

# 1MT1311 Piston Actuator



The 1MT1311 Piston Actuator is a pyrotechnic-actuated device that produces linear motion.

*Larger than miniature piston actuators, it was developed to unlock gag rods. Both case and piston are 303 stainless steel.*

## 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.

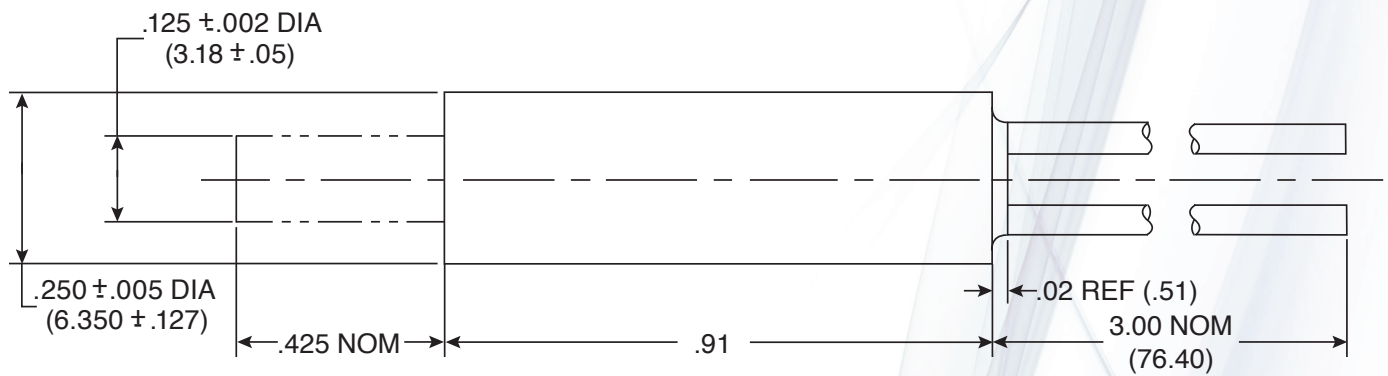
### Specifications

| Electrical  |  |
|---|--|
| Bridge Resistance @ 70°F (21°C)                               | 4.0 - 6.0 ohm  |
| All-Fire Energy @ -67°F (-55°C)                               | Capacitor discharge: 36 microfarad capacitor charged to 7.0 V through a 1.575 ohm series resistor. (5200 erg)          |
| No-Fire Level @ 221°F (105°C)                                 | 50 milliamp, 30 sec  |
| Insulation Resistance @ 300 Vdc, Leads to Case, Before Firing | 10 megohm Min.   |
| Function Time   | Less than 10 ms  |
| Mechanical  |  |
| Case and Piston Material                                      | 303 SS   |
| Size  | See drawing  |
| Weight  | 4 gm   |
| Stroke  | .425"  |
| Load  | 250 lbs minimum load with piston restrained in initial position, 20 lbs minimum force throughout stroke length (1311). |

### Specifications Continued

| Environmental               |  |
|-----------------------------|--|
| Temperature                 | Operating range: -67°F to +221°F (-55°C to +105°C)   |
| Vibration                   | MIL-STD-202, Method 204, Test Condition E (50 g's peak, 10 to 2000 Hz).                          |
| Shock                       | MIL-STD-202, Method 213, Test Condition E (18 shocks, 1,000 g's, 0.5 ms).                        |
| Extreme Temperature Storage | MIL-STD-331, Test 112, -67°F (-55°C) for 28 days, followed by +160°F (+71°C) for 28 days.        |
| Thermal Shock               | MIL-STD-202, Method 107, Condition A (except 10 cycles).   |
| Transportation Vibration    | MIL-STD-331, Test B1, (10-2000-10 Hz) 1 hr per perpendicular direction (3 axes). Peak 9 g ± 10%. |
| Chemical                    |  |
| Energetic Compounds         | Lead Styphnate, Barium Styphnate   |
| Freight Classification      |  |
| Shipping Name               | Release Devices, Explosive   |
| Identification Number       | UN0173   |
| Hazard Classification       | 1.4S   |

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DIMENSIONS ARE NOMINAL  
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