

Options

Durakool switches and sensors are available in normally-open or normally-closed contact forms, and in sizes for milli-amp signal loads to 25-amp power switching loads. They are available in single-throw and double-throw designs and can be insulated or non-insulated.

This catalog contains standard parts, but custom designs are available.

Applications



A sensor automatically shuts off a laptop computer when the screen is closed.



A motion sensor automatically shuts off an iron after a period of inertia.

Today's growing use of microprocessors with printed circuit boards in appliance, automotive, communication and other fields is creating many new applications uniquely suited to Durakool switches and sensors. Worldwide efforts focusing on product safety are opening many new motion, position, and tip-over applications, such as shut-offs for area space heaters.

Durakool switches have proven themselves in a wide variety of applications. Some of these include:

- ▲ Microprocessor control
- ▲ Convenience lights in automobile trunks, glove boxes, etc.
- ▲ Convenience lamps in freezer lids
- ▲ Pump floats
- ▲ Motor or lamp control in dirty environments
- ▲ Indication of position or inclination
- ▲ Triggers for alarm/security systems
- ▲ Machine limit switches
- ▲ Remote control of relays/solenoids
- ▲ Electronic games and toys
- ▲ G-Force/Inertia

DURAKOOL Non-Insulated Tilt and Position Switches

Durakool tilt switches "make" when the electrode is tilted below horizontal and "break" when tilted above horizontal. Total travel from "make" to "break" is the "Maximum Included Angle" shown below. The component to which the switch is

attached must have a total tilt angle greater than the "Maximum Included Angle" for proper operation. "G" series switches are mercury-to-mercury; "A" series are mercury-to-metal.

| TYPE/SERIES | A $\frac{1}{2}$ S | A $\frac{1}{2}$ N | A $\frac{1}{2}$ | AIS | AIN | G5N | G8N | G10N |
|---|---|---|---|---|--|---|---|---|
| PART NUMBER | 4929 | 5002 | 4859** | AIS-017 | 20144 | 3822 | 3825 | 3765 |
| Must Make/Break Angle* Max. Included Angle | -7°/+7° — | — 15° | -2°/+15° — | — 16° | -1°/+1° 1.5° | — 11° | — 11° | — 9° |
| Note: Switches are pictured in normally closed position. |  |  |  |  |  |  |  |  |
| *Make/break angles are electrode + (above)/- (below) 0° horizontal reference. | | | | | | | | |
| ELECTRICAL RATINGS | | | | | | | | |
| AC Amps, 60Hz | | | | | | | | |
| 120V | — | 1.0 | — | * | 1.0 | 7.0 | 15.0 | 25.0 |
| 240V | — | 0.4 | — | * | 0.7 | 5.0 | 11.0 | 19.0 |
| 480V | — | — | — | * | — | — | 8.0 | 13.0 |
| DC Amps | | | | | | | | |
| 120V | # | 0.5 | — | * | 0.5 | 5.0 | 8.0 | 13.0 |
| 240V | # | 0.4 | — | * | 0.4 | 4.0 | 6.0 | 10.0 |
| Tungsten Lamp (120V, 60Hz), Watts | — | 60 | — | 75 | 100 | 700 | 1000 | 1700 |
| Motor Load, Horsepower | | | | | | | | |
| AC 60Hz, 120-480V | — | — | — | — | — | 0.33 | 0.50 | 1.0 |
| DC, 120-240V | — | — | — | — | — | 0.25 | 0.33 | 0.5 |
| Contact Resistance Milliohms (Typical) | — | 80 | 150 | 30 | 200 | 3 | 3 | 3 |
| Standoff Voltage, Contact to contact | — | 1250 | — | 1500 | 1500 | 1500 | 2500 | 3000 |
| ENGLISH DIMENSIONS | | | | | | | | |
| Lbs./100 pcs. | — | 0.33 | — | 0.68 | 1.10 | 1.88 | 4.59 | 5.62 |
| Body Length, in. (less leads) | 0.25 | 0.39 | 0.39 | 0.52 | 1.00 | 1.36 | 1.68 | 1.90 |
| Max. Diameter, in. | 0.27 | 0.27 | 0.27 | 0.34 | 0.389 | 0.42 | 0.50 | 0.62 |
| METRIC DIMENSIONS | | | | | | | | |
| Kg/100 pcs. | — | 0.15 | — | 0.31 | 0.50 | 0.85 | 2.08 | 2.55 |
| Length, cm | 0.99 | 1.91 | 1.94 | 1.52 | 2.50 | 3.97 | 4.74 | 5.36 |
| Max. Diameter, cm | 0.67 | 0.67 | 0.67 | 0.85 | 0.90 | 1.06 | 1.27 | 1.56 |
| Finish | Tin | Tin | Nickel** | Cadmium | Rust Inhibited | Rust Inhibited | Rust Inhibited | Rust Inhibited |

0.5 Amps @ 12 VDC Max.
 * 1 Amp, 6-24V, AC/DC
 **Also Available Tin Plated (Part Number 4954)

