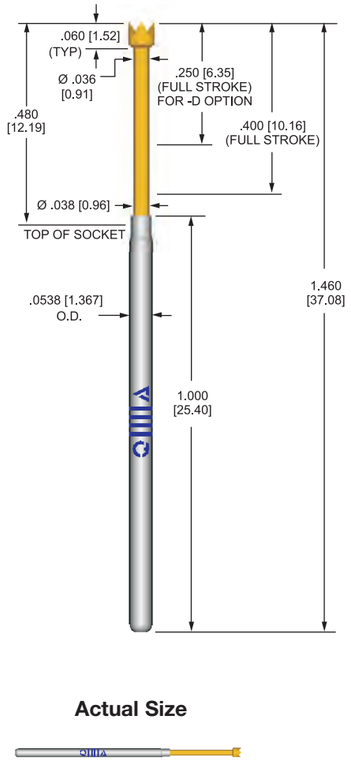
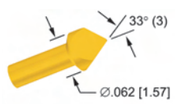
100-40 Series

The **100-40 series probes** are designed for mixed height, loaded board testing.

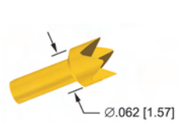
Probe



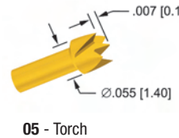
Actual Size



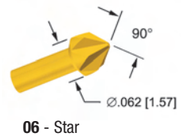
03 - Chisel



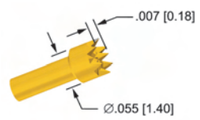
04 - Crown



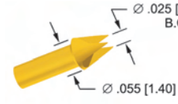
05 - Torch



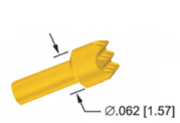
06 - Star



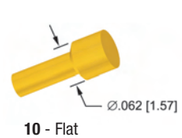
07 - Tulip



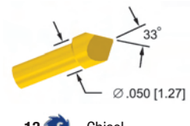
08 - Triad



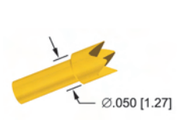
09 - Serrated



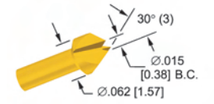
10 - Flat



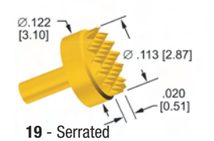
13 -S - Chisel



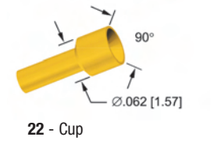
14 - Crown



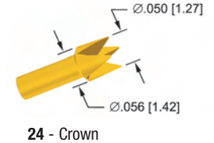
18 - Chisel Triad



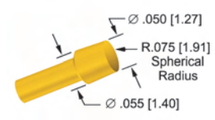
19 - Serrated
.150 [3.81] Min. Mounting Centers



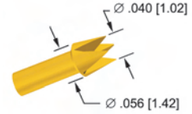
22 - Cup



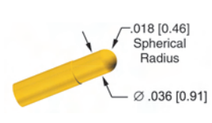
24 - Crown



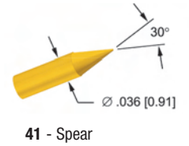
30 - Spherical



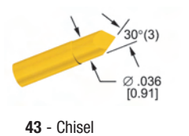
34 - Crown



40 - Spherical

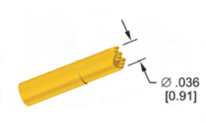


41 - Spear



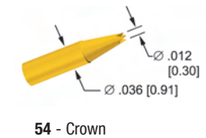
43 - Chisel

44 - Crown

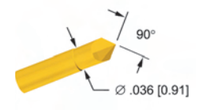


49 - Serrated

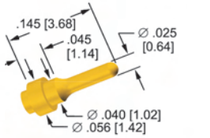
53 or 53 -S - Chisel



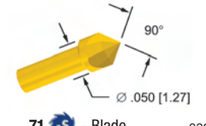
54 - Crown



61 -S - Blade



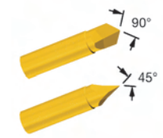
70 - Connector
.315 [8.00] Full Stroke



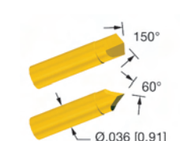
71 -S - Blade

94 -S - Crown

NEW Razor Sharp Tip Styles See page 69 for more details



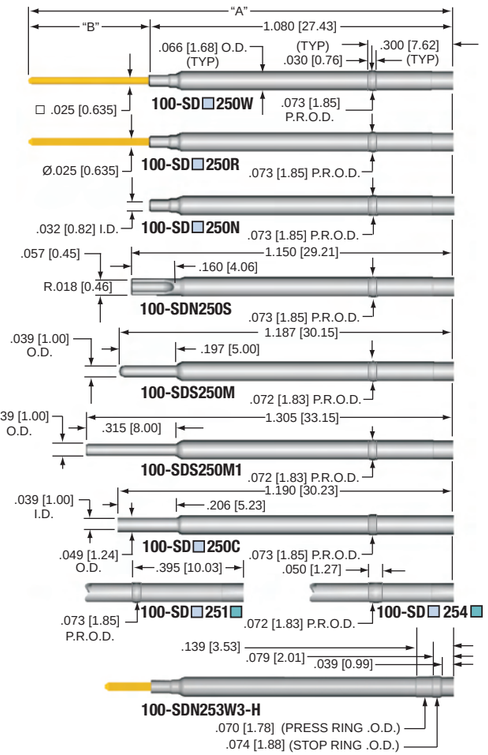
6R -S - Razor



8R -S - Razor

Sockets

Mounting holes in AT7000, G10/FR4 or similar materials should be gauged at .067/.069 [1.70/1.75], suggested drill sizes #51 or 1.75mm.



