

V22 Version

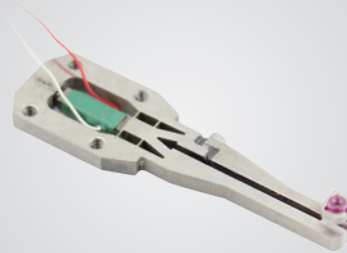


Piezo Nano Motion

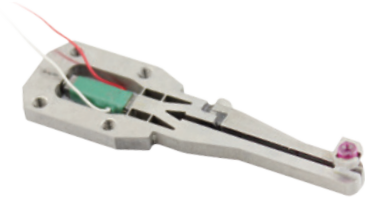
- Piezo Clamp -

Piezo Clamp

Piezo clamp is one of the key components in wire bonding machine, and control the pass or clamping of leads made of Au, Cu. or others.



Piezo Clamp



According to the requirements of automatic wire bonding machine, CoreMorrow produces piezo clamp, which is designed and developed for clamping wire. It features a simple structure, fast response and high resolution.

► Characteristics

- Displacement to 100µm
- Sub-millisecond response time
- Resonant frequency to 1.5kHz
- Small size

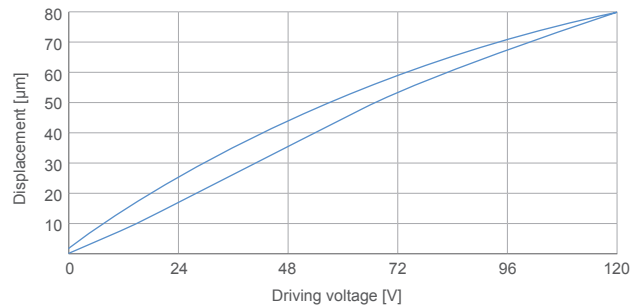
► Principle

The structure of piezo clamp is composed of piezo stack, flexible mechanical structure, fixed jaw and adjustable jaw. Piezo stack is installed between clamping jaw and the base. When voltage is applied to piezo stack, the output displacement of the piezo stack is amplified by the lever arm of the clamping jaw and outputted in the top end of the clamp. Clamp closed. After the voltage is removed, the of clamp jaws return to initial position, and the clamp is opened to allow the lead to pass freely.

► Technical Data

Type	XD002.90K	XD002.200S	Unit
Active axes	X	X Closed-loop	
Travelrange (0~120V)	80	±80	µm±20%
Travel range (0~150V)	100	±100	µm±20%
Push/pull force capacity	10/1	4/-	N
Stiffness	0.04	0.04	N/µm±20%
Unloaded resonant frequency	1500	400	Hz±20%
Unloaded step time	0.7	-	ms±20%
Unloaded operating frequency	300	-	Hz
Load capacity	0.05	0.05	kg
El. capacitance	0.18	7.2	µF±20%
Material	Steel	Steel	
Mass	10	200	g±5%

► Displacement vs Voltage



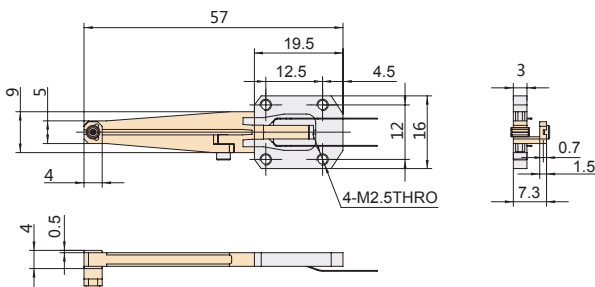
► Recommended Controller

E53.A piezo controller is ideal for driving piezo clamp, ensuring fast response time and stability of the piezo clamp. E53 is very compact and easy to integrate.

