

Thyratrons

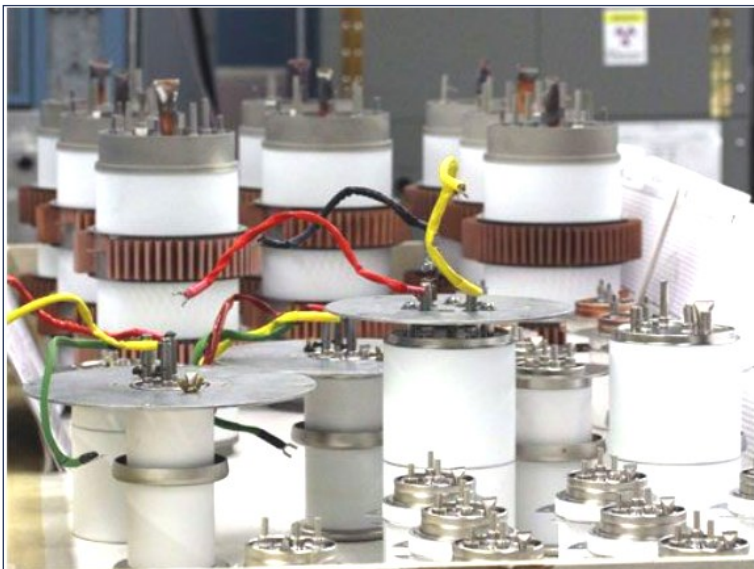
Overview

Stellant produces a broad line of metal-ceramic hydrogen thyratrons. These devices block voltages up to 100 kV and switch currents up to 20,000 amps. Thyratrons are robust switching devices suitable for a wide variety of pulse power applications, including radars, particle accelerators, broadcast transmitters, medical and industrial lasers.

Stellant offers standard models from < 2" to 6" diameter with a variety of options available. Please contact the factory for special requirements for Excelitas cross references.

Our thyratron engineering team has extensive experience supporting a wide range of applications.

- * Medical
- * Laser & Fast Switching
- * Radar & General Purpose
- * Accelerator
- * Crowbar (Klystrons & IOT Protection)



Thyratrons

Overview

Models and Specifications

Product #	High Voltage Gaps	Tube Diameter (in)	Typical Weights	Outline Drawing (typ)	Peak Anode Voltage (kV)	Peak Anode Current (A)	Avg. Anode Current (ADC)	Cathode Heater (V/A)	Reservoir Heater (V/A)	Cross Reference	Application	Notes
L4668	1	1.5	6 oz	Figure 1	16	350	0.5	6.3/8.0	6.3/4.0	HY-60, 0257	Radar & Gen'l Purp.	
L4669	1	1.5	5 oz	Figure 1	12	350	0.2	6.3/7.0	6.3/2.5	HY-6, KU-71	Radar & Gen'l Purp.	
L4669 C	1	1.5	5 oz	Figure 1	12	350	0.2	6.3/7.0	6.3/2.5		Radar & Gen'l Purp.	
L4884	1	2	13 oz	Figure 2	16	500	0.5	6.3/11.5	NA	FX2522, HY-1A, 8613		5, 9
L4884B	1	2	13 oz	Figure 2		500	0.5		NA		Medical	
L4884A	1	2	13 oz	Figure 2	16	500	0.5	6.3/11.5	NA	FX2522, HY-1A		5, 9
L4884C	1	2	13 oz	Figure 2	16	500	0.5	6.3/11.5	NA	FX-2522, HY-100		
L4897	1	2	10 oz	Figure 3	20	500	0.5	6.3/9.0	6.3/2.5	HY-11T, 0265/F-265, FX2541		
L4897A	1	2	10 oz	Figure 3	20	500	0.5	6.3/8.3	6.3/1.75	HY-11		
L4897R	1	2	10 oz	Figure 3	20	500	0.5	6.3/9.0	6.3/2.5			
L4898	1	2	10 oz	Figure 3	12	500	0.5	6.3/8.0	6.3/3.5	HY-10, 0261, F-261	Radar & Gen'l Purp.	
L4108	2	3	4 lb 2 oz	Figure 4	44	10,000	0.5	6.3/22	6.3/2.5			
L4115	1	3	2 lb 6 oz	Figure 5	35	2,000	2.0	6.3/19	6.3/2.5			
L4189	1	3	2 lb 10 oz	Figure 5	35	2,000	1.25	6.3/19	6.3/2.5	HY-3189, LP-189, F-189		
L4189A	1	3	2 lb 10 oz	Figure 5	35	2,000	1.25	6.3/19	6.3/2.5			
L4189 B	1	3	2 lb 10 oz	Figure 5	35	2,000	1.25	6.3/19	6.3/2.5			
L4415	1	3	2 lb 10 oz	Figure 5	35	10,000	2.0	6.3/19	6.3/2.5			
L4871	1	3	2 lb 10 oz	Figure 4	25	500	1.0	6.3/19	NA	FX-2519A, F-150	Radar & Gen'l Purp.	5, 10

