

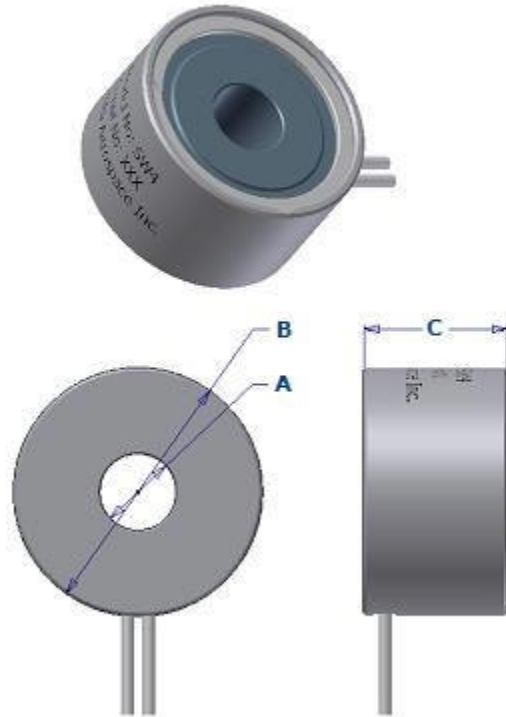


Innovative Mechanism Solutions

Frangibolt® Switch-Washer

The Switch-Washer is a combination Switch and Washer developed as a simple means of determining when the Frangibolt has functioned. It comprises of a top and bottom bearing surface, internally mounted belleville spring, and a pair of mating electrical contacts. The belleville spring is preloaded to generate more than 50 lbs of force to keep the top and bottom surfaces separated thereby firmly biasing the switch to the Open position. However, once installed on a bolted joint and tightened to the prescribed torque, the top and bottom surfaces are brought together closing the switch contacts and preloading the Frangibolt joint assembly. The switch contacts remain closed until the Frangibolt releases the tension by breaking the bolt during actuation. At this time, the powerful belleville spring once again returns the Switch back to the Open position within a fraction of a second.

The Switch-Washer may be used in one of two ways: It can be wired in series with the Frangibolt actuator to act as an automatic shut-off switch, or it can be wired as part of a separate circuit to serve as a feedback loop to a controller.



FBT	A	B	C	Mass (g)	Part #
3/8	.381	1.25	.375	65	SW6-6S
1/4	.257	.955	.475	18	SW4-6S

Dimensions shown in inches

Rev: 10/05

Mechanical Specification

Material	6Al-4V Titanium
Switch Time	< 5 milliseconds
Life	60 Cycles
Operating Temp	-60 °C to + 150°C
Features	Rugged Design Low Profile

Electrical Specification

Voltage Capability	Up to 50 Vdc
Current Capability	Up to 6 Amps
Resistance Closed	< 0.3 Ohms
Resistance Open	> 10 Meg Ohms
Cable Type	22 AWG (M22759/43)
Cable Length	18in. (Nominal)