

# In-Circuit Testing Probes



In-Circuit Testing  
Printed Circuit Board Testing



C.C.P. CONTACT PROBES

# TABLE OF CONTENT

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01	————	About Us
04	————	Structure
05	————	CCP Probe Series
06	————	Probe Tip Type
10	————	P Series List - Probe
12	————	R Series List - Receptacle
14	————	T Series List - Thru-Hole Probe
15	————	Quality Management

C.C.P. Contact Probes Co., Ltd. is a leading global manufacturer of Contact Probes, Pogo Pins, Testprobes, Springloaded Connectors, and Crown Spring Connectors.

In 1986 we began as a specialized provider of test probes and socket auxiliary solutions and slowly expanded our product portfolio in related industries such as electronic components manufacturing. Among our customers are renowned brands like Apple and Amazon and our products are revered by our customers for their exceptional reliability and superior quality.

Our research and development teams are continuously improving our existing products and bringing new innovations to the market to meet the growing demands of our clients. Since 2001 CCP Contact Probes has been a public traded company listed on the Taiwan Stock Exchange. Today CCP has subsidiaries in the United States, China, Germany, India, Japan and Singapore, meeting the needs of our customers around the world.

# ABOUT US

## Introduction

## Selected Customers

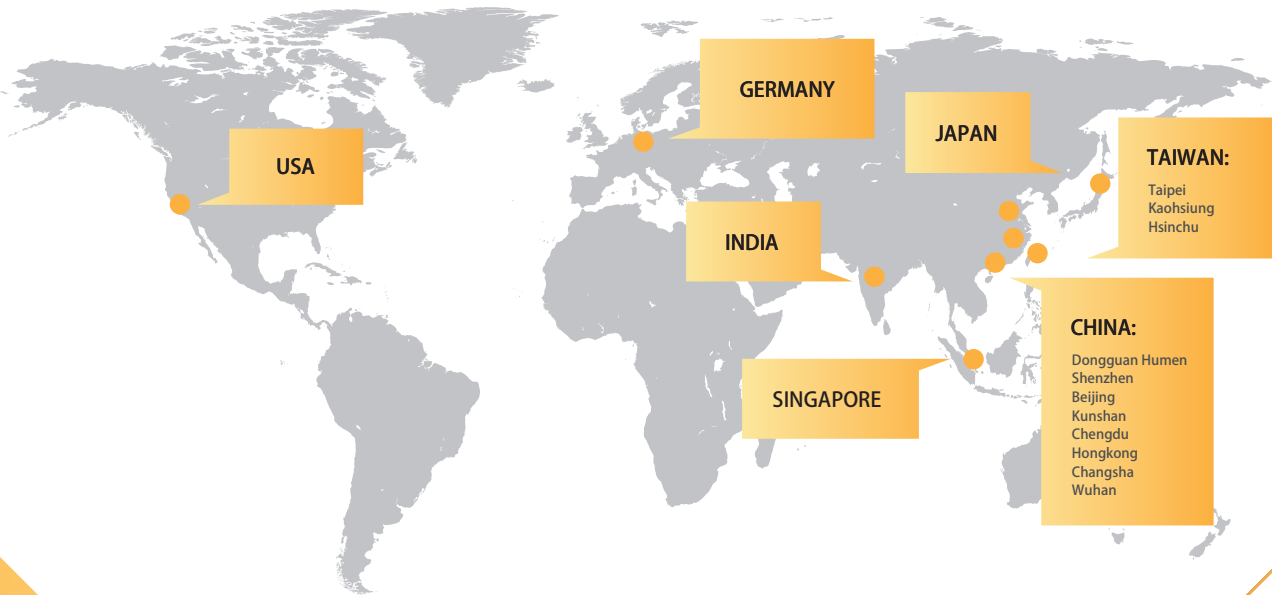
FOXCONN

Google



ADVANTEST

## Locations



# ABOUT US

## History

### History

2018

CCP Germany, Singapore & India Established

2016

High Current Connector Product Line

2014

CCP USA Established

2003

Listed on Taiwan Stock Market (TW. 6217)

