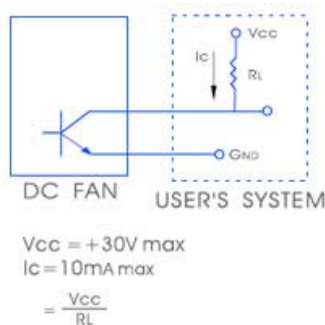
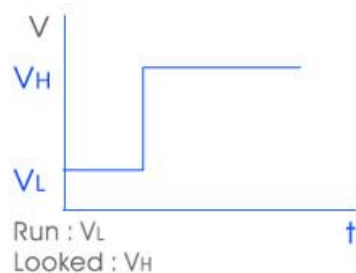




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Additional Special Functions

A) The output of 3rd wire Signal-Rotation Detector Function:
 Suffix basic part number with "-RD" for Rotation Detector Function (DC FANS ONLY)



Fan Division

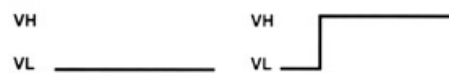
- AC Axial Fans
- DC Axial Fans
- AC Blowers
- DC Blowers
- AC Cross Flow Fans
- DC Cross Flow Fans
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Lock Sensor (locked rotor alarm signal)

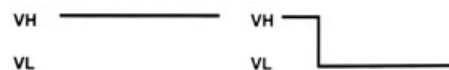
Lock sensors are used to detect if the fan motor is in operation or stopped.

Output Waveform

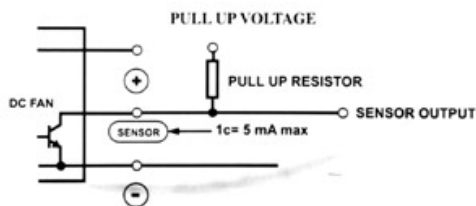
Alarm high: The signal stays at VL, when fan is running and goes to VH when fan stop.



Alarm low: The signal stays at VH, when fan is running and goes to VL when fan stop.



Output Circuit Open Collector

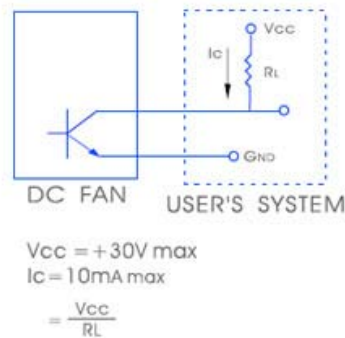
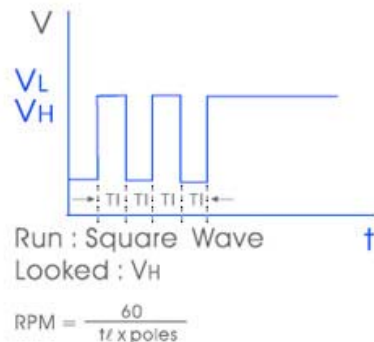


B) The output of 3rd wire Signal-Frequency Generator Function:
 Suffix basic part number with "-FG" for Frequency Generator Function (DC FANS ONLY)

Pulse Sensor (2 pulse per revolution signal) / Tachometer output

Pulse sensors are used for detecting the rotational speed of the fan motor. If fan is locked on VH, signal stays locked. If fan is locked on VL, signal stays at VL for a few hundred MS, then moves to VH.

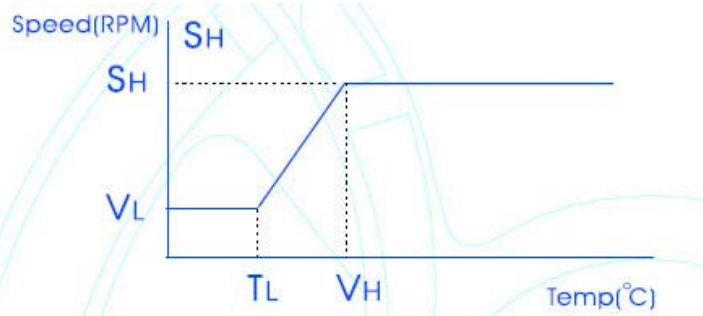
Vcc: rated voltage



C) Temperature Control

Suffix basic part number with "-T" for Temperature for operating environments where noise and temperature are a consideration. When the built in thermistor detects a drop in ambient

temperature, the fan rpm will decrease resulting in a lower noise level and airflow rate. Conversely, as the thermistor detects a rise in temperature, the noise level will increase relative to the rise in the fan's rpm's until the targeted temperature has been attained. (DC FANS ONLY)

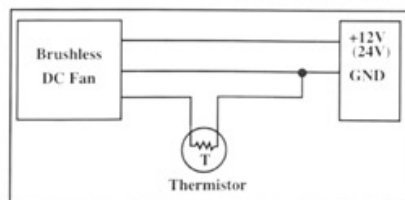


Speed control by temperature sensor

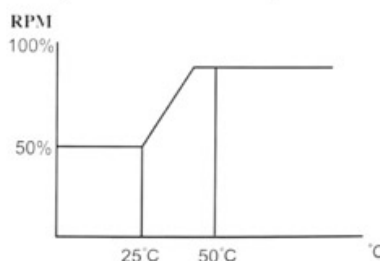
Sofasco thermally controlled fan uses a thermistor to sense temperature. The thermistor can be mounted in the hub area or on the end of special length leads. The fan will operate at maximum speed if the thermistor senses high temperature and minimum speed if the temperature is low.

Between these upper and lower limits, fan speed will vary almost linearly according to temperature.

Electrical drawing



Temperature °C VS Speed.



