GentleTyphoon™

D1225C (for high speed applications) Series □ 120×25mm

GentleTyphoon™
D1225C

□ 120×25mm(□4.7"x1.0")
Max. airflow : 4.25m³/ min
Max. static pressure : 150Pa
Mass : 200g

Fan model code

- **D1225C12B7AZ-00**
- **D1225C12B9AZ-00**
- **D1225C12BBAZ-00**
- **D1225C12BBZP-00**
- **D1225C24B7AZ-00**
- **D1225C24B9AZ-00**
- **D1225C24BBAZ-00**
- **D1225C24BBZP-00**

■Features

- Surge-less PQ performance (increased airflow)
- Direct rearward, high impetus airflow (improved cooling)
- 2-way vibration reduction (lowers resonant noise of entire device)
- Design to improve sound (improved noise)
- Sensors Available (lock, pulse)
- Variable speed available (PWM)

■Standard specification

Max.Airflow		Max.Static Pressure		Noise	Speed	Voltage Spec.V		Current mA		Model Code	Operating Temp. Range ℃	Expectation Life
m³/min	CFM	Pa	inH₂O	dB	r/min	Rating	Operating Range	Rating	Starting			
4.25	150.1	150	0.60	50.5＊	5400	12	10.2 -13.8	1140	2690	D1225C12BBAZ-00	−20～+60	60℃ 45000hr 35℃ 100000hr
						24	20.4 -27.6	580	1210	D1225C24BBAZ-00		
3.30	116.5	95	0.38	44＊	4250	12	10.2 -13.8	560	1350	D1225C12B9AZ-00		60℃ 60000hr 35℃ 100000hr
						24	20.4 -27.6	290	650	D1225C24B9AZ-00		
2.35	83.0	49	0.20	36.5＊	3000	12	10.2 -13.8	220	970	D1225C12B7AZ-00		
						24	20.4 -27.6	140	530	D1225C24B7AZ-00		

＊ Noise values shown at quiet zone (as shown in the noise graph below).

- Figures in the table are average measured values. Please request the product delivery specification when preparing a purchase specification.
- The characteristics are the values at rated voltage , and normal temperature and humidity.
- The only venturi shape available for these products is a ribbed flange.
- Depending on quantities, Nidec Servo can meet many of your requirements for customization, such as special connectors, sensors, variable speedspecifications and other modifications. Please contact Nidec Servo for more information.
- This fan is specially designed for long life. Above indicated longevity is based on continuous operation at: 90% survivability, standard voltage and free air.

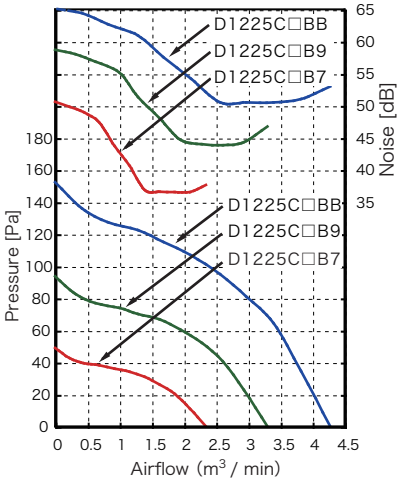
■General specification

Materials Used	Venturi : PBT-ABS synthetic resins Propeller : PBT-ABS synthetic resins Bearing : Both side shielded ball bearing
Motor	Brushless DC motor,Protection type : Current shut off by detecting lock state,automatically reset

- Each of the eight flanged ribs has "nut insert" receptacles for the M4 nuts (not included) which allow for easy attachment.

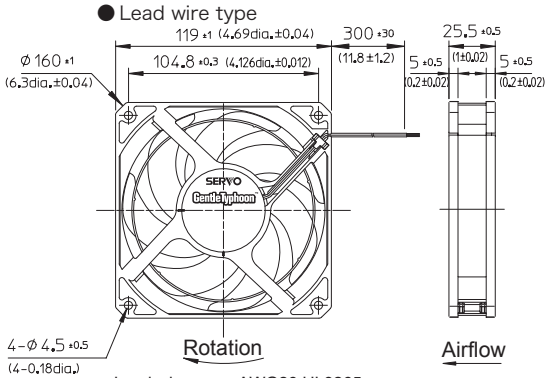
■Standard airflow and static pressure characteristics

(At rated voltage)



■External dimensions in mm(inches)