2002

Commercial Connector Product Line

2001

CCP Dongguan Factory Established

1986

CCP Established/ Testing Product Line

### Company Culture



Yearly Home Visit



Employee's Children  
Summer Camp



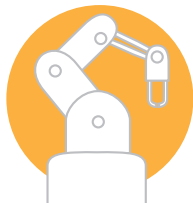
Tuition Subsidy  
for Employee's Children

# ABOUT US

## Advantages



Over 30 Years of Product Development Experience  
Servicing Industry-leading Clients

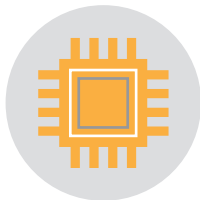


Agile and Flexible Design Process with Self-owned  
Turning and Plating Factory



A Proven Track-record of Reliability, an Industry Certified Quality  
Management System, and State-of-the-art Production Equipment

## Product Lines



Testing  
Solutions



Commercial  
Connector Solutions



High Current  
Connector Solutions



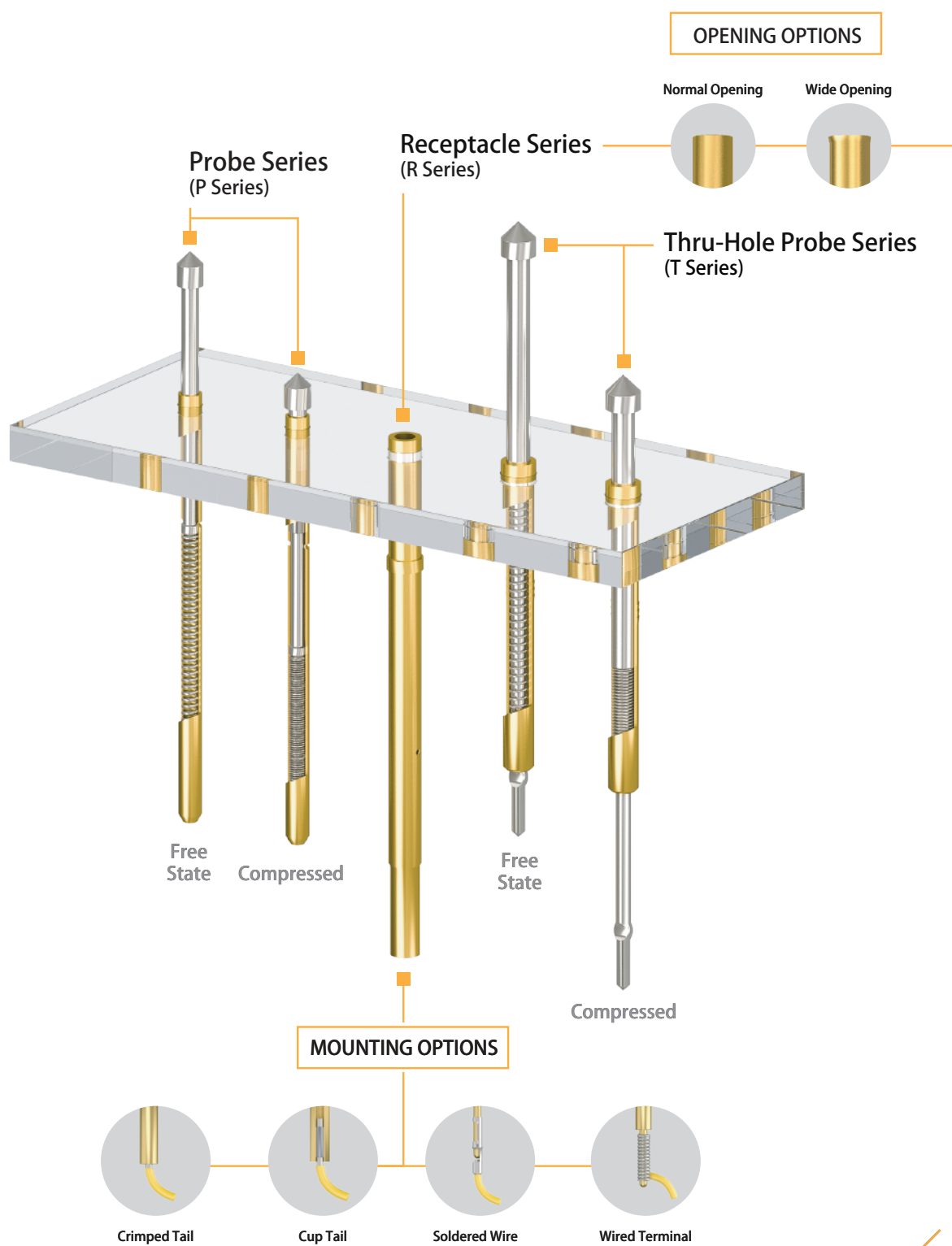
Industrial  
Connector Solutions

# STRUCTURE

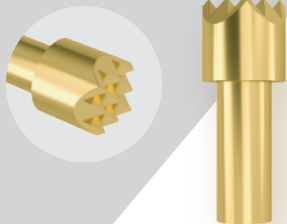


# CCP PROBE SERIES

P Series   R Series   T Series

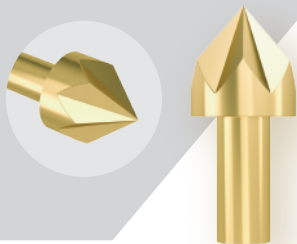
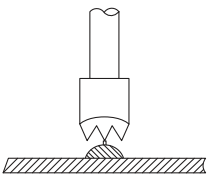


# PROBE TIP TYPE



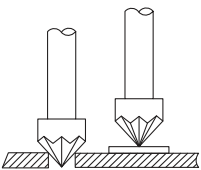
