

VESSEL

Let us think.

New

Static Electricity Removal

HIGH POWER IONIZING NOZZLE

No. **HPN-1** (Shielded cable included)

CE RoHS

HIGH POWER SYSTEM

STAT-BUSTER

Good especially

for highly charged products

Newly Developed

High Voltage
Power Supply Unit

No. **GP-1 4kV**
(Option)

CE RoHS

- Detects high voltage by an anomaly detection circuit.
- Can adjust Ion Balance with adjusting volumes.

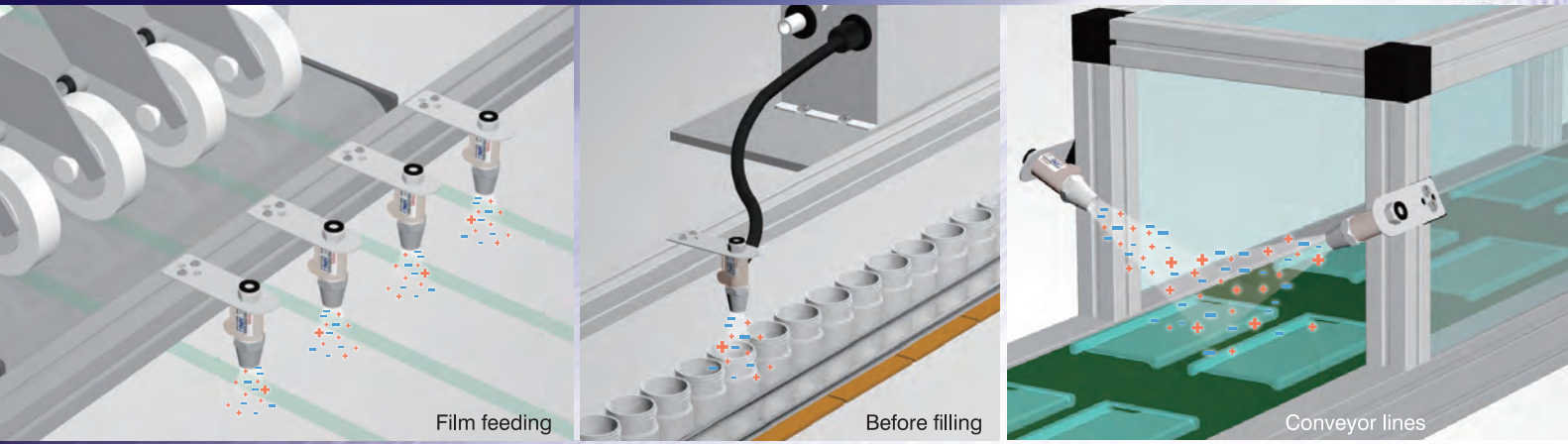
*Commercial Frequency Type
High Voltage Power Supply*
STATBUSTER

OUTPUT 4kV

Use this product with the GP-1 4kV.

**Removal of static electricity and dust in the following applications:
Bag-making / Film packing / Molding / Robotic conveyance and pick-up / Food container**

Commercial Frequency Type High Voltage Power Supply **STATBU**



The Power Nozzle HPN-1 can blow off dusts as well as remove static electricity by compressed air. The power should be supplied by the Commercial Frequency Type High Voltage Power Unit GP-1 4kV.

Features

Titan electrode needle

- * Less-wearing titan electrode needle enhances the ionizing performance for a long time and with stability.
- * Replaceable.



A Shielded Cable is included as standard.

A high voltage shielded cable, less affected by the electrical noises

Ion Balance Circuit (High Voltage Power Supply Unit GP-1 4kV)

Ion balance can be easily adjusted by using a volume allocated on the GP-1 4kV.

