

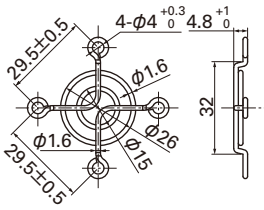
Finger guards

Dimensions(Unit : mm)

36mm sq. type

Model : 109-1050 Color : Nickel-chrome plating (silver)

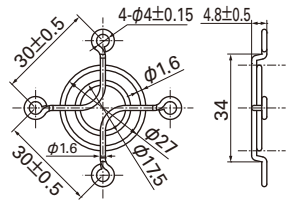
Inlet side, Outlet side



38mm sq. type

Model : 109-1065 Color : Nickel-chrome plating (silver)

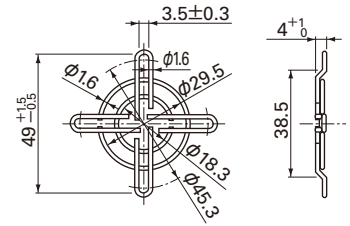
Inlet side, Outlet side



40mm sq. type

Model : 109-059 Color : Nickel-chrome plating (silver)

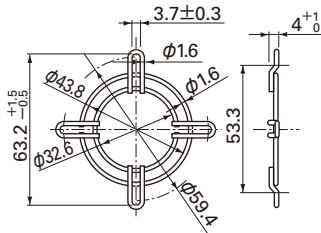
Inlet side, Outlet side



52mm sq. type

Model : 109-149 Color : Nickel-chrome plating (silver)

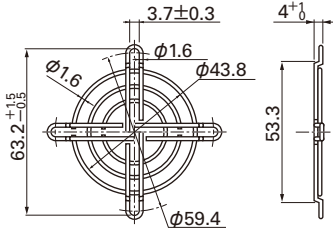
Outlet side



52mm sq. type

Model : 109-149E Color : Nickel-chrome plating (silver)

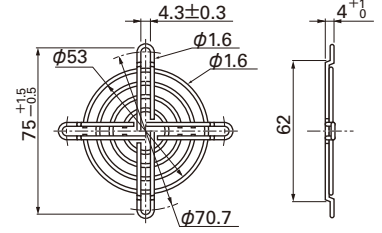
Inlet side, Outlet side



60mm sq. type

Model : 109-139E Color : Nickel-chrome plating (silver)
: 109-139H : Cation electropainting (black)

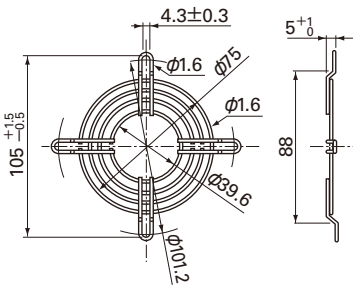
Inlet side, Outlet side



80mm sq. type

Model : 109-049C Color : Nickel-chrome plating (silver)

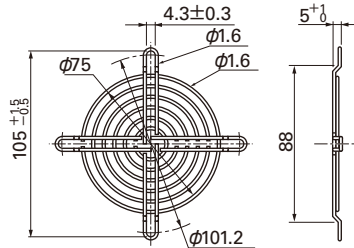
Outlet side



80mm sq. type

Model : 109-049E Color : Nickel-chrome plating (silver)
: 109-049H : Cation electropainting (black)

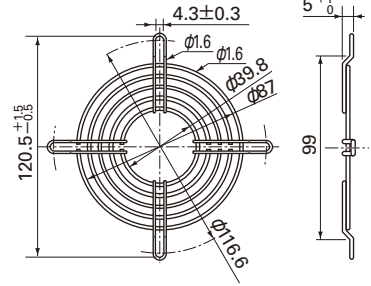
Inlet side, Outlet side



92mm sq. type

Model : 109-099C Color : Nickel-chrome plating (silver)

