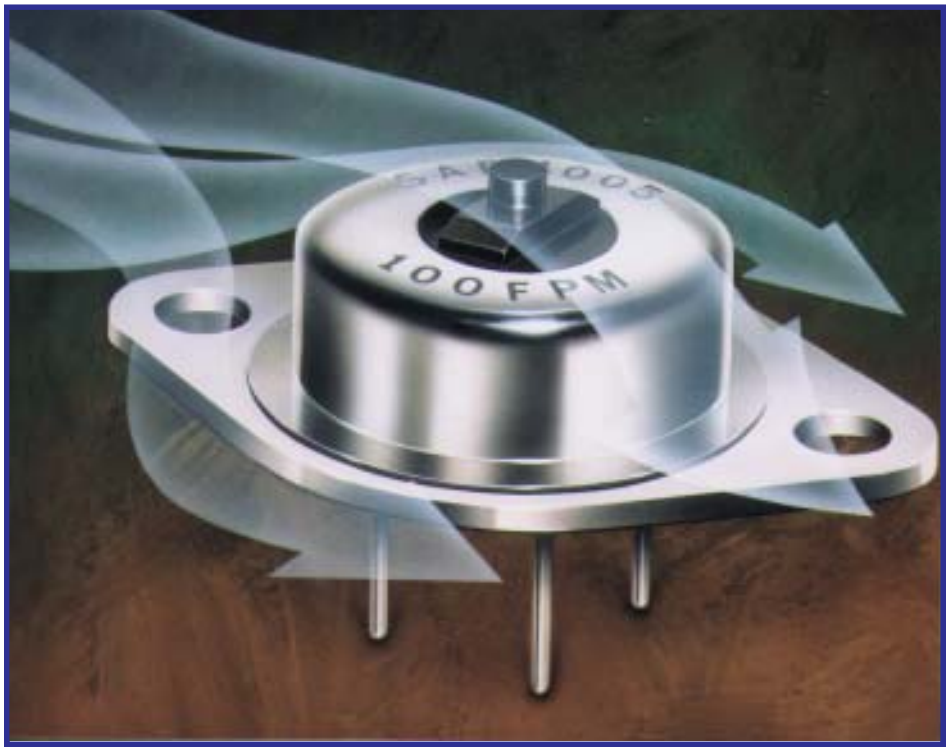
SAF Series Air Velocity Switch

The solid state SAF Series airflow switch assures dependable thermal control and protection for air cooled systems. The SAF Series advantages include:

- Can drive logic circuits, audible/optical alarms and magnetic relays
- Available in sealed and dust-proof versions
- Can be socket mounted, PCB or hard wired
- Available in 50 to 1500 linear feet per minute ranges
- Not affected by ambient temperatures
- 5 VDC design with low power dissipation
- Signal conditioning not required



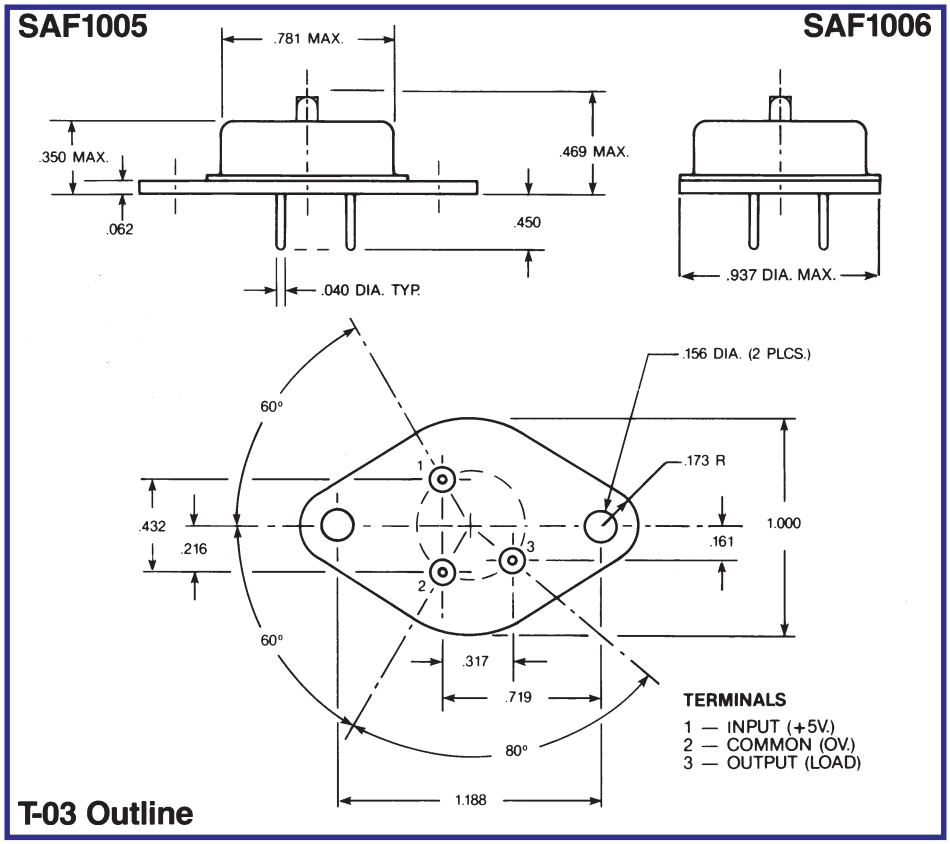
The advanced SAF Series Airflow Switch provides early detection and protection from overheating in high-end computer systems and peripherals, large power supplies, HVAC equipment, medical diagnostic systems and other electronic systems requiring forced air cooling.

