

AIRPAX® | 6600 Series

8-Pin DIP, Subminiature Bimetal Disc Thermostat

FEATURES

- RoHS compliant per EU directive 2002 / 95 / EC
- 8-pin DIP international electronic package standard
- Ideal for surface and air sensing on PC boards
- Gold-plated contacts
- Up to 30,000 life cycles @ max standard amperage (120VAC)
- Up to 100,000 life cycles @ max gold contact amperage

DESCRIPTION

The Airpax™ 6600 series is a RoHS compliant, positive snap action, single pole / single throw, sub-miniature bimetallic thermostat which provides accurate and reliable sensing and switching in a single device.

The 6600 series thermostat dimensionally conforms to the international product package standard 8-pin DIP (N8A Dual Inline Package). The 6600 is ideally suited for use on printed circuit boards. Its size and shape conserves space on crowded PC boards and can be installed using auto-insertion equipment. The device is sealed to withstand wave soldering and board washing operations.

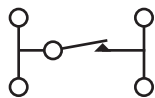
The 6600 provides fast, positive response with excellent repeatability. The thermostat has a switch capability of up to 1 amp for 48 VDC or 120 VAC, and achieves low-level switching down to 0.001 A to 0.020 A at 5 VDC for 100,000 cycles. Temperature is pre-set at the factory and is non-adjustable in the field.

Applications include computers and computer peripherals, aircraft, automotive and test equipment. Typical uses include turning on an indicator light, sounding an audible alarm, switch on a control circuit to send a message to a display screen or even switching a circuit to shut down a system.

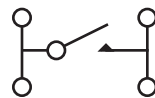
The 6600 thermostat is temperature tested in a computer controlled automated test equipment air-oven. Due to the ideal conditions under which it is tested, independent customer testing may be necessary to ensure that the correct calibration is utilized in the application.

It is the customer's responsibility to determine whether the product is proper for customer's use and application.

OPERATION SCHEMATICS



Schematic for
Open on Rise
Operation



Schematic for
Close on Rise
Operation

SPECIFICATIONS

Contact Resistance	50 milliohms max (before and after rated life)		
Contact Ratings	Cycles	Voltage	Amps (resistive)
	25,000	48 VDC	1.0
	30,000	120 VAC	1.0
	100,000	5 VDC	0.001 (gold)
Contact Operations	Either close on rise (make) or open on rise (break)		
Operating Temperature	40°C to 130°C (104°F to 266°F)		
Temperature Tolerance	Standard of $\pm 5^{\circ}\text{C}$ ($\pm 9^{\circ}\text{F}$) with nominal operating temperature settings in 5°C increments		
Short Term / Long Term Exposure Limit	Short = 260°C (500°F), 10 second duration		Long = -55°C to 160°C (-67°F to 320°F)
Dielectric Strength	1480 VAC 60Hz, 1 second duration terminals to case		
Insulation Resistance	100 Mohms at 500 VDC		
Contact Bounce	3 milliseconds max (make)		
Vibration	Per Mil-Std-202, method 204D, test condition D, 10 to 2,000 Hz		
Shock	Per Mil-Std-202, method 213, test condition C, 100 G's for 6 millisecond duration, ½ sine wave		
Seal	High temperature epoxy sealed for wave soldering and cleaning, moisture proof per Sensata specification S-722 (unit will not leak while submerged in 9" of water for a minimum of two minutes)		
Base Material	PPS (Polyphenylene Sulfide), 94 VO rated		
Terminal Material	65% Copper, 18% Nickel		
Contact Material	Gold-plated or overlay, silver crossbar		
Chemical Resistance	Unit is resistance to water, salt, alcohol, ammonia, trichlorethane and most other organic solvents		
Soldering Heat Resistance	Per Mil-Std-202F, method 210A, test condition E		
Weight	Approximately 0.45 grams		
Mechanical Life	1,000,000 operations		
Agency Approvals	cRUus recognized E36687 VDE approval 0631/12.83 RoHS Compliant per EU Directive 2002/95/EC		