



# 92x92x25 mm

San Ace 92W 9WL type   

## General Specifications

- Material ..... Frame: Aluminum (Black coating), Impeller: Plastic (Flammability: UL 94V-1)
- Expected life ..... See the table below. (L10 life: 90% survival rate for continuous operation in indoor free air at 60°C, rated voltage)  
Expected life at 40°C is for reference only.
- Motor protection function ..... Locked rotor burnout protection, Reverse polarity protection  
For details, please refer to p. 573.
- Dielectric strength ..... 50/60 Hz, 500 VAC, for 1 minute (between lead wire conductors and frame)
- Insulation resistance ..... 10 MΩ or more with a 500 VDC megger (between lead wire conductors and frame)
- Sound pressure level (SPL) ..... At 1 m away from the air inlet
- Storage temperature ..... -30 to +70°C (Non-condensing)
- Lead wire ..... ⊕Red ⊖Black (Sensor) Yellow (Control) Brown  
(For models without PWM control function, there is no speed control wiring.)
- Mass ..... 170 g
- Ingress protection ..... IP68

## Specifications

The models listed below **have pulse sensors with PWM control function.**

Model no.	Rated voltage [V]	Operating voltage range [V]	PWM duty cycle* [%]	Rated current [A]	Rated input [W]	Rated speed [min <sup>-1</sup> ]	Max. airflow [m <sup>3</sup> /min] [CFM]	Max. static pressure [Pa] [inchH <sub>2</sub> O]	SPL [dB (A)]	Operating temperature [°C]	Expected life [h]	
9WL0912P4J001	12	10.8 to 13.2	100	0.42	5.04	5000	2.2 77.7	105 0.42	44	-20 to +70	180000/60°C (215000/40°C)	
			20	0.04	0.48	1200	0.52 18.4	6.04 0.024	11			
9WL0912P4G001			100	0.3	3.6	4400	1.93 68.2	81 0.33	40			
			20	0.04	0.48	1000	0.43 15.1	4.18 0.016	8			
9WL0912P4S001			100	0.22	2.64	3850	1.69 59.7	62.1 0.25	37			
			30	0.04	0.48	1400	0.61 21.5	8.21 0.032	13			
9WL0912P4H001		100	0.15	1.8	3150	1.38 48.7	41.6 0.17	32				
		30	0.04	0.48	1100	0.48 16.9	5.07 0.02	9				
9WL0924P4J001		24	21.6 to 26.4	100	0.21	5.04	5000	2.2 77.7	105 0.42			44
				20	0.02	0.48	1100	0.48 16.9	5.07 0.02			9
9WL0924P4S001				100	0.11	2.64	3850	1.69 59.7	62.1 0.25			37
				30	0.02	0.48	1300	0.57 20.1	7.08 0.028			12
9WL0924P4H001	100			0.07	1.68	3150	1.38 48.7	41.6 0.17	32			
	30			0.02	0.48	1000	0.43 15.1	4.18 0.016	8			

\* PWM input frequency is 25 kHz; models without specifications at 0% PWM duty cycle have zero fan speed at 0%.

The following sensor and control options are available for selection.

Differs according to the model. Refer to the table on pp. 611 to 612. **Without sensor** **Pulse sensor** **Lock sensor**

The models listed below **have pulse sensors.**

Model no.	Rated voltage [V]	Operating voltage range [V]	Rated current [A]	Rated input [W]	Rated speed [min <sup>-1</sup> ]	Max. airflow [m <sup>3</sup> /min] [CFM]	Max. static pressure [Pa] [inchH <sub>2</sub> O]	SPL [dB (A)]	Operating temperature [°C]	Expected life [h]
9WL0912M4001	12	10.2 to 13.8	0.08	0.96	2400	1.05 37.1	24.1 0.097	24	-20 to +70	180000/60°C (215000/40°C)
9WL0924F4001	24	20.4 to 27.6	0.05	1.2	2800	1.22 43.1	32.8 0.13	29		
9WL0924M4001			0.04	0.96	2400	1.05 37.1	24.1 0.097	24		

The following sensor and control options are available for selection.

