

## 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)