Anomaly Detection Circuit/Safety Circuit (High Voltage Power Supply Unit GP-1 4kV)



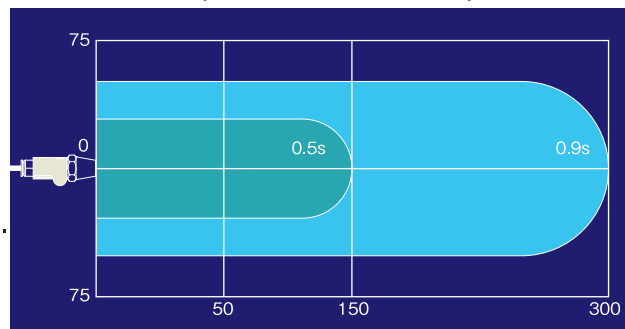
Normal Anomaly

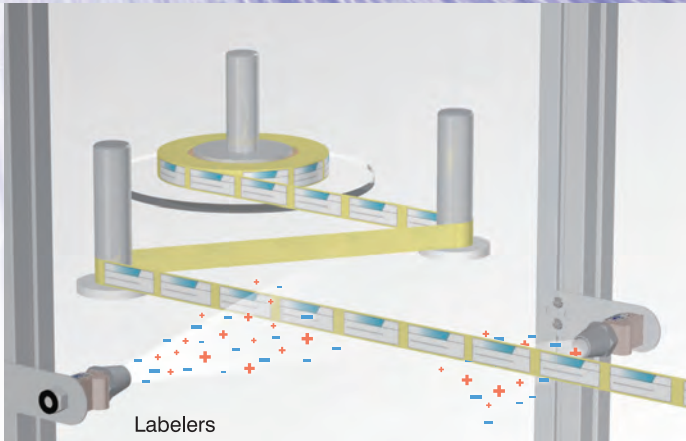
- * Output stops automatically when there occurs any anomaly on the high voltage supply (e.g. short-circuited, overcurrent, or else)
- * Alarm output terminals can emit the signal to external devices to communicate the operation status.

※During normal operation, the pilot lamp of the GP-1 4kV is lighten. When there happens anomaly, the pilot lamp is OFF and the power supply stops automatically.

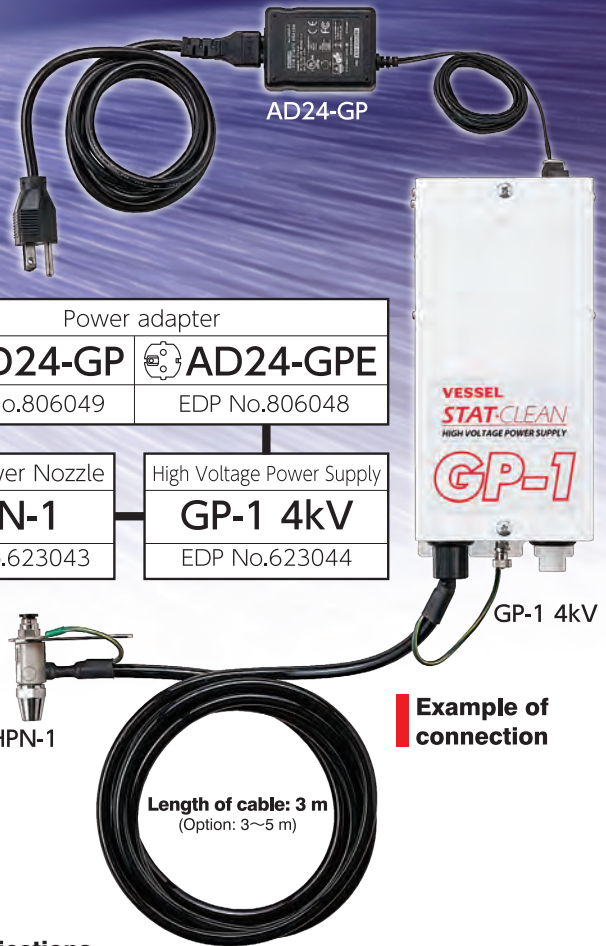


Performance (Air Pressure: 0.3 MPa)