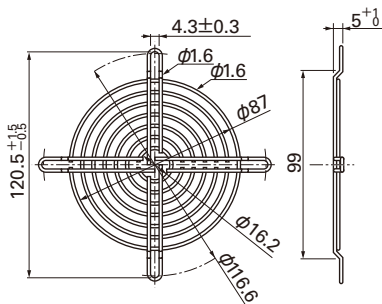
Outlet side



92mm sq. type

Model : 109-099E Color : Nickel-chrome plating (silver)
: 109-099H : Cation electropainting (black)

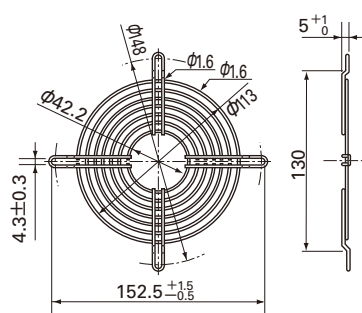
Inlet side, Outlet side



120mm sq. type

Model : 109-019C Color : Nickel-chrome plating (silver)
: 109-019H : Cation electropainting (black)

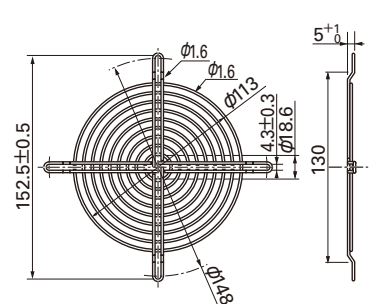
Outlet side



120mm sq. type

Model : 109-019E Color : Nickel-chrome plating (silver)
: 109-019K : Cation electropainting (black)

Inlet side, Outlet side

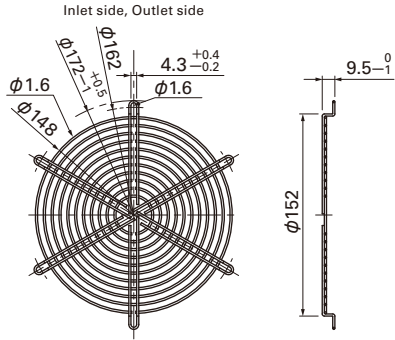


Finger guards

Dimensions(Unit : mm)

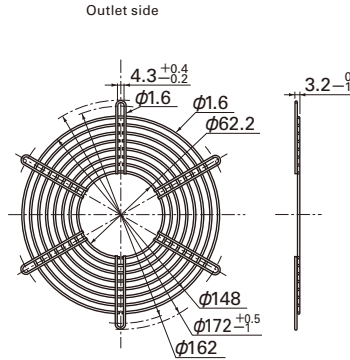
φ172mm SideCut, Round type

Color : 109-319E Surface treatment: Nickel-chrome plating (silver)
 : 109-319H : Cation electropainting (black)

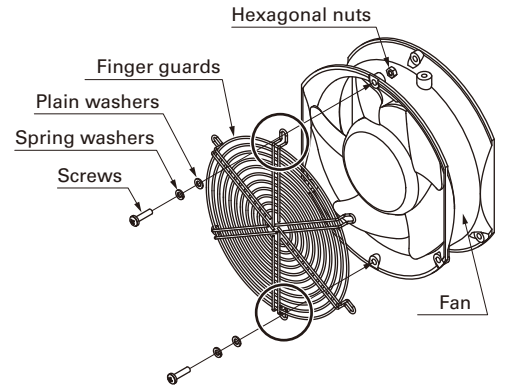


φ172mm SideCut, Round type

Color : 109-320 Surface treatment: Nickel-chrome plating (silver)

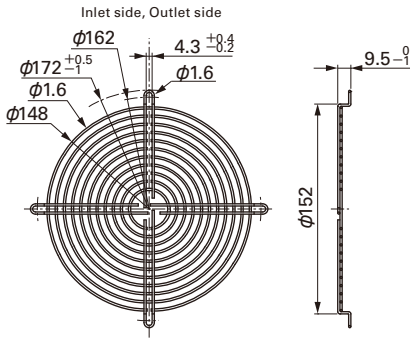


For the finger guard Model: 109-319E, 109-319H, 109-320, fix the finger guard to two holes as shown in the diagram. Do not fix it to any other holes.



