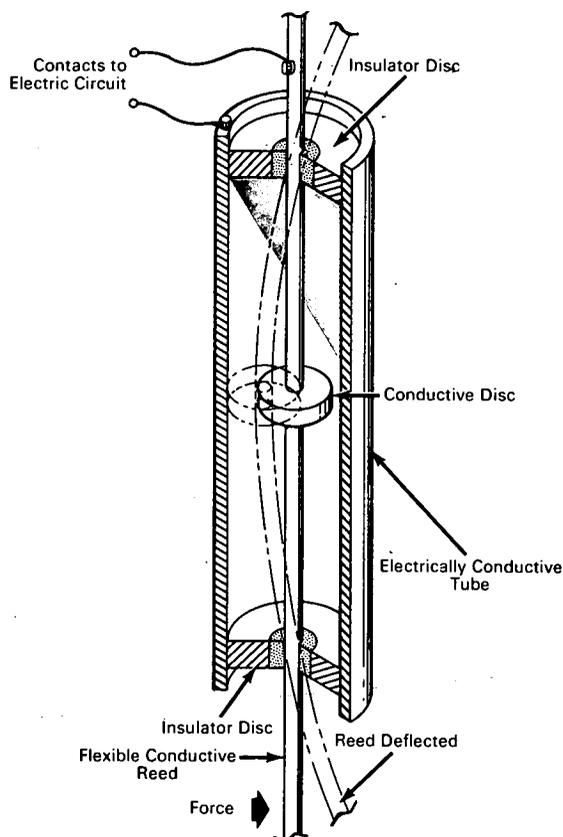


NASA TECH BRIEF



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Simple Switch Actuated by Force Applied Over Wide Solid Angle



The simple electric switch shown in the illustration is designed to be actuated (closed) by a force applied from any direction within a hemispheric envelope. The switch is comprised of four basic elements. A flexible, electrically conductive reed holding a conductive contact disc is mounted concentrically within a conductive tube. The reed passes through flexible insulator discs positioned at the extremities of the conductive tube.

These discs are made of an elastomeric material sealed to the flexible reed to protect the inside of the tube and the conductive disc from corrosive or other deleterious atmospheres.

In operation, the protruding end of the reed is deflected by a force exceeding a specified magnitude applied from any direction within a hemispheric envelope. The conductive disc on the deflected reed will

(continued overleaf)

therefore make contact with the wall of the conductive tube and establish an electrical connection between the reed and housing, thereby closing the switch.

For any given configuration, switching sensitivity can be adjusted by changing the position of the conductive disc along the reed or by changing the size of that disc.

Note:

Documentation is available from:
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Price \$3.00
Reference: TSP69-10032

Patent status:

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