

Sealed Transmissive Microfocus X-Ray Source Series G-311 Series



X-ray source for industrial non-destructive inspection capable of high speed imaging with high resolution

Sealed Transmissive Microfocus X-Ray Source Series

- ✓ High Brightness : 4 μ m res. at 10W – 8 μ m res. at 30W
- ✓ High magnification : FOD 0.29 mm
- ✓ Wide beam angle : 168° cone angle
- ✓ Pulse Exposure : minimum PW 50ms at period 10Hz

■ FEATURES

1. 110kV voltage ramp time within 1sec.
 - Quick image acquisition
2. Target maintenance free
 - No need for target rotation
 - Improving equipment operation ratio
3. Warming-up within 3 min.
 - Solution of the long waiting time at starting up X-ray equipment
 - No need for tube aging after long term storage
4. Self diagnosis of X-ray tube life time
 - Scheduled maintenance of X-ray equipment
5. 4 μ m resolution at 10watts
 - High throughput imaging by high magnification
6. CE and RoHSII compliant
 - Applicable for overseas operation

CE

RoHSII

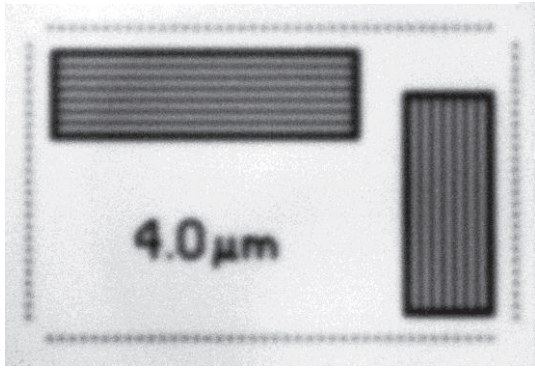


G-311VH-D

■ SPECIFICATIONS

Parameter	Unit	G-311MH-D	G-311MH-DP	G-311ML-D	G-311VH-D
Tube Voltage Operational Range	kV	60 – 110		40 – 110	60 – 110
Tube Current Operational Range (Target Current)	μ A	10 – 100			10 – 300
Maximum Output	W	10			30
Minimum Resolution (JIMA RT RC-02B)	μ m	4		4 – 5	4 – 8
X-ray Window Material/Thickness	– / mm	C(Diamond) / 0.29			
Target Material	–	W(Tungsten)			
X-ray Beam Angle	deg.	168(Max.), 80(80%, Equidistance)			
Weight	kg	21			
Operation	–	Continuous, Pulse			
Pulse	–	Software \geq 1sec	Hardware \geq 50ms	Software \geq 1sec	
External Control	–	RS-232C(External contact input is available with G-311MH-DP)			
Input Voltage(DC)	V	24 (+1.2, -1.2)			
Maximum Power Consumption	W	40			65
Operational Ambient Temperature	$^{\circ}$ C	10 – 45			
Storage Temperature	$^{\circ}$ C	0 – 50			
Operational and Storage Humidity	%	\leq 85(No Condensation)			
High Voltage Power Supply	–	Built-in			

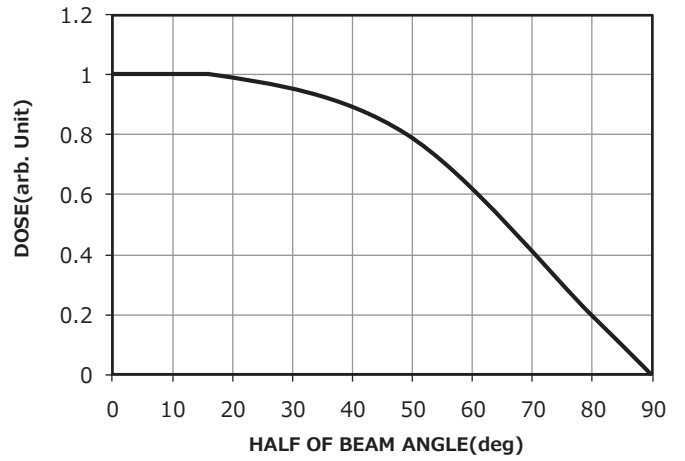
● MICRO CHART IMAGE (JIMA RT RC-02B)