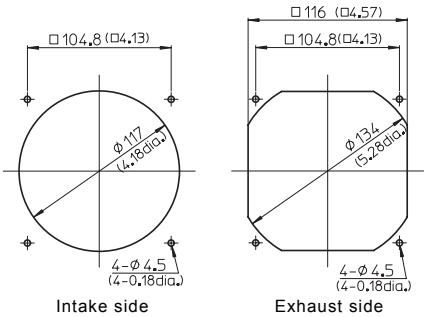
● Lead wire type



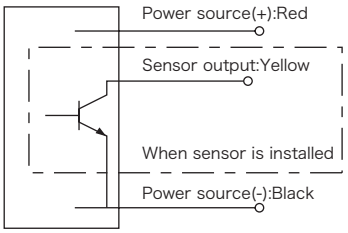
Lead wire spec. AWG26 UL3265
Color (+) Red (-) Black

■Mounting Hole dimensions in mm (inches)

[Recommendation]



■ Wiring connection diagram



DC axial fan with sensor

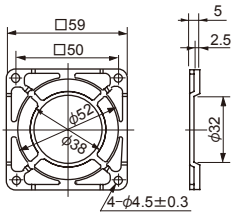
Rated Voltage	Model Code
12 V	**D1225C12BBZP-00**
24 V	**D1225C24BBZP-00**

Options (sold separately)
- Guard: F120UL guard
- Filter: F120 filter

- NIDEC SERVO can meet many of your requirements for customization, such as special connectors, other sensors not listed above, variable speed specifications, and other modifications. Please contact NIDEC SERVO during your product planning and development stage.
- The listed products are registered in the following overseas standards files, UL/cUL: E48889, TUV: R50004410

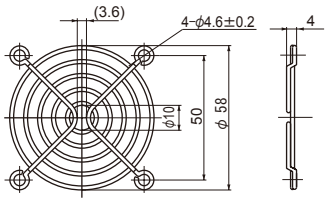
Guards (Options)

F60P Guard (Mass 4 g)



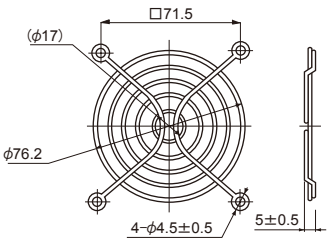
Material: Polycarbonate (black) UL94V-2

F60UL Guard (Mass 12 g)



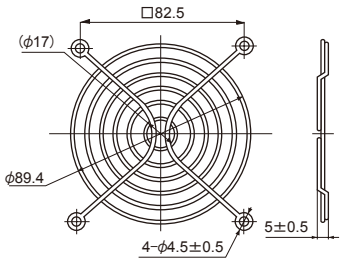
Material: Mild steel wire 1.6 dia.
Surface treatment:
Nickel chromium plating

F80UL Guard (Mass 14 g)



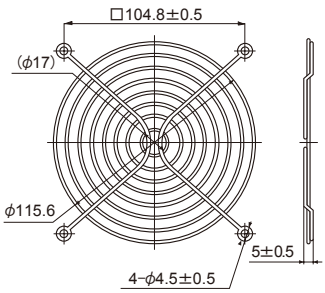
Material: Mild steel wire 1.6 dia.
Surface treatment:
Nickel chromium plating

F92UL Guard (Mass 16 g)



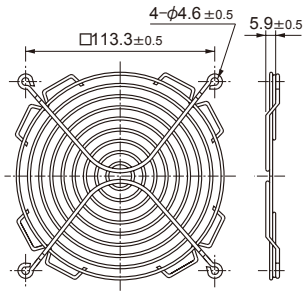
Material: Mild steel wire 1.6 dia.
Surface treatment:
Nickel chromium plating

F120UL Guard (Mass 29 g)



Material: Mild steel wire 1.6 dia.
Surface treatment:
Nickel chromium plating

F127UL Guard



Material: Mild steel wire 1.6 dia.
Surface treatment:
Nickel chromium plating

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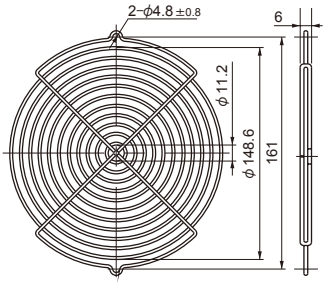
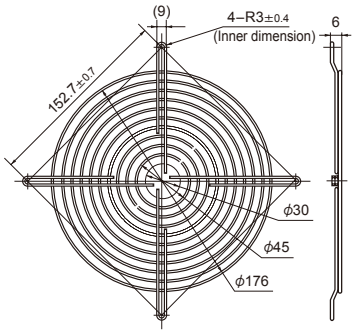


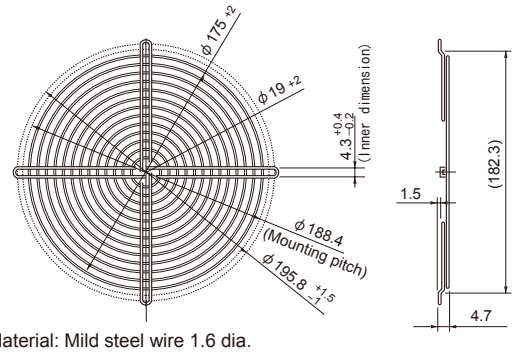
Material: Mild steel wire 2 dia.
Surface treatment:
Nickel chromium plating

