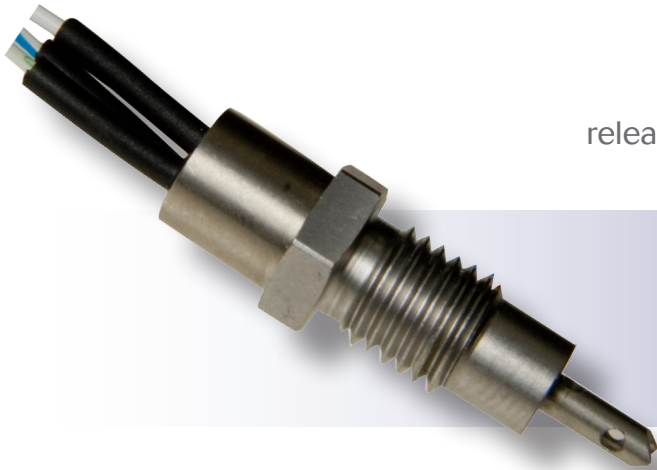


1SE608 Puncturing Cutter



The 1SE608 is a pyrotechnic actuated cutter specifically designed to puncture a steel disc, lock the piston at the end of its stroke and release gas from a cylinder through the hollow piston.

Extremely rugged in construction, the cutter can be used in any application where strength and output power are important in providing linear motion.

Variations

EaglePicher can design and manufacture variations of the 1SE608 to meet customer requirements.

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)	1.0 ohm
All-Fire Current	3.5 amp, 20ms
No-Fire Current @ 70°F (21°C)	1.0 amp, 5 min
Insulation Resistance	Before fire: Greater than 10 megohm with 500 Vdc leads to case. Per MIL-STD-202, Method 302, Test Conditions B.
Electrostatic Discharge	MIL-DTL-23659F 25 kW discharge from a 500 pF capacitor applied through a 5,000 and 500 ohm serried resistor.

Specifications Continued

Mechanical	
Size	See Drawing (<i>other side</i>)
Lead Length	18 inches
Weight	12 gm
Stroke	Punctures .012 inch thick inconel disc which is capable of withstanding a gas pressure of 17,500 psig.
Function Time	20 ms
Operating Conditions	-67°F - 187°F
Push Back Force	Will withstand up to 350 lbs of force for up to one minute after actuation.
Proof Pressure	22,000 psig
Burst Pressure	37,000 psig
Leakage	1.0 cm ³ per min after actuation

1SE608

Specifications Continued	
Environmental	
High Temperature	MIL-STD-810C, Method 501.1, Procedure 1, except steps 4 & 5 are omitted (187°F).
Low Temperature	MIL-STD-810C, Method 502.1, Procedure 1, except steps 4 & 5 are omitted (-67°F)
Temperature Shock	MIL-STD-810C, Method 503.1, Procedure 1 (-80°F to 187°F)
Humidity	MIL-STD-810F, Method 507.4, Procedure 1 (85-95% relative humidity at -68°F to 140°F)
Salt Fog	MIL-STD-810F, Method 509.1, Procedure 1 (5% salt concentration)
Fungus	MIL-STD-810F, Method 509.1, Procedure 1, except that the test period shall be 90 days.
Temperature–Altitude	MIL-STD-810C, Method 504.1, for equipment category 3 non-operating, except that the temperatures shall be the following: Step 1b: -67°F Steps 2 & 3: -45°F Step 6: 187°F Steps 8 & 11: 145°F
Free Flight Acceleration	MIL-STD-810C, Method 513.2, Procedure 1, The Bottle Cutters shall be exposed to acceleration peak levels as follows for 1.5 seconds in each of the axes. Longitudinal Axis (Forward): 34g Longitudinal Axis (Aft): 14g Vertical Axis (Up): 40g Vertical Axis (Down): 40g Transverse: 40g
Shock	MIL-DTL-23659F
Vibration	MIL-DTL-23659F
Freight Classification	
Shipping Name	1SE608
Identification Number	UN0173
Hazard Classification	1.4S

1SE608

Safety

Maximum pyrotechnic weight:

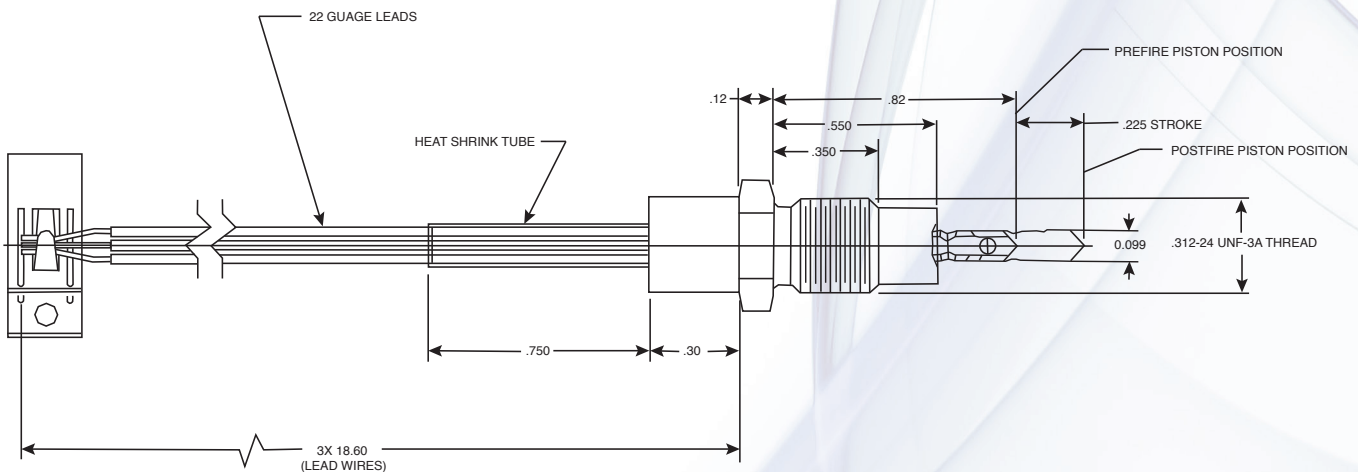
30 mg Barium Styphnate

Warning:

The cutter may fire if exposed to temperatures above 200°F (93°C), an electrical charge exceeding the specified no-fire current, or if it is cut open before functioning.

If your company does not have a safety program, it is essential that one is established before explosive items are handled or used. For a brief overview of safety precautions, see the Safety Procedures Data Sheet or contact an EaglePicher representative.

Energetic devices are considered articles; therefore a Material Safety Data Sheet (MSDS) does not apply. However, MSDS may apply to individual components. For more information, contact your EaglePicher representative.



DIMENSIONS ARE NOMINAL
DIMENSIONS ARE IN INCHES



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