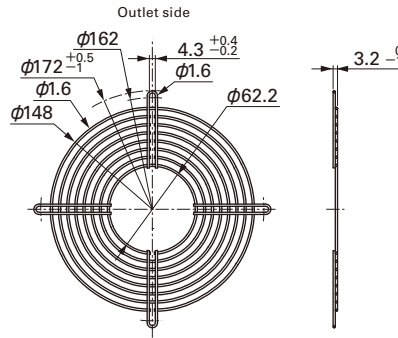
φ172mm Round type

Color : 109-1066 Surface treatment: Nickel-chrome plating (silver)



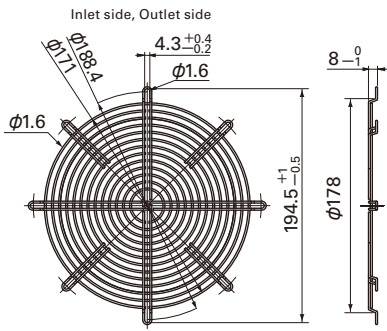
φ172mm Round type

Color : 109-1068 Surface treatment: Nickel-chrome plating (silver)



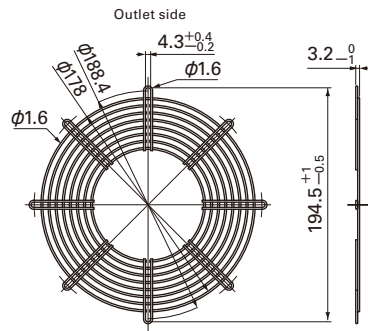
φ200mm type

Color : 109-720 Surface treatment: Nickel-chrome plating (silver)
 : 109-720H : Cation electropainting (black)



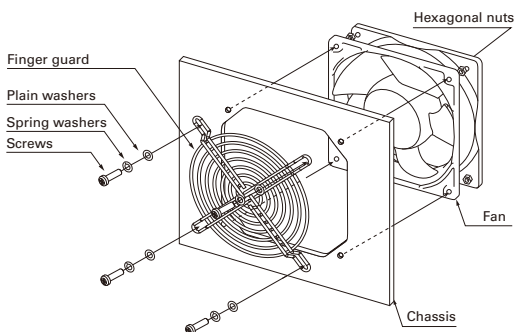
φ200mm type

Color : 109-721 Surface treatment: Nickel-chrome plating (silver)
 : 109-721H : Cation electropainting (black)

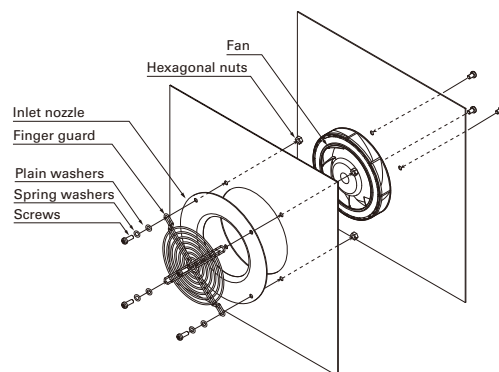


Mounting example

Axial fan



Centrifugal fan



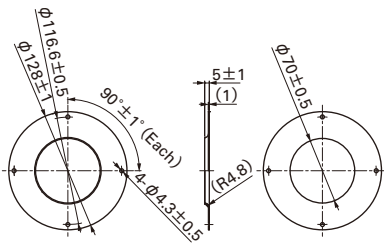
Inlet nozzle for centrifugal fan and splash proof centrifugal fan

Nozzle mounted in fan inlet side to adjust the flow of introduced air.

