



Low Power Consumption Fan San Ace 40

Square type : 40mm Thick : 28mm

PWM Control, Pulse sensor, Ribbed

Features

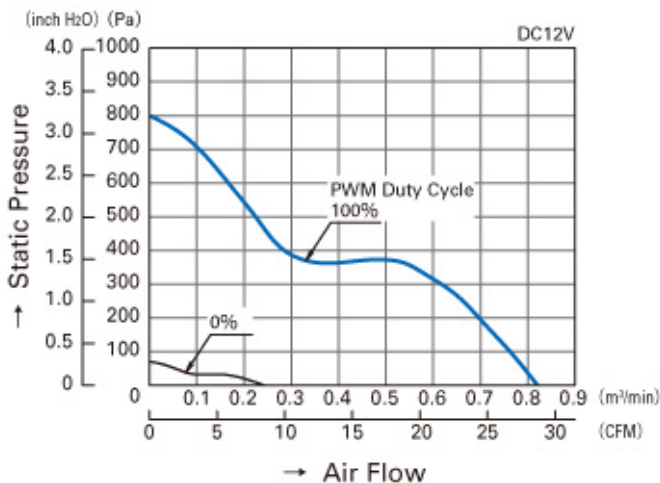
Material	Frame,impeller:Plastics(Flammability:UL94V-0)
Expected Life	40,000 h: Model No.9GA0412P3G01,9GA0412P3H01,9GA0412P3J01,9GA0412P3K01 30,000 h: Model No.9GA0412P3K01 (L10:Survival rate: 90% at 60°C, rated voltage, and continuously run in a free air stat
Motor protection system	Current blocking function and Reverse polarity protection
Dielectric strength	50/60 Hz, 500VAC, 1 minute (between lead conductor and frame)
Sound Pressure Level(SPL)	Expressed as the value at 1m from air inlet side
Operating Temperature	-10°C to +70°C(Non-Condensing)
Storage Temperature	-30°C to +70°C
Lead Wire	(+): red (-): black Sensor: yellow Control:brown

Specifications

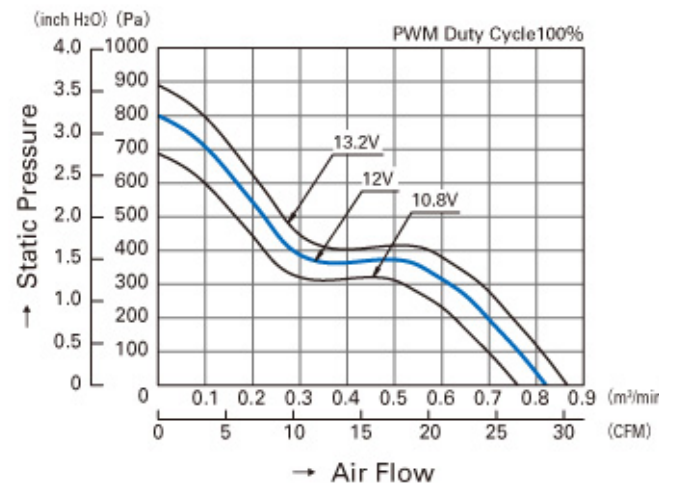
Model No.	Rated Voltage (V)	Operating voltage range (V)	Rated current (A)	Rated input (W)	Rated speed (min <sup>-1</sup> )	Air flow (m <sup>3</sup> /min)	Static pressure (Pa)	Noise (dB[A])	Mass (g)
9GA0412P3K01	12	10.8 to 13.2	0.92	11.04	22,000 (PWM Duty 100%)	0.81 (28.6 CFM)	799 (3.21inchH <sub>2</sub> O)	61	53
			0.10	1.2	6,500 (PWM Duty 0%)	0.23 (8.12CFM)	68 (0.27inchH <sub>2</sub> O)	32	

Air Flow - Static Pressure Characteristics

• PWM Duty Cycle

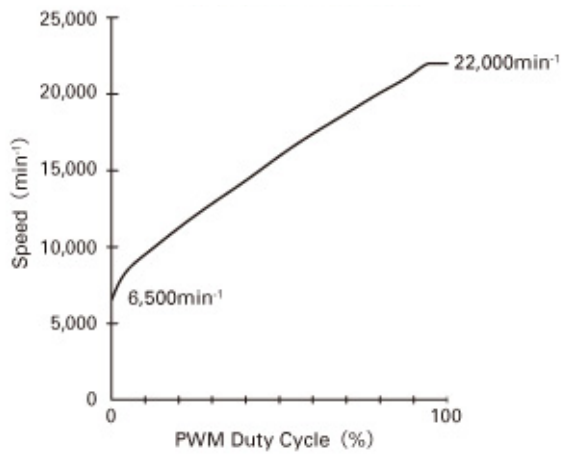


• Operating Voltage Range



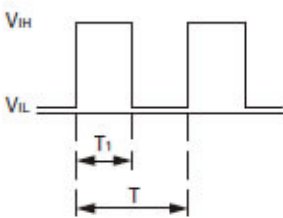
PWM Duty - Speed Characteristics Example

Voltage : DC12V  
PWM Frequency : 25kHz



## PWM Input Signal Example

### Input Signal Wave Form



$V_{IH}=2.8V$  to  $3.8V$

$V_{IL}=0V$  to  $0.4V$

$$\text{PWM Duty Cycle (\%)} = \frac{T_1}{T} \times 100$$

$$\text{PWM Frequency 25 (kHz)} = \frac{1}{T}$$

Source Current : 1mA Max. at control voltage 0V

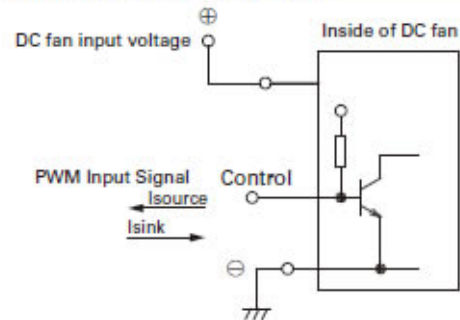
Sink Current : 1mA Max. at control voltage 3.8V

Control Terminal Voltage : 3.8V Max. (Open Circuit)

When the control lead wire is no connecting, the speed is the same speed as at 100% of PWM cycle.

