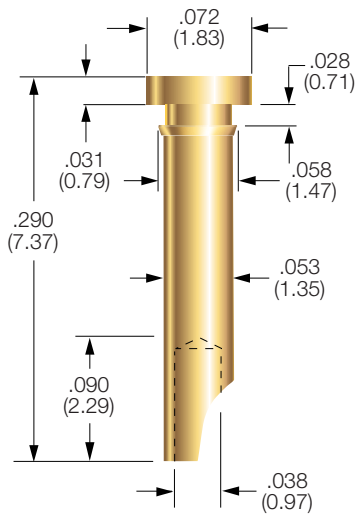
Material: Brass

Plating: Gold over nickel

HOW TO ORDER

PI-5329

PI-5327



PIN SPECIFICATIONS

Mounting Hole: .057 (1.45)

MATERIALS

Material: Brass

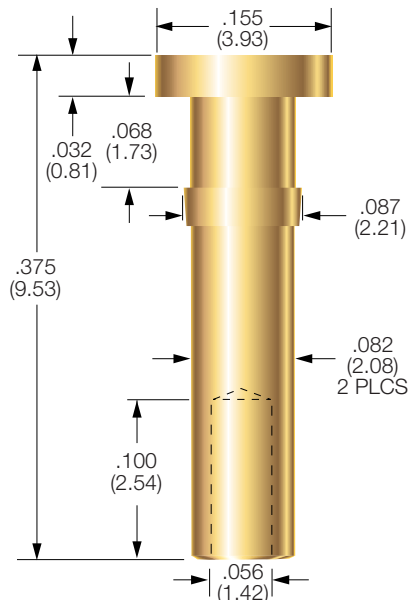
Plating: Gold over nickel

HOW TO ORDER

PI-5327

Specifications subject to change without notice. Dimensions in inches (millimeters)

PI-5330



PIN SPECIFICATIONS

Mounting Hole: .084 (2.15)

MATERIALS

Material: Brass

Plating: Gold over nickel

HOW TO ORDER

PI-5330

Grid:
 $\geq 2,54$ mm
 ≥ 100 Mil

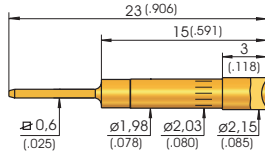
NEW

Contact Terminals

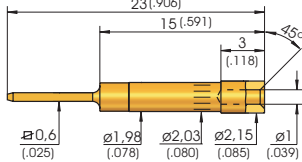
for Interfaces and Transfer Fields

Contact Terminals with Collar Height: 3 mm (.118)

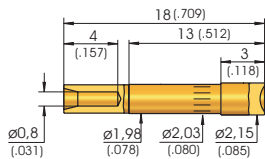
KT-254 W-E03 (wire-wrap)



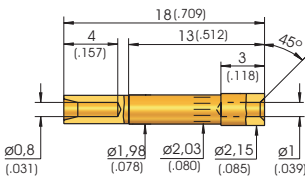
KT-254 W3 E03 (wire-wrap)



KT-254 L-E03 (Solder)

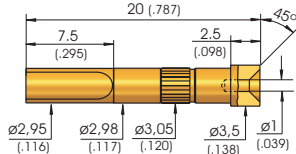


KT-254 L3 E03 (Solder)



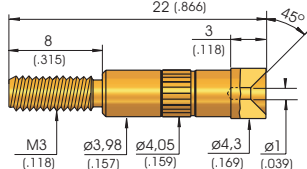
KT-120 L3 E02 - 30 (Solder) NEW

High-current Contact Terminal



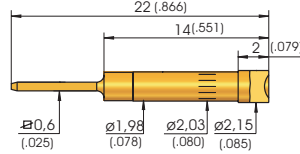
KT-150 L3 E03 - M3 (Solder) NEW

High-current Contact Terminal

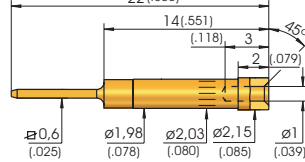


Contact Terminals with Collar Height: 2 mm (.079)

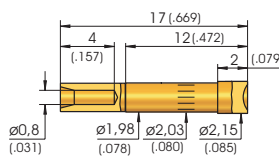
KT-254 W-E02 (wire-wrap)



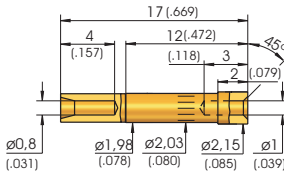
KT-254 W3 E02 (wire-wrap)



