

Indicators

1MT116 & 1MT163 Indicator



The 1MT116 and 1MT163 Indicator, variations of the 1MT114 Piston Actuator, are designed to do no physical work.

Instead, the piston for each device is used to show that stray current is present, another device has fired, or to indicate system status (armed, safe, etc.). The 1MT116 and 1MT 163 should not be fired under load because its piston extends with minimal force.

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

Insulation Resistance, Shunted Leads to Case

Before firing: 50 megohm Min. @ 500 Vdc

After firing: 50,000 ohm Min. @ 50 Vdc

Squib	Bridge Resistance* @ 70°F (21°C)	All-Fire Current @ -65°F (-54°C) 10 ms pulse	No-Fire Current† @ 160°F (71°C) 5 min
1MT163			
Type	Ohm	Amp, Min.	Amp, Max.
A	6.0 ± 1.0	0.30	0.03
B	4.0 ± 1.0	0.55	0.10
C	1.8 ± 0.2	1.00	0.10
F	.40 ± .05	4.50	1.00
G	25.0 ± 5.0	0.10	0.01
1MT116			
A	1.00 ± .10	.4 µF cap @ 50 V	.3 µF cap @ 45 V

*Test current limited to 0.010 amp

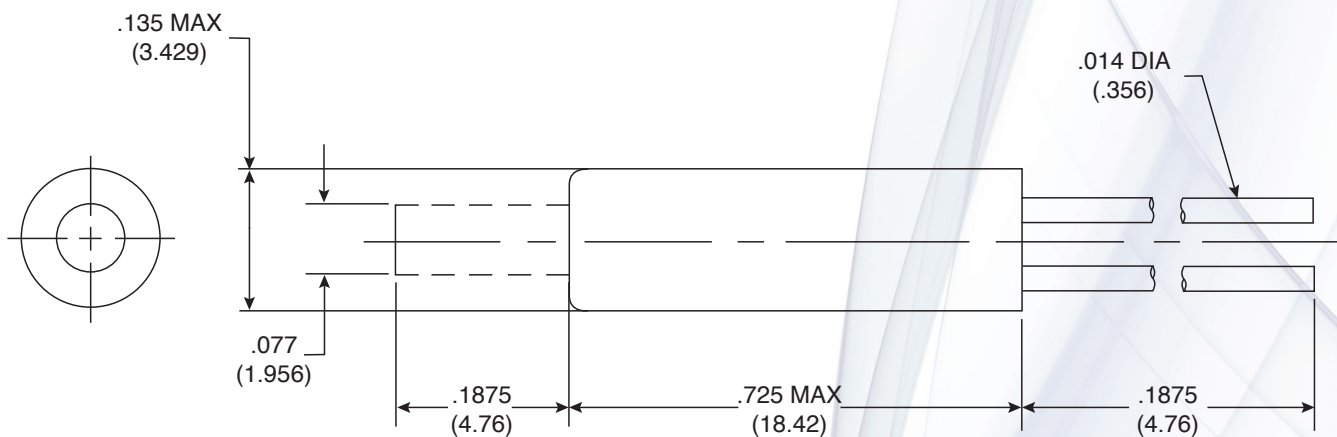
1MT116 & 1MT163

Specifications Continued

Mechanical	
Size	See drawing
Weight	1.0 gm Max.
Stroke	3/16" (4.76 mm)
Function Time	10 ms
<i>*See Firing Characteristics of Pyrotechnic-Actuated Devices for effect of current on ignition time.</i>	
Environmental	
Temperature	Operating range: -65°F to +160°F (-54°C to +71°C)

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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1MT173 Indicator



The 1MT173 Indicator is designed to do no physical work.

The indicator's piston is used to show that stray current is present, another device has fired, or to indicate system status (armed, safe, etc.). The 1MT173 Indicator should not be fired under load because its piston extends with minimal force.

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			
Insulation Resistance, Shunted Leads to Case		Before firing: 50 megohm Min. @ 500 Vdc	
Squib	Bridge Resistance* @ 70°F (21°C)	All-Fire Current @ -40°F (-40°C) 10 ms pulse	No-Fire Current @ 160°F (71°C) 5 min
Type	Ohm	Amp, Min.	Amp, Max.
C	1.8 ± 0.2	1.00	0.10

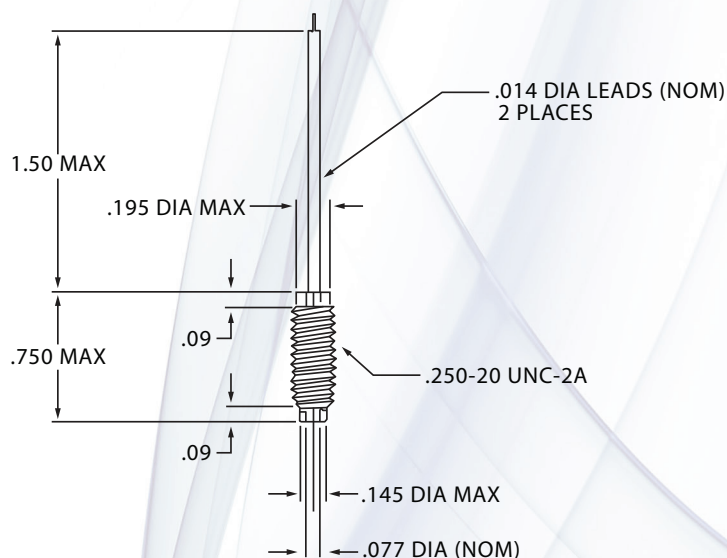
*Test current limited to 0.010 amp

Specifications Continued

Mechanical	
Size	See drawing
Weight	1.0 gm Max.
Stroke	0.190" Min. against zero load
Function Time*	10 ms
*See Firing Characteristics of Pyrotechnic-Actuated Devices for effect of current on ignition time.	
Environmental	
Temperature	Operating range: -40°F to +160°F (-40°C to +71°C)
Cycling	MIL-STD-202, Method 107
Storage	Functions normally when subjected to MIL-STD-331, Test C1. 14 day cycle temperature extremes 120°F and -30°F.
Humidity	Functions normally after 14 day cycle -30°F to +120°F and 95% relative humidity.
Shock	1/2 sine wave pulse of 50 g's for 20 ms in each of 3 mutually perpendicular planes. Perform shock profile twice.
Vibration	Transportation and sinusoidal vibration of 10-60-10 Hz sweep for 15 min per cycle. A total of 16 sweeps in each of the 3 axes. 4 hour test per axis.

Specifications Continued

Chemical	
Ignition Compound	KDNBF
Freight Classification	
Shipping Name	Release Devices, Explosive
Hazard Classification	Class C



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