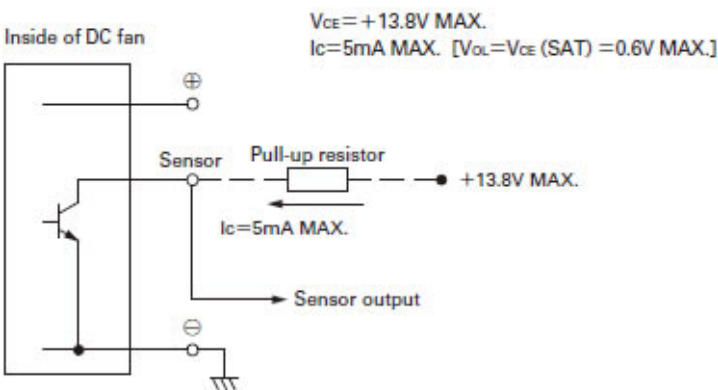
This fan speed should be controlled by PWM input signal of either TTL input or open collector, drain input.

## Connection Schematic

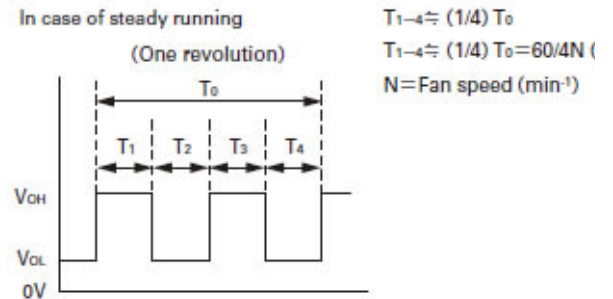


## Specifications for Pulse Sensors

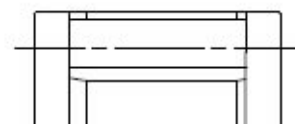
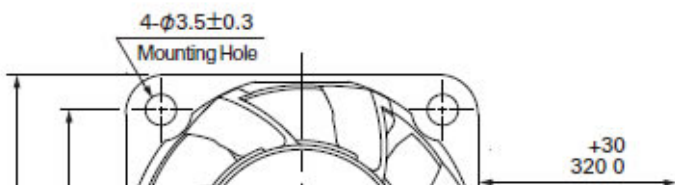
Output circuit : Open collector

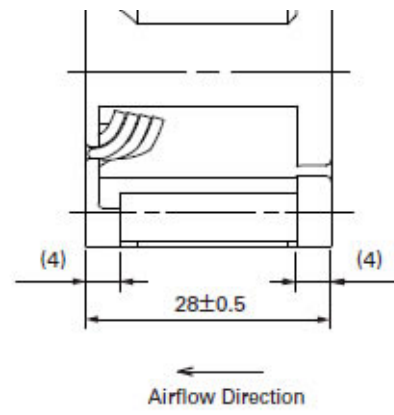
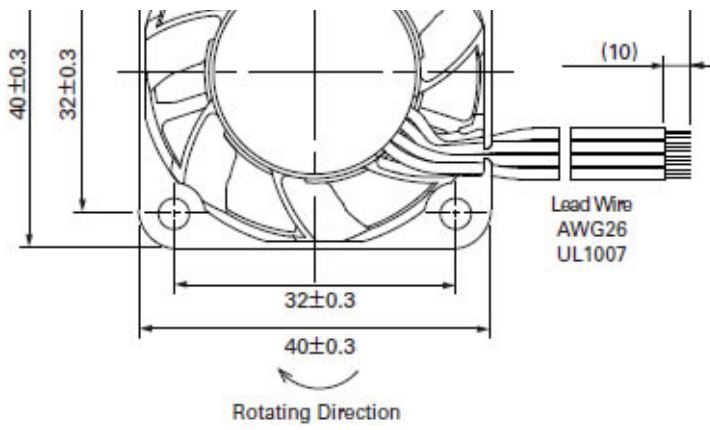


Output waveform (Need pull-up resistor)



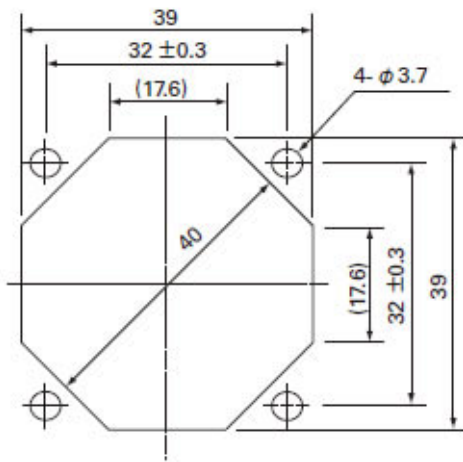
## Dimensions (unit : mm)





## Reference dimension of mounting holes and vent opening (unit : mm)

Inlet Side,Outlet Side



### Corresponding accessories list

Finger guards  
Square type

Adaptation machines-Frame size:40mm

Model No.	Surface Finishing	Adaptation machines
<a href="#">109-059</a>	Nickel-chrome plating	San Ace 40

**CLOSE**