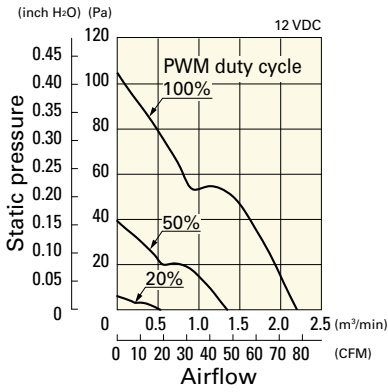
Available for all models. **Without sensor**

Differs according to the model. Refer to the table on p. 611. **Lock sensor**

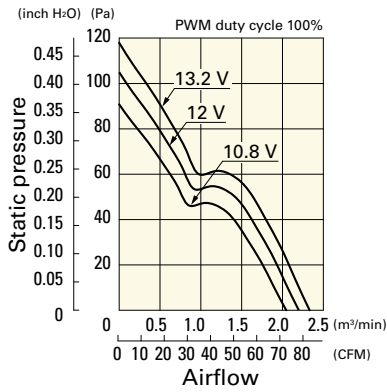
**Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example**

**9WL0912P4J001** With pulse sensor with PWM control function

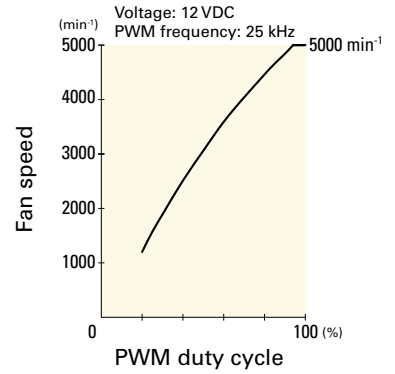
PWM duty cycle



Operating voltage range

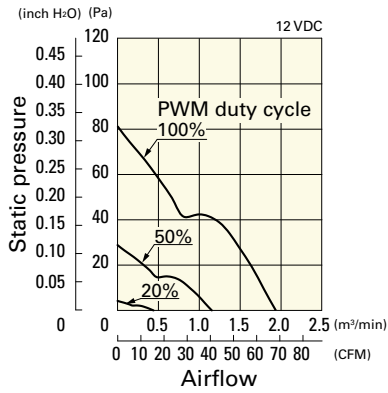


PWM duty - Speed characteristics example

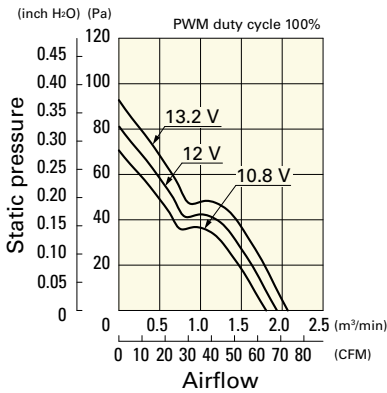


**9WL0912P4G001** With pulse sensor with PWM control function

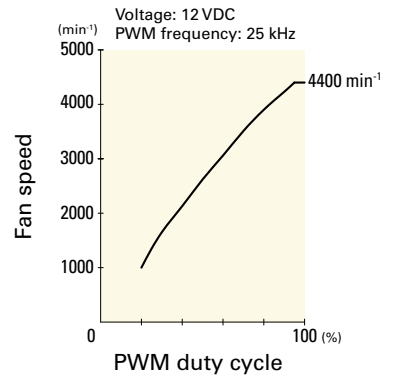
PWM duty cycle



Operating voltage range

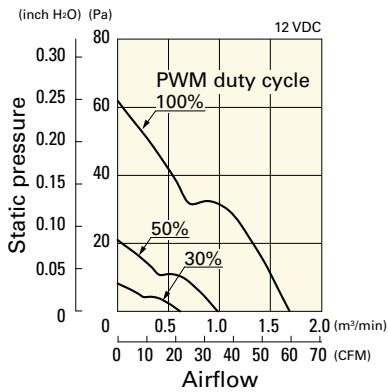