## L9

**Large 9 Points**  
Used to test long leads, terminals, wire wrap posts and pads.



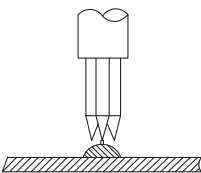
## LS

**Large Star**  
Used to penetrate through holes, pads and gold edge fingers. Will not be contaminated by dust.



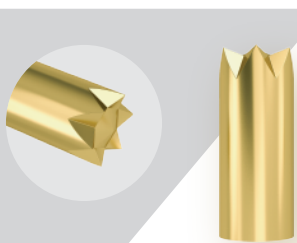
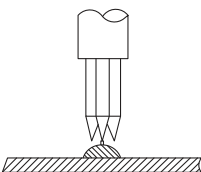
## LN3

**Large Needle 3**  
Used to test lands and pads. Needles can penetrate thin layers of oxides or contaminations.



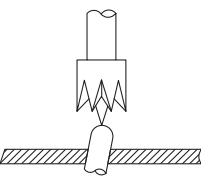
## LN7

**Large Needle 7**  
Used to test lands and pads. Needles can penetrate thin layers of oxides or contaminations.



## L7

**Large 7 Points**  
Used to test lands, terminals, and wire wrap posts.



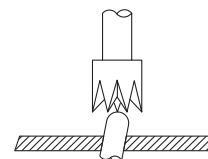




## L7M

Large 7 Points with Large Middle Center

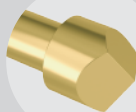
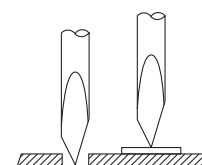
Used to test lands, terminals, and wire wrap posts.



## M3C

Medium 3 Side Chiseled

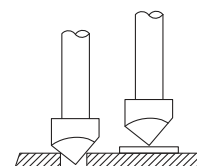
Used to test through holes, pads and gold edge fingers.



