EG&G
ELECTRO-OPTICS DIVISION

TSG - 100
OCTOBER 1968

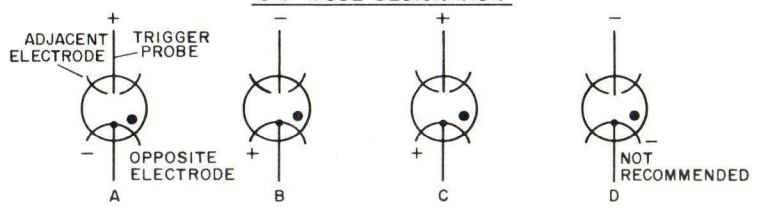
TRIGGERED SPARK GAP RATING SHEET

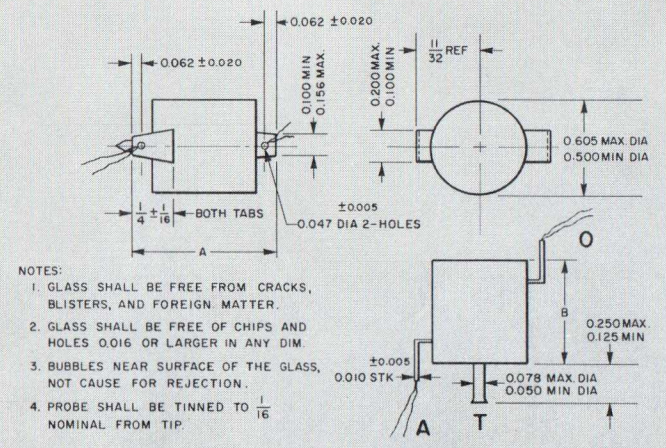
TRIGGERED SPARK GAP	OPERATING RANGE (NOTE 1)		STATIC BREAKDOWN POTENTIAL (2)	PEAK CURRENT AMPLITUDE (3)	PEAK CURRENT DURATION (3)	ENERGY DISCHARGE (3)	MINIMUM TRIGGER POTENTIAL (4)	MODE (5)	DELAY TIME (6)	GAP CONSTRUCTION	RECOMMENDED TRIGGER TRANSFORMERS (7,8)	REFERENCE DRAWING
MODEL NO.	MIN KVDC	MAX KVDC	KVDC	MAX AMPERES	TYPICAL μ SEC	JOULES	kv	TYPE	μ SEC	C-CERAMIC GC-GLASS-CERAMIC	EG&G TYPE	NUMBER
GP-11 B	1.3	3.4	4.2	5,000	20	25	5.5	C	0.10	GC	TR-148A, 132 A or 164A	1
GP-12 B	10	24	30	100,000	10	2500	20	A	0.03	C	TR-60,69, or 153	2
GP-14 B	12	36	42	100,000	10	2500	20	A	0.03	C	TR-60,69, or 153	2
GP-15 B	25	69	86	100,000	10	4000	20	A	0.03	C	TR-60,69, or 153	3
GP-16 B	0.7	2.1	2.6	5,000	20	25	5	C	0.10	GC	TR-148A, 132 A or 164A	1
GP-17 B	4.4	10	12.5	5,000	20	25	7	A	0.10	GC	TR-148A, 132 A or 164A	1
GP-20 A	3.5	11	14	15,000	20	200	10	A	0.10	C	TR-148A, 132 A or 180	4
GP-22 B	6	15	19	100,000	10	2500	20	A	0.03	C	TR-60,69, or 153	2
GP-30 B	2	6	7.5	100,000	10	2500	20	A	0.03	C	TR-60,69, or 153	2
GP-31 A	2	6	7.5	15,000	20	200	10	A	0.10	C	TR-148A,132 A or 180	4
GP-32 B	20	48	60	100,000	10	4000	20	A	0.03	C	TR-60,69, or 153	3
GP-39	8	20	25	5,000	20	25	7	A	0.10	GC	TR-148A, 132 A or 164A	5
GP-41 B	12	36	42	100,000	10	4000	20	A	0.03	C	TR-60,69, or 153	3

NOTES:

1 Gaps should never be operated above maximum operating voltage.
2 Represents main gap breakdown with no trigger voltage applied.
3 These ratings can be exceeded at a sacrifice in tube life.
4 Values of trigger potential contain adequate safety factor to meet end of life requirements.
5 Mode suggested will give shortest delay times with the widest operating range.
6 Delay times are measured at maximum operating voltage.
7 TM-11 Trigger Module can be used to trigger all gaps. See TM-11 data sheet.
8 Transformer types vary mechanically and also electrically in pulse shape.