Dimensions(Unit : mm)

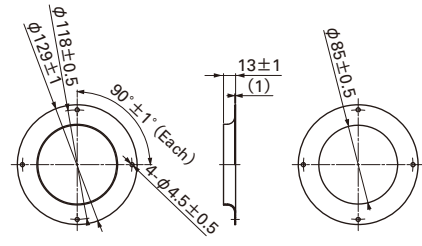
φ100mm type

Model : 109-1080



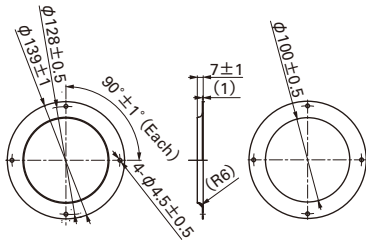
φ133mm type

Model : 109-1069



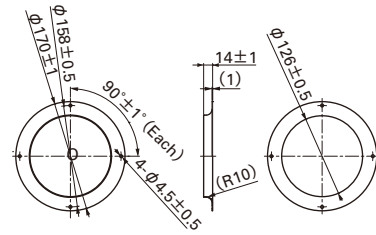
φ150mm type

Model : 109-1081



φ175mm type

Model : 109-1073

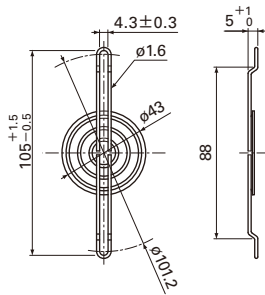


EMC guards

Dimensions(Unit : mm)

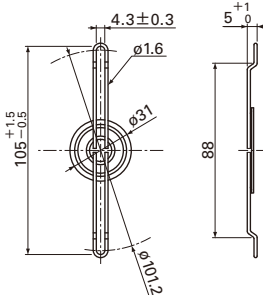
80mm sq. type

Color
Model : 109-1038 Surface treatment: Nickel-chrome plating (silver)
Applicable Model : 109P08***6**/109P08***2**
: 109L08***4**



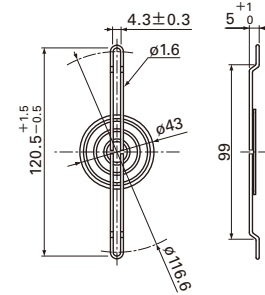
80mm sq. type

Color
Model : 109-1039 Surface treatment: Nickel-chrome plating (silver)
Applicable Model : 109P08***7**/109R08***4**/9A08***4**



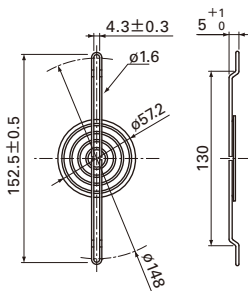
92mm sq. type

Color
Model : 109-1040 Surface treatment: Nickel-chrome plating (silver)
Applicable Model : 109P09***4**/109L09***4**



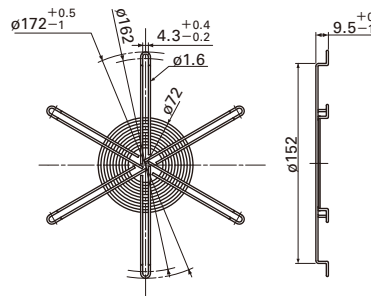
120mm sq. type

Color
Model : 109-1037 Surface treatment: Nickel-chrome plating (silver)
Applicable Model : 9G12***4**
: 9G12***1**/9LB12***1**/9GL12***1**



φ172mm type

Color
Model : 109-1036 Surface treatment: Nickel-chrome plating (silver)
Applicable Model : 109E47***4**/109E17***5**/109E57***5**
: 9GV57***5**/109L17***5**



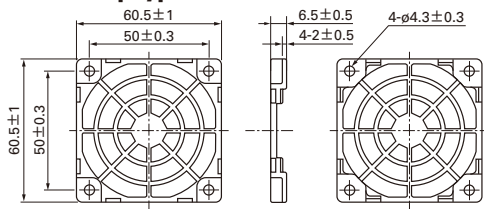
Resin finger guards

Dimensions(Unit : mm)