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L4885	1	3	2 lb 10 oz	Figure 5	25	1,000	2.0	6.3/19	6.3/2.5			
L4885B	1	3	2 lb 10 oz	Figure 5	35	2,000	2.0	6.3/19	6.3/2.5			
L4904A	1	3	4 lb 12 oz	Figure 4	35	1,750	2.0	6.3/22	5.8/4.5		Medical	
L4915B	1	3	2 lb 10 oz	Figure 5	35	10,000	2.0	6.3/19	6.3/3.0			
L4945A	2	3	4 lb 2 oz	Figure 4	40	1,500	2.0	6.3/19	6.3/2.5	F229,LS-3229, CX-2608	Laser & Fast Switching	1, 2, 11
L4961	1	3	2 lb 10 oz	Figure 5	35	12,500	2.0	6.3/19	6.3/2.5	0246	Laser & Fast Switching	11
L4883	1	4.5	5 lb 3 oz	Figure 6	40	4,000	10.9	6.3/25	4.5/8.0	HY-5	Radar & Gen'l Purp.	
L4883A	1	4.5	5 lb 3 oz	Figure 6	40	4,000	4.0	6.3/25	4.5/8.0	HY-5G	Radar & Gen'l Purp.	
L4886A	1	4.5	6 lb 2 oz	Figure 7	33	2,000	4.0	6.3/28	4.5/8.0	F-281	Radar & Gen'l Purp.	
L4022	2	6	25 lb 15 oz	Figure 8	50	15,000	8.0	6.3/75	4.5/30			
L4888	2	6	25 lb 15 oz	Figure 8	55	15,000	8.0	6.3/75	4.0/25	CX-1536, CX-1210, F-303	Accel Thy	1, 2, 4
L4888B	2	6	25 lb 15 oz	Figure 8	50	10,000	8.0	6.3/75	4.0/25			

***IMPORTANT STELLANT Thyratron SPEC NOTES:

NOTES: Tubes are single voltage gap triodes, of metal-ceramic construction, flange-mounted unless otherwise indicated. Peak Current (ib) ratings can be appreciably higher for sub-microsecond pulse widths. Control grid drive requirements are given for the minimum open circuit voltage and the minimum peak grid current. Cathode and reservoir heater voltages are nominal operating voltages. Cathode and reservoir heater currents are the maximum required at the nominal voltage.

- Gradient grids, one or more
- Auxiliary (preionizing) grid
- Integral anode cooling chamber
- Shielded gap for x-ray attenuation
- Plug-in socket required
- MT-4 mounting socket
- Grounded grid (triggered spark gap) thyratron
- High pulse repetition rate design
- Reservoir heater and cathode heater internally connected in parallel
- Metal-ceramic version of glass design
- Ratings presuppose sub-microsecond pulse widths or single shot/crowbar service
- Long-grid ceramic to suppress external arc-over
- Oil immersion recommended
- Suitable for De-Qing operation