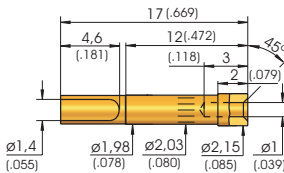
KT-254 L-E02 (Solder)



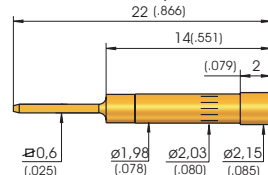
KT-254 L3 E02 (Solder)



KT-254 L3 E02 - 30 (Solder Connection)



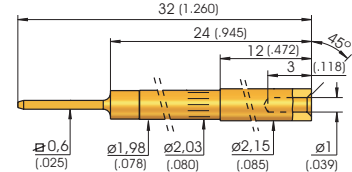
KT-254 W-PL (wire-wrap)



Other Contact Terminals:

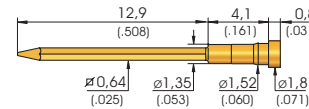
KT-254 W3 E12 (wire-wrap)

For assembly in INGUN-ZSK Transfer Field (ZSK = Top-side Contacting Unit)



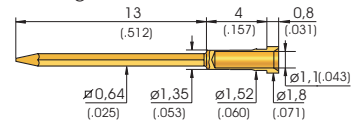
KT-158 02 (Order No. 9408)

Contacting Terminal for GenRad Interface

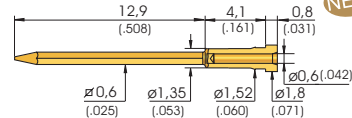


KT-158 (Order No. 3650)

Contacting Terminal for Zehntel Interface

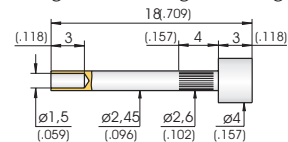


KT-158 06 (Order No. 21814) NEW

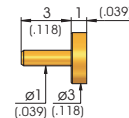


KT-586 102 400 R

Contacting Terminals for general usage

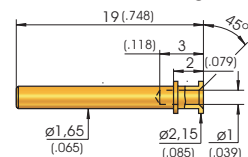


KT-279 102 300 (to solder in)



KT-112 143 215 E02 (Replaceable)

Will be used with KS-112, see Page 50)



Mounting Hole Size *

for KT-254:

in CEM1 \varnothing 1,98 - 2,00 mm (.0780-.0787)

in FR4 \varnothing 1,98 - 1,99 mm (.0780-.0783)

for KT-158:

in CEM1 and FR4 \varnothing 1,40 mm (.0551)

for KT-586:

in CEM1 and FR4 \varnothing 2,55 - 2,57 mm (.1004-.1012)

for KT-120:

in CEM1 and FR4 \varnothing 3,00 - 3,02 mm (.1181 - .1189)

for KT-150:

in CEM1 and FR4 \varnothing 4,00 - 4,02 mm (.1575 - .1583)

* Services:

Customized Contact Blocks drilled according to customer demands (and matching certain INGUN Receptacles) are available from INGUN.

Electrical Data

R_i typical: < 5 m Ω

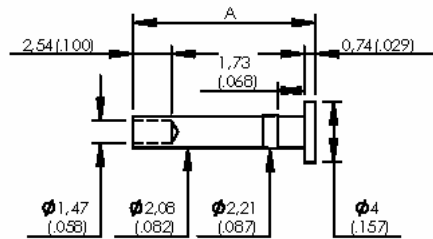
Materials

Contact Terminals: Brass, gold-plated
 KT-586: Brass, rhodium-plated

Collar Height and Install. Height for KT-254

The Installation Height of the Contact Terminals is determined by the collar Height.