Material Frame : (SPS + PS alloy) Resin UL File No.E48268 94V-0

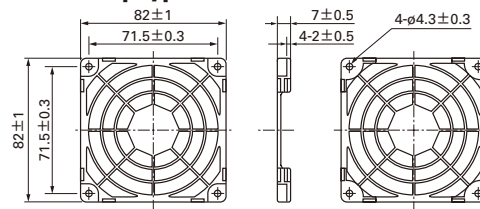
60mm sq. type

Model : 109-1003G



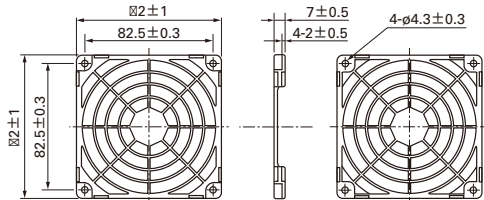
80mm sq. type

Model : 109-1002G



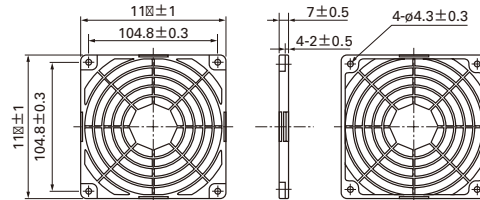
92mm sq. type

Model : 109-1001G

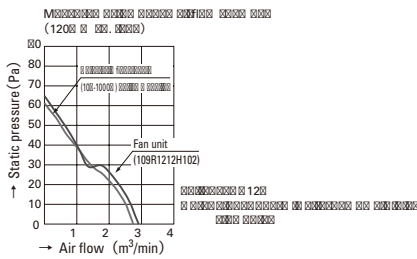


120mm sq. type

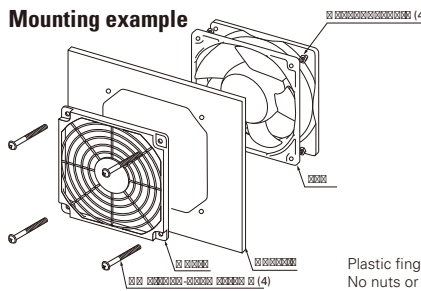
Model : 109-1000G



Air Flow and Static Pressure Characteristics



Mounting example



Plastic finger guards are placed on both the intake and exhaust sides of the fan. No nuts or screws for use in attachment included.

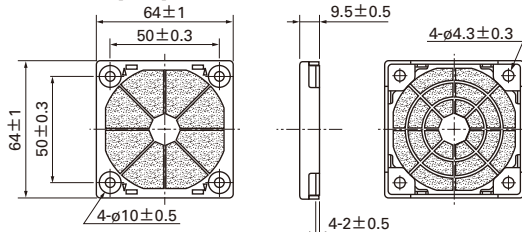
Resin filter kits

Dimensions(Unit : mm)

Material Guard,cover : (SPS + PS alloy) Resin UL File No.E48268 94V-0
Filter : Polyurethane foam UL File No.E74916(S) 94HF-1

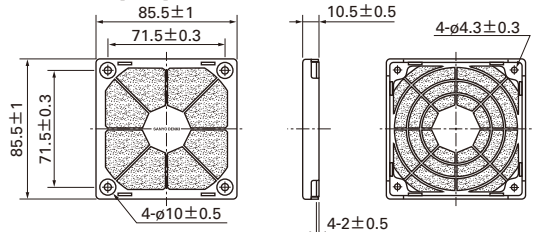
60mm sq. type

Model : 109-1003F13 (13PPI) 109-1003F20 (20PPI)
: 109-1003F30 (30PPI) : 109-1003F40 (40PPI)



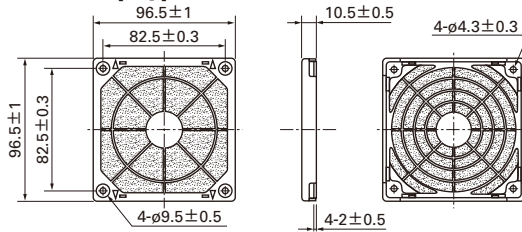
80mm sq. type

Model : 109-1002F13 (13PPI) 109-1002F20 (20PPI)
: 109-1002F30 (30PPI) 109-1002F40 (40PPI)