PWM duty - Speed characteristics example

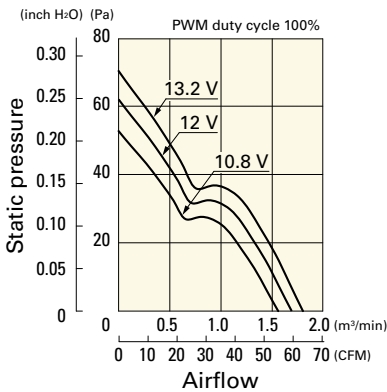


**9WL0912P4S001** With pulse sensor with PWM control function

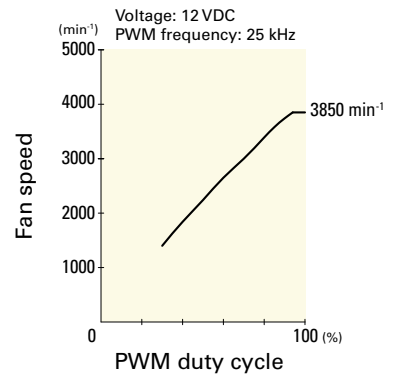
PWM duty cycle



Operating voltage range

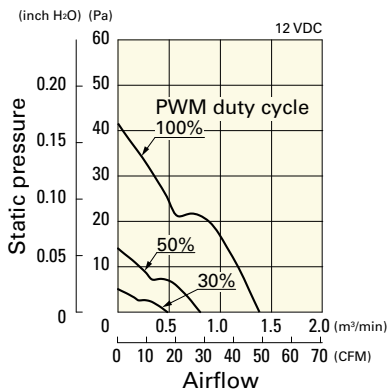


PWM duty - Speed characteristics example

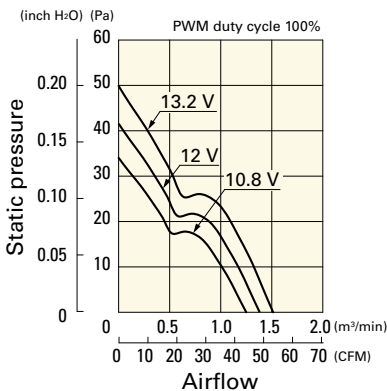


**9WL0912P4H001** With pulse sensor with PWM control function

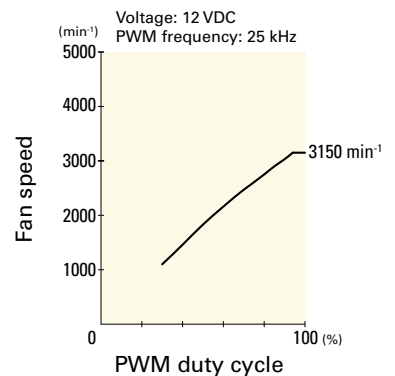
PWM duty cycle



Operating voltage range



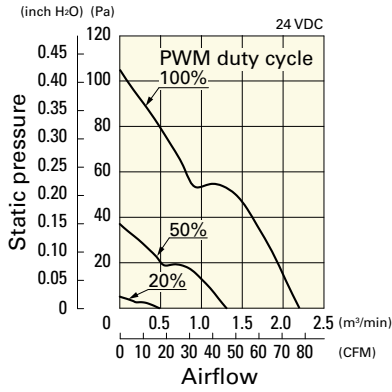
PWM duty - Speed characteristics example



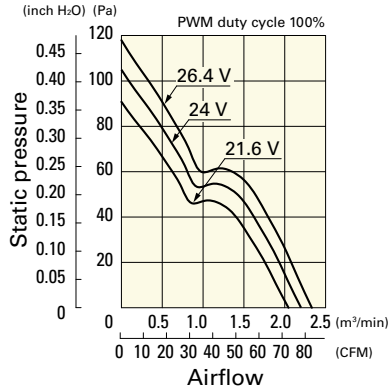
# Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example

