

The picoRelease<sup>TM</sup> mechanism is a compact actuator used to initiate mechanism release, spring-energized separation, and other deployables. The picoRelease mechanism uses a novel shape-memory alloy actuator to provide reliable release capability with very low size, weight, and power impacts on the host spacecraft.

### Concept of Operation

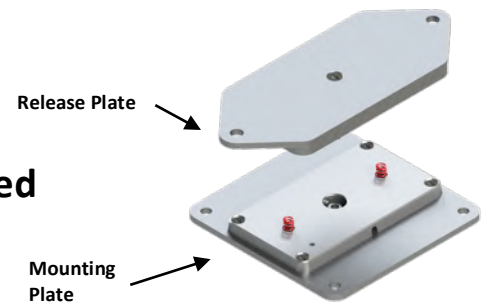
- The release plate and body are constrained by a ball detent mechanism.
- To activate the picoRelease, the spacecraft applies power to a shape memory alloy (SMA) actuator housed within the picoRelease.
- The power applied to the SMA actuator causes it to release the ball detent, allowing the mounting plate and release plate to separate.
- Spring-energized separation can be achieved by integrating optional compression springs between the body and release plate.

### Overview

#### Stowed

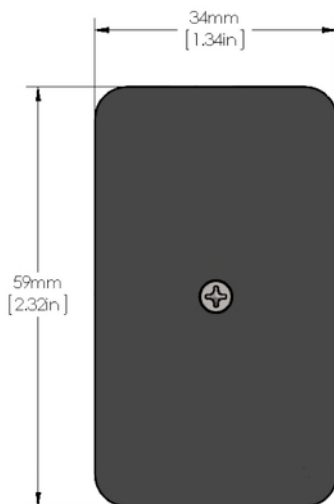


#### Deployed



### Interface

- The mounting plate is affixed to the host craft using four screws custom-fitted to your application.



- Mounting of the release plate to the deployable can be customized to your application.

### Physical Characteristics

- **Size:** 57mm x 20mm x 5.5mm
- **Mass:** <15g
- **Power:** Nominally 200-300mA @ 3V at 20°C, 1 s.
- Simple electronics require only a constant source of low power to initiate an SMA actuator
- Anodized Aluminum Housing
- Small footprint minimizes the area required for mounting
- User resettable