# 🕝 Pacsci emc

## PRESSURE CARTRIDGE

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Pressure Cartridges have their greatest utility generating high rates of pressure force for a short period of time. Displacement devices such as pin pullers, normally open or closed valves, thruster and separation bolts utilize this device. In several ejection seats pressure cartridges are utilized as an initiator for propellant charges. Pressure cartridges are adaptable to the requirements of your system for different pressure output to accomplish specific events. Our 103377 series has over 400 variations utilized in a wide range of aerospace and defense platforms. Our 817444 series cartridge has become a standard within the ejection seat community to initiate other explosive devices because of its high reliability and robust design.

### PRODUCT FAMILY



#### **APPLICABLE SPECIFICATIONS**

No-Fire:	1 amp / 1 watt current applied for five (5) minutes
All Fire:	3.5 amps minimum
Operating Temperature:	Typical -65°F to +200°F
High Temperature Exposure:	+225°F for 12 hours, fired properly
Low Temperature Exposure:	-80°F for 12 hours, fired properly
Weight:	Range from approximately 0.20 – 0.60 lbs. (dependent on explosive weight utilized)
Function Time:	Pressure Cartridge: <10 ms maximum at 5 amps
Electro-Static Discharge Resistance:	No-fire upon applications of 25,000 volts from a 500 Pico farad capacitor
	between pins and from shorted pins to case with a 5,000 ohm resistor in a 5
	micro Henry total inductance series circuit
Bridgewire Resistance:	0.90 – 1.30 ohms each bridgewire
Insulation Resistance:	100 Megaohms minimum at 500 VDC for all pins to case
Hermetic Seal:	$< 1 \times 10-5$ cc/second air at a pressure differential of 1.0+ 0.1 atmosphere
6 & 40 Foot Drop Tests:	Units didn't fire upon impact.
Shock:	Half sine, 200 g's; one shock each direction each axis
Vibration:	10-2000 Hz, Composite 12.3 grams, 2 hours/axis, Composite 9.09 grams,
	30 minutes/axis
Acceleration:	32g longitudinal axis, 16g transverse axes, duration 5 minutes

