

NEW

150 kV MICROFOCUS X-RAY SOURCE L8121-01



FEATURES

- **Focal Spot Size: 5 μm (at 4 W)**
Providing 5 μm focal spot size, for the sealed-off type X-ray source with built-in power supply. It gives a clear clairvoyance image despite of higher magnification ratio.
- **Easy Handling**
Convenient handling (with no high voltage wiring) since the air cooled X-ray source and the high voltage power supply are in one package.
- **Continuous Operation**
It allows continuous maximum output, 150 kV and 500 μA , operation.
- **Built-in External Control Function**
It is automatically operable from external control since it has a built-in RS-232C interface.

APPLICATIONS

- **X-ray Non-destructive Test**
 - Printed Circuits
 - Semiconductor Devices
 - Soldered Parts
 - Combined Materials
 - New materials
 - Electronic Components
 - Ceramics
 - Rubbers
 - Plastics
 - Die casting
- **Multilayer Printed Circuit Board X-ray Inspection**
- **Drilling Instrument**
- **Industrial On-line Process Control and Measurement**
- **Industrial X-ray Computer Tomography System**

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SPECIFICATIONS

●GENERAL

| Parameter | Value/Description | Unit |
|----------------------------------|----------------------|----------------------------|
| Target Voltage | 40 to 150 | kV |
| Target Current | 0 to 500 | μA |
| Maximum Output Power | 75 | W |
| Focal Spot Size | "S" Small Spot Mode | 7 (10 W isowatts), 5 (4 W) |
| | "M" Middle Spot Mode | 20 (30 W isowatts) |
| | "L" Large Spot Mode | 50 (75 W) |
| Beam Angle | 43 | degree |
| Minimum Distance Focus/Object | 17 | mm |
| Environmental X-ray Dose Leakage | 5 | μSv/h Max. |
| Operation | Continuous | — |

■X-RAY TUBE UNIT

| Parameter | Description |
|--------------------------------|-----------------------------------|
| X-ray Tube | Sealed Type |
| Cooling Method | Forced Air Cooling |
| Window Material | Beryllium (200 μmt) |
| Target Material | Tungsten |
| Cathode Material | Dispenser Cathode |
| Window Position | End-window |
| High Voltage Power Supply | Built-in Type |
| Operation /Storage Temperature | +10 °C to +40 °C / 0 °C to +50 °C |
| Operation/Storage Humidity | 85 % RH Max. ^① |
| Weight | Approx. 17 kg |

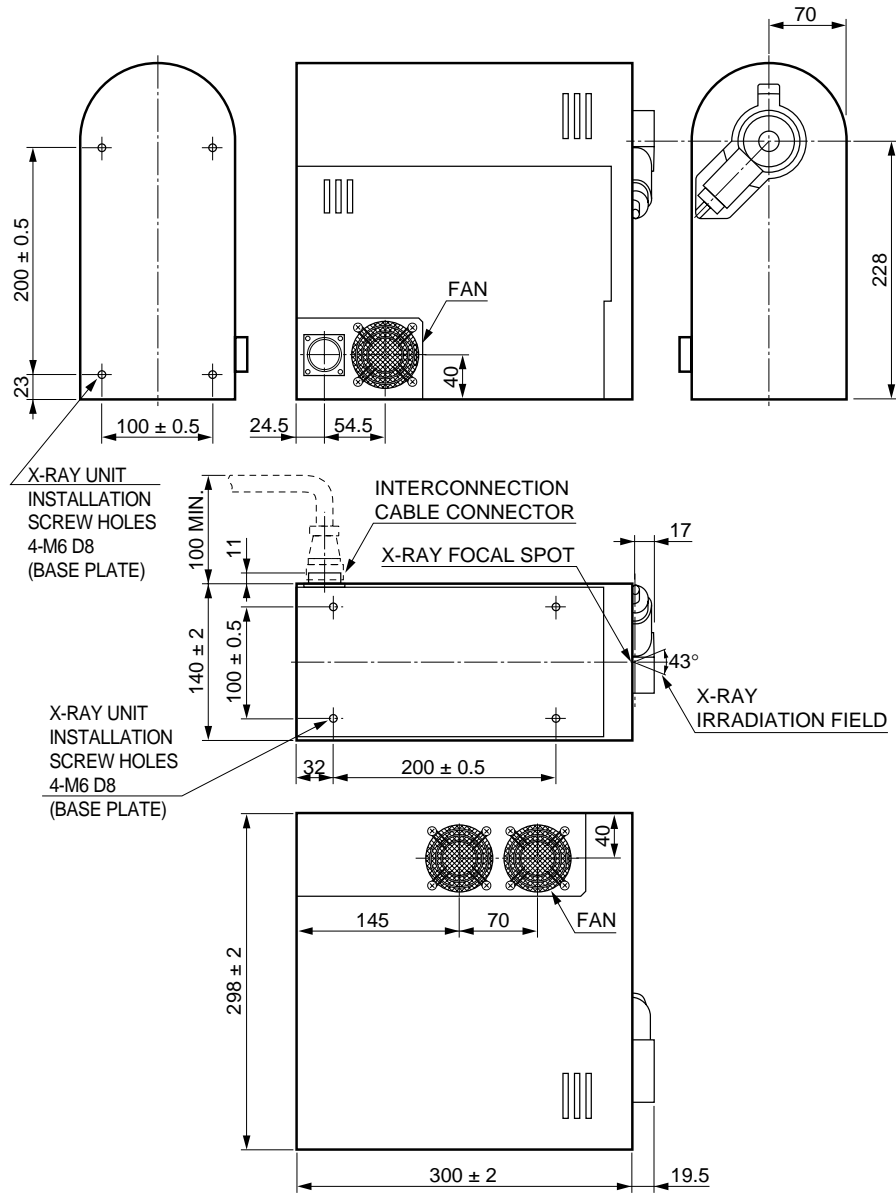
NOTE: ① Without moisture condensation.

