

Optional Features

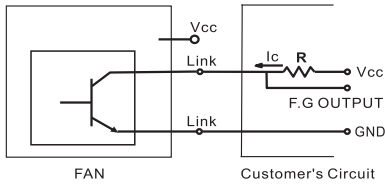


ThermActive
ELECTRONICS

Frequency Generator

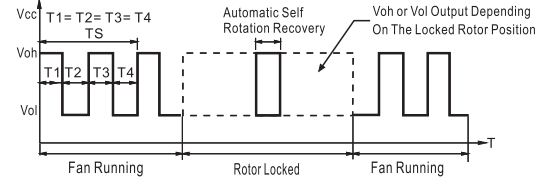
Generates a square wave output frequency equal to 2 periods per revolution for a 4 poles fan and informs the user of the fan's running speed.

Application 1



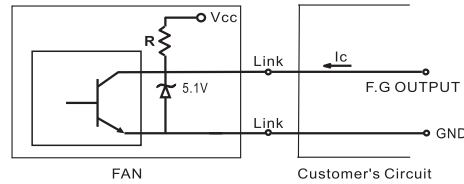
$V_{cc} = \text{From } +5 \text{ To } +28 \text{ VDC (Generally using } +12 \text{ or } +24\text{VDC)}$
 $I_c = 5 \text{ mA (Max.)}$
 $R \geq V/I$ (Output "R" value calculation)

Output Waveform



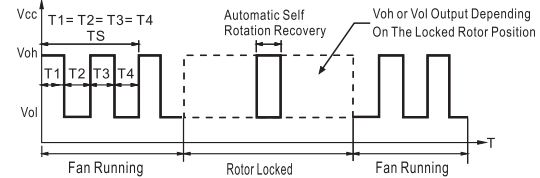
- ◆ $N = R.P.M$
- ◆ $T_s = 60/N(\text{Sec})$
- ◆ Output Level
 $V_{oh} = V_{cc} \pm 10\%$
 $V_{ol} = 0-0.6V$
 $I_c = 5 \text{ mA (Max.)}$

Application 2



$V_{cc} = \text{From } +5 \text{ To } +28 \text{ VDC (Generally using } +12 \text{ or } +24\text{VDC)}$
 $I_c = 5 \text{ mA (Max.)}$
 $R (\text{ type }) = 10K$

Output Waveform

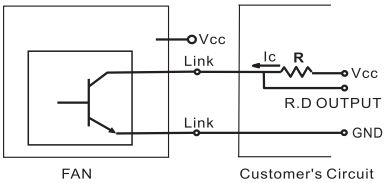


- ◆ $N = R.P.M$
- ◆ $T_s = 60/N(\text{Sec})$
- ◆ Output Level
 $V_{oh} = 5.0V \pm 0.5V$
 $V_{ol} = 0-0.6V$
 $I_c = 5 \text{ mA (Max.)}$

Rotation Detector

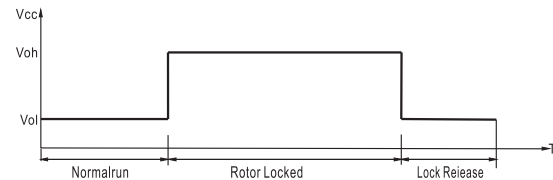
Detects whether the fan is running or stopped by generating a high or low output signal.

Application 1



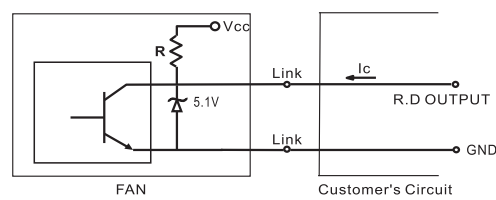
$V_{cc} = \text{From } +5 \text{ To } +28 \text{ VDC (Generally using } +12 \text{ or } +24\text{VDC)}$
 $I_c = 5 \text{ mA (Max.)}$
 $R \geq V/I$ (Output "R" value calculation)

Output Waveform



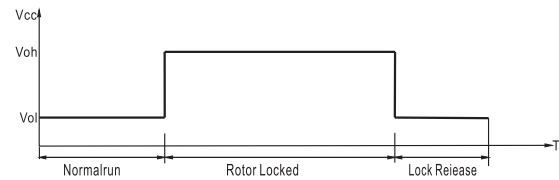
- ◆ Output Level
 $V_{oh} = V_{cc} \pm 10\%$
 $V_{ol} = 0-0.6V$
 $I_c = 5 \text{ mA (Max.)}$

Application 2



$V_{cc} = \text{From } +5 \text{ To } +28 \text{ VDC (Generally using } +12 \text{ or } +24\text{VDC)}$
 $I_c = 5 \text{ mA (Max.)}$
 $R (\text{ type }) = 10K$

Output Waveform

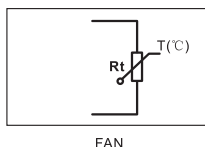


- ◆ Output Level
 $V_{oh} = 5.0V \pm 0.5V$
 $V_{ol} = 0-0.6V$
 $I_c = 5 \text{ mA (Max.)}$

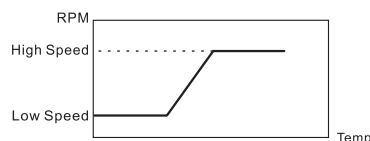
Thermal Control

Controls the fan speed via an thermistor which changes with the temperature of the task area where the thermistor is located.

Application



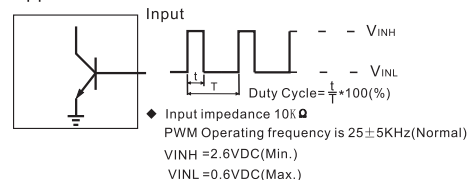
RPM Temperature curve



Pulse Width Modulation

Controls the fan speed automatically via an external input Pulse Width Modulation signal

Application



RPM & Duty Cycle Curve

