

## M-pin Probe

High performance probe for high current, high frequency,  
and high-temp circumstance.  
For burn-in socket, test socket, and board to board connector.





### Specification

Temperature range: -40°C ~ +150°C  
Contact resistance: 50mΩ max

### Material

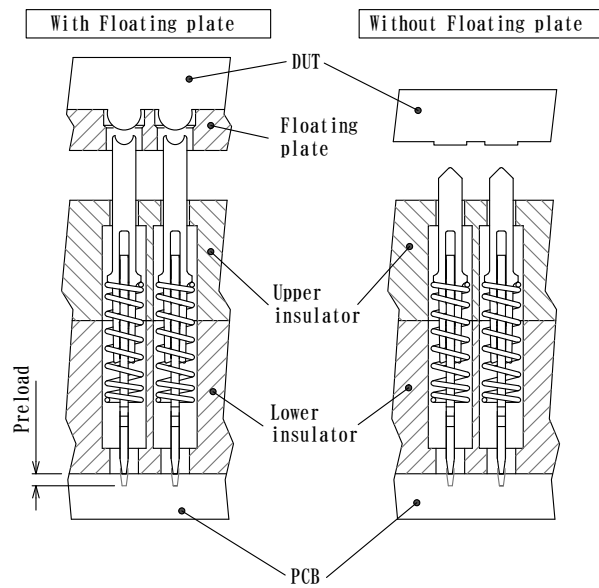
Plunger: BeCu, Gold over Ni plated  
Spring : Stainless Steel, Gold over Ni plated



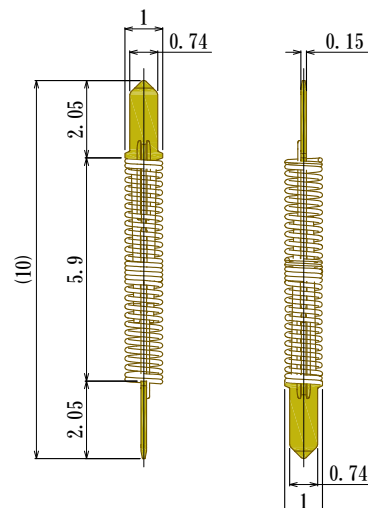
Head style	Target objects
point 	Pad Land (LGA) Pin Lead (QFP, SOP)
Full radius 	Pad Land (LGA)
U shape 	Pad Land (LGA) Pin Lead (QFP, SOP) BGA CSP
V shape 	Pad Land (LGA) Pin Lead (QFP, SOP) BGA CSP

(reference)

### How to use



**M-pin Probe Outer Dia. 1.0mm/ 0.039"**  
**1.27mm pitch , etc.**

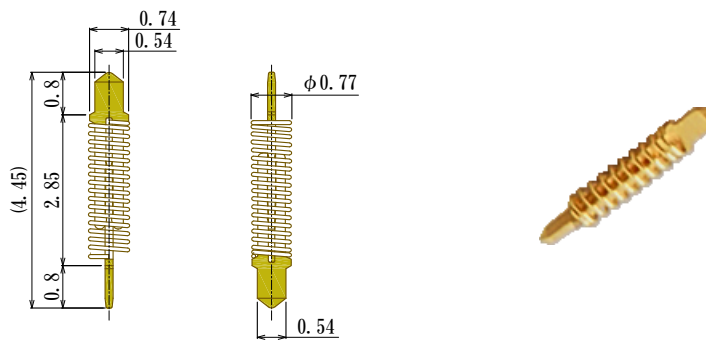


**MD100L10C-045N**

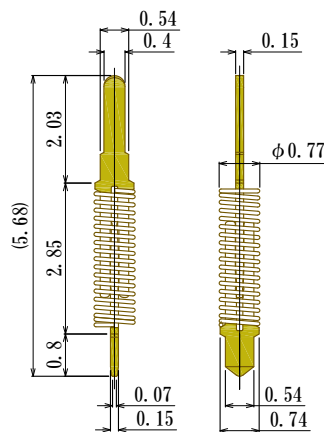
1.27mm pitch, etc.