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Overview

Figure 1

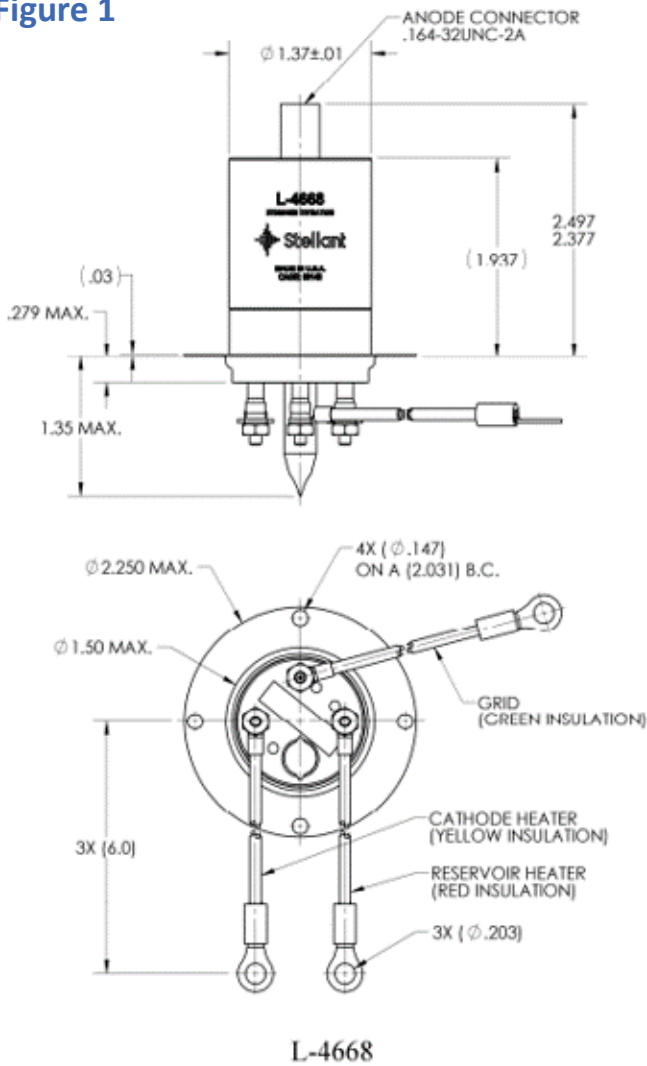
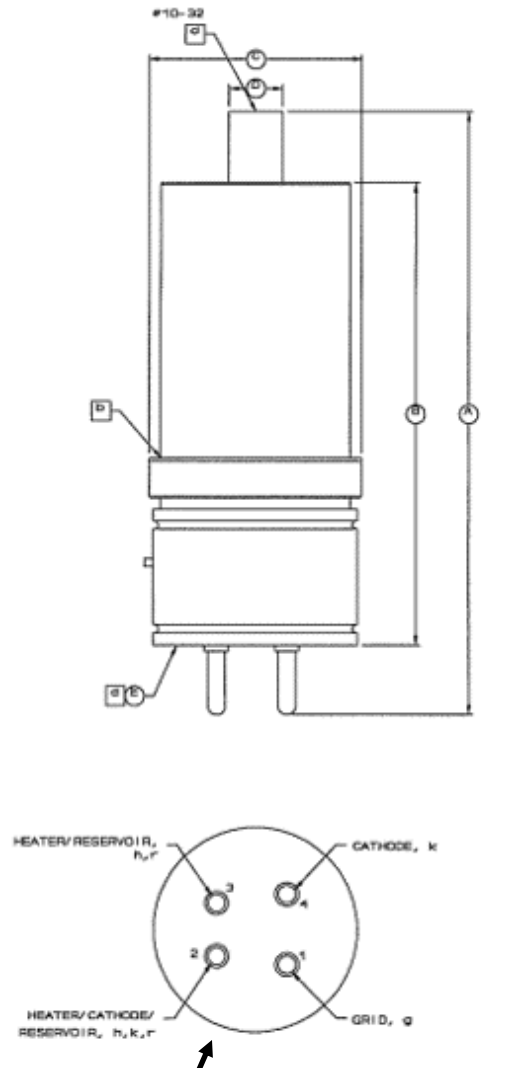


