

Sealed Transmissive Microfocus X-Ray Source G-311 Series



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CE

RoHS

This radiation source achieves $4\mu\text{m}$ resolution (at 10W) by adopting a diamond window transmission target, and is an X-ray source for industrial non-destructive inspection that enables high-resolution and high-speed imaging.

FEATURES

- 110kV voltage ramp time within 1s.
 - Quick image acquisition
- Maintenance-free target
 - No need for target rotation
 - Improving equipment operation ratio
- Warming-up within 3min.
 - Solution of the long waiting time at starting up X-ray equipment
 - No need for tube aging after long term storage
- Self-diagnosis of X-ray tube lifetime
 - Scheduled maintenance of X-ray equipment
- Pulsed X-ray available (50ms minimum)



G-311VH-D / DP
(Standard Holder Type)

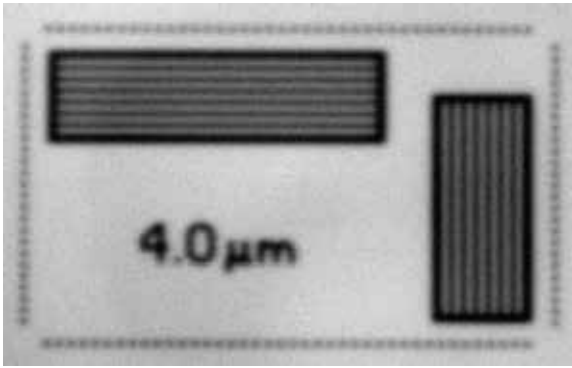


G-311VH-DL / DPL
(Long Holder Type)

SPECIFICATIONS

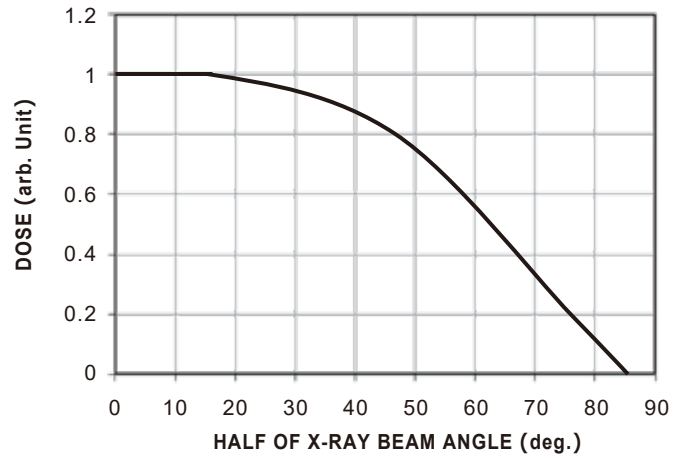
Parameter	G-311VH-D	G-311VH-DP
Tube Voltage Operating Range	60 – 110 kV	
Tube Current Operating Range (Target Current)	10 – 300 μA	
Maximum Output	30 W	
Minimum Resolution (JIMA RT RC-02B)	4 – 8 μm	
X-ray Window Material	Diamond	
Focus-to-Object Distance (FOD)	Minimum 0.29 mm	
Target Material	Tungsten	
X-ray Beam Angle	168 deg. (Max.), 80 deg. (80%, Equidistance)	
Weight	Standard Holder Type : 21 kg, Long Holder Type : 24 kg	
Communication Interface	RS-232C	
External Contact Control Function	Irradiation Interlock function (2 circuits)	Irradiation Interlock function (2 circuits) Trigger input for Pulse Irradiation
Irradiation Off Timer	Minimum setting value: 1 s	
Pulse Irradiation Function	—	Minimum Pulse Width 50ms (Use the trigger input for Pulse Irradiation)
Input Voltage (DC)	24 V (+1.2, -1.2)	
Maximum Power Consumption	65 W	
Operating Ambient Temperature	10 – 45°C	
Storage Temperature	0 – 50°C	
Operating and Storage Humidity	$\leq 85\%$ (No Condensation)	
High Voltage Power Supply	Built-in	

● MICRO CHART IMAGE (JIMA RT RC-02B)