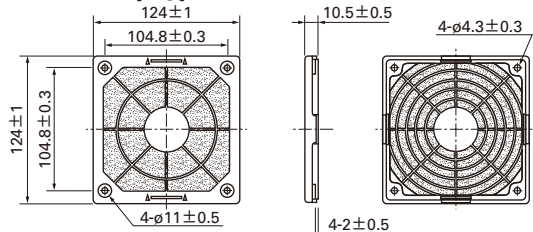
92mm sq. type

Model : 109-1001F13 (13PPI) 109-1001F20 (20PPI)
: 109-1001F30 (30PPI) 109-1001F40 (40PPI)



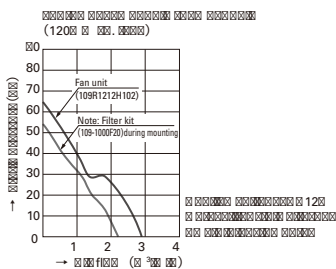
120mm sq. type

Model : 109-1000F13 (13PPI) 109-1000F20 (20PPI)
: 109-1000F30 (30PPI) 109-1000F40 (40PPI)

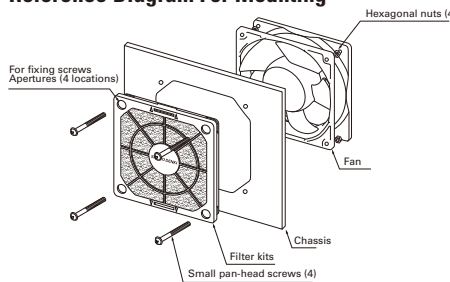


PPI Particles Per Inch : Indicates the number of holes per inch. Note that the higher the number, the finer the grain of the sponge.

Air Flow and Static Pressure Characteristics



Reference Diagram For Mounting



Replacement filter (5 sheets each)

60mm sq. type	80mm sq. type
109-1003M13 (13PPI)	109-1002M13 (13PPI)
109-1003M20 (20PPI)	109-1002M20 (20PPI)
109-1003M30 (30PPI)	109-1002M30 (30PPI)
109-1003M40 (40PPI)	109-1002M40 (40PPI)

92mm sq. type	120mm sq. type
109-1001M13 (13PPI)	109-1000M13 (13PPI)
109-1001M20 (20PPI)	109-1000M20 (20PPI)
109-1001M30 (30PPI)	109-1000M30 (30PPI)
109-1001M40 (40PPI)	109-1000M40 (40PPI)

● Filter kit is one of the option to keep air in the chassis clean filtering dust in external atmosphere when pulling-air cooling is implemented. The filter kit is hooked up through mounting hole of fan frame with screw as well as finger guard. Some performances(airflow & static pressure) of the fan motor decreases when filter kit is hooked up.● This Filter Kit is composed of 3 components, including a guard, a filter and a cover. It is delivered as a finished product at delivery, saving assembly time when mounting. It can be mounted by inserting a screw in the apertures of the cover.● The filter and cover can be easily removed from the guard with one touch. There is no need for fan removal when undertaking maintenance.● Operating temperature limit is between -10°C to +60°C.(non condensing)● The filter will deteriorate with age, and the level of deterioration will vary upon usage conditions. Please be aware that the filter has a greater tendency to deteriorate under high temperature and humidity. For long-term storage, please store under the temperature range of 10°C to 30°C, humidity range of 20% to 65%. Usage and storage period is approximately 2 years.● Cooling ability decreases with filter contamination due to clogging. Filter replacement is recommended approximately every six months of usage. Please replace the filter if deterioration or clogging is seen at inspection.● When replacing the filter, please use genuine SANYO DENKI filters.● Do not water-wash the filter.● Avoid use and storage under high temperature or humidity, direct sunlight or exposure to ultraviolet light, or in corrosive gas.● No nuts or screws for use in attachment included.