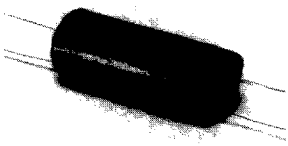
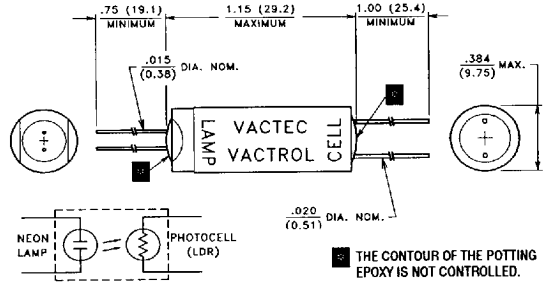
Low Cost Neon Axial Vactrols — VTL3B48

PACKAGE DIMENSIONS inch (mm)





UL Listed File #E73887
Dual "center tap" element version is available for VTL3B48.

[8] THE CONTOUR OF THE POTTING EPOXY IS NOT CONTROLLED.

DESCRIPTION

VTL3B48 features a low "on" resistance and fast turn-on time, with a smaller temperature coefficient of resistance and less light history memory than the VTL3B18.

ABSOLUTE MAXIMUM RATINGS @ 25°C

Maximum Temperatures
Storage and Operating: -40°C to 75°C

Cell Power: 175 mW
Derate above 25°C: 3.5 mW/ °C
Derate 0.2 mW/mW of total case power dissipation

Case Power Dissipation: 550 mW

Cell Voltage: 100 V [8]

Min. Isolation Voltage @ 70% Rel. Humidity: 2500 V pk, 60 Hz

Neon Lamp Breakdown Voltage: 60 - 80 V

Neon Lamp Sustaining Voltage: 55 V (typ.)

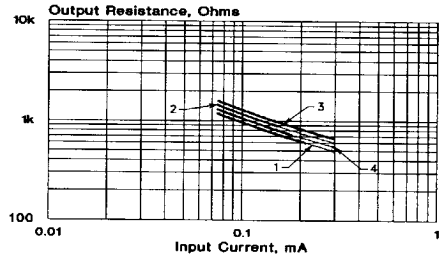
Recommended Min. Supply Voltage: 105 VAC

ELECTRO-OPTICAL CHARACTERISTICS @ 25°C (External Limiting Resistor Required)

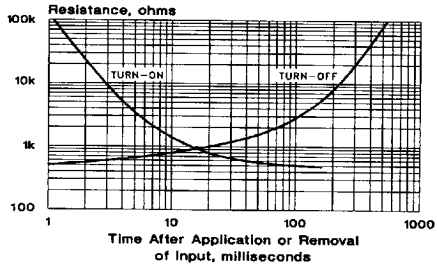
Part Number	Material Type	Output Resistance [9]						Response Time [10]	
		ON Resistance					OFF Resistance (Min.)	Turn-on to 63% of Final R_{ON} (Typ.)	Turn-off (Decay) to 100 kΩ (Max.)
		Lamp Input			Dark Adapted (Typ.)	Light Adapted (Max.)			
		DC	AC						
		Current	Voltage	Limit Resistor					
VTL3B48	4	— 0.3 mA	120 V —	220 kΩ —	400 Ω 400 Ω	1 kΩ 900 Ω	1 MΩ	5 ms	600 ms

Typical Performance Curves

Output Resistance vs Input Current
VTL3B48



Response Time
VTL3B48



Notes:

1. Please consult Vactec if closely controlled transfer characteristics are required over a range of input conditions.
2. Output resistance or input current transfer curves are given for the following adapt conditions:
   (1) 25°C — 24 hours @ no input
   (2) 25°C — 24 hours @ rated input
   (3) +50°C — 24 hours @ rated input
   (4) −20°C — 24 hours @ rated input
3. Response time characteristics are based upon test following adapt condition (2) above.
4. Turn-on times are based on zero ionization time.

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