Labelers

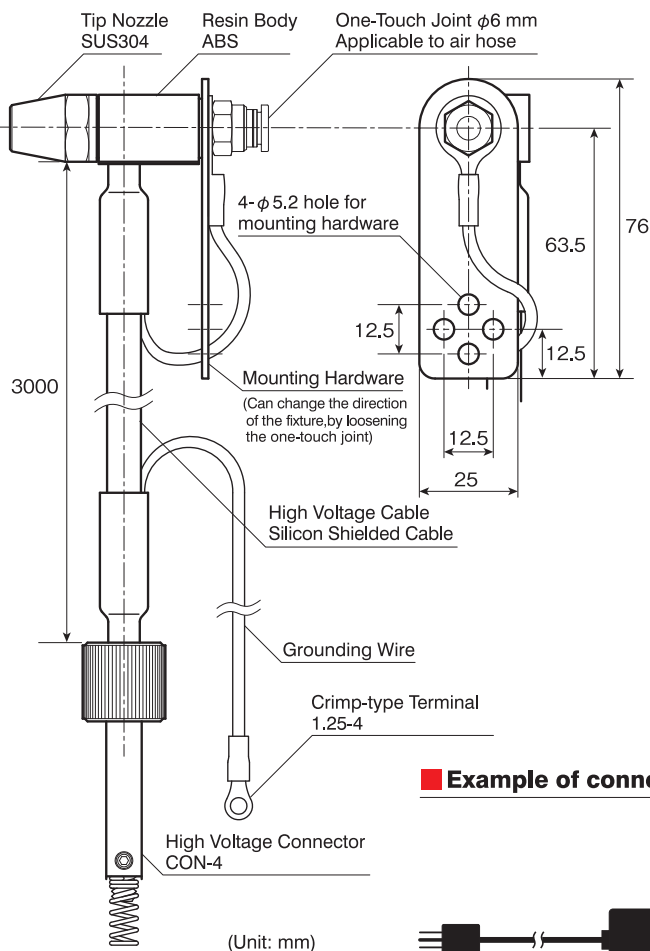


| | |
|--|---|
| Power adapter | |
| AD24-GP EDP No.806049 | AD24-GPE EDP No.806048 |
| High Power Nozzle HPN-1 EDP No.623043 | High Voltage Power Supply GP-1 4kV EDP No.623044 |

Example of connection

Length of cable: 3 m
(Option: 3~5 m)