F180UL Guard



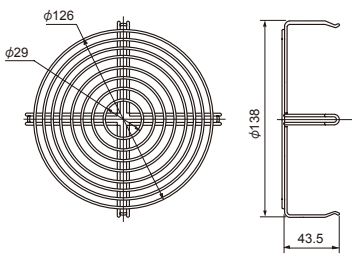
Material: Mild steel wire 1.6 dia.
Surface treatment:
Nickel chromium plating

F200UL Guard (Mass 82 g)



Material: Mild steel wire 1.6 dia.
Surface treatment:
Nickel chromium plating

SCN Guard (Mass 55 g)



Material: Mild steel wire 1.6 dia.
Surface treatment:
Nickel chromium plating

- Guard special for intake side of SCN (metal venturi) fans.

List of mating fan series

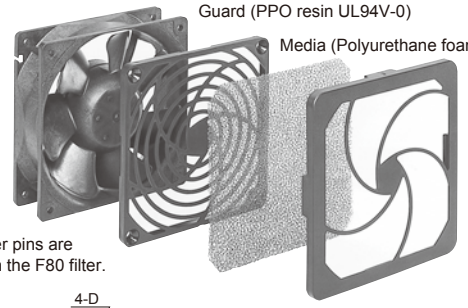
	Guard	F60P	F60 UL	F80 UL	F92 UL	F120 UL	F127 UL	GUARD 172	F180 UL	F200 UL	SCN
AC Axial Fans	SCN					○*1					○*2
	VE			○							
	WE				○						
	KA				○						
	CU					○					
	CN					○					
	MA							○			
	PA							○			
DC Axial Fans	TUDC	○	○								
	PUDC			○							
	D0925C				○						
	KLDC				○						
	D1225C					○					
	CNDC					○					
	D1238B					○					
	D1338B						○				
	D1751M							○			
	D1751S							○			
	G0638D		○								
	G0838X			○							
	G0938B				○						
	G1238B					○					
	G1751M							○			

*1: Can be installed only on outlet side. *2: Can be installed only on intake side.
All guards conform to the UL standard when combined with NIDEC SERVO fans.
The installation of a filter, guard and other accessories will constitute a ventilating load, reducing the airflow.Select a suitable guard, taking into consideration the increase in air resistance. (See Figs. 12 and 13 on page G-7.)

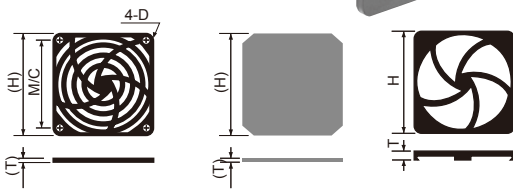
Filters and Other Accessories (Options)

■ Filter

3-piece set



Note: Two retainer pins are provided on the F80 filter.



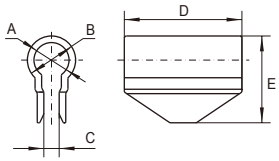
List of mating fan series

Filter		F80	F92	F120
DC Axial Fans	PUDC	○		
	D0925C		○	
	KLDC		○	
	D1225C			○
	CNDC			○
	D1238B			○
	G0838C	○		
	G0938B		○	
	G1238B			○

Filter		F80	F92	F120
AC Axial Fans	VE	○		
	WE		○	
	KA		○	
	CU			○
	CN			○

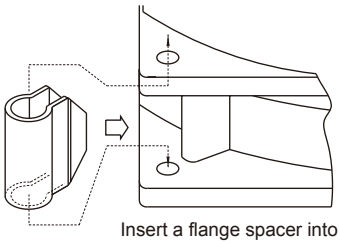
Component (Model Code)	H	T	M／C	D
F80 Filter	83.6	10	71.5	ϕ 3.8
F92 Filter	96.5	10	82.5	ϕ 3.8
F120 Filter	123.7	10.7	104.8	ϕ 4.6

■ Flange spacer



Component (Model Code)	A mm	B mm	C mm	D mm	E mm	Mating Model Code
Flange Spacer PUDC (※)	5	8	2	17	14.5	KUDC,PUDC
Flange SpacerCNDC	8	11	3.5	28	19.8	CNDC

