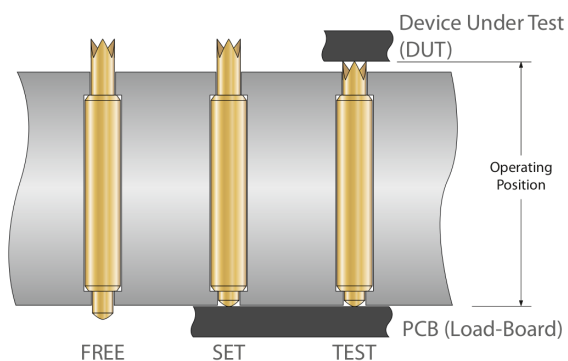


## KITA MARATHON PINS

The contact pins of the MARATHON series of KITA are, as the name suggests, true endurance athletes. The bilateral sprung contacts for use in test sockets with grid spacings in the fine pitch range have lifetimes of up to 1 million strokes and feature high current capability and low resistance values.

The grid spacing of Marathon types start from 0.2 mm and reach up to 0.80 mm. At the end of this section you will find two special types: For applications in strong magnetic fields and / or near the absolute zero (superconductivity) the KHW 050-009RG is suitable due to its use of materials. The KHW 050-010C1 is, however, for high temperature applications up to 200 ° C.



## INSTALLATION INSTRUCTIONS

The double-end spring-loaded contact pins are made for installation in test sockets which usually have a sandwich-layer design. In the tables showing the graphs of the spring forces the probe is shown in its 3 standard stages of condition:

- FREE:** Own preload of the inner spring, no contact on either side
- SET:** The test-socket is mounted to the Load Board, the lower piston springs are compressed somewhat
- TEST:** DUT is installed, Spring Probe force and travel in nominal position. This situation is also called „operating position“.

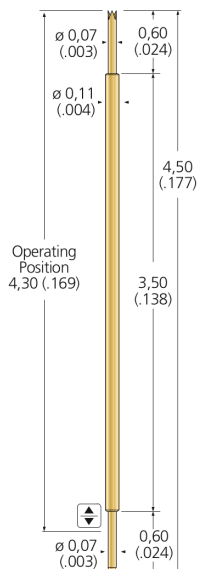
### Spring Force Profile

Free	Set @ 0,15 mm	Test @ 0,40 mm
0,02 N	0,03 N	0,06 N

	Ø 0,07	<b>KHS-017-001CP</b>
	Ø 0,07	<b>KHS-017-002RP</b>

### 4,70 mm



### 0,17 mm Pitch

#### Technical Data




Overall Length	4,70 mm
Minimum Centre Spacing	0,17 mm
Maximum Travel	0,50 mm
Working Travel	0,40 mm
Temperature Range from	-40°C
Up to	+120°C
Typical Resistance	≤500 mΩ
Current rating	0,31 A

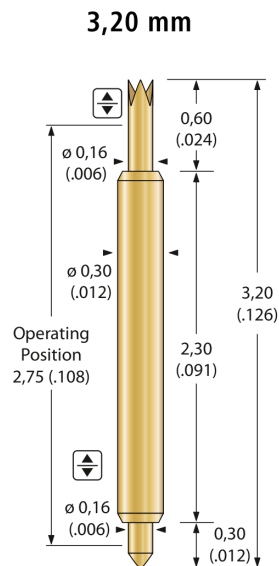
#### Materials

Upper Plunger	Palladium alloy
Bottom Plunger	Palladium alloy
Barrel	Alloy
Spring	Music wire, gold plated

### Spring Force Profile

Free	Set @ 0,15 mm	Test @ 0,45 mm
0,08 N	0,1 N	0,21 N

	Ø 0,16	<b>KGW-040-001CP</b>
	Ø 0,16	<b>KHW-040-002C2</b>
	Ø 0,16	<b>KHW-040-001R2</b>



### 0,40 mm Pitch

#### Technical Data




Overall Length	3,20 mm
Minimum Centre Spacing	0,40 mm
Maximum Travel	0,60 mm
Working Travel	0,45 mm
Temperature Range from	-40°C
Up to	+120°C
Typical Resistance	≤100 mΩ
Current rating	1,4 A

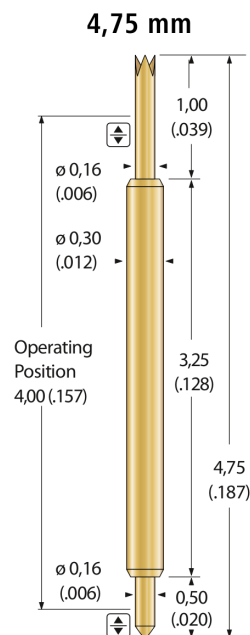
#### Materials

Plunger	CuBe hardened, gold plated or palladium alloy
Barrel	Alloy, gold plated
Spring	Music wire, gold plated

### Spring Force Profile

Free	Set @ 0,25 mm	Test @ 0,75 mm
0,06 N	0,11 N	0,22 N

	Ø 0,15	<b>KHW-040-004CP</b>
	Ø 0,15	<b>KHW-040-003C2</b>
	Ø 0,15	<b>KHW-040-005R2</b>



### 0,40 mm Pitch

#### Technical Data

Overall Length	4,75 mm
Minimum Centre Spacing	0,40 mm
Maximum Travel	1,10 mm
Working Travel	0,75 mm
Temperature Range from	-40°C
Up to	+120°C
Typical Resistance	≤100 mΩ
Current rating	1,0 A

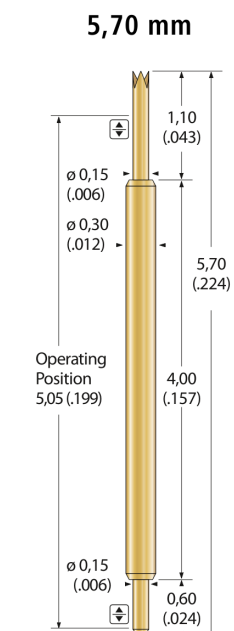
#### Materials

Plunger	CuBe hardened, gold plated or palladium alloy
Barrel	Alloy, gold plated
Spring	Music wire, gold plated

### Spring Force Profile

Free	Set @ 0,20 mm	Test @ 0,65 mm
0,09 N	0,15 N	0,3 N

	Ø 0,15	<b>KHW-040-006CP</b>
	Ø 0,15	<b>KHW-040-008C2</b>
	Ø 0,15	<b>KHW-040-007R2</b>



### 0,40 mm Pitch

#### Technical Data

Overall Length	5,70 mm
Minimum Centre Spacing	0,40 mm
Maximum Travel	0,80 mm
Working Travel	0,65 mm
Temperature Range from	-40°C
Up to	+120°C
Typical Resistance	≤100 mΩ
Current rating	1,4 A

#### Materials

Plunger	CuBe hardened, gold plated or palladium alloy
Barrel	Alloy, gold plated
Spring	Music wire, gold plated

**KITA  
MARATHON PINS**