

Sealed Transmissive Microfocus X-Ray Source G-311 Series



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CE

RoHS

This radiation source achieves 4 μm resolution (at 10 W) 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

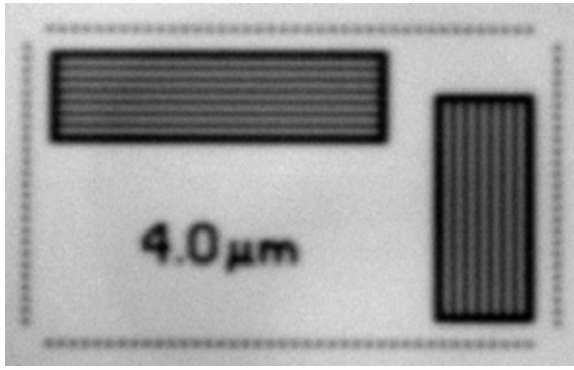
1. 110 kV voltage ramp time within 1 s
 - Quick image acquisition
2. Maintenance-free target
 - No need for target rotation
 - Improving equipment operation ratio
3. Warming-up within 3 min.
 - Solution of the long waiting time at starting up X-ray equipment
 - No need for tube aging after long term storage
4. Self-diagnosis of X-ray tube lifetime
 - Scheduled maintenance of X-ray equipment
5. CE and RoHS compliant
6. Hardware pulse option available, Please contact us for details



SPECIFICATIONS

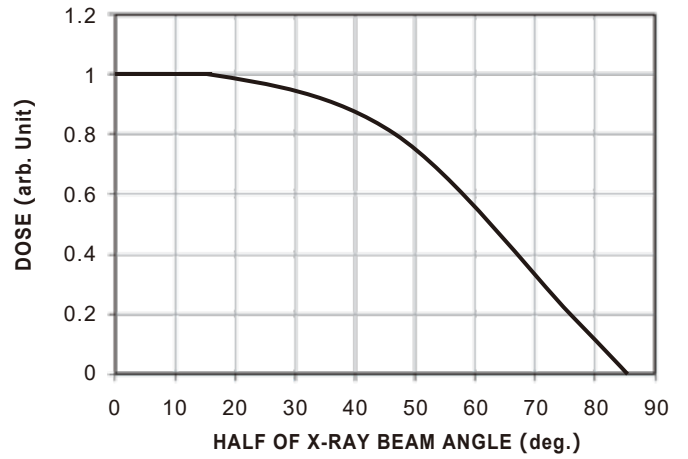
Parameter	Unit	G-311MH-D	G-311ML-D	G-311VH-D
		G-311MH-DP	G-311ML-DP	G-311VH-DP
Tube Voltage Operational Range	kV	60 – 110	40 – 110	60 – 110
Tube Current Operational Range (Target Current)	μA	10 – 100		10 – 300
Maximum Output	W	10		30
Minimum Resolution (JIMA RT RC-02B)	μm	4	4 – 5	4 – 8
X-ray Window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

● MICRO CHART IMAGE (JIMA RT RC-02B)

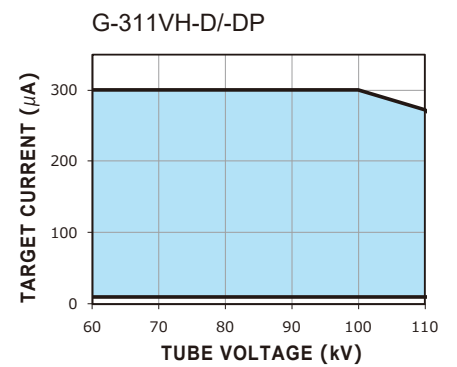
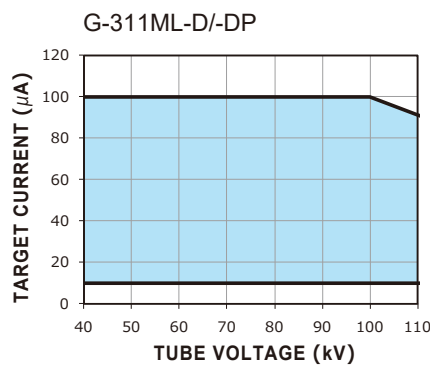
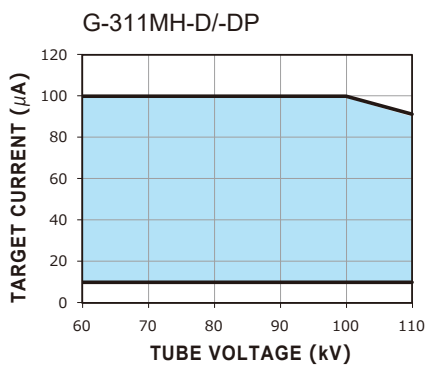