## L3C

Large 3 Side Chiseled

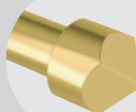
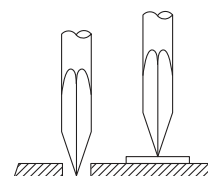
Used to test through holes, pads and gold edge fingers.



## M4C

Medium 4 Side Chiseled

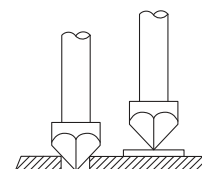
Used to test through holes, pads and gold edge fingers.



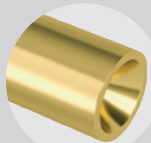
## L4C

Large 4 Side Chiseled

Used to test through holes, pads and gold edge fingers.



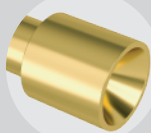
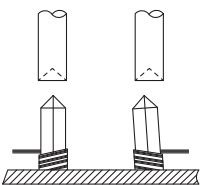
# PROBE TIP TYPE



## MC

Medium Cup

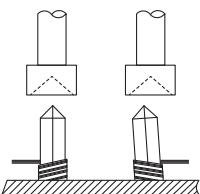
Used to test long leads, terminals and wire wrap posts.



## LC

Large Cup

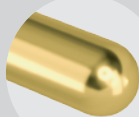
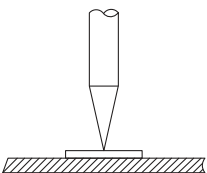
Used to test long leads, terminals and wire wrap posts.



## MA

Medium Awl

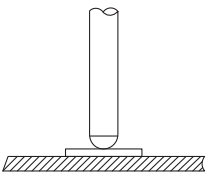
Used to test through holes, pads and gold edge fingers.



## MR

Medium Round

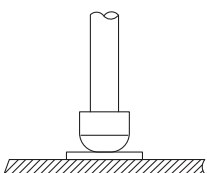
Used to test gold edge fingers and gold pads. Leaves no marks or indentations.



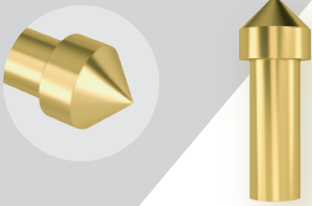
## LR

Large Round

Used to test gold edge fingers and gold pads. Leaves no marks or indentations.



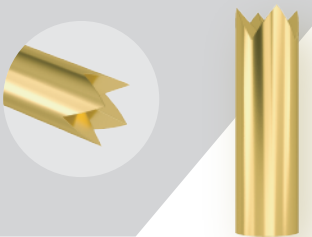
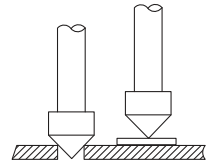
# PROBE TIP TYPE



## LA

### Large Awl

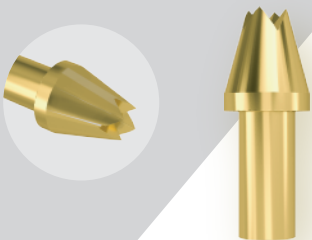
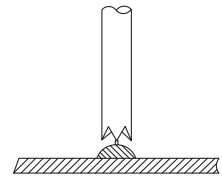
Used to test through holes, pads and gold edge fingers.



## M4

### Medium 4 Points

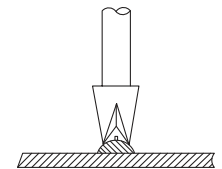
Used to test narrow lands. Will not be contaminated by dust.



## L4

### Large 4 Points

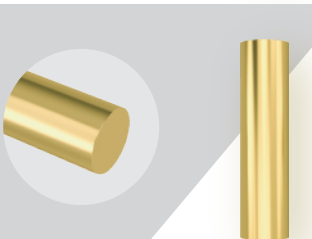
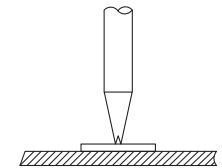
Used to test narrow lands. Will not be contaminated by dust.



