

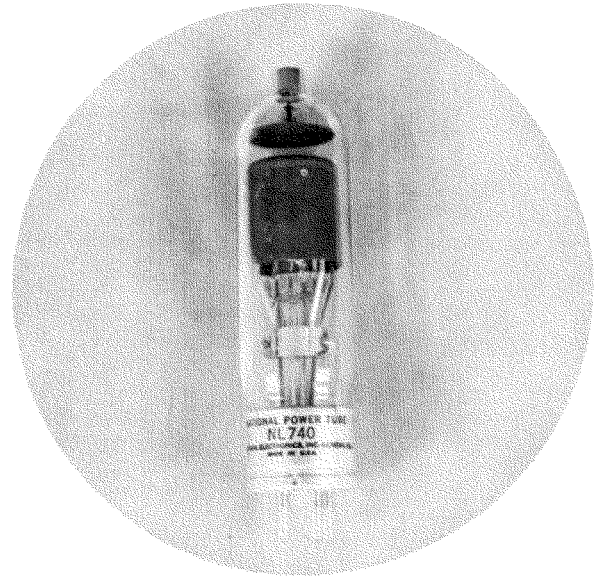
# NL-740 & NL-741 THYRATRON TUBES

## 4 Amperes dc — 50 Amperes Peak

**National Power Tube NL-740** is a quick starting Industrial thyatron designed especially for heavy duty ignitor firing applications and for use in motor speed control and regulated rectifier equipments. It is gas and mercury filled for quick starting and constancy of characteristics within wide temperature limits.

**NL-741** has the same general characteristics, within its narrower temperature limits, but is filled with mercury only to permit use of the tube at higher voltages.

Both types are available with bracket type bases for panel mounting under type numbers NL-740P and NL-741P and with the new NATIONAL-designed lug type bases under type numbers NL-740L and NL-741L.



## TECHNICAL INFORMATION

### NL-740

dc Amperes output (maximum) .....	4.0	2.5
Instantaneous Amperes output (maximum) .....	30	50
Maximum time of averaging anode current (sec.)..	5	5
Maximum peak inverse volts .....	1500	1500
Maximum peak forward volts .....	1500	1500
Condensed mercury temperature limits (°C) .....	-40 to +80*—40 to +80*	
Filament volts .....	2.5	
Filament amperes .....	16 ± 2	
Filament heating time (seconds) .....	30	
Typical arc drop at 12 amperes peak (volts) .....	12	
Grid control characteristic .....	See Curve	
Maximum negative grid voltage before conduction (volts) .....	500	
Maximum negative grid voltage during conduction (volts) .....	10	
Maximum critical grid current (microamps) .....	10	
Ionization time (approx., microseconds) .....	10	
Deionization time (approx., microseconds) .....	1000	
Anode to grid capacitance (uuf) .....	3	
Maximum ac short circuit current (amperes) .....	400	
Approx. temperature rise, cond. mercury above ambient (°C) .....	25	
Mounting position .....	Vertical, base down	
Net weight (ounces) .....	7	
Approx. shipping weight (lbs.) .....	4	

### NL-741

dc Amperes output (maximum) .....	4.0	2.5	2.5
Instantaneous Amperes output (maximum) .....	30	50	15
Maximum time of averaging anode current (sec.)..	5	5	5
Maximum peak inverse volts .....	1500	1500	5000
Maximum peak forward volts .....	1500	1500	2500
Condensed mercury temperature limits (°C) .....	+40 to +90	+40 to +90	+40 to +65

\*The tube may be started and satisfactory operation will result between —40 and +80°C. For maximum life the condensed mercury temperature after warm-up should run between +40 and +80°C which corresponds to approximately +15 to +55°C ambient temperature.

Note: Max. base shell to lead voltage, 1500 v rms.