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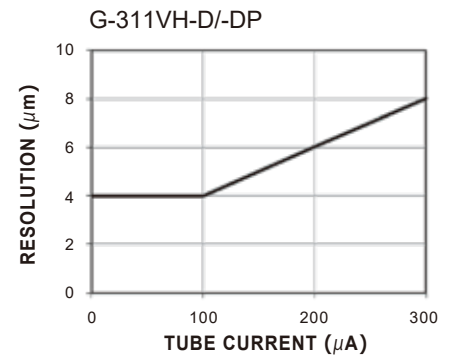
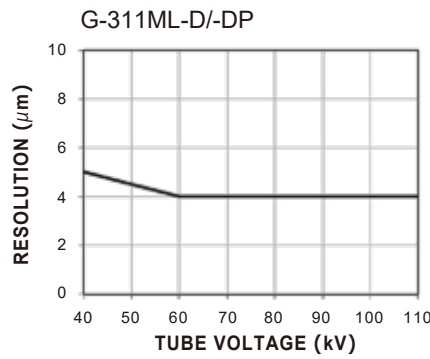
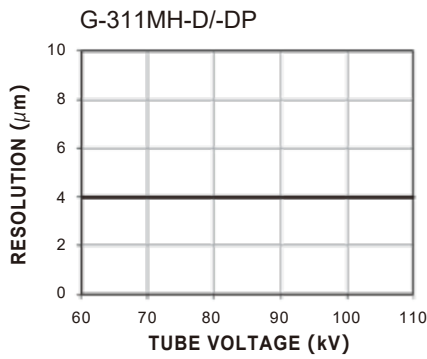
● X-RAY DOSE UNIFORMITY



● TUBE CURRENT OPERATIONAL RANGE



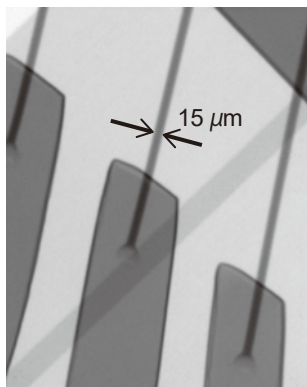
● FOCUS CHARACTERISTICS



※ The figures showed in each graph are typical values.

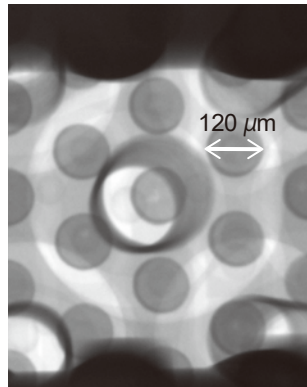
■ IMAGE EXAMPLES

Bonding wire



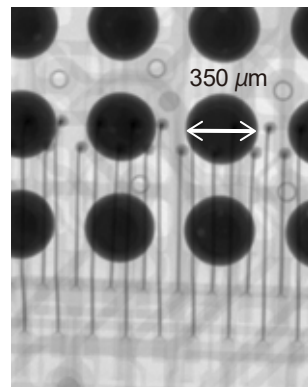
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Filp chip



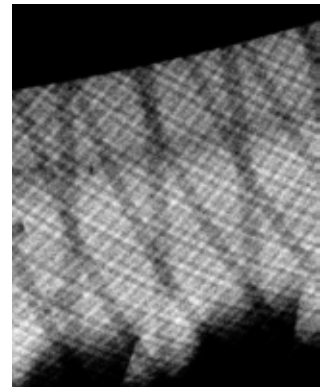
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BGA