■X-RAY CONTROL UNIT

| Parameter | Description |
|--------------------------------|---|
| Function | Target Voltage/Current Pre-set, Auto Warm-up |
| Protection | Safety Interlock |
| External Control | RS-232C |
| Operation /Storage Temperature | 0 to +40 °C |
| Operation/Storage Humidity | 85 % RH Max. ^① |
| Power Consumption | Less than 240 W |
| Inter Voltage | 24 Vdc |
| Installation Method | Designed for both bench-top and rack mounting |
| Weight | Approx. 5 kg |

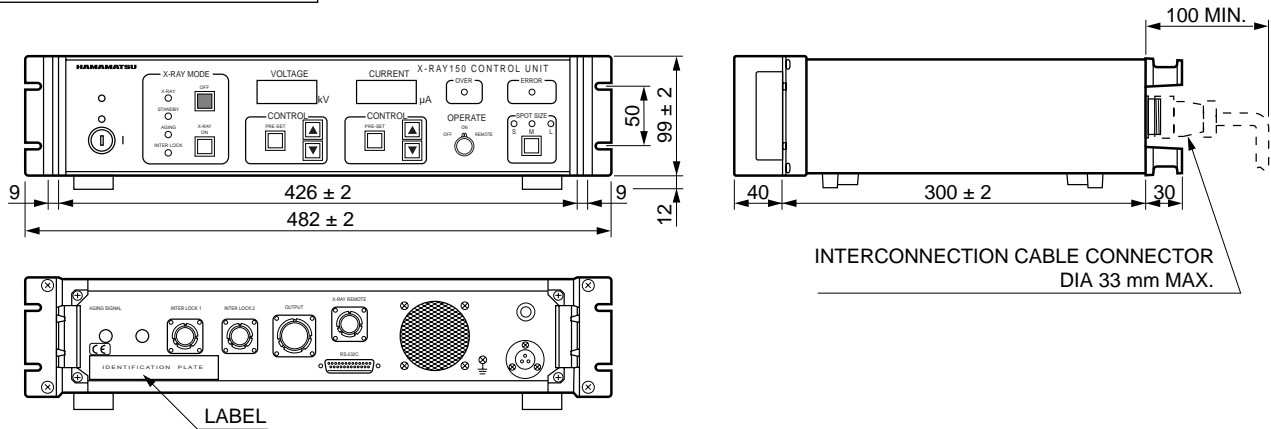
DIMENSIONAL OUTLINE (Unit: mm)

X-RAY TUBE UNIT



TLSOA0069EA

X-RAY CONTROL UNIT



INTERCONNECTION CABLE CONNECTOR
DIA 33 mm MAX.

TLSOA0070EA

RELATED PRODUCTS

X-RAY IMAGE INTENSIFIER CAMERA UNIT C7716, C7716-10

The C7716 series X-ray image intensifier (I. I.) camera unit now offers greatly improved X-ray detection efficiency even at low energy levels. This improvement stems primarily from a built-in X-ray image intensifier having an extremely thin aluminum input window. Its thickness is only 0.3 mm or less, virtually at the limit of present technology providing excellent X-ray transmittance and low scattering.

The results are sharp, clear, high-quality images taken at low energy X-ray levels down to several keV which penetrate plastic (PET) materials.



X-RAY IMAGE INTENSIFIER CAMERA UNIT C7876, C7876-10

The C7876 is an X-ray image intensifier camera unit ideal for non-destructive inspection of light-element materials and radiation imaging at low-energy X-ray levels.

The C7876 remarkably improves X-ray transmittance at low-energy X-ray levels by using a beryllium window instead of the aluminum window currently used for most X-ray image intensifiers.

The result is a sharp and clear, high-contrast image taken in real time even at low energy X-ray levels down to a few keV.



⚠ PRE-CAUTION TO USE

1. X-ray emitted from this device is harmful for human body. And it should be necessary for the operator to protect himself/herself from it.
2. During an operation, the X-ray tube unit should be installed in the X-ray shielded cabinet in order to avoid any X-ray leakage. Also the safety interlock system in X-ray control unit should be always used in order to avoid any misoperation.

WARRANTY PERIOD

This device is guaranteed for one year from data of purchase or 3000 hours of operation, whichever comes first.
The warranty extends only to replacement of the products. The warranty does not cover damage due to misuse or natural calamity.

* **CE** This product(s) conforms to the EMC directive (89/336/EEC) of the European Union.

* To meet FDA standards, the Interlock-1 circuit incorporates a relay that shuts off the X-ray generation power supply circuit if the circuit is open.

Subject to local technical requirements and regulations, availability of products included in this promotional material may vary. Please consult with our sales office. Information furnished by HAMAMATSU is believed to be reliable. However, no responsibility is assumed for possible inaccuracies or omissions. Specifications are subject to change without notice. No patent rights are granted to any of the circuits described herein. ©2000 Hamamatsu Photonics K.K

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