

Electron Emitter (E-gun)

Models: WM059252 & WM059254

We offer a comprehensive line of high-performance Electronic Emitters (E-guns). Our E-guns are used in medical applications to produce X-rays using a linac (linear accelerator); a high energy electron beam hits a target, stimulating emission of X-rays.

They are also used in travelling wave tube amplifiers (TWTAs) for microwave frequencies. Our E-guns are used in industrial, medical, and research applications.



Specifications

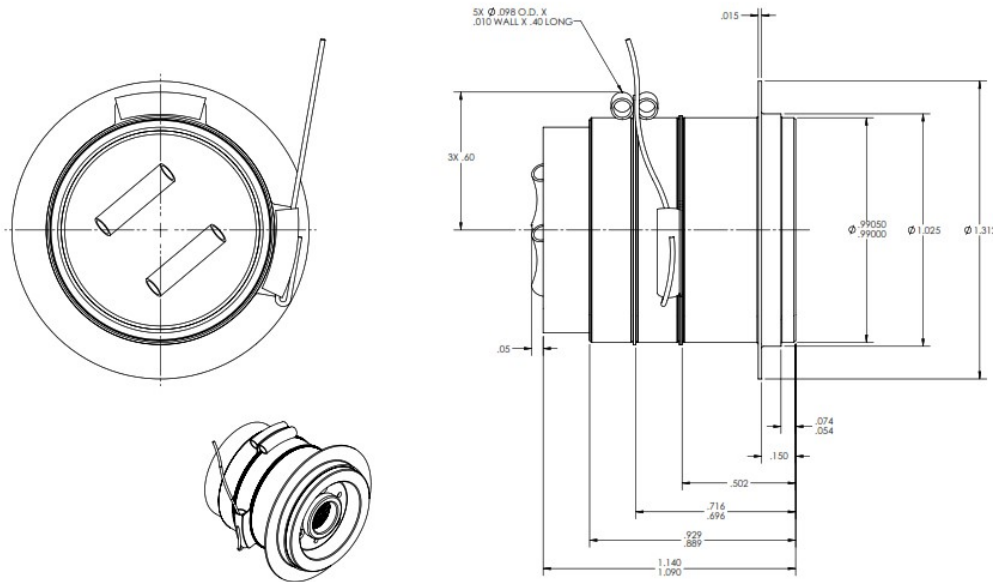
Mechanical	
Item	Description
Cathode Diameter	0.250 inch
Half Angle	34°
Beam Minimum Diameter	0.026 inch nominal @ 0.4 inch from cathode center
Cathode	
Cathode Type	Dispenser
Coating	M-type coating
WM059252: Mix 3:1:1	BaO, CaO, Al ₂ BaO, CaO, Al ₂ , O ₃
WM059254: Mix 5:3:2	BaO, CaO, Al ₂ BaO, CaO, Al ₂ , O ₃
Peak Emission Density	10 A/cm ² Max

Specifications are subject to change without notice.

Go Farther.

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INTERCEPTING GRIDDED PIERCE GUN

Description	Nominal Value*	Range
Cathode Voltage	12 kV	9 kV to 15 kV
Grid Cutoff	-60 V	-55 V to -65 V @ 12 kV typical
Grid Drive	+60 V for 1.2 A Ik	50 V to 70 V typical
Grid Current	12% Ik	10% to 15% Ik
Grid Power Dissipation	1.0 W max	---
Heater Voltage	6.3 V max	---
Heater Current	2.0 A max	---
Perveance	0.9 micropervs	0.01 to 1.4 micropervs
Pulse Width	100 µs	---
Duty Cycle	0.04 max	---
Beam Current	1.4 A	---

V_g
 V_k is constant with constant perveance.

*Performance parameters are based on perveance

Stellant Systems is a partner for civil, military, and commercial organizations whose missions seek to ensure a safe, aware, and connected world. We are a premier manufacturer of critical spectrum and power amplification systems for defense, space, medical & scientific and industrial customers worldwide.

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