## S4

### Small 4 Points

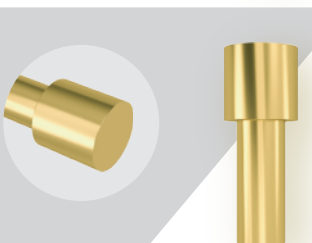
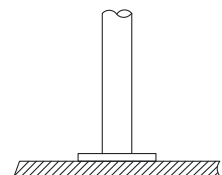
Used to test narrow lands. Will not be contaminated by dust.



## MF

### Medium Flat

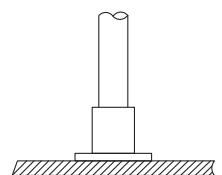
For testing pads and gold edge-fingers. Contact leaves no marks or indentations.



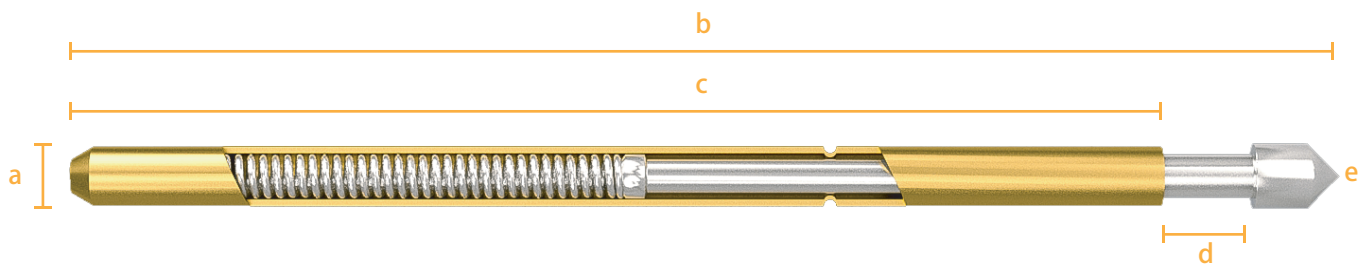
## LF

### Large Flat

For testing pads and gold edge-fingers. Contact assured leaves no marks or indentations.



# P SERIES LIST



## Coding Rule:

ICT-P: **a-b-c-d-e**:f-g-h-i

## Example:

ICT-P: **020-1150-1000-0150-E** :BC-Au-BR-Au

P Series	Dimensions	Materials	P Series	Dimensions	Materials
<b>a</b>	<b>b</b>	<b>c</b>	<b>d</b>	<b>e</b>	
Barrel Diameter in mm	Full Length in mm	Barrel Length in mm	Full Stroke in mm	Tip Type	
See Tip Type Page					
<b>f</b>					
Plunger Base					
BC: Beryllium Copper					
SK4: High Carbon Steel					
<b>g</b>					
Plunger Plating					
Au: Gold					
Rh: Rhodium					
NA: None					
<b>h</b>					
Barrel Base					
PB: Phosphor Bronze					
BR: Brass					
<b>i</b>					
Barrel Plating					
Au: Gold					

Recommended Pitch 0.45mm			
0.20	11.50	10.00	01.50
Recommended Pitch 0.50mm			
0.26	12.50	11.00	01.50
Recommended Pitch 0.65mm			
0.30	11.50	10.00	01.50
Recommended Pitch 0.70mm			
0.35	12.50	11.00	01.50
Recommended Pitch 0.80mm			
0.38	12.00	10.00	02.00
0.38	12.50	10.00	02.00
Recommended Pitch 0.90mm			
0.48	12.00	10.00	02.00
0.48	12.60	10.00	02.00
Recommended Pitch 1.00mm			
0.58	15.00	13.00	02.00
0.58	15.60	13.00	02.00
Recommended Pitch 1.27mm			
0.68	16.35	13.00	03.35
0.68	16.55	13.00	02.65
0.68	24.70	18.50	04.20

