EAGLEPICHER TECHNOLOGIES

Dimple Actuators

These devices produce a short linear motion by inverting a dimpled cup. They hold their position under load.

Applications include:
- Operating a switch
- Latch or relay
- Pushing a mechanical load
- Arming a projectile
- Locking, unlocking, or releasing.

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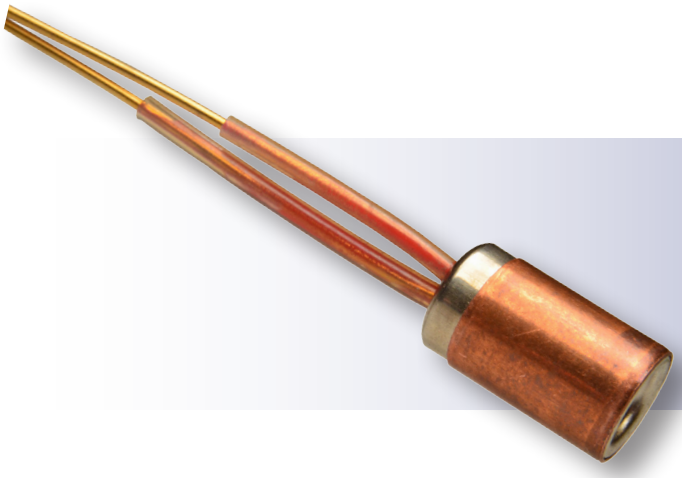
EAGLEPICHER TECHNOLOGIES

1MT117 Dimple Actuator



Dimple actuators are pyrotechnic-actuated devices that produce short linear motion.

Their compact size, light weight, simplicity of design, high reliability and environmental resistance make them ideal for aerospace applications. They hold their extended position under load.

Characteristics

Some of the characteristics listed here are nominal; others are levels to which the units have been tested. There are no limits on design capabilities. Please consult an EaglePicher representative before using this data as a specification.

Specifications

Electrical	
Bridge Resistance @ 70°F (21°C)	5.0 - 7.3 ohm
All-Fire Current @ -45°F (-43°C)	0.3 amp, 10 ms
No-Fire Current @ 135°F (57°C)	0.03 amp, 5 min
Insulation Resistance, Shunted Leads to Case, Before Firing	10 megohm, 100 Vdc
Insulation Resistance, Shunted Leads to Case, After Firing	50 kilohm, 10 ma

Specifications Continued

Mechanical	
Size	See drawing
Stroke	0.10" (2.5 mm)
Load	15 lb (35 N)
Function Time	10 ms
Weight	3 gm Max.
Environmental	
Temperature	Operating range: -45°F to +135°F (-43°C to +57°C)
Vibration	.04 G^2/Hz, 20-2000 Hz at 20 minutes/axis
Thermal Shock	-45°F (-43°C) to +135°F (+57°C)
Handling Shock	50 g's for 11 ms, 1/2 sine
Chemical	
Ignition Material	KDNBF
Freight Classification	
Shipping Name	Dimple Motor
Hazard Classification	1.4S

