

Series 6700 Environmentally Sealed, One Million Cycle



The 6700 Series environmentally sealed switch is rated for one million cycles. The 6700 was developed for high cycle harsh environment applications. The need for high cycle limit switches has developed as aerospace and industrial systems have evolved from manual control and feedback to computer controlled mechanisms. The 6700 meets the high life cycle requirements of modern computer controlled systems.

Based on the proven design of HSI's 6100 series switch, the 6700 incorporates material and process changes to achieve reliable 1 million cycle life. Internal blade material thickness, temper and surface treatment have been optimized in the new design. The metal housing and operating pin are permanently bonded to a resilient elastomer seal. This ensures environmental seal integrity of 1×10^{-6} Atm cc/sec. The switch is configured for operation in the milliamp range. Operating temperature is -85° F to $+300^{\circ}$ F.

Assemblies

The 6700 series switches are available in a wide variety of actuator assemblies. Typical assemblies include leaf actuators, roller leaf assemblies and plunger actuators. HSI can also provide customization assemblies to meet specific operational requirements

Mechanical Characteristics

Maximum Operating Force	10 oz. (2.8 N)
Minimum Release Force	3 oz. (.84 N)
Max. Movement Differential	.0005/.005" (0.0127/0.127 mm)
Mechanical Life	1,000,000 cycles
Weight	Less leads – .02 lbs. (0.57 g)
Overtravel Stop	.007" available (0.1778 mm)

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Electrical Characteristics

Electrical Rating	28VDC/115VAC, 400 Hz
Resistive	120 Milliamps
Dielectric Withstanding Voltage	1000V rms at sea level for 1 minute or 1250V rms for 1 second with maximum leakage current 0.5 milliamperes. Can be supplied to meet 1500V rms withstand voltage with reduction in life.

Environmental Characteristics

Temperature Range	-65°F to 300°F (-54°C to 204°C) continuous
Shock (sawtooth)	100g for 6 ± 1 ms
Vibration	10 - 2000 Hz 20g peak

HSI Series 6700 Dimensional Drawings

Basic Configuration