**9WL0924P4J001** With pulse sensor with PWM control function

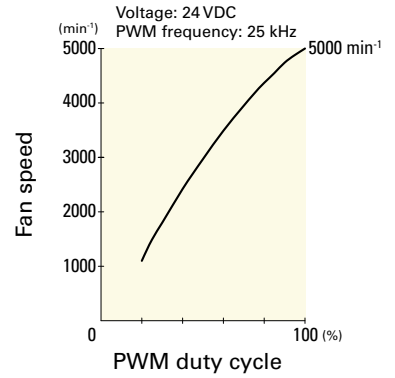
PWM duty cycle



Operating voltage range

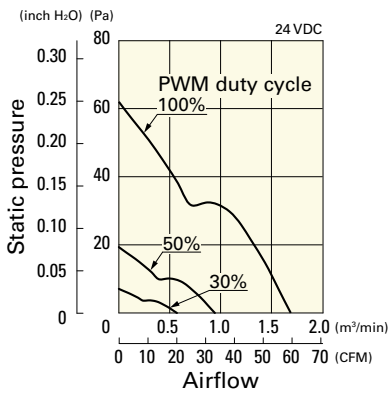


PWM duty - Speed characteristics example

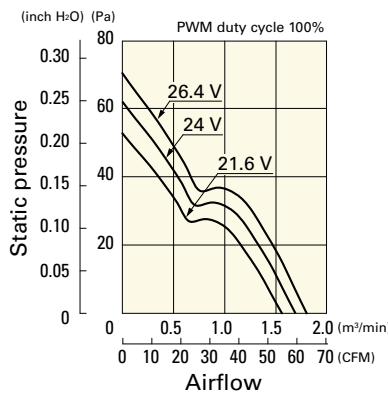


**9WL0924P4S001** With pulse sensor with PWM control function

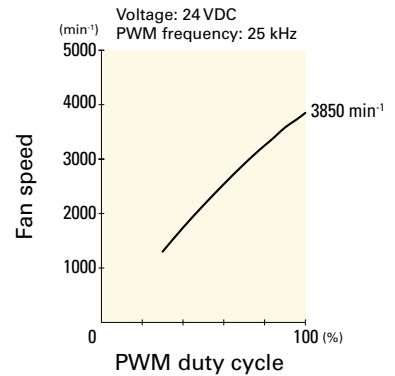
PWM duty cycle



Operating voltage range

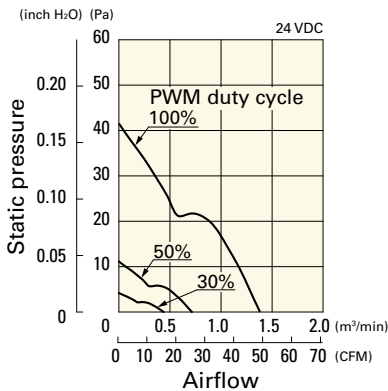


PWM duty - Speed characteristics example

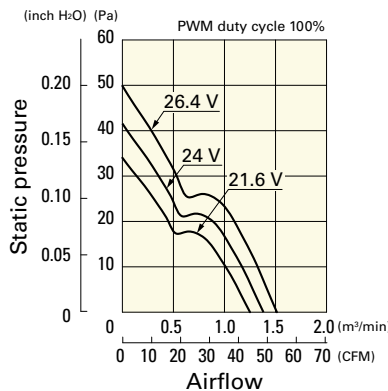


**9WL0924P4H001** With pulse sensor with PWM control function

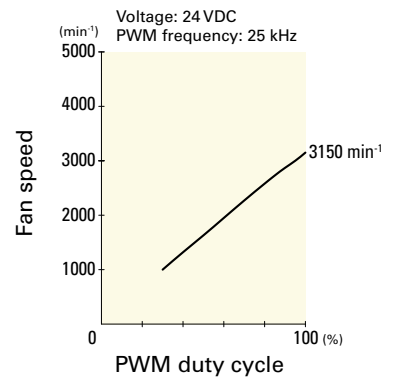
PWM duty cycle



Operating voltage range



PWM duty - Speed characteristics example

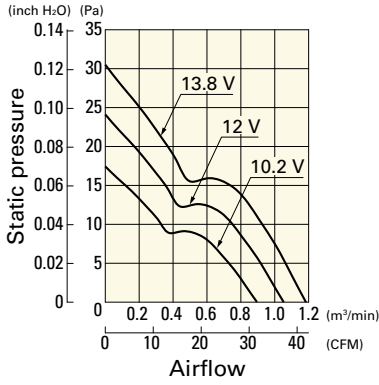


DC  
Splash Proof Fan 92 mm sq.

