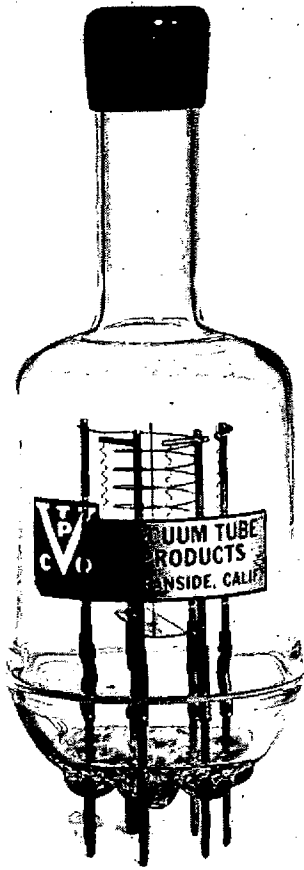


PRODUCT DATA SHEET



VTP-7169 — VTP Ionization Gauge Tube

The VTP-7169 Ionization Gauge Tube is an all glass gauge tube designed for the maximum of reliability and reproduction of accurate readings. This tube type utilizes the recognized superior design of the metal version—VTP Type 6578—but is now available in this type suitable for attachment to all glass vacuum systems. Attachment may also be made to tubular connectors on metal systems by means of VTP portcouples.

The VTP-7169 employs a grid surrounding the collector with dual grid connections allowing for easy outgassing of the grid and other elements of the gauge by merely passing heater current directly through the grid structure. The VTP-7169 is provided with three separately connected filaments providing the maximum in gauge reliability when used on large systems and where a shutdown for gauge tube replacement is costly.

GENERAL CHARACTERISTICS

Filaments (use filaments individually for maximum life)Three.
 Filament Voltage 5.0 Max. Volts
 Filament Current 6.0 Max. Amps
 Grid Voltage (Referenced to Filament)500 Max. Volts
 Grid Current (Emission Current) 15 Max Ma
 Grid Voltage (Pin #3 to Pin #5).....5 Max. Volts
 Grid Current (Pin #3 through pin #5 circuit).....4 1/4 Max. Amps
 Collector Voltage (Referenced to Filament)..... 500 Max. Volts
 Collector Current—Varies directly with gas pressure and directly with grid current.

When Filament is hot do not exceed following pressures:

Pressure Maximum (Corrosive gases or Nitrogen) 5 Microns
 Pressure Maximum (Noble gases or Hydrogen).....1.2 Atmospheres

BaseMedium Moulded flare Septar 7 pin—RETMA E7-2
 Basing: Pin No. 1 2 3 4 5 6 7
 Element F1F2 F1 G C G F3 F2F3
 Mounting (Mechanical) Portcouple or glass seal
 Mounting Position Any
 Bulb Glass (Type) Nonex 7720

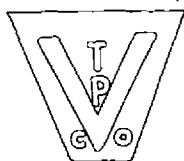
TYPICAL OPERATION

Filament Voltage—Single Filament.

(Adjust to provide 5 ma Emission to grid).....Approx. 3.0 Volts
 Filament Current (When obtaining Emission from one Filament) Approx. 4.0 Amps
 Grid Voltage (use regulated supply)+ 150 Volts
 Grid Current (adjust filament voltage to obtain this value)5 Ma
 Collector Voltage—30 Volts
 Collector Current (Depends on gas and gas pressure).....60 Microamps/micron for dry air.

Grid Outgassing Operation—Apply 5 volts at approx. 4 amps between pins #3 and #5 until gas pressure measured is stable.

Note: Neither the bulb or the collector of the VTP-7169 require separate outgassing due to the efficient radiation heating from the grid outgas operation.

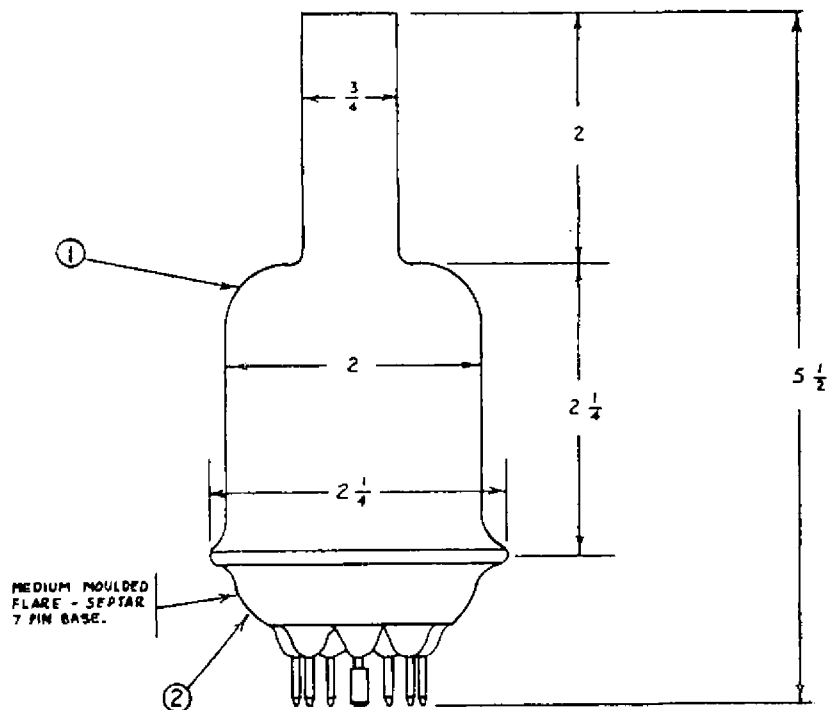
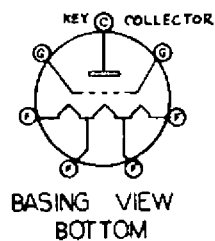