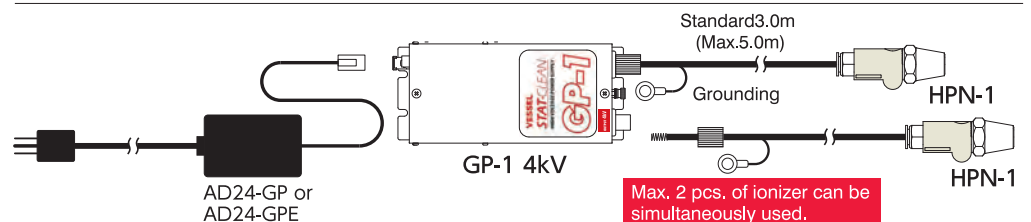
Dimensions



Specifications

| | |
|--------------------------------|---|
| Model | HPN-1 |
| Type | High voltage applied type ionizer |
| Structure | Direct-coupled (Touch the electrode when applying current may bring electric shocks) |
| Applied High Voltage | High Voltage Power Supply Unit GP-1 4kV |
| Ionizing Method | AC corona discharge |
| Applied Voltage/Frequency | 3.5kVAC / 50/60 Hz |
| Operating Fluid/Input Pressure | Clean air/Max.input pressure 0.7MPa |
| Operating Temp./Humidity | 0~45°C/10~90%RH (without freezing or dew condensation) |
| Storage Temp./Humidity | -30~50°C/10~90%RH (without freezing or dew condensation) |
| Installation Distance | 50mm~300mm approx. (between charged product and discharge tip of nozzle) |
| Decey Time | Approx. 0.5sec. (Input air pressure: 0.3MPa, distance: 150mm) |
| Ion Balance | Adjustable on GP-1 4kV (Charged plate monitor or an equivalent is required.) |
| Installation Place | Indoor |
| Protective Circuit | High voltage power supply unit GP-1 4kV has high voltage anomaly detection function and automatic stop circuit. |
| High Voltage Cable | 3m (standard), silicon shielded cable |
| Connector | High pressure connector CON-4 |
| Air Connection | dia.6mm tube applied, one-touch joint |
| Material | Nozzle: PA66+SUS304, Electrode needle: Titanium |
| Size | Refer to the external drawing (on the next page). |
| Weight | Approx.350g, including high pressure cable (3m), standard mounting hardware, and high pressure connector. |
| Noise | Approx. 95dBA (Input air pressure: 0.3MPa) |
| Air Consumption | Approx. 110L/min (Input air pressure: 0.3MPa) |

Example of connection



Max. 2 pcs. of ionizer can be simultaneously used.

Static electricity removal High Power Ionizing Nozzle No. HPG-1



Specifications

| | |
|----------------------------------|--|
| Model | HPG-1 |
| Type | High voltage applied type ionizing |
| Structure | Direct-coupled (Touch the electrode when applying current may bring electric shocks) |
| Applied High Voltage | High Voltage Power Supply Unit Gp-1 4kV |
| Ionizing Method | AC corona discharge |
| Applied Voltage /Frequency | 3.5kVAC / 50/60Hz (to be set and/or adjusted on the GP-1 4kV) |
| Operating Fluid / Input Pressure | Clean air/max. input pressure of 0.7MPa (PROHIBITED TO SUPPLY AIR AT MORE THAN 0.7MPa.SERIOUS RISK OF DAMAGE OR BREKAGE ON THE BODY AND OTHER PARTS) |
| Operating Temp./Humidity | 0~45°C/10~90%RH(without freezing or dew condensation) |
| Storage Temp./Humidity | -30~50°C/10~90%RH(without freezing or dew condensation) |
| Installation Distance | 50mm~300mm approx. (between a charged product and discharge tip of the gun) |
| Decey Time | Approx. 0.5 sec. (Input air pressure: 0.3MPa, Distance: 150mm) |
| Ion Balance | Adjustable on GP-1 4kV (Charged plate monitor or an equivalent is required.) |
| Installation Place | Indoor |
| Protective Circuit | High Voltage Power Supply GP-1 4kV has high voltage anomaly detection function and automatic stop circuit. |
| High Voltage Cable | 3m (standard), silicon shielded cable |
| Termination Connector | High pressure connector CON-4 |
| Air Connection | Outer dia.8mm tube applied, one touch joint |
| Material | Air gun: Aluminum die-cast, Nozzle: PA66+SUS304, Electrode needle: Titanium |
| Weight | Approx. 550g,including high pressure cable (3m) and high pressure connector. |
| Noise | Approx. 95dBA (Input air pressure:0.3MPa) |
| Air Consumption | Approx. 110L/min (Input air pressure:0.3MPa) |
| Life Expectancy | 10,000 hours (only as a guide) (8hours operation×250days×5years) |