**Airflow - Static Pressure Characteristics**

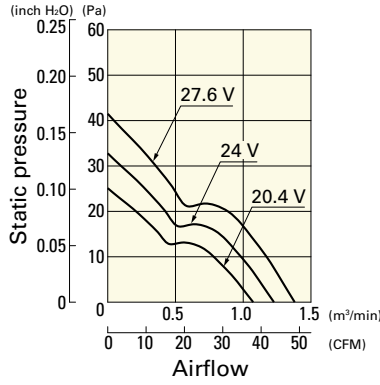
**9WL0912M4001** With pulse sensor

Operating voltage range



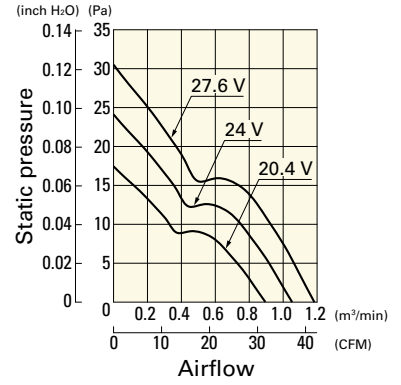
**9WL0924F4001** With pulse sensor

Operating voltage range

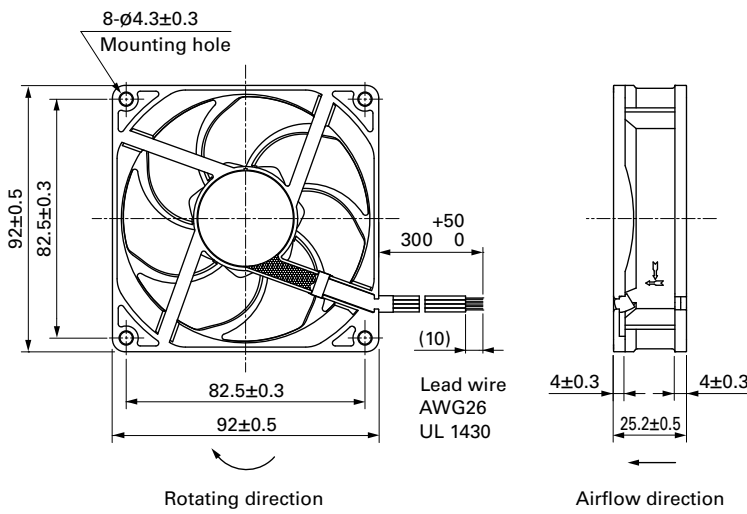


**9WL0924M4001** With pulse sensor

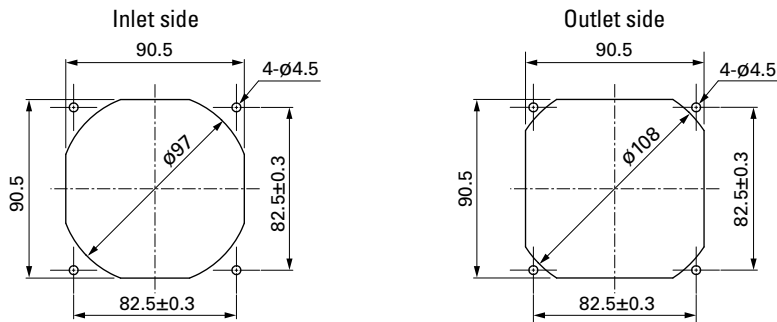
Operating voltage range



**Dimensions (unit: mm)**



**Reference Dimensions of Mounting Holes and Vent Opening (unit: mm)**



**Options**

**Finger guards**

page: p. 558

Model no.: 109-099E, 109-099H, 109-099C

**Resin finger guards**

page: p. 565

Model no.: 109-1001G



# 92x92x25 mm

San Ace 92W 9WP type

## General Specifications

- Material ..... Frame: Plastic (Flammability: UL 94V-0), Impeller: Plastic (Flammability: UL 94V-0)
- Expected life ..... See the table below. (L10 life: 90% survival rate for continuous operation in indoor free air at 60°C, rated voltage) Expected life at 40°C is for reference only.
- Motor protection function ..... Locked rotor burnout protection, Reverse polarity protection For details, please refer to p. 573.
- Dielectric strength ..... 50/60 Hz, 500 VAC, for 1 minute (between lead wire conductors and frame)
- Insulation resistance ..... 10 MΩ or more with a 500 VDC megger (between lead wire conductors and frame)
- Sound pressure level (SPL) ..... At 1 m away from the air inlet
- Storage temperature ..... -30 to +70°C (Non-condensing)
- Lead wire ..... ⊕Red ⊖Black or Blue  Sensor  Yellow
- Mass ..... 120 g
- Ingress protection ..... IP68

## Specifications

The models listed below **have ribs and pulse sensors**. For models without ribs, append "1" to the end of model numbers.