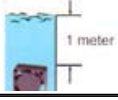
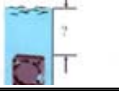


D) Dust and Water Splash Resistant as per IEC IP-5.4 Suffix basic part number with "-54" for Dust Resistant/Water Splash Resistant. This unit is protected against splashing water (water spraying at all angles @ 10 liters/min @ a gage pressure of 80-100kN/m2 for 5 minutes.

Dust and Water Jet Resistant as per IEC IP-5.5 Suffix basic part number with "-55" for Dust Resistant/Water Jet Resistant. This unit is protected against water jets projected at all angles through a 6.3mm nozzle at a flow rate of 12.5 liters/min at a gage pressure of 30kN/m2 for 3 minutes from a distance of 3 meters.

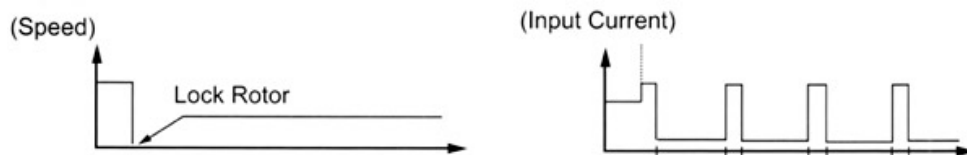
IP Protection

Protection against touching live parts or ingress of solid objects		Protection against ingress of liquids		
IP First figure			Second figure	
No protection	0		0	No protection
Touching by hand or 12mm dia. objects	1		1	Vertical water droplets No harmful ingress
Touching by finger or 12mm dia. objects	2		2	Showering at 15° No harmful ingress
Touching by tools or wire 2.5mm dia. or 2.5mm dia. objects	3		3	Showering at 60° No harmful ingress
Touching by tools or wire 1mm dia. or 1mm dia. objects	4		4	Splashing from any direction No harmful ingress
Total touch protection or no harmful ingress of dust	5		5	Water jets from any direction No harmful ingress

			
Total touch protection or no ingress of dust	6		6 large volume of water No ingress
			7 Immersion up to 1 meter deep No ingress
			8 Submersion at specified depths Exceeding 1 meter No ingress

E) Current limit protection / Auto restart protection

When the fan motor is locked, the device will cut off the drive current within two to six seconds and restart automatically after a few seconds. If the lock situation is continued the device will work as cut off >restart>cut off> restart>... repeatedly till the lock is released.

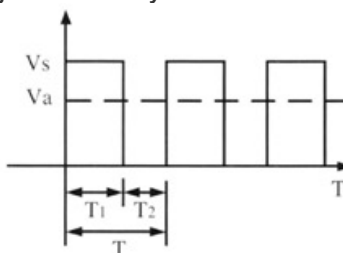


F) Speed control by PWM Signal

A speed control lead can be provided that will accept a PWM signal from the customer circuit to vary the speed of the fan. The change in speed is linear by changing the Duty-Cycle of the PWM. PWM signal types are standardized as following; Open collector type and pull-up voltage is changed by maximum operating voltage and sink current by consuming current.

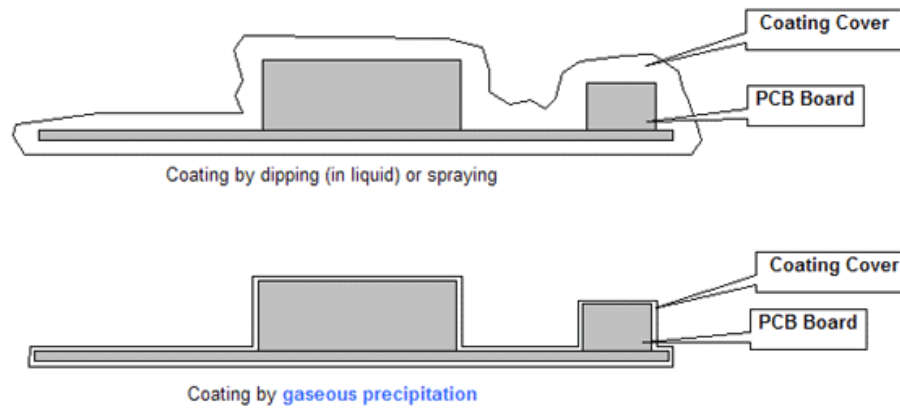
*PWM signal function design is decided by customer.

$T = T_1 + T_2$, $\alpha = T_1 / T$
 $\alpha = \text{Duty-Cycle}$
 $V_a = \alpha \times V_s$

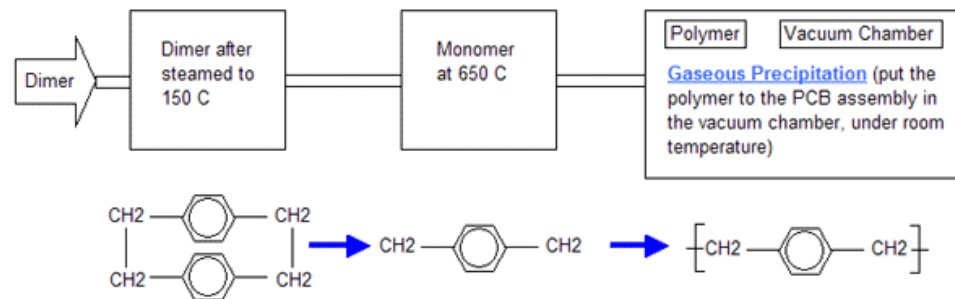


Click [HERE](#) for more speed control information

G) Parylene Coatings



Processing Procedure of Parylene Coating



Specialty of Parylene Coating

Because the Parylene coating will be processed in vacuum chamber, and has been applied by Gaseous Precipitation, thus its protective coating quality is much greater than applied by dipping or spraying, and has no unevenness coating, no cracks or gaps. This Parylene coating has very good resistance to both acid and alkali, and has passed by US Military Standard MIL-I-46058C.



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