# P SERIES LIST

a	b	c	d
Barrel Diameter in mm	Full Length in mm	Barrel Length in mm	Full Stroke in mm
Recommended Pitch 1.90 mm			
1.01	16.35	13.00	03.35
1.01	17.04	13.00	02.54
1.01	24.20	18.50	04.20
1.01	33.30	25.00	06.30
1.01	38.30	25.00	06.30
Recommended Pitch 2.54 mm			
1.36	23.50	18.50	03.00
1.36	24.70	18.50	04.20
1.36	33.30	25.00	06.30
1.36	38.30	25.00	06.30
1.37	09.70	07.50	02.20
1.37	10.00	07.50	01.50
Recommended Pitch 3.17 mm			
2.00	33.35	25.00	06.35
Recommended Pitch 3.97mm			
2.36	34.10	25.00	06.60

e  
Tip Type  
See Tip Type Page

f  
Plunger Base  
BC: Beryllium Copper  
SK4:High Carbon Steel

g  
Plunger Plating  
Au: Gold  
Rh: Rhodium  
NA: None

h  
Barrel Base  
PB: Phosphor Bronze  
BR: Brass

i  
Barrel Plating  
Au: Gold

# R SERIES LIST



Coding Rule:

ICT-R:**a-b-c-d-e:f-g**

R Series

Dimensions

Materials

Example:

ICT-R:**020-032-0900-00-e:g-h**

R Series

Dimensions

Materials

<b>a</b>	<b>b</b>	<b>c</b>	<b>d</b>
Probe Barrel Diameter in mm	Receptacle Diameter in mm	Probe Holding Length in mm	Collar Distance in mm
Recommended Pitch 0.45mm			
0.20	0.32	09.00	-
Recommended Pitch 0.50mm			
0.26	0.35	10.30	-
Recommended Pitch 0.65mm			
0.30	0.40	09.00	-
Recommended Pitch 0.70mm			
0.35	0.43	10.00	-
0.35	0.45	10.00	-
Recommended Pitch 0.80mm			
0.38	0.53	09.00	-
Recommended Pitch 0.90mm			
0.48	0.62	09.00	-
Recommended Pitch 1.00mm			
0.58	0.72	12.00	-
Recommended Pitch 1.27mm			
0.68	0.86	12.75	-
0.68	0.86	12.75	2.5
0.68	0.86	18.50	-
0.68	0.86	18.50	2.5

**e**

Tail Type  
N: No Tail  
C: Cup Tail  
W9: Square Tail for  
Wire Wrapping  
Tail Length 9mm  
T5: Round Tail for  
Crimped Terminal  
Tail Length 5mm  
S: Soldered Wire