Model no.	Rated voltage [V]	Operating voltage range [V]	Rated current [A]	Rated input [W]	Rated speed [min <sup>-1</sup> ]	Max. airflow [m <sup>3</sup> /min] [CFM]	Max. static pressure [Pa] [inchH <sub>2</sub> O]	SPL [dB (A)]	Operating temperature [°C]	Expected life [h]
9WP0912S401	12	6 to 13.8	0.27	3.24	3550	1.66 58.6	56.1 0.225	39	-20 to +70	40000/60°C (70000/40°C)
9WP0912F401			0.14	1.68	2650	1.24 43.8	32.2 0.129	30		
9WP0924G401			0.19	4.56	3900	1.76 62.2	66.5 0.267	43		
9WP0924S401	24	12 to 27.6	0.15	3.6	3550	1.66 58.6	56.1 0.225	39		
9WP0924H401			0.1	2.4	3150	1.45 51.2	44 0.177	33		
9WP0924F401			0.08	1.92	2650	1.24 43.8	32.2 0.129	30		
9WP0924B401			0.05	1.2	2000	0.9 31.8	18.0 0.072	23	-10 to +70	

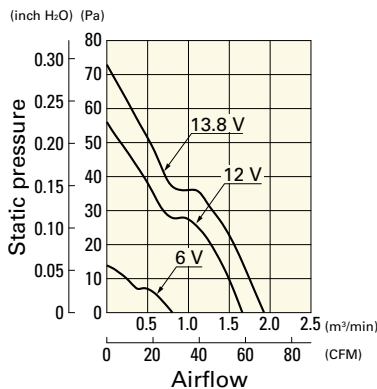
The following sensor and control options are available for selection.

Differs according to the model. Refer to the table on pp. 612 to 613.  Without sensor  Lock sensor