CO.IM2750 & CO.IM2750/9.5

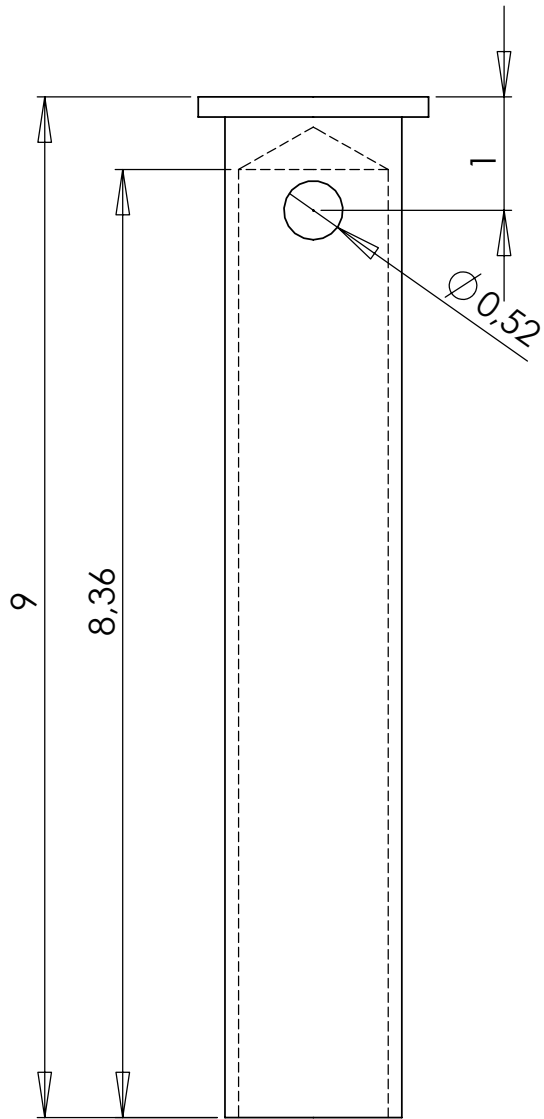


Dimension A :

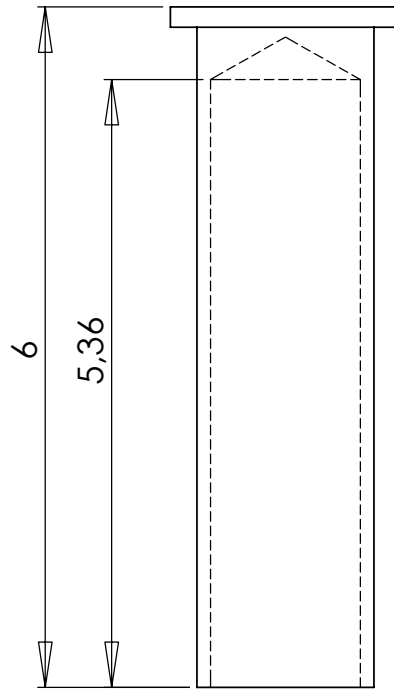
CO.IM 2750/9.5 : A = 9,5 (.374)

CO.IM 2750 : A = 12 (.472)

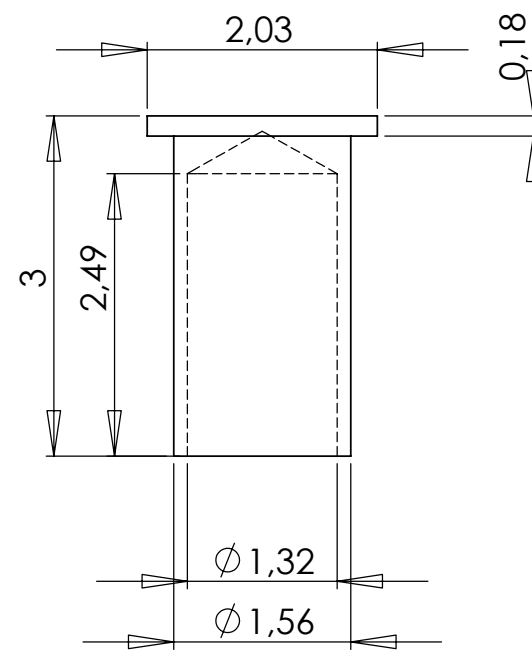




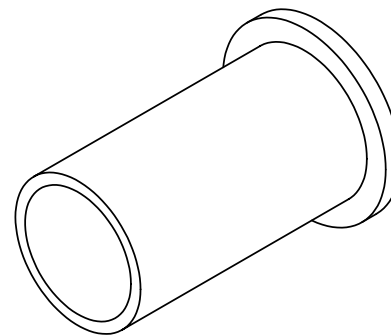
304385-002-1306



304385-00-1306



304385-000-1306



Matière : Brass
Revetement : Gold (Au)

BARREL		
TITLE: 304385		
SIZE A	DWG. NO. COTELEC	REV
SCALE: 15 :	01/2009	SHEET 1 OF 1



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