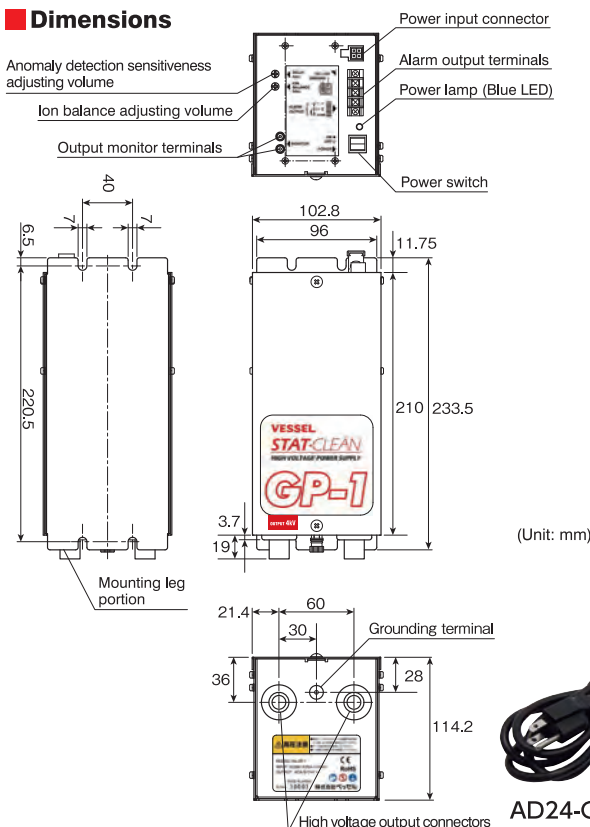
- * Titanium electrode needle (discharge electrode)
- * Silicon shielded cable for high voltage.
- * The body of the air gun is robust aluminum die-cast.
- * The air gun is equipped with an easy-handling lever.
- * Ion Balance Circuit
(High Voltage Power Supply Unit GP-1 4kV)
- * Safety circuit/Anomaly detection circuit
(High Voltage Power Supply Unit GP-1 4kV)

High Voltage Power Supply No. GP-1 4kV

Specifications

| | |
|--|--|
| Model | GP-1 4kV |
| Operating Temp./Humidity | 0~50°C/10~90%RH(without freezing or dew condensation) |
| Storage Temp./Humidity | -30~70°C/10~95%RH(without freezing or dew condensation) |
| Installation Place | Indoors |
| Rated Input Voltage | 24V DC ±10% |
| Variable Output Range Without Loud (rms) | AC output 4kV DC output -150 to +550V |
| Secondary Short Circuit Current | 5 mA or lower |
| Output Monitor | 1/1000V±5% of the output voltage is emit to the monitor terminals. |
| Low-voltage Detection | Anomaly detection function will operate when each output drops to about 85% or less of the set voltage due to high voltage short circuit or abnormal sparks. |
| Overcurrent Detection | Anomaly detection function will operate when the output current is about 4mA or more. |
| Anomaly Detection Sensitivity Adjustment | The anomaly detection response speed can be adjusted (using external adjustment knob) |
| Power Supply Input | Molex 5569-04A1-210 |
| High Voltage Output Connector | Ceramic high voltage output terminal×2 |
| Alarm Output Terminal | C contact relay output |
| Switches And Displays | On-off rocker switches. Blue LED power indicator lamp (goes off when anomaly is detected) |
| Material | Housing SPCC, painted white |
| Size | W102.8×D233.5×H114.2mm |
| Weight | Approx. 4.5kg |

Dimensions



Power adapter Specifications

| | | |
|--------------------------|--|----------|
| Model | AD24-GP | AD24-GPE |
| Rated input | 100~240V AC (50/60Hz), 0.4A | |
| Rated output | 24V DC, 0.75A | |
| Operating temp. Humidity | 0~40°C 10~85%RH (without freezing or dew condensation) | |
| Coed length | DC output cord and AC input cord, approx. 1.8m each | |

WARNING ● For safety purposes, read the instruction manual carefully before using the unit. ● Do not use this product in an explosion-proof area. ● A high voltage is applied on this product. Make sure that water, oil, solvents, etc., do not come in contact. ● Avoid dew condensation as it can result in electric shock or product damage. ● Keep away metal objects such as tools or needles, or body parts such as fingers, hands or face from the needle electrode because a high voltage is applied on the needle electrode.

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