Figure 2

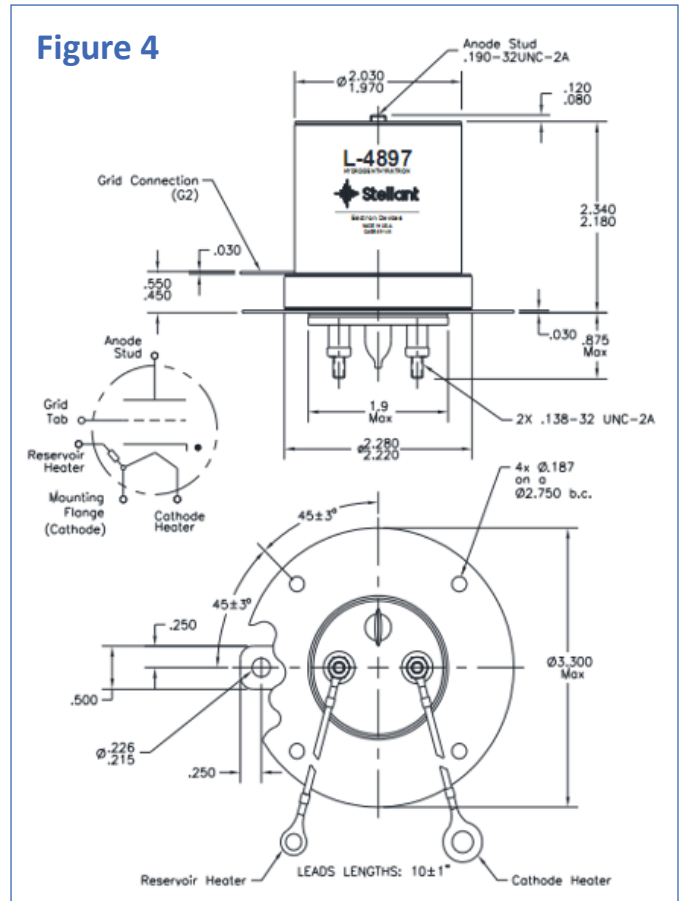
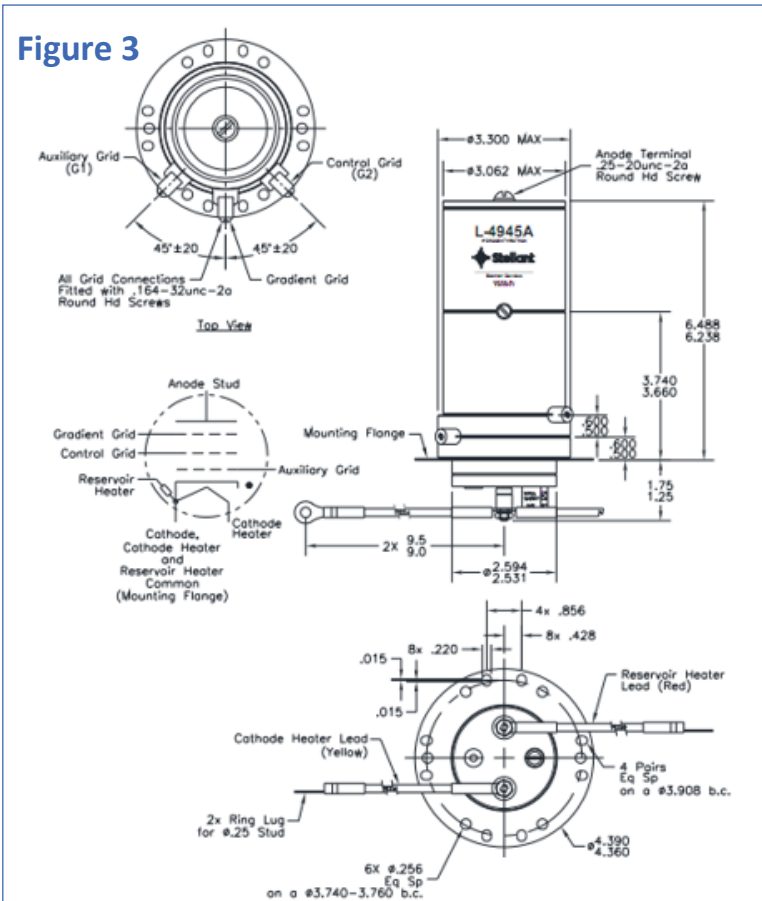


