



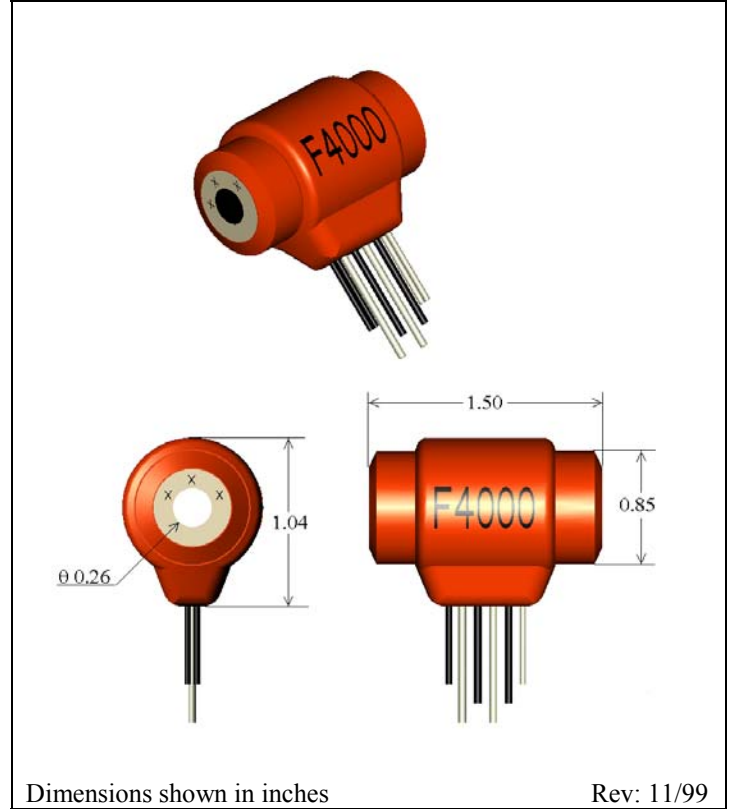
Innovative Mechanism Solutions

Frangibolt[®] Actuator

(Model FC4-24-10SR2)

The Frangibolt model FC4-24-10SR2 is designed to operate with any standard NAS ¼” notched bolt or stud*. The Nitinol (Shape Memory Alloy) cylinder generates greater than 5000 lbs of force and 0.045 in. of stroke to fracture the fastener in tension during actuation. The fatigue life of the actuator is greater than 60 cycles allowing a significant number of acceptance and system level tests prior to flight use. The actuator is reloaded by simply re-compressing the Nitinol cylinder after each actuation cycle. This may be done using any standard laboratory press or using TiNi’s portable compression tool FBT-CT2. Frangibolt model FC4-24-10SR2 may be purchased with either a thermocouple or an RTD (Resistive Temperature Detector) by adding a TC or RTD to the part number, respectively.

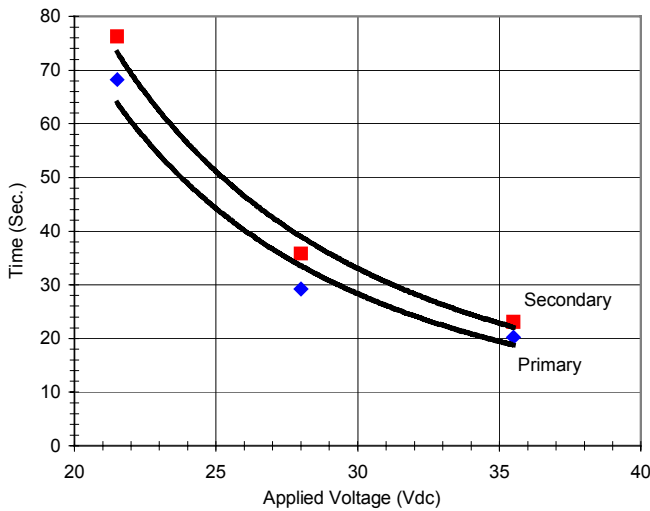
* TiNi Aerospace must provide the specially notched Titanium fastener. This is largely application-dependent and is readily manufactured to customer specification. See Frangibolt Fastener Specification Sheet



Dimensions shown in inches

Rev: 11/99

Function Time (@ 20 °C)



Specifications

Max Load Support & Release	11250 N	(2500 lb-f)
Max Joint Length	6.35 cm	(2.5 in)
Operational Voltage	22 to 36 Vdc	
Minimum Operating Temp.	-65 °C	(-85 °F)
Maximum Operating Temp.	+80 °C	(176 °F)
Heater Resistance	10 Ohms	
Mass	50 gm	(1.76 oz)
Power	80 Watts @ 28 Vdc	
Features:	Redundant Heater	
	Reusable	
	TC or RTD Sensor	