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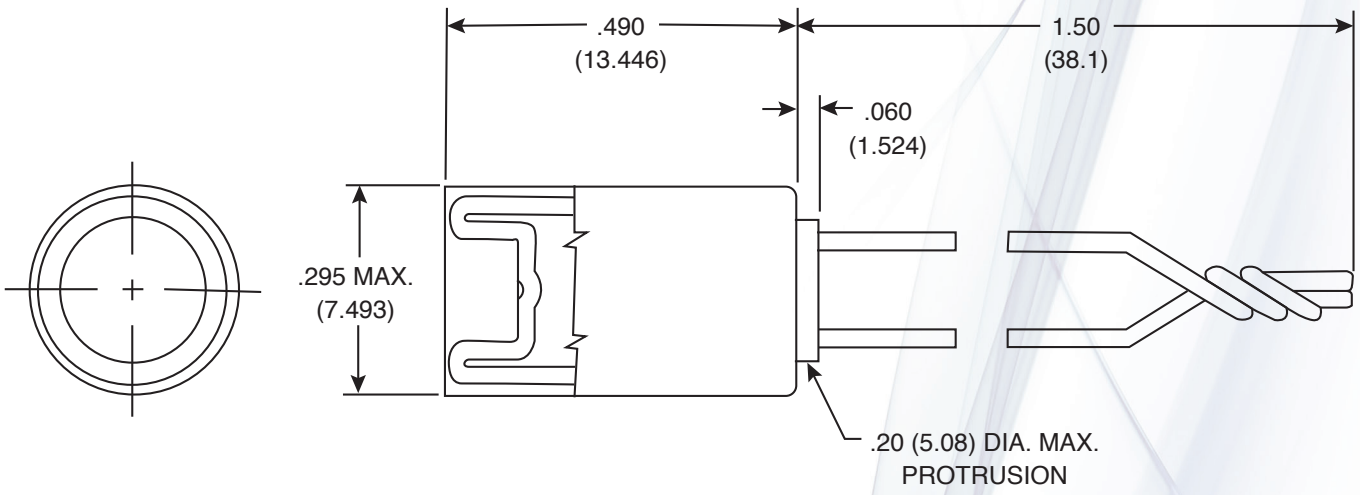
1MT117



DIMENSIONS ARE NOMINAL
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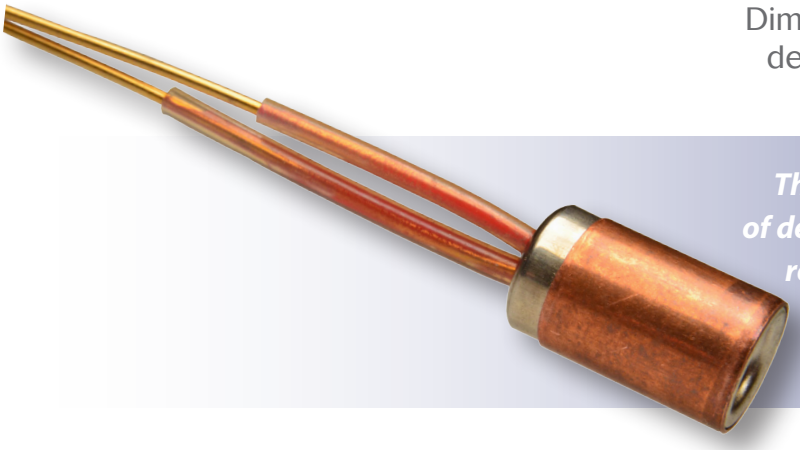
EAGLEPICHER TECHNOLOGIES

1MT1130 Dimple Actuator



Dimple actuators are pyrotechnic-actuated devices that produce short linear motion.

Their compact size, light weight, simplicity of design, high reliability and environmental resistance make them ideal for aerospace applications. They hold their extended position under load.

Similar in size and external configuration to the 1MT117, the 1MT1130 provides greater static resistance and better insulation resistance after functioning.

Variations

Modifications can be made in lead lengths, firing characteristics, force and environmental resistance.

Characteristics

Some of the characteristics listed here are nominal; others are levels to which the units have been tested. There are no limits on design capabilities. Please consult an EaglePicher representative before using this data as a specification.

Specifications

Electrical	
Bridge Resistance @ 70°F (21°C)	.80 - 1.10 ohm (test current limited to 0.010 amp)
All-Fire Current @ -65°F (-54°C)	4.0 amp, 20 ms
No-Fire Current @ 185°F (85°C)	1.0 amp, 5 min
Insulation Resistance, Shunted Leads to Case	Before firing: 10 megohm @ 100 Vdc After firing: 50 kilohm, 10 ma
Static Resistance	25,000 V discharge from a 500 pF capacitor through a 5000 ohm series resistor.