DIMENSIONS				
LETTER	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
QUALITY CONFORMANCE INSPECTION - PART 1				
A	6.125	6.625	155.58	168.28
B	4.750	5.150	120.65	130.81
C	2.000	2.375	50.80	60.33
D	.559	.573	14.20	14.55

PIN CONNECTIONS	
PIN NO.	ELEMENT
1	GRID
2	HEATER/RESERVOIR/CATHODE
3	HEATER/RESERVOIR
4	CATHODE
CAP	ANODE

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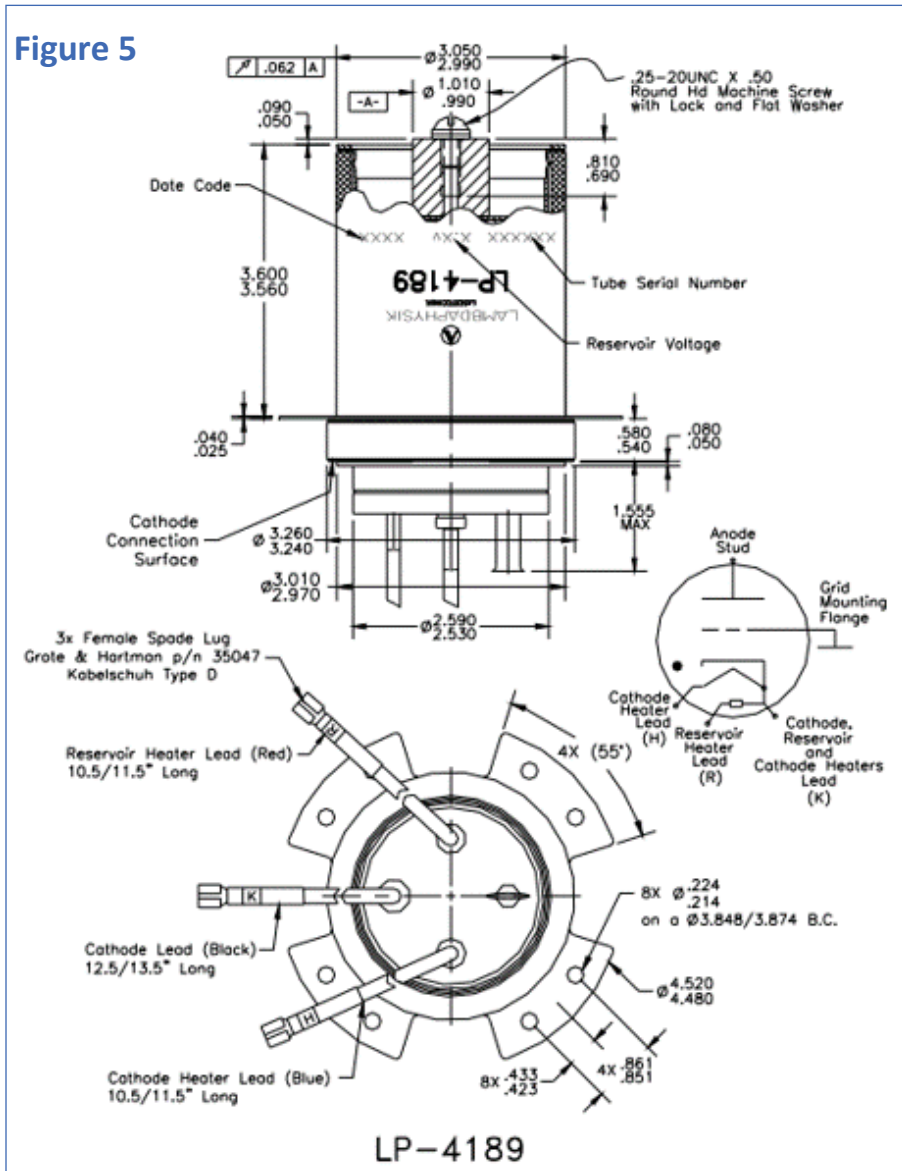
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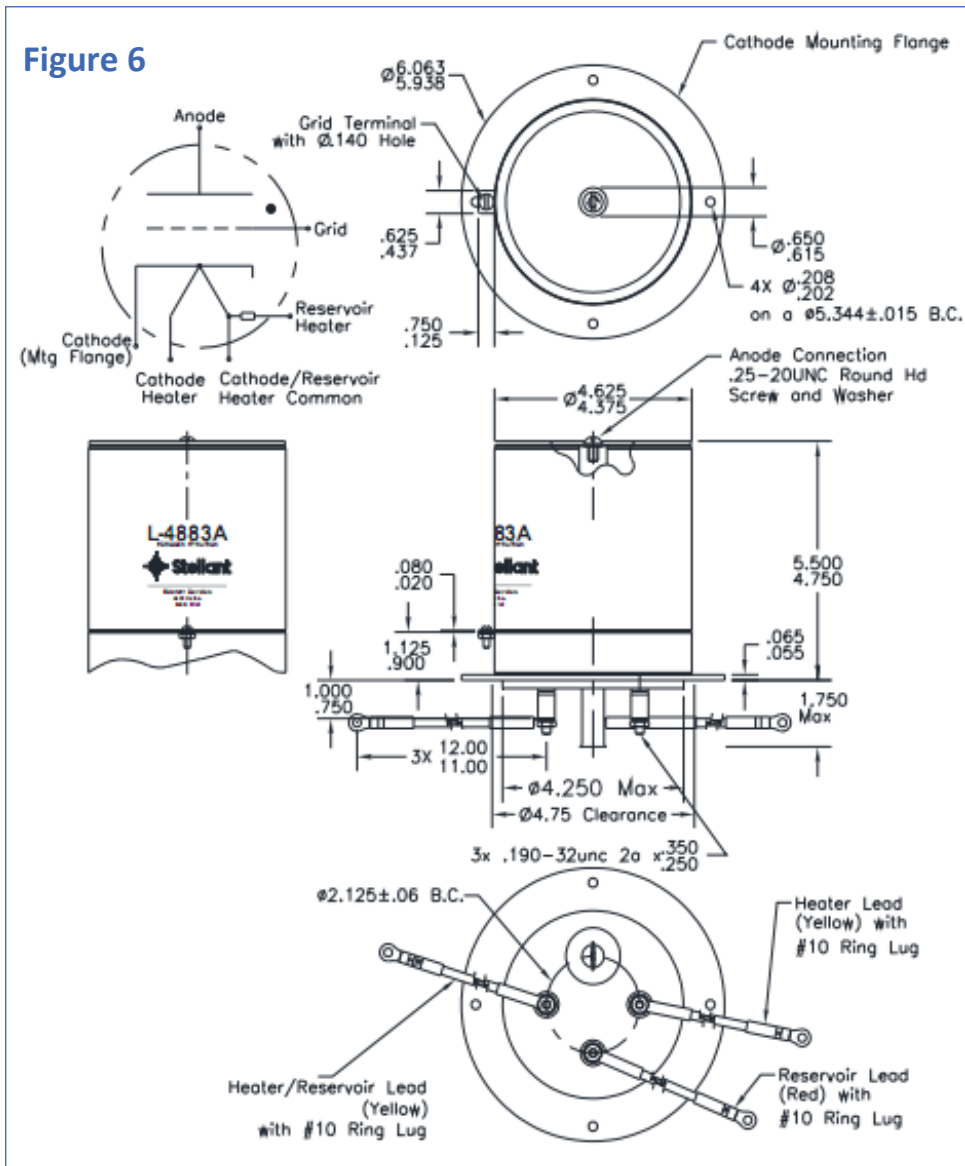
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Figure 5