## Airflow - Static Pressure Characteristics

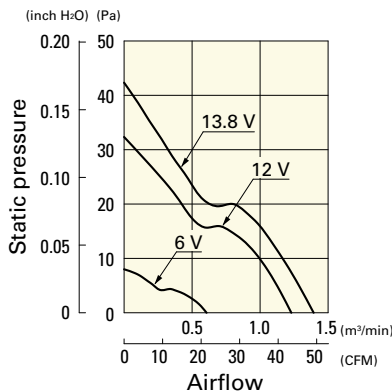
9WP0912S401 With pulse sensor

Operating voltage range



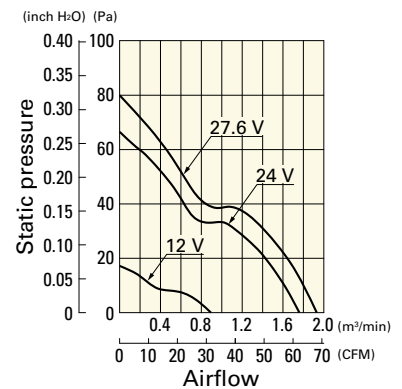
9WP0912F401 With pulse sensor

Operating voltage range



9WP0924G401 With pulse sensor

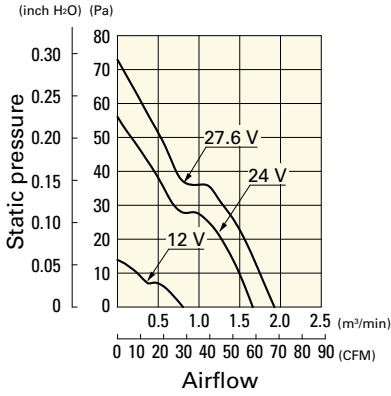
Operating voltage range



**Airflow - Static Pressure Characteristics**

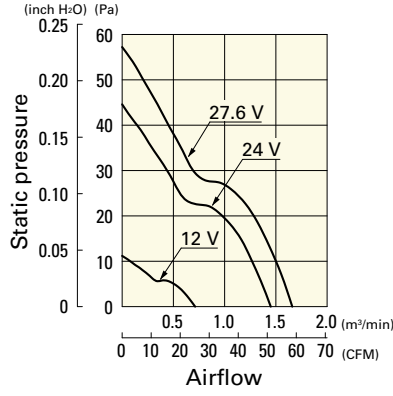
**9WP0924S401** With pulse sensor

Operating voltage range



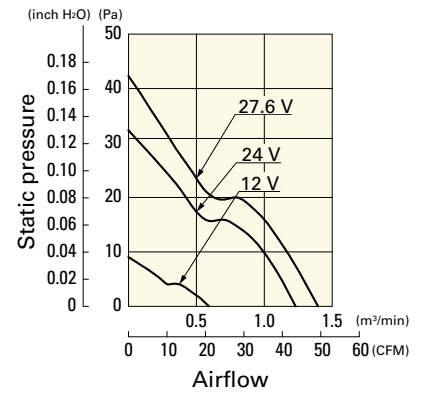
**9WP0924H401** With pulse sensor

Operating voltage range



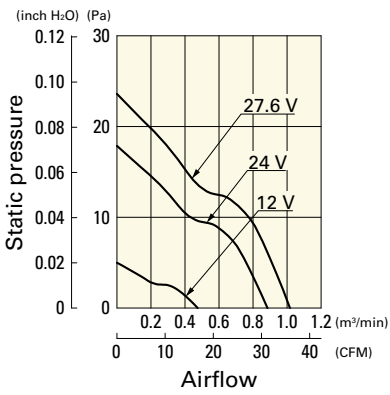
**9WP0924F401** With pulse sensor

Operating voltage range

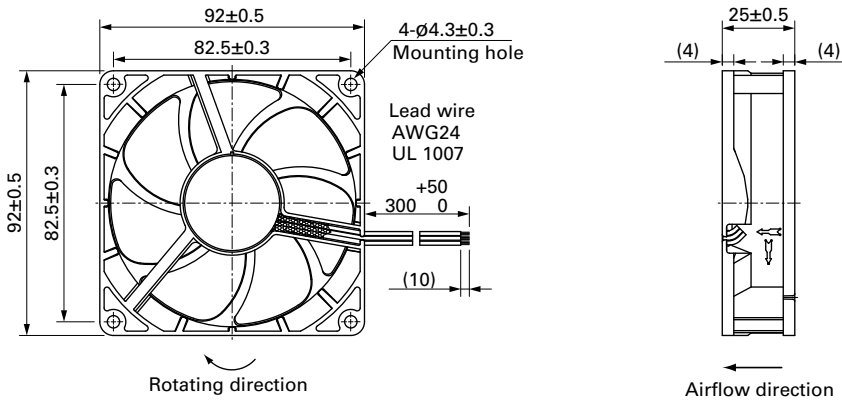


**9WP0924B401** With pulse sensor

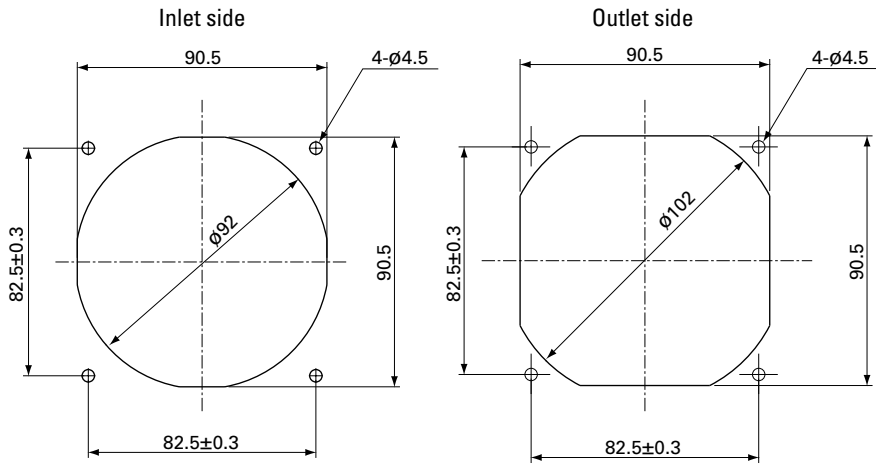
Operating voltage range



**Dimensions (unit: mm)** (With ribs)



Reference Dimensions of Mounting Holes and Vent Opening (unit: mm)



Options

Finger guards

page: p. 558

Model no.: 109-099E, 109-099H, 109-099C

Resin finger guards

page: p. 565

Model no.: 109-1001G