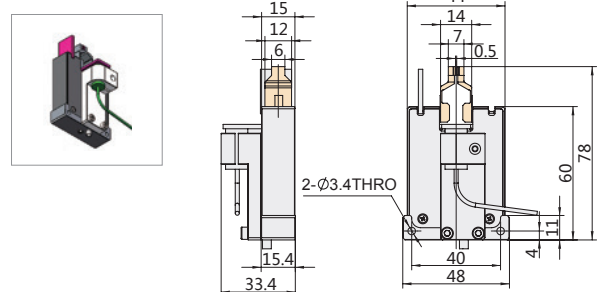


► Drawings

XD002.90K



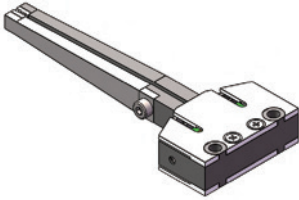
XD002.X200S



Customized Piezo Wire Clamps/Piezo Clamps

Piezo Wire Clamp/Piezo Clamp 1

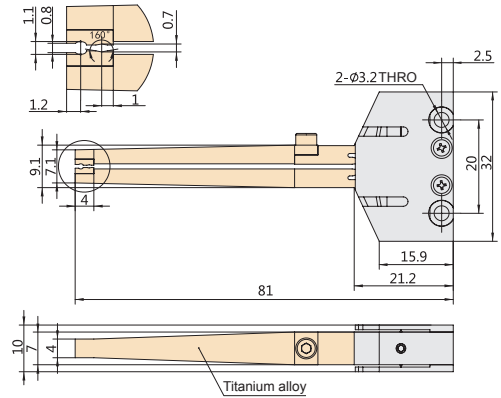
► Appearance



► Technical Data

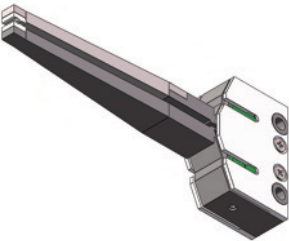
Stroke	500µm@150V
El. capacitance	1.8µF
Unloaded resonant frequency	180Hz
Material	Titanium alloy

► Drawing



Piezo Wire Clamp/Piezo Clamp 2

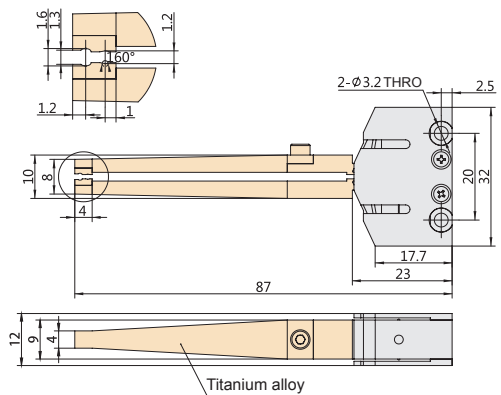
► Appearance



► Technical Data

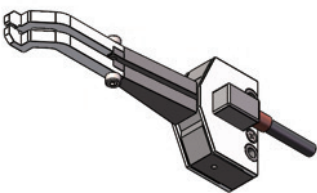
Stroke	1000µm@150V
El. capacitance	3.6µF
Unloaded resonant frequency	110Hz
Material	Titanium alloy

► Drawing



Piezo Wire Clamp/Piezo Clamp 3

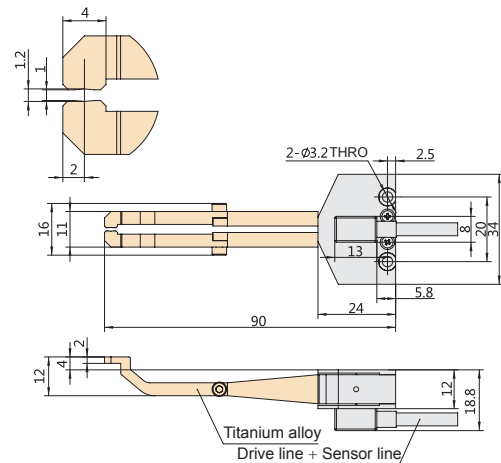
► Appearance



► Technical Data

Stroke	1000µm@150V
El. capacitance	3.6µF
Unloaded resonant frequency	90Hz
Repeatability	0.5%F.S.
Sensor	Yes
Material	Titanium alloy

► Drawing



Challenge the Limits of Nano Motion and Control Technology...

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