- \*Test & Burn-In Socket, GU22 molded frame series ——— Please refer to page 2A5~2A8.  
Size22x22mm/0.87x0.87"
- \*Test & Burn-In Socket, GU37 molded frame series ——— Please refer to page 2A10~2A16.  
Size37x39mm/1.46x1.54"
- \*Test & Burn-In Socket, GU40 molded frame series ——— Please refer to page 2A17~2A18.  
Size40x50.25mm/1.57x1.98"
- \*M-pin Probe Assy, for Board to Board ——— Please refer to page 3C1.

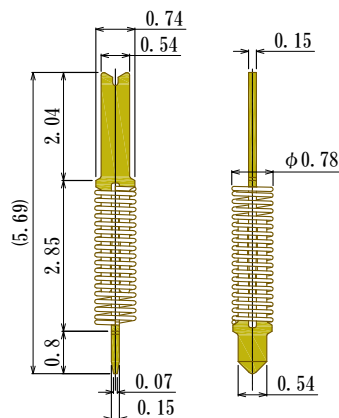
M-pin Probe Outer Dia.  $\phi 0.77 \sim 0.78\text{mm} / 0.030 \sim 0.031''$   
1.0mm pitch, etc.



Part No.	Preload	Recommended travel	Full travel	Current rating
<a href="#">MD77L445C-019N</a>	0.1N (10.1gf)	0.166N (17.0gf) at 0.5mm travel	0.7mm	4A
<a href="#">MD77L445C-034N</a>	0.18N (18.1gf)	0.295N (30.1gf) at 0.5mm travel		



Part No.	Preload	Recommended travel	Full travel	Current rating
<a href="#">MD77L568R-019N</a>	0.1N (10.1gf)	0.166N (17.0gf) at 0.5mm travel	0.7mm	4A
<a href="#">MD77L568R-034N</a>	0.18N (18.1gf)	0.295N (30.1gf) at 0.5mm travel		



Part No.	Preload	Recommended travel	Full travel	Current rating
<a href="#">MD78L569V-019N</a>	0.1N (10.1gf)	0.166N (17.0gf) at 0.5mm travel	0.7mm	4A
<a href="#">MD78L569V-034N</a>	0.18N (18.1gf)	0.295N (30.1gf) at 0.5mm travel		

M-pin Probe Outer Dia.  $\phi 0.59\text{mm}/ 0.023''$   
0.8mm pitch, etc.

**High frequency characteristic**  
Return loss ———  
Insertion loss ———

Preload 0.09N (9.4gf)  
0.254N (25.9gf) at 0.4mm travel  
Full travel 0.5mm  
Current rating 3A

Pitch: 0.8mm  
Return loss (SG9) : -13dB@20GHz  
Insertion loss (SG9) : -0.68dB@20GHz

**MD59L301R-029N**  
0.8mm pitch, etc.

Preload 0.09N (9.4gf)  
0.254N (25.9gf) at 0.4mm travel  
Full travel 0.5mm  
Current rating 3A

**MD59L33U-029N**  
0.8mm pitch, etc.  
限定数量品

Part No.	Preload	Recommended travel	Full travel	Current rating
<b>MD59L38V-015N</b>	0.06N (5.7gf)	0.151N (15.4gf) at 0.4mm travel	0.5mm	3A
<b>MD59L38V-029N</b>	0.09N (9.4gf)	0.254N (25.9gf) at 0.4mm travel		

0.8mm pitch, etc.

Preload 0.09N (9.4gf)  
0.254N (25.9gf) at 0.4mm travel  
Full travel 0.5mm  
Current rating 3A

**MD59L458V-029N**  
0.8mm pitch, etc.

**M-pin Probe Outer Dia.  $\phi 0.38\text{mm}/ 0.015''$   
0.5mm pitch, etc.**

Preload 0.21N (21.2gf)  
0.281N (28.6gf) at 0.33mm travel  
Full travel 0.43mm  
Current rating 2.9A

**MD38L295C-030N**  
0.5mm pitch, etc.

Preload 0.21N (21.2gf)  
0.281N (28.6gf) at 0.33mm travel  
Full travel 0.43mm  
Current rating 2.9A

