

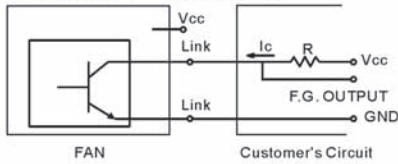


Function

Frequency Generator

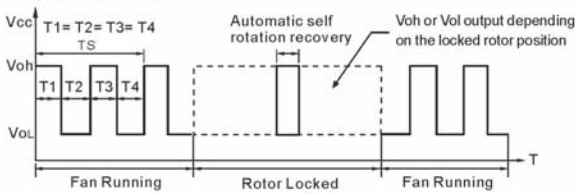
Generates a square wave out frequency equal to 2 periods per revolution for 4 poles fan and informs the user of the fan's running speed.

Application 1 - Open Collector



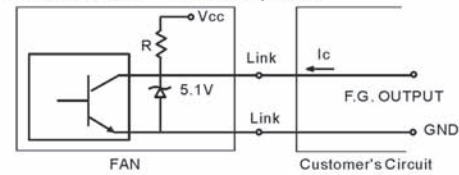
V_{cc} = From + 5 To +28 VDC Do not exceed fan supply voltage
 I_c = 5 mA max.
 $R = V/I$ (Output "R" value calculation)

Output Waveform



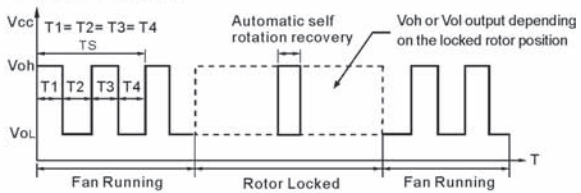
- ◆ $N = R.P.M$
- ◆ $T_s = 60/N$ (Sec)
- ◆ Output Level
 $V_{oh} = V_{cc} \pm 10\%$
 $V_{ol} = 0 \sim 0.6V$
 $I_c = 5 \text{ mA max.}$

Application 2 - TTL Compatible



$I_c = 5 \text{ mA max.}$

Output Waveform

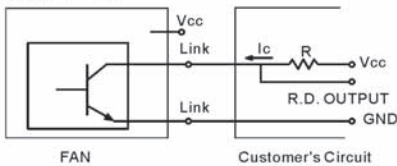


- ◆ $N = R.P.M$
- ◆ $T_s = 60/N$ (Sec)
- ◆ Output Level
 $V_{oh} = 5.0V \pm 0.5V$
 $V_{ol} = 0 \sim 0.6V$
 $I_c = 5 \text{ mA max.}$

Rotation detector

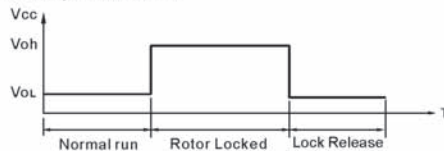
Detects whether the fan is running or has stopped by generation a high or low output signal.

Application 1



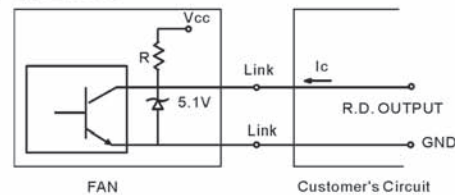
V_{cc} = From + 5 To +28 VDC (Generally using + 12 or + 24VDC)
 $I_c = 2 \text{ mA max.}$
 $R = V/I$ (Output "R" value calculation)

Output Waveform



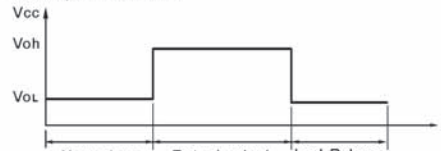
- ◆ Output Level
 $V_{oh} = V_{cc} \pm 10\%$
 $V_{ol} = 0 \sim 0.6V$
 $I_{cc} = 5 \text{ mA max.}$

Application 2



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

Output Waveform

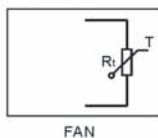


- ◆ Output Level
 $V_{oh} = 5.0V \pm 0.5V$
 $V_{ol} = 0 \sim 0.6V$
 $I_{cc} = 5 \text{ mA max.}$

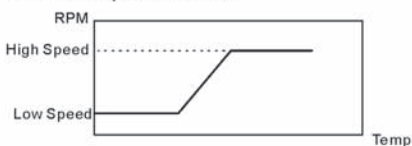
Temperature Control

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

Application



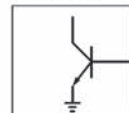
RPM Temperature curve



Pulse width modulation

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

Application



- ◆ Input impedance 10K Ω
 PWM Operating frequency is 25 \pm 5KHz
 $V_{IHMIN} = 3.3VDC$
 $V_{ILMAX} = 0.4VDC$

RPM & Duty Cycle Curve