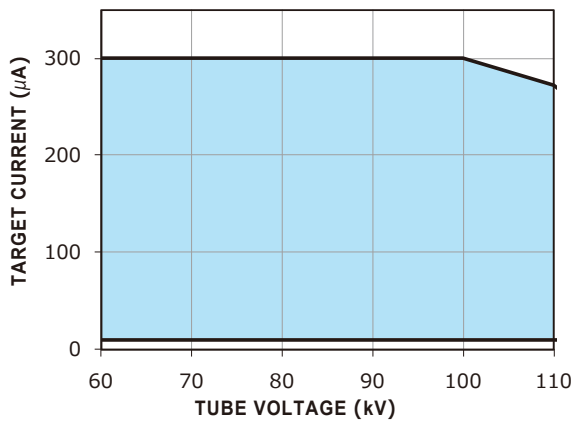


(250x)

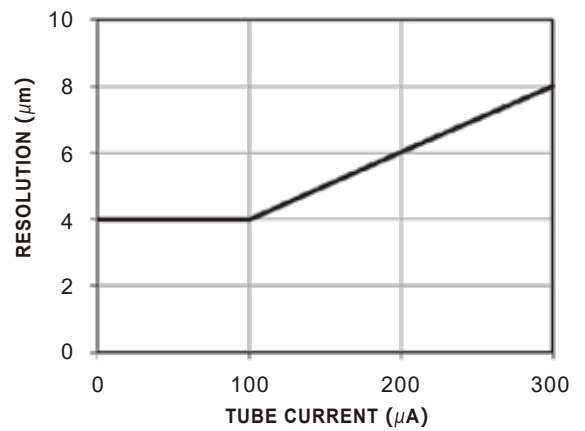
● X-RAY DOSE UNIFORMITY



● TUBE CURRENT OPERATIONAL RANGE



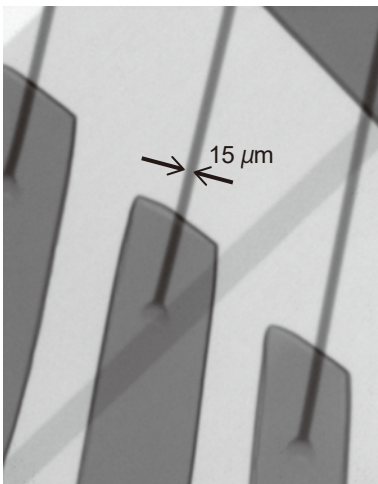
● FOCUS CHARACTERISTICS



※ The figures showed in each graph are typical values.

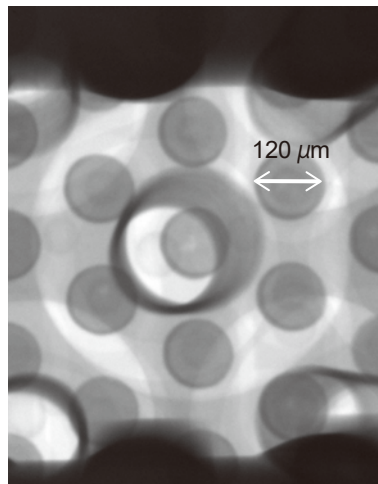
■ IMAGE EXAMPLES

Bonding wire



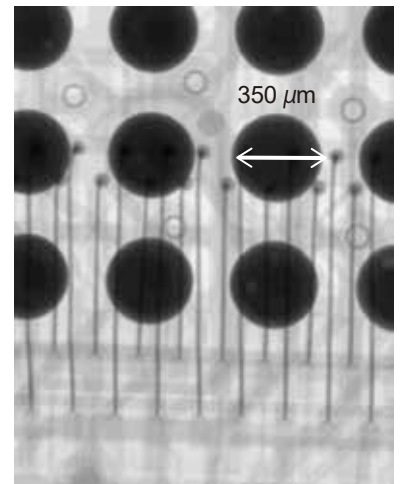
(300x)

Flip chip



(300x)