Specifications Continued

Mechanical	
Size	See drawing
Stroke	0.1" (2.5 mm)
Load at -65°F (-54°C)	15 lb (78 N)
Function Time	10 ms
Weight	3 gm Max.
Environmental	
Temperature	Operating range: -65°F to +185°F (-54°C to +85°C) Temperature shock: Functions after 1 hr at +185°F (85°C) followed by 1 hr at -65°F (-54°C).
Shock	40 g's for 40 ms, 1/2 sine any direction
Vibration, Random	.14 G^2/Hz Min. to 2000 Hz, 10 min per axis
Chemical	
Ignition Material	Barium Styphnate
Freight Classification	
Shipping Name	Dimple Motor
Identification Number	UN0255
Hazard Classification	1.4S

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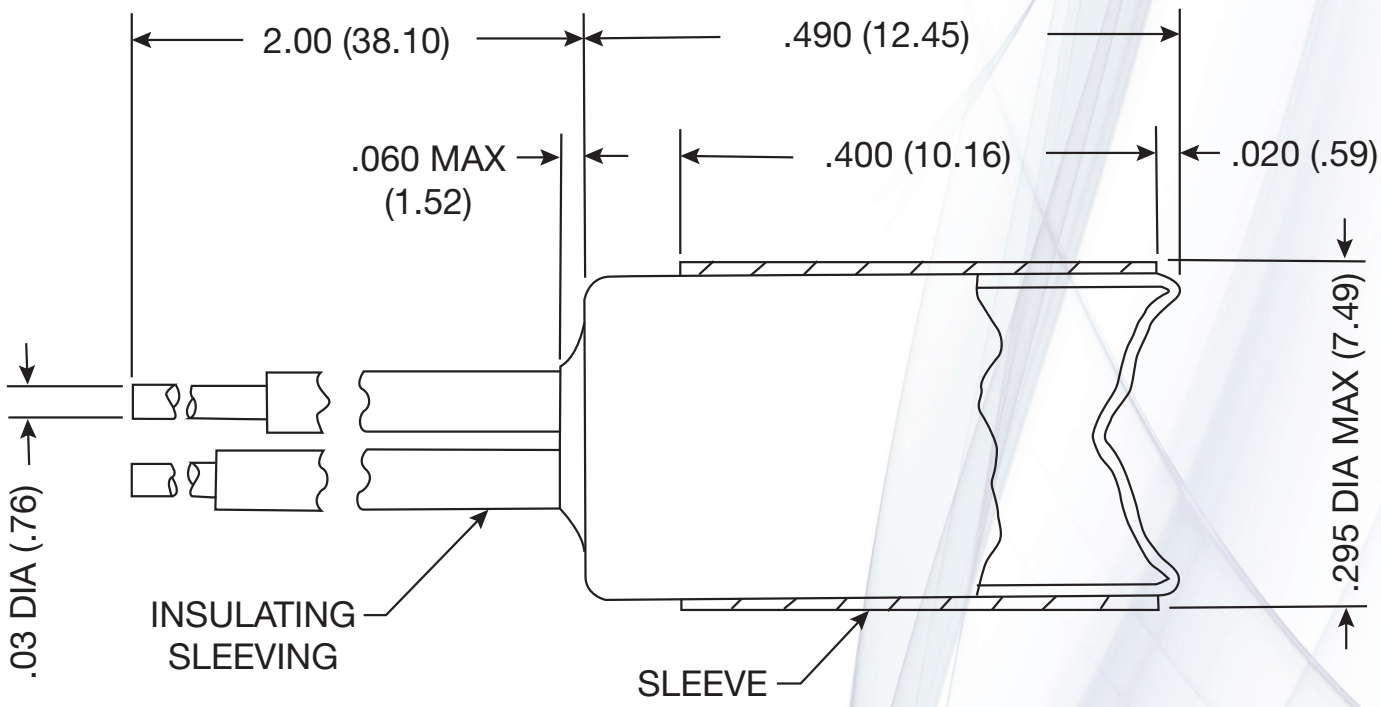
1MT1130



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