PROBE P/N: 100 - PR ■ 40 □□□ - ■

example: 100 - PRP4003L - B

	Letter	Material/Finish	Average Resistance
TUBE	P	Nickel silver/ID precious metal clad	< 20 milliohms
	G	Nickel silver OD gold plated	< 20 milliohms
	N	Nickel silver/no finish	< 375 milliohms
	H	High conductivity proprietary alloy/ID & OD precious metal clad	< 15 milliohms
	F	Nickel silver/ID precious metal clad. Oversized tube .0542 [1.377] OD (factron replacement)	< 20 milliohms

	Digits	Material/Finish
POINT	See Points	Heat-treated BeCu/plated gold over nickel

	Letter	Spring Force	Preload	@ .317 Stroke	Material	Mechanical Life (Cycles @ Stroke)
SPRING	L	Low	0.8 [23]	3.0 [85]	Music wire	1M min @ .317 [8.05] max
	X	Extra High	1.5 [43]	5.7 [162]	Music wire	50K min @ .317 [8.05] max
	U*	Ultra High	4.5 [128]	8.1 [230]	Music wire	10K min @ .317 [8.05] max

	Letter	Description
OPTION	B	Curved tube (pylon replacement)
	D	Decreased stroke is .250 [6.35]. Must select from 100-25 series spring forces with this option.
	N	No probe lubrication. Removing probe lubrication greatly reduces cycle life and should only be used in applications outside of the probe operating temperature specifications.
	S	Heat-treated steel/plated gold over nickel (see points for availability)
	(blank)	No option required

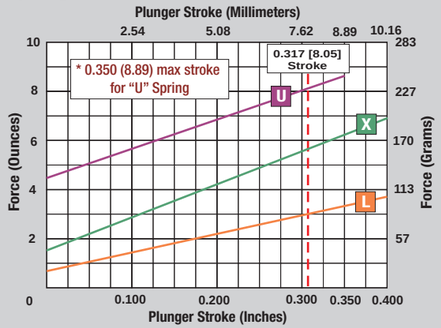
*0.350 [8.89] max stroke for U spring.

Probe Specifications

Mechanical

Full stroke: .400 [10.16] • **Working stroke:** up to .317 [8.05]
Operating temp.: -50° to 250°F [-45°C to 120°C]
Current rating (for single probe in ambient air with 70°F [20°C] rise): 8 Amps (for H tube, 12 Amps)

Spring Force



Installation and Extraction Tool Part Numbers (see pages 62 & 63)

Pin Gauge Tool: PG100
Socket Installation Tool: AT100-KIT, AT100M-KIT adjustable tools or preset IT100-FLUSH or IT100 SET .000 to .345 [0.00 to 8.76]
Socket Extraction Tool: ET100-KIT (includes IT100-FLUSH & ET100 – *sockets must be FLUSH before extraction*)
Probe Insertion Tool: PT100/75
Probe Extraction Tool: PE100 (not for use with headless point styles)
Indicator Probes: IP100-4010 or IP100-4040

SOCKET P/N: 100 - SD ■ 25 □□ - ■ *(example: 100 - SDN250W)*

	Letter	Material/Finish
TUBE	G	Nickel silver/OD gold plated ⑦ ⑨
	H	High conductivity alloy/ID & OD precious metal clad ④ ⑤ ⑦
	N	Nickel silver/no finish
	S	Stainless Steel/no finish ① ④ ⑦

	Digit	Description
PRESS RING	0	Single press ring located at .300 [7.62]
	1	Single press ring located at .395 [10.03] ⑤ ⑦ ⑧
	3	Single press ring located at .139 [3.53] ② ④ ⑥
	4	Single extra long press ring ⑤ ⑦ ⑧

	Letter	Description	A in (mm)	B in (mm)
TERMINATION	C	Crimp ② ④ ⑦ ⑧		
	M	Male round tube ③ ④ ⑦		
	M1	Male round tube ③ ④ ⑦		
	N	No termination ②		
	S	Solder cup ④ ⑥ ⑦ ⑧ ⑩		
	R*	Round pin	1.490 [37.85]	.410 [10.41]
	R1*	Round pin	1.627 [41.33]	.547 [13.89]
	R3*	Round pin	1.296 [32.92]	.216 [5.49]
	R5*	Round pin	2.027 [51.49]	.947 [24.05]
	W*	Square wire wrap pin	1.509 [38.33]	.429 [10.90]
	W1*	Square wire wrap pin ⑥	1.774 [45.06]	.694 [17.63]
	W2*	Square wire wrap pin ⑥	2.124 [53.95]	1.044 [26.52]
	W3*	Square wire wrap pin	1.244 [31.60]	.164 [4.17]

	Letter	Description
OPTION	H	High force probe indent ④ ⑤ ⑥ ⑧
	(Blank)	No option required

Notes:
① Available only in M Termination
② Available only in N & G Tube Material
③ Available only in S Tube Material
④ Not available in 1 or 4 Press Ring
⑤ Not available in C, M or S Termination
⑥ Not available in G Tube Material
⑦ Not available in H Option
⑧ Not available in H Tube Material
⑨ Not available in M or S Termination
⑩ Not available in S Tube Material

* Pin material: Phosphor bronze/gold plated over nickel

US Patent No. 4,885,533

.100 [2.54] Centers ◆ .400 [10.16] Stroke