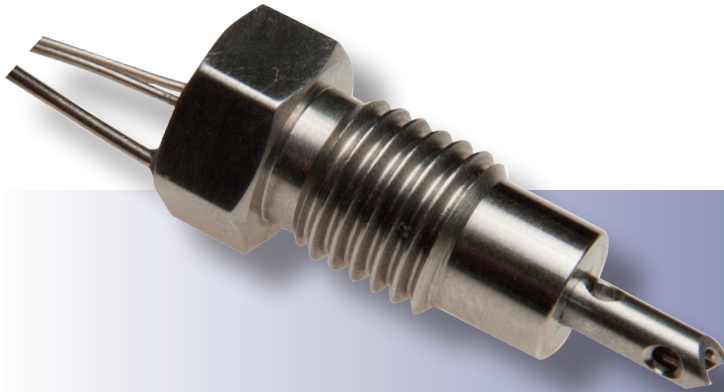


1SE603 Puncturing Cutter



The 1SE603 is a pyrotechnic actuated cutter specifically designed to puncture a steel disc 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.

Specifications

Electrical

Bridge Resistance @ 70°F (21°C)	1.0 ohm
All-Fire Current	4.5 amp, 20ms
No-Fire Current @ 70°F (21°C)	1.0 amp, 5 min
Insulation Resistance	Before fire: Greater than 1 megohm with 500 Vdc leads to case. Per MIL-STD-202, Method 302, Test Conditions B.
Electrostatic Discharge	MIL-DTL-23659 D para 4.4.5.2 25 kW discharge from a 500 pF capacitor applied through a 5000 ohm serried resistor.

Mechanical

Size	See Drawing (<i>other side</i>)
Weight	8 gm
Stroke	Punctures .008 inch thick inconel disc which is capable of withstanding a gas pressure of 4,700 psig.
Function Time	20 ms
Operating Conditions	-67°F - 187°F
Proof Pressure	6,000 psig
Leakage	5cm ³ per minute after actuation

Specifications Continued

Environmental

Temperature Shock/Humidity/Altitude	MIL-DTL-23659 D para 4.6.5 (Temperature -65°F to 160°F, Relative Humidity 50% to 95%, Altitude 70,000 ft).
Salt Fog	MIL-STD-810F, Method 509.2, Procedure 1 (5% salt concentration).
Acceleration	MIL-STD-202G, Method 27.2, Test Condition A.
Shock	MIL-DTL-23659 D para 4.6.3 Shock profile is half sine wave with an amplitude of 200 g for 1.5 seconds and exceed 65g for 9 ms
Vibration	MIL-DTL-23659D para 4.6.4 (-65°F to 200°F)
Forty Foot Drop	MIL-STD-331, Test Method A3, safe for disposal.
Six Foot Drop	MIL-DTL-23659 D para 4.6.2 Capable of actuation after being subjected to a six foot drop and impacted on a 2 inch thick steel plate.

Freight Classification

Shipping Name	1SE603
Identification Number	UN0173
Hazard Classification	1.4S

1SE603

Variations

EaglePicher can design and manufacture variations of the 1SE603 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 on design capabilities. Please consult an EaglePicher representative before using this data as a specification.

Safety

Maximum pyrotechnic weight:

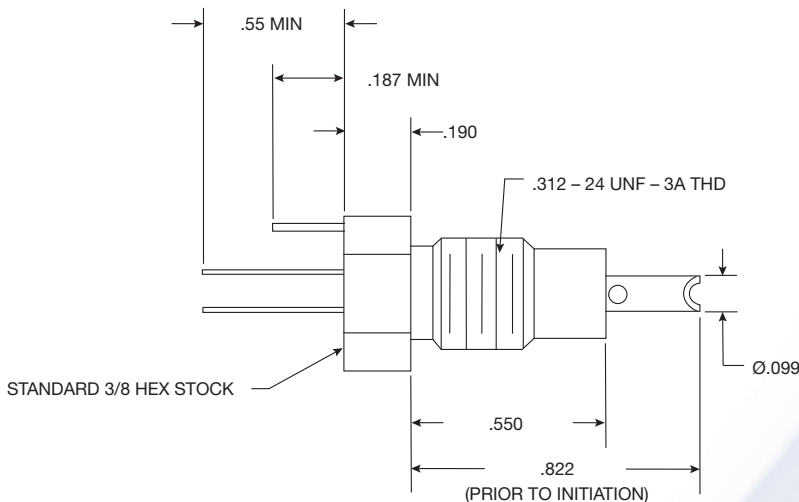
25 mg Barium Styphnate

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



EaglePicher Technologies, LLC

PO Box 47, Joplin, Missouri 64802-0047, USA
tel 417.623.8000 | fax 417.623.0850

www.eaglepicher.com