The patented* design is based on a heated thermistor which monitors the airstream and detects a loss or reduction of airflow due to fan failures, clogged filters or obstructions in the air inlet/outlet. The thermistor temperature and, therefore, its resistance, is affected by changes in air velocity. The SAF thermistor is part of a sensing bridge which compares its own resistance against a reference circuit and determines the air velocity at which the device will trigger an output.

The innovative, low profile airflow sensor is easily mountable directly on the most densely populated circuit boards with as little as .625 inch spacing between boards, in sockets or bracket mount in plenums. All SAF models are complete, self-contained sensor/alarm devices requiring no additional circuitry.

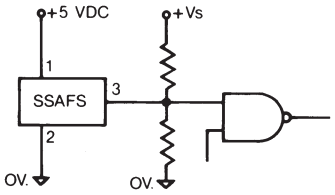
*US Patent No. 4,686,450

All SAF Series Sensors are designed to be used in conjunction with typical logic circuitry. They operate on a +5 VDC supply and their output provides an open collector NPN transistor with its emitter connected to ground (0v). This type of versatile output allows driving logic circuits, indicating incandescent or LED lights or even magnetic relays, from DC sources from 5V to 30V.

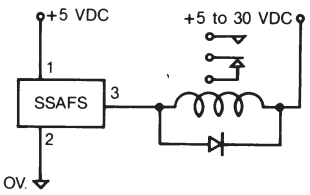


TYPICAL APPLICATIONS

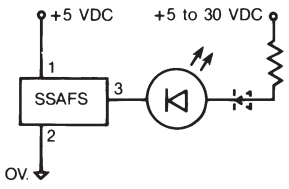
1) Controlling logic circuitry



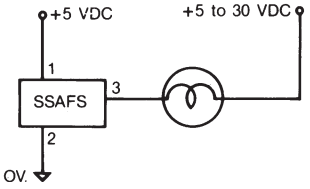
2) Controlling a relay

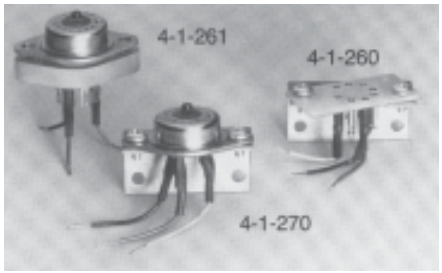


3) Controlling an L.E.D.



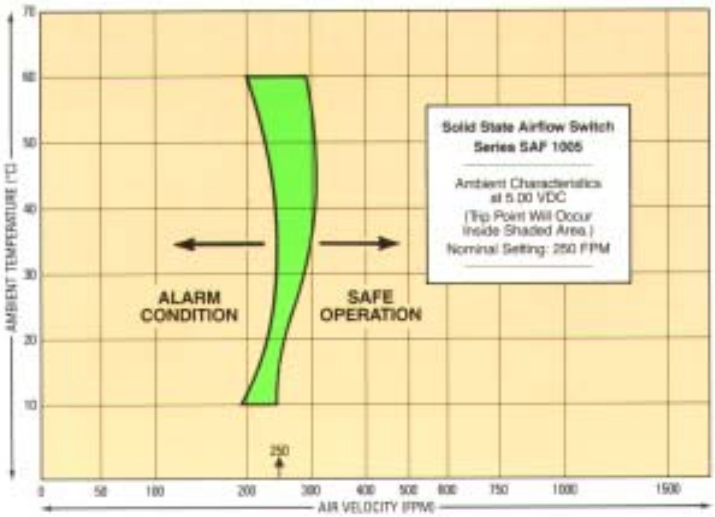
4) Controlling incandescents





Mounting Accessories

- Military Socket Assembly with leads, no mounting bracket - P/N 4-1-261
- Bracket only, with leads attached to SAF Sensor - P/N 4-1-270
- Socket Assembly with mounting bracket and leads - P/N 4-1-260



IMPROVED AMBIENT TEMPERATURE COMPENSATION

Warren G-V design criteria for the SAF Solid-State Airflow Sensor incorporates ambient temperature compensation techniques which provide close operating point tolerances over the ambient range of +10° to +60°C. The typical operating point versus ambient temperature curve for 250 FPM is illustrated. Curves for other settings are available.

SPECIFICATIONS

Input Voltage: +5 VDC (±5%)
Power Dissipation: ½w max
Output: open collector, solid state, able to sink up to 100 MA to ground, from DC sources up to 30V
Sensing range: 50 to 1500 F.P.M.
Sensing Tolerance: +10°C to +60°C see ambient temperature compensation curve
Sensitivity: ±25 F.P.M. from actual setting
Hysteresis: Series SAF1005 (Standard Model) is typically 10% of the setting

THE SAF SERIES

The Standard Series/SAF1005 - indicates an "alarm condition" on low or no airflow by turning output transistor "on"; output is similar to a closed mechanical contact between output and ground when in alarm condition. A round version, SAF1006 without a flange is available for less board space utilization.

The Fail Safe Series/SAF1025 - an alternative to above-described series, a device failure indicates an "alarm condition" by turning the output "off"; similar to open contacts in alarm condition. It will operate with a wider hysteresis.

The Hermetically Sealed Series - withstands all board washing methods; more suitable for applications with hostile environments. Sealed versions of all the above units are available.

Output on Alarm Condition	
Driving A Load (Relay, Lamp)	Logic Interface (Pull-up Resistor)
ON OFF	ON OFF

SAF Model Options			
Dust Proof		Hermetically Sealed	
Flanged	Round Base	Flanged	Round Base
SAF1005 SAF1025	SAF1006 SAF1026	SAF1007 SAF1027	SAF1008 SAF1028