**MD38L34U-030N**  
0.5mm pitch, etc.  
\*Limited quantity

Preload 0.21N (21.2gf)  
0.281N (28.6gf) at 0.33mm travel  
Full travel 0.43mm  
Current rating 2.9A

**MD38L348C-030N**  
0.5mm pitch, etc.

Preload 0.21N (21.2gf)  
0.281N (28.6gf) at 0.33mm travel  
Full travel 0.43mm  
Current rating 2.9A

**MD38L385V-030N**  
0.5mm pitch, etc.

Preload 0.21N (21.2gf)  
0.281N (28.6gf) at 0.33mm travel  
Full travel 0.43mm  
Current rating 2.9A

**MD38L448C-030N**  
0.5mm pitch, etc.

Preload 0.21N (21.2gf)  
0.281N (28.6gf) at 0.33mm travel  
Full travel 0.43mm  
Current rating 2.9A

**MD38L476V-030N**  
0.5mm pitch, etc.

M-pin Probe Outer Dia.  $\phi 0.33 \sim \phi 0.38\text{mm} / 0.013 \sim 0.015"$   
0.4~0.5mm pitch, etc.

Preload 0.21N (21.2gf)  
0.281N (28.6gf) at 0.33mm travel  
Full travel 0.43mm  
Current rating 2.9A

**MD38L548C-030N**  
0.5mm pitch, etc.

Preload 0.06N (6.6gf)  
0.129N (13.2gf) at 0.3mm travel  
Full travel 0.4mm  
Current rating 1.8A

**MD33L289R-014N**  
0.4mm pitch, etc.

Preload 0.06N (6.6gf)  
0.129N (13.2gf) at 0.3mm travel  
Full travel 0.4mm  
Current rating 1.8A

**MD33L381V-014N**  
0.4mm pitch, etc.

Preload 0.05N (5.2gf)  
0.095N (9.68gf) at 0.2mm travel  
Full travel 0.25mm

**MD33L126R-011N**  
0.4mm pitch, etc.  
For LGA device

Pitch: 0.5mm  
Return loss (GSG) : -20dB@27.3GHz  
Insertion loss (GSG) : -1.0dB@>40GHz  
Self inductance: 0.28nH  
Capacitance: 0.11pF

Preload 0.05N (5.2gf)  
0.095N (9.68gf) at 0.2mm travel  
Full travel 0.25mm

**MD33L126V-011N**  
0.4mm pitch, etc.  
For BGA device

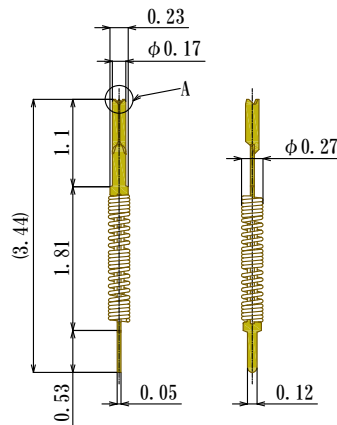
Preload 0.05N (5.2gf)  
0.095N (9.68gf) at 0.2mm travel  
Full travel 0.25mm

**MD33L135R-011N**  
0.4mm pitch, etc.  
For LGA device

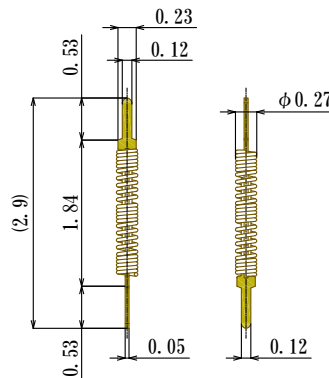
**M-pin Probe    Outer Dia.  $\phi$ 0.27mm/ 0.010"**  
**0.35mm pitch**

Material  
Plunger: BeCu, Gold over Ni plated  
Spring : Stainless Steel, Gold over Ni plated

Specification  
Spring force : 0.078N (8.0gf) at 0.3mm travel  
Full travel : 0.4mm  
Contact resistance: < 65m $\Omega$   
Temperature range : -55 $^{\circ}$ C~+135 $^{\circ}$ C  
Current rating : 0.5A



**MD27L344W-009N**



**MD27L29R-009N**