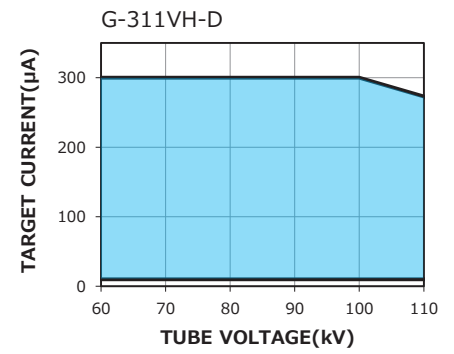
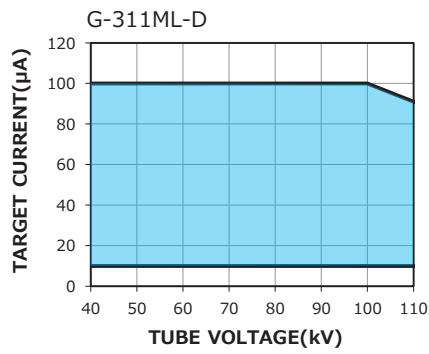
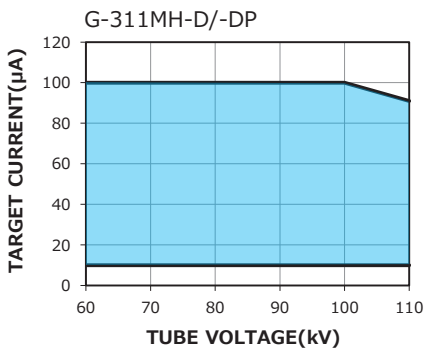
100kV 100μA

(250x)

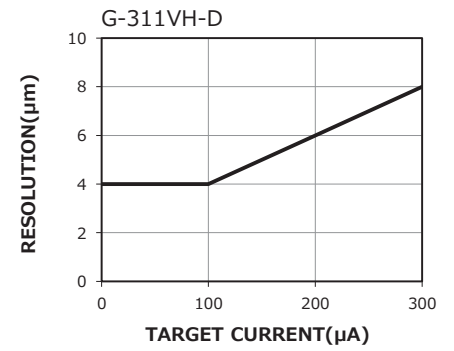
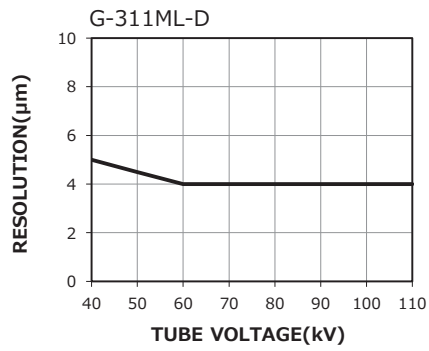
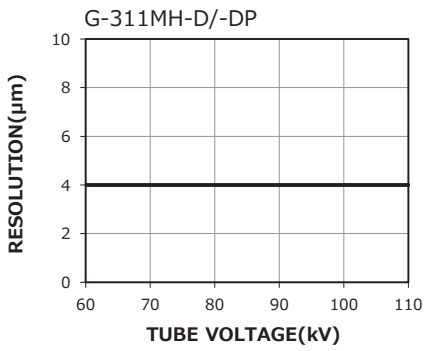
● X-RAY DOSE UNIFORMITY



● TUBE CURRENT OPERATIONAL RANGE



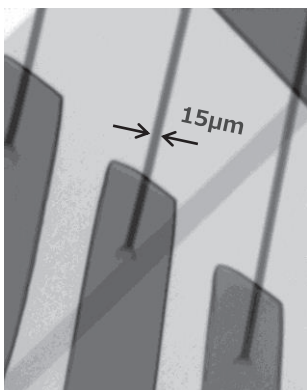
● FOCUS CHARACTERISTICS



* The figures showed in each graph are typical values.

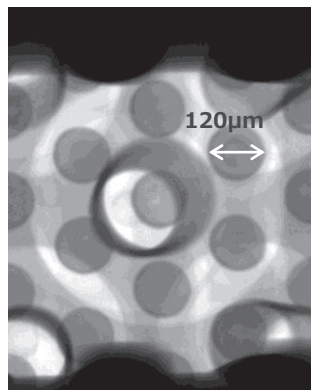
■ IMAGE EXAMPLES

Bonding wire



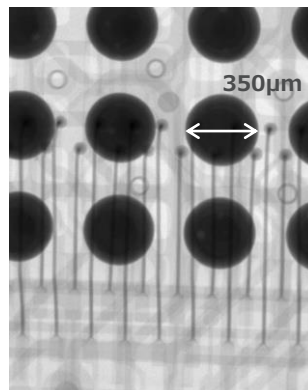
(300x)