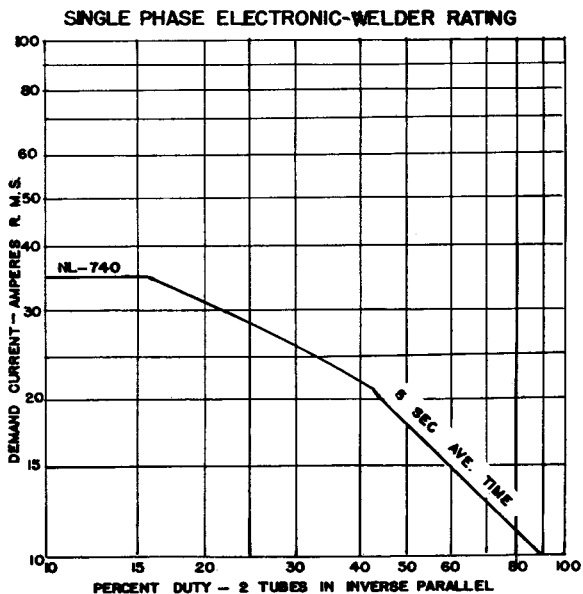
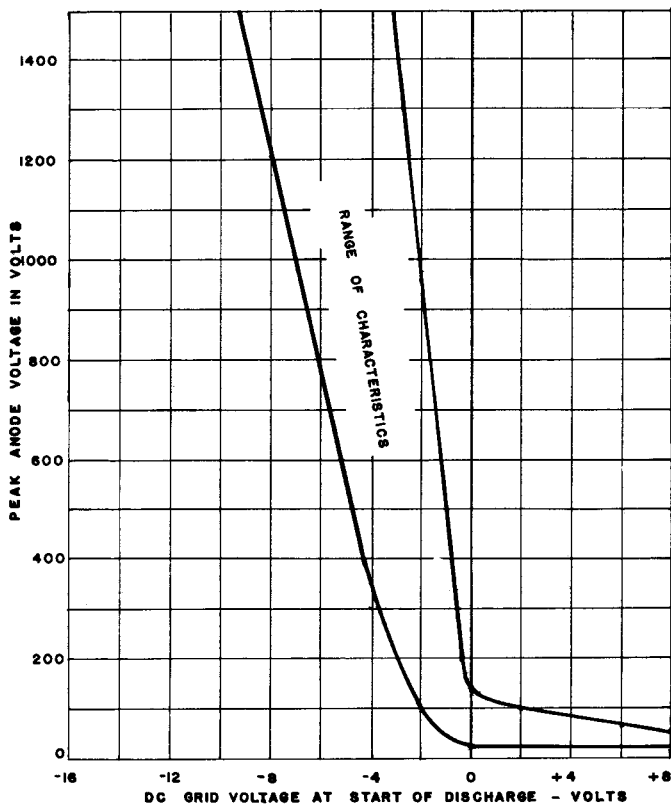
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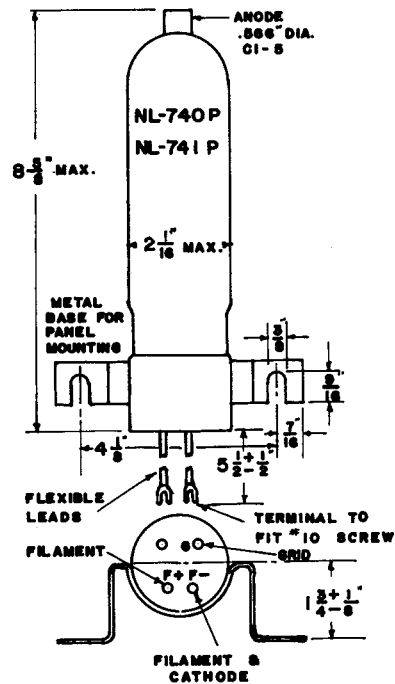
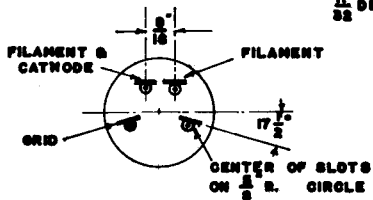
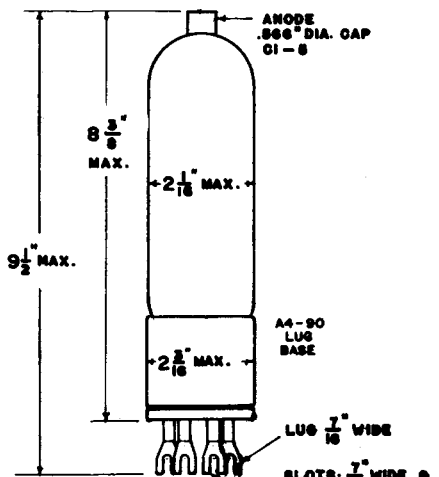
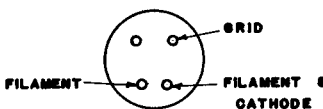
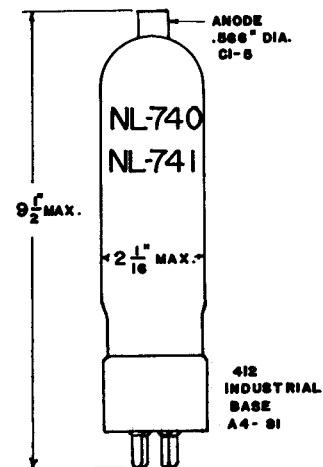
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## NL-740L



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