BGA

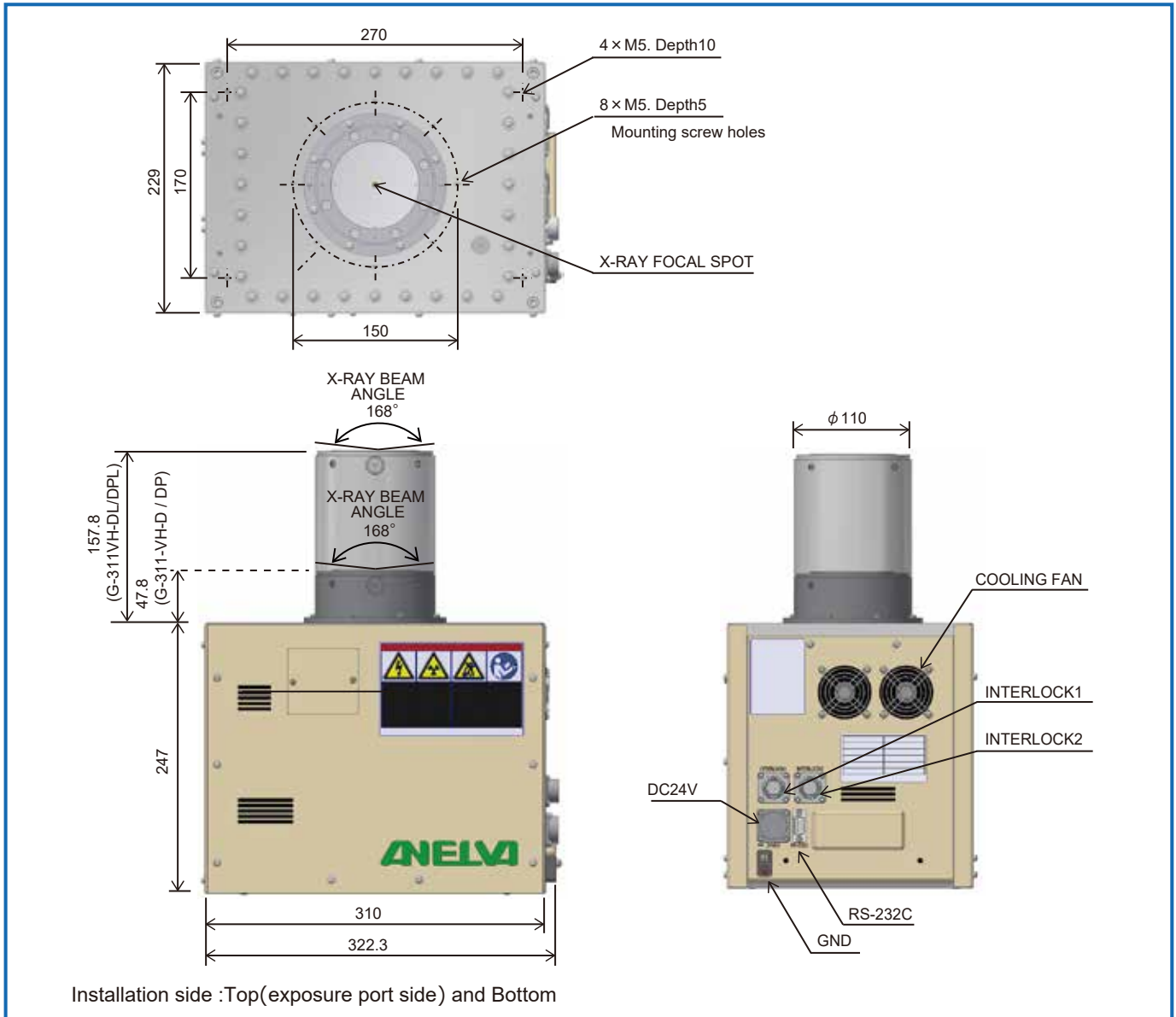


(120x)

■ Ordering information

Code	Parts Number	Model	Description	Remarks
49905	8B1-0036-628	G-311VH-D	Sealed Transmissive Microfocus X-Ray Source	Standard Holder Type
49906	8B1-0036-627	G-311VH-DP	Sealed Transmissive Microfocus X-Ray Source	Standard Holder Type With Pulse Irradiation Function
49916	8B1-103L-000	G-311VH-DL	Sealed Transmissive Microfocus X-Ray Source	Long Holder Type
49917	8B1-102A-000	G-311VH-DPL	Sealed Transmissive Microfocus X-Ray Source	Long Holder Type With Pulse Irradiation Function

■ DIMENSIONAL OUTLINE (Unit:mm)



CAUTION The X-ray sources introduced in this material generate X-rays. To be used by qualified personnel only. Safe use is the responsibility of the operator.

NOTICE The X-ray sources introduced in this material were developed specifically for industrial use and can not be used for food and drinks or medical applications. Since the X-ray sources introduced in this material are subject to local laws and regulations, what you are required to use may vary from region to region. Please consult with our sales representative.

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Canon ANELVA Corporation is constantly improving its products, hence specifications are subject to change without notice.

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