

# 1MT100 Miniature Piston Actuator



The 1MT100 Miniature Piston Actuator is a pyrotechnic-actuated device that delivers linear force.

*Remarkably small and lightweight, it is ideal for high-volume applications such as submunitions. Its co-axial design facilitates automatic insertion into the next assembly.*

## Variations

Actuator modifications can be made to meet customer requirements. Modifications can be made in lead lengths, firing characteristics, and force. The electrode can be nickel or gold plated, or altered in shape. Quantity and/or type of pyrotechnic charge can be changed to alter output force characteristics.

## 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)	3.0 - 7.5 ohm
All-Fire Energies @ -65°F (-54°C)	Capacitor discharge: 1.6 V, 100 microfarad (1280 erg)
	Constant current: 0.15 amp, 10 ms
No-Fire Current @ 165°F (74°C)	0.010 amp, 10 sec 0.7 V, 100 microfarad (245 erg)

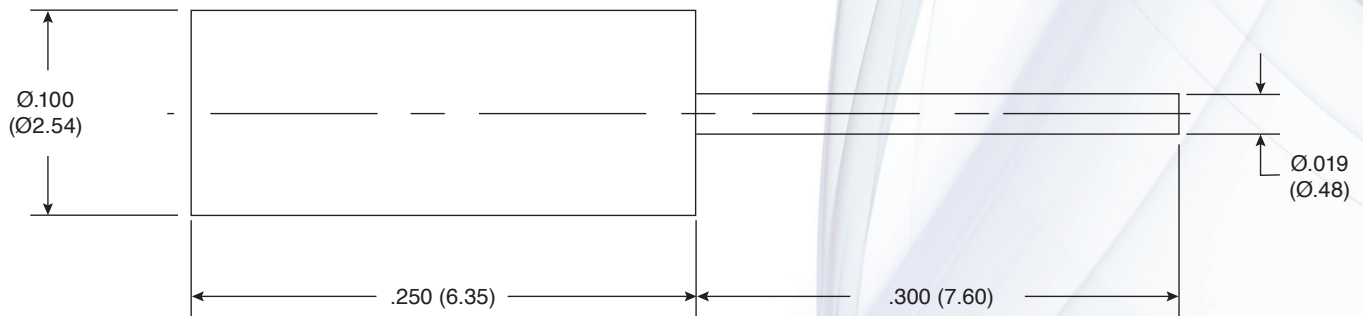
### Mechanical

Size	See drawing
Weight	0.15 gm
Stroke	0.100" (2.54 mm)
Load	30 lb to 120 lb
Function Time	Ignites in less than 1.0 ms. Function time will be slightly longer depending on load.

# 1MT100

Specifications Continued	
Environmental	
Temperature	Operating range: -65°F to +165°F (-54°C to +74°C)
Thermal Shock	IAW MIL-STD-202, Method 107, Condition A, except that the temperatures shall be -65°F and +165°F.
Vibration	IAW MIL-STD-202, Method 204, Test condition A.
Gun Launch Shock	60,000 g's peak for 1 ms along any transverse axis.
Jolt	IAW MIL-STD-331, Test no. 101.2. Shall not activate and safe to handle.
Jumble	IAW MIL-STD-331, Test no. 102.1. Shall not activate and safe to handle.
Drop	40' drop: shall not activate and safe to handle. 5' drop: shall not activate and shall function properly.

Specifications Continued	
Chemical	
Ignition Compound	KDNBF
Freight Classification	
Shipping Name	Release Devices, Explosive
Identification Number	UN0173
Hazard Classification	1.4S



DIMENSIONS ARE NOMINAL  
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