Thyratrons

Overview



Thyratrons

Overview

Figure 7

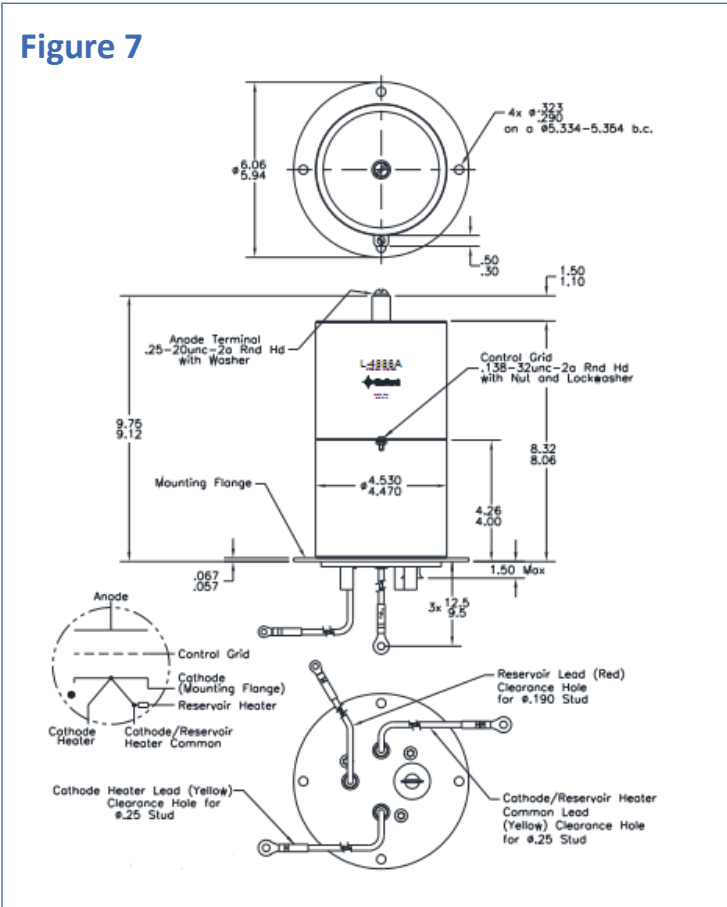
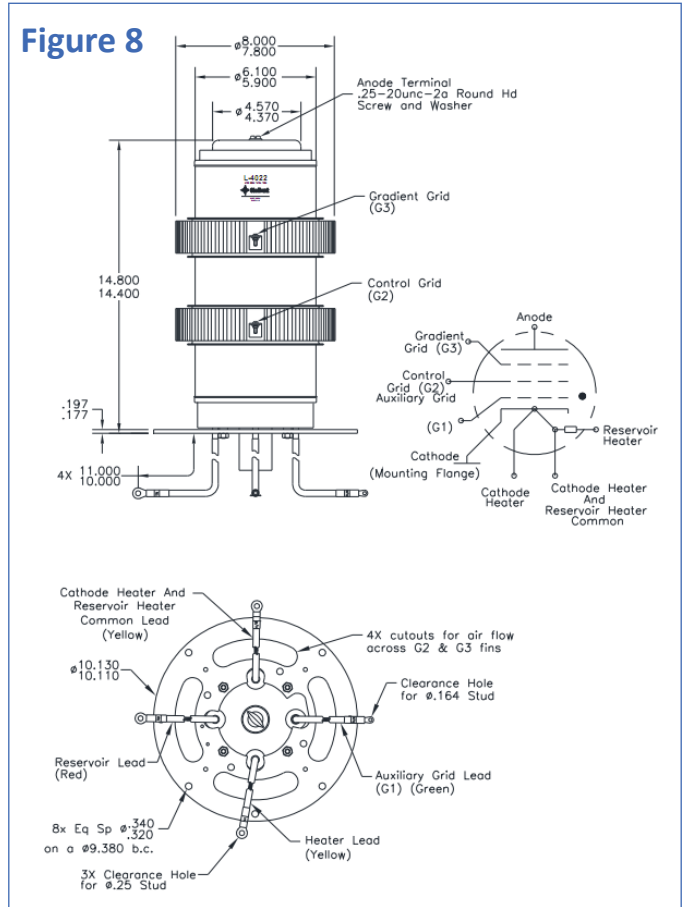


Figure 8



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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