**f**

Receptacle Base  
PB: Phosphor Bronze  
BR: Brass

**g**

Receptacle Plating  
Au: Gold

# R SERIES LIST

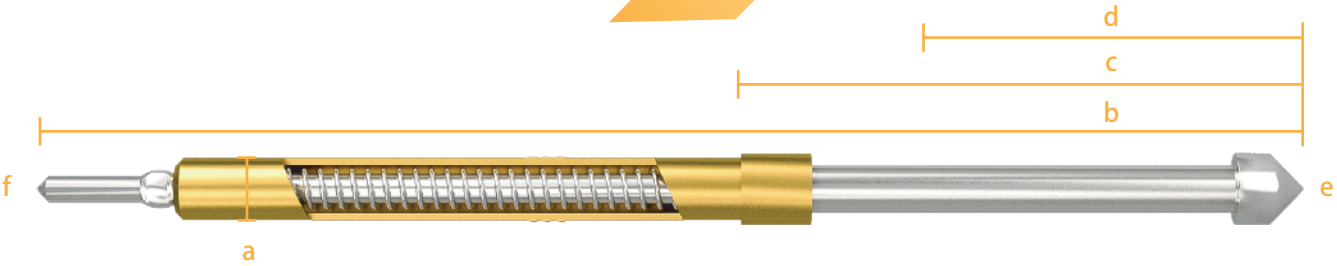
a	b	c	d
Probe Barrel Diameter in mm	Receptacle Diameter in mm	Probe Holding Length in mm	Collar Distance in mm
Recommended Pitch 1.27mm			
1.01	1.31	12.70	-
1.01	1.31	12.70	4.0
1.01	1.31	12.70	2.5
1.01	1.31	18.50	
1.01	1.31	18.50	2.5
1.01	1.31	18.50	4.0
1.01	1.31	25.00	-
1.01	1.31	25.00	7.5
Recommended Pitch 2.54mm			
1.36	1.66	18.50	-
1.36	1.66	18.50	2.5
1.36	1.66	18.50	5.5
1.36	1.66	25.00	-
1.36	1.66	25.00	2.5
1.36	1.66	25.00	5.0
1.36	1.66	25.00	7.5
1.37	1.66	07.50	2.5
1.37	1.66	07.50	-
Recommended Pitch 3.17mm			
2.00	2.36	25.00	-
2.00	2.36	25.00	7.5
Recommended Pitch 3.97mm			
2.36	2.69	24.70	-
2.36	2.69	24.70	7.6

- e
- Tail Type
- N: No Tail
- C: Cup Tail
- W9: Square Tail for Wire Wrapping  
Tail Length 9mm
- T5: Round Tail for Crimped Terminal  
Tail Length 5mm
- S: Soldered Wire

- f
- Receptacle Base
- PB: Phosphor Bronze
- BR: Brass

- g
- Receptacle Plating
- Au: Gold

# T SERIES LIST



Coding Rule:

ICT-T:**a-b-c-d-e-f:g-h-i-j**

T Series

Dimensions

Materials

Example:

ICT-T:**098-2050-0700-0450-LA-T5:BC-Au-PB-Au**

T Series

Dimensions

Materials

a	b	c	d
Barrel Diameter in mm	Full Length in mm	Board to Tip Length in mm	Full Stroke in mm
Recommended Pitch 1.70mm			
0.98	20.50	07.00	04.50
Recommended Pitch 2.00mm			
1.34	27.00	10.00	06.00
Recommended Pitch 2.50mm			
1.83	36.00	16.00	12.00
2.00	43.00	16.00	06.00
2.00	50.00	23.00	06.00
Recommended Pitch 0.80mm			
2.33	38.00	16.00	10.50
Recommended Pitch 0.90mm			
3.00	50.00	16.00	06.00
3.00	54.00	20.00	06.00
3.00	54.00	23.00	06.00
Recommended Pitch 1.27mm			
3.23	38.00	16.00	10.00

- e**  
Tip Type  
See Tip Type Page
- f**  
Tail Type  
N: No Tail  
C: Cup Tail  
W9: Square Tail for Wire Wrapping  
Tail Length 9mm  
T5: Round Tail for Crimped Terminal  
Tail Length 5mm  
S: Soldered Wire
- g**  
Plunger Base  
BC: Beryllium Copper  
PB: Phosphor Bronze  
SK4: High Carbon Steel
- h**  
Plunger Plating  
Au: Gold  
Rh: Rhodium  
Ni: Nickel  
NA: None
- i**  
Barrel Base  
PB: Phosphor Bronze  
BR: Brass  
POM: Polyoxymethylene
- j**  
Barrel Plating  
Au: Gold  
NA: None



# QUALITY MANAGEMENT

## Quality System

**ISO 9001: 2015**

Quality Management System

**ISO 14001: 2015**

Environmental Management System

**IATF 16949: 2016**

Automotive Quality Management System

**QC 080000**

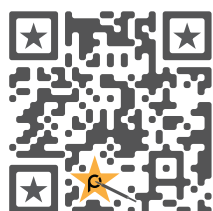
Hazardous Substance Process Management

## Quality Assurance





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