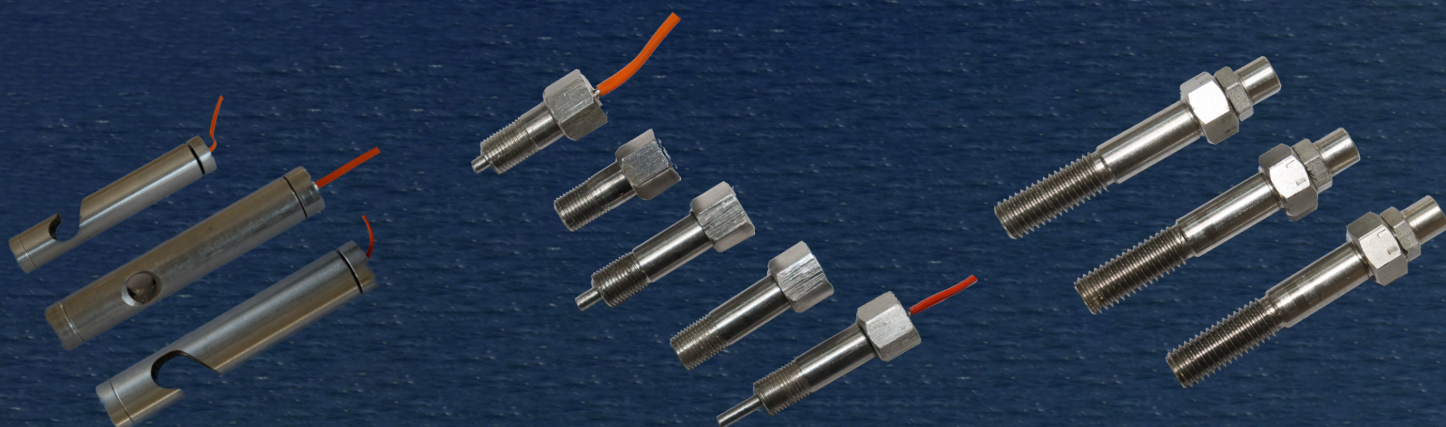


Pyrotechnic Actuators



PYROTECHNIC ACTUATORS: PIN PUSHERS, CABLE CUTTERS, AND EXPLOSIVE BOLTS

Overview

Our range of pyrotechnic actuators is designed for high-stakes applications in defense and aerospace, providing rapid, reliable separation and release solutions that meet the highest industry standards, including MIL-STD, MIL-DTL, and NASA NHB5300.4.

1. Pin Pushers

Function: These devices enable rapid, controlled linear motion for secure locking and release operations.

Technical Specifications:

- Operating Temperature Range: -54°C to +132°C
- Shock Resistance: Withstands up to 735 m/s²
- Retraction Distance: 10.4 mm (under a 445 N side load)
- Electrical Requirements: No-Fire: 1 A / 1 W, All-Fire: 3.5 A
- Response Time: Less than 20 ms

Applications: Missile stage separation, satellite release, emergency door deployment.

2. Explosive Bolts

Function: Explosive bolts enable controlled structural separation using a safe and reliable explosive mechanism.

Technical Specifications:

- Tensile Strength: Supports up to 2,450 kN
- Separation Time: Less than 20 ms
- Operating Temperature: From -54°C to +132°C
- Hermetic Sealing: Complies with 1 x 10⁻⁶ cc He/sec for leak prevention
- Electrical Requirements: No-Fire: 1 A / 1 W, All-Fire: 3.5 A
- Activation Options: Electrical, explosive transfer lines, or mechanical initiation

Applications: Rocket and missile stage separation, satellite and spacecraft release, marine applications.

3. Cable Cutters

Function: Precision cable cutters provide rapid, safe disconnection of cables in controlled environments.

Technical Specifications:

- Durability: MIL-STD-810C compliant for harsh environmental conditions
- Compatibility: Adapts to different cable types and diameters
- Shock and Vibration Tolerance: Maintains reliability under high-vibration settings

Applications: Satellite deployment, underwater vehicle release, emergency tether release .

Key Features

- **Eco-Friendly Composition:** Lead-free, safe formulations
- **Durability:** Tested for extended performance in harsh environments
- **Customizable:** All actuators can be adapted to meet specific customer requirements.
- **Firing Failure Rate:** A low failure rate, such as 0.01%, indicates reliability.