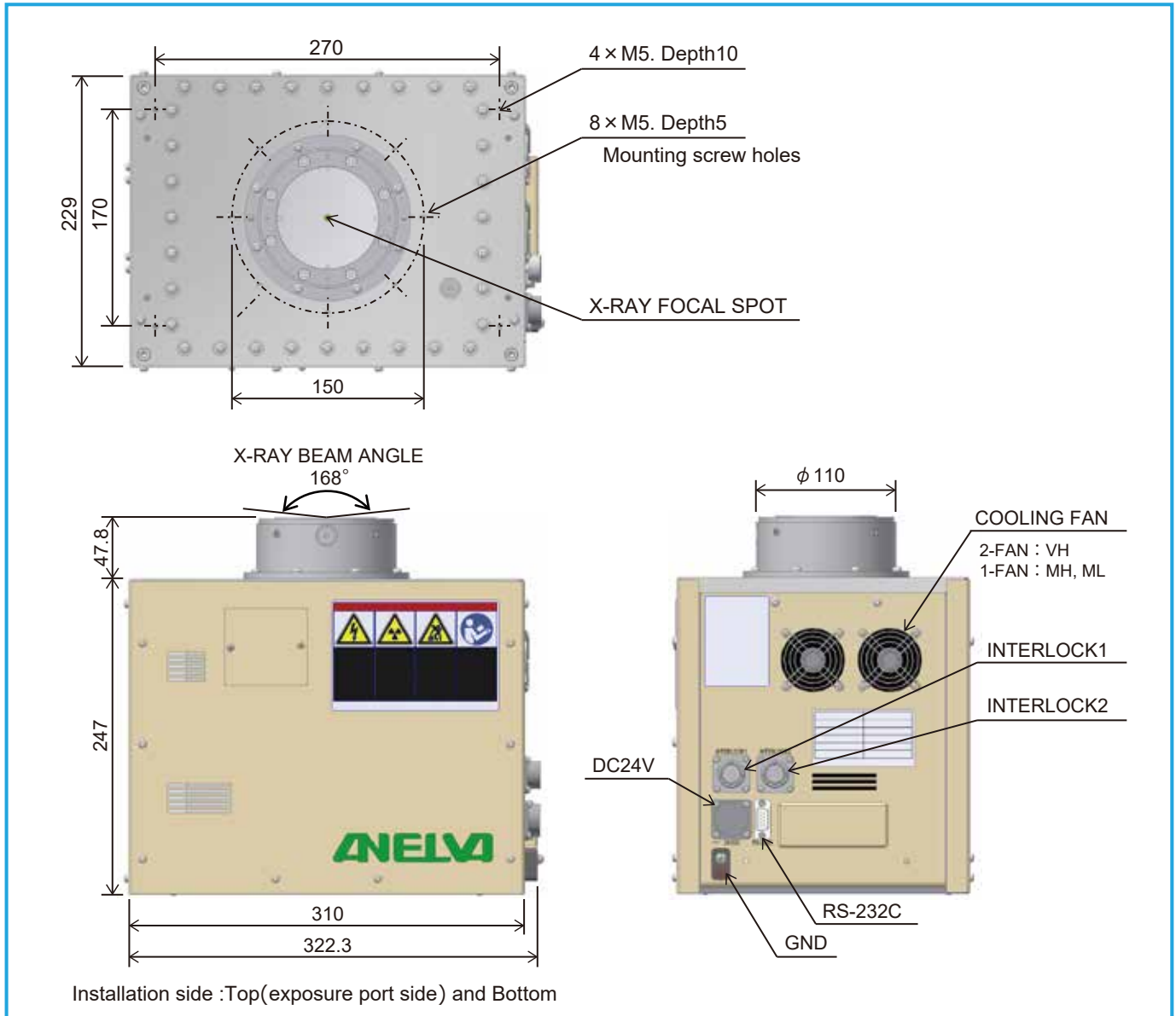
(120x)

Trie



(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 CANON ANELVA CORPORATION

Component Sales Dept. of Head Office

5-1 Kurigi 2-chome, Asao-ku, Kawasaki-shi, Kanagawa 215-8550, Japan

TEL : +81-44-980-3503

FAX : +81-44-986-4038

Canon U.S.A., Inc

3300 North First Street San Jose, CA 95134, U.S.A.

TEL : +1-408-468-2000

FAX : +1-408-468-2343

Canon Europa N.V.

Bovenkerkerweg 59, 1185 XB Amstelveen, The Netherlands

TEL : +31-20-545-8545

FAX : +31-20-545-8222

Canon Semiconductor Engineering Korea, Inc.

Canon BS Tower 11F, 607, Teheran-ro, Gangnam-gu, Seoul, 06173, Korea

TEL : +82-2-6445-0013

FAX : +82-2-6445-0069

Canon Semiconductor Equipment Taiwan, Inc.

9F, No.25, Pu-Ding Road, Hsinchu, 300, Taiwan

TEL : +886-3-668-6600

FAX : +886-3-668-6969

Canon Singapore Pte. Ltd.

1 Fusionopolis Place #15-10, Galaxis Singapore 138522

TEL : +65-6799-8888

FAX : +65-6271-4226

Canon Electron Devices & Materials (Shanghai) Co., Ltd.

Rm1606, SH-Plaza 336, No.336, Xizang Road (Middle), Shanghai, 200001, China

TEL : +86-21-6361-0077

FAX : +86-21-6351-5760

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

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