GAP MODE DESIGNATION





NOTES:

1. GLASS SHALL BE FREE FROM CRACKS, BLISTERS, AND FOREIGN MATTER.
2. GLASS SHALL BE FREE OF CHIPS AND HOLES 0.016 OR LARGER IN ANY DIM.
3. BUBBLES NEAR SURFACE OF THE GLASS, NOT CAUSE FOR REJECTION.
4. PROBE SHALL BE TINNED TO 1/16 NOMINAL FROM TIP.

TYPE	DIM A		DIM B	
	MAX	MIN	MAX	MIN
GP-16B	0.880	0.700	0.600	0.500
GP-11B	0.880	0.700	0.600	0.500
GP-17B	0.940	0.750	0.650	0.550

FIGURE 1. GP-11B, GP-16B AND GP-17B

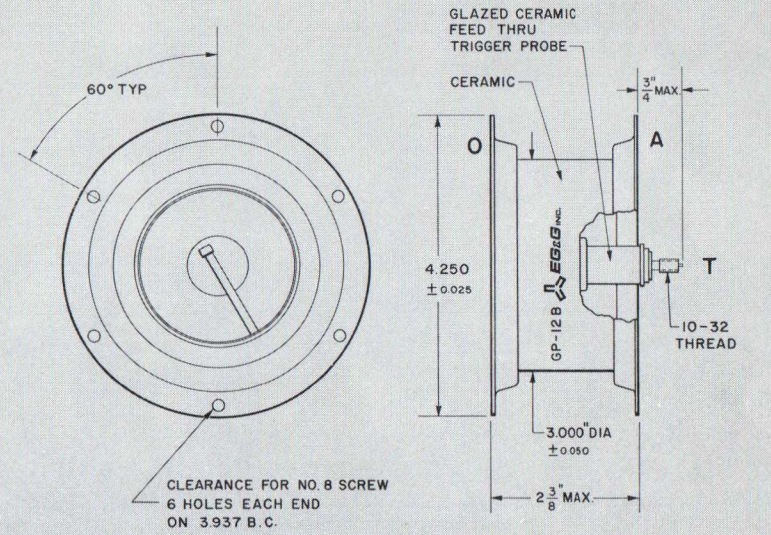


FIGURE 2. GP-12B, GP-14B, GP-22B AND GP-30B

A = ADJACENT ELECTRODE, O = OPPOSITE ELECTRODE, T = TRIGGER PROBE

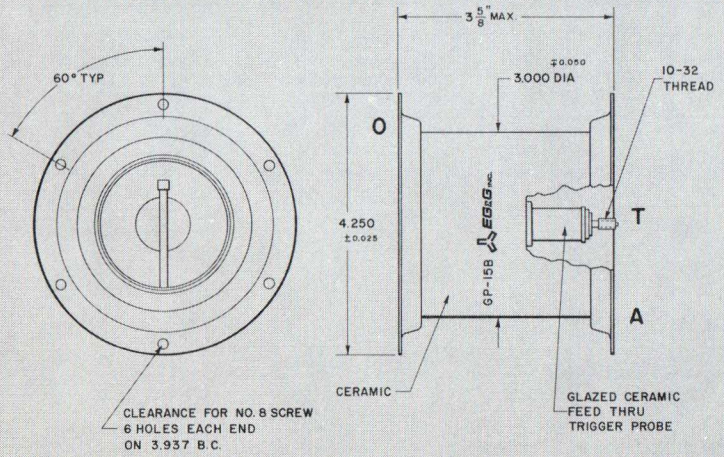
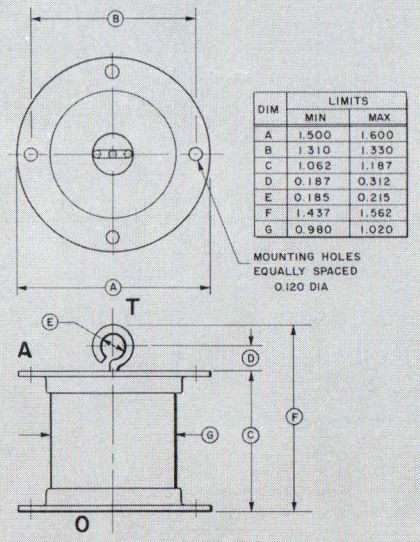


FIGURE 3. GP-15B, GP-32B, AND GP-41B



DIM	LIMITS	
	MIN	MAX
A	1.500	1.600
B	1.310	1.330
C	1.062	1.187
D	0.187	0.312
E	0.185	0.215
F	1.437	1.562
G	0.980	1.020

FIGURE 4 GP-20A AND GP-31A

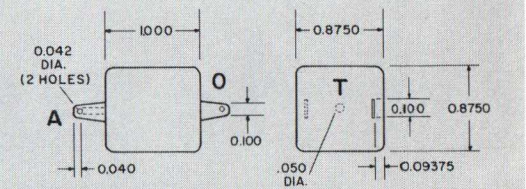


FIGURE 5. GP-39

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