

# Light Irradiation-type Static Eliminator

## IRISYS-SX ISX-224 Soft X-ray Irradiation Static Eliminator



### Main Features

The ISX-224 is a compact, powerful device that eliminates static by using soft X-ray irradiation to directly ionize gas molecules. The light-irradiation system does not generate any dust whatsoever, and the electromagnetic noise is minimal. Moreover, the device provides stable static elimination performance regardless of the flow state of the gas. Static can also be eliminated from inert gases such as N<sub>2</sub> or Ar.

1. Stable static elimination results can be obtained regardless of the flow state of the gas. Since the gas in the space irradiated by the light is ionized over a wide area, the static elimination performance is not affected by the presence of an uneven air flow in the vicinity of the target object.
2. Daily maintenance operations are not required. The only component that will need to be replaced is the X-ray head (the average lifetime is 8000 hours).
3. The residual potential of the target object can be reduced to 0 V due to the even distribution of the positive and negative ions and electrons.
4. Since it uses light to directly ionize the gas molecules, the device can be used to eliminate static from inert gases such as N<sub>2</sub> or Ar provided that they are under atmospheric pressure.
5. The light-irradiation system does not generate any dust whatsoever, and the electromagnetic noise is minimal.
6. This system comprises only two units: a soft X-ray head and a power unit. It can therefore be easily installed in manufacturing systems or conveyor operations.

### Necessity of Insulation

The basic regulation for the handling of radiation is to make exposure as close to zero as possible. The standard for radiation should not be whether they meet the lawful limits but to focus on protection through insulation.

### Installation Declaration (Japanese Only)

Industrial Safety and Health Act, Article 88 (Notification of plans)

Notify the plan to the Labor Standards Office no later than 30 days prior to the date of commencement of work.

Ordinance on Industrial Safety, Article 85 (Notification of plans, etc.)

- 1.) Form No. 20
- 2.) Sketch of surroundings
- 3.) Property map
- 4.) Amount of raw materials and operations background
- 5.) Building floor map
- 6.) Catalogue and installation map

Ordinance on Industrial Safety, Article 86 Format No.26 & 27

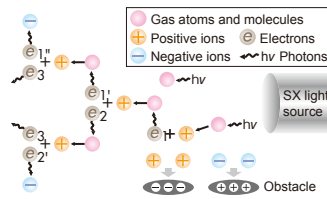
Ordinance on Prevention of Ionizing Radiation Hazards

Definition of term, measurement, radiation exposure limit, and controlled area etc.

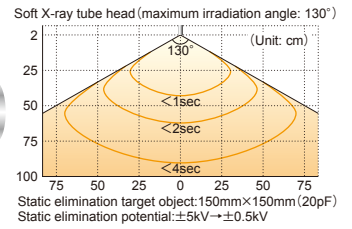
Form No. 27 and 28

Form No. 20

### Principle of Static Elimination

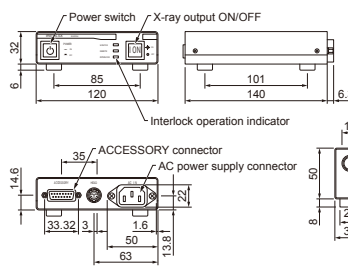


### Relationship between Static Elimination Performance and Distance

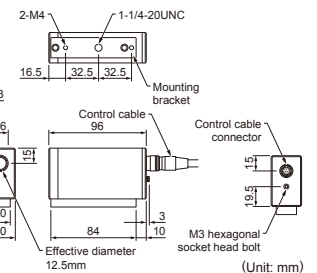


### Dimensional Diagrams

#### Controller



#### X-ray tube head



X-ray Tube Head		ISXH-224
Method		Soft X-ray irradiation
Dimensions		38×75×100 mm (W×H×D)
Light source		Soft X-ray tube
Power consumption		100 VA
Cooling method		Natural air cooling
Material	Main unit	Steel sheet with baked finish and aluminum/colorless anodized aluminum coating
	Window	Be (beryllium)
Weight		Approx. 0.4 g
Controller		PUISX-224
Dimensions		150×40×142 mm (W×H×D)
Power supply		100 to 240VAC, 50/60 Hz
Functions		Remote terminal, interlock terminal, lifetime display, cumulative timer, local/remote switching, outputs for sensors
Weight		Approx. 0.8 kg
Accessories		Dedicated connection cable (with connector), spare fuses (1.5/2/5 A), power cord (with plug), indicator stickers for radiation control area