Flip chip



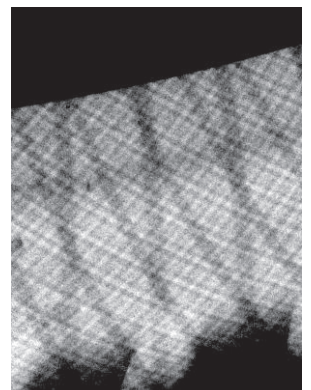
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BGA



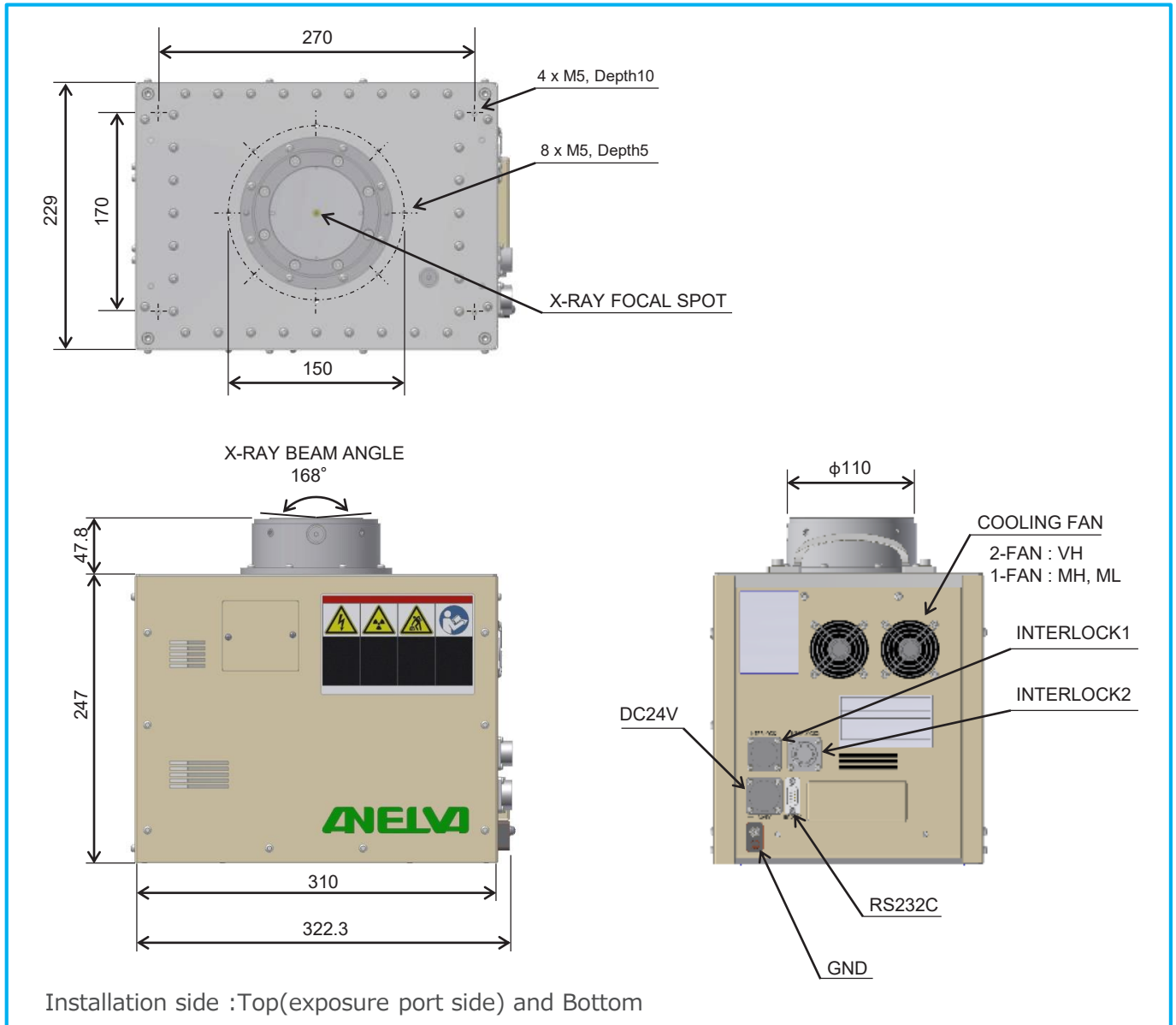
(120x)

Tire



(1x)

■ 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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