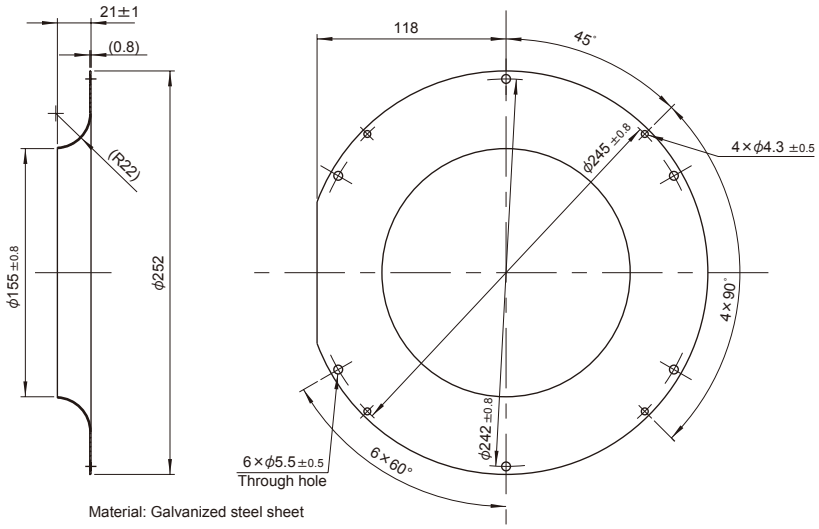
※Ribbed venturis (PUDC-R) are available for PUDC



Insert a flange spacer into the ribs of a venturi.

(Installing a flange spacer)

■ Inlet ring



Material: Galvanized steel sheet

Component (Model Code)	Mating Model Code
E2271 Inlet ring	E2271Z

DC axial fans & blowers with sensors

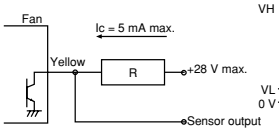
The DC fans and blowers of NIDEC SERVO have a function to send an alarm signal when the fan motor revolutions slow down. Several systems are used to cut off the system power supply by this alarm signal, with three types of sensors available. Select the right type of sensor in accordance with the purpose of use. The lead wire for the sensor is yellow. The output type is an open collector output for all three types.

■ Sensor type

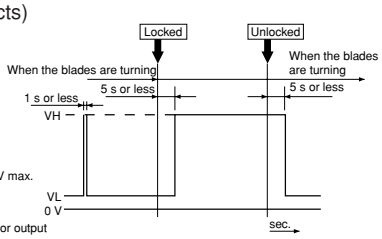
1. Lock detection type (Product code: S)

The output signal indicates an [L] state (transistor is ON) while the propeller is rotating, changing to an [H] state (transistor is OFF) less than five seconds after the propeller stops rotating. The propeller automatically restarts operation within five seconds when the lock is unlocked. ([H] → [L] 5 s). If the pull-up voltage is live, the [H] state (transistor is OFF) will engage in less than five seconds, even when the power is turned off.

● Specification: V_{CE} = 28 V max
(55.2 V max for 48 V products)
IC = 5 mA max
($V_{CE\ (SAT)}$ = 0.4 V max)



● Output waveform

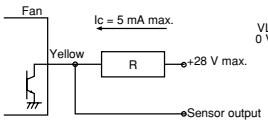


※When the power is turned on, the state sometimes becomes high [H] for several hundred ms.

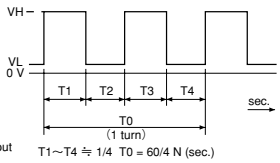
2. Pulse output type (Product code: P)

A rectangular wave of two pulses will be output for each turn of the propeller while the propeller is rotating, outputting two types of signal depending on the propeller position when the propeller is locked. (See the note below ※)

● Specification: V_{CE} = 28 V max
(55.2 V max for 48 V products)
IC = 5 mA max
($V_{CE\ (SAT)}$ = 0.4 V max)



● Output waveform

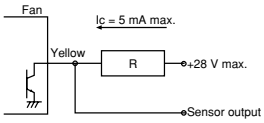


※Output signal waveform when the fan is stopped: The following two types of waveform are output, depending on the blade position when the propeller is stopped:
Pulse outputs of High - constant or restart timing (0.05 Hz to 2 Hz).

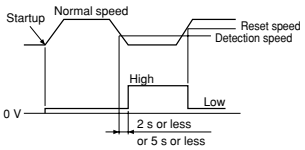
3. Speed detection type (Product code: Q)

The output signal indicates the [H] state when the propeller revolutions are slower than the preset speed, changing to the [L] state when the propeller revolutions exceed the reset speed.
[Products with a reversed output waveform are also available, suitable for a wired OR connection when several fans are installed. Contact NIDEC SERVO for further information. {Former code: SQ, new code (15 - digit code products): R}]

● Specification: V_{CE} = 28 V max
(55.2 V max for 48 V products)
IC = 5 mA max
($V_{CE\ (SAT)}$ = 0.4 V max at 5 mA)



● Output waveform



Note: The output waveform for type SQ (R) will be reversed.
The speed setting for the alarm output is about half the rated speed.
For more detailed information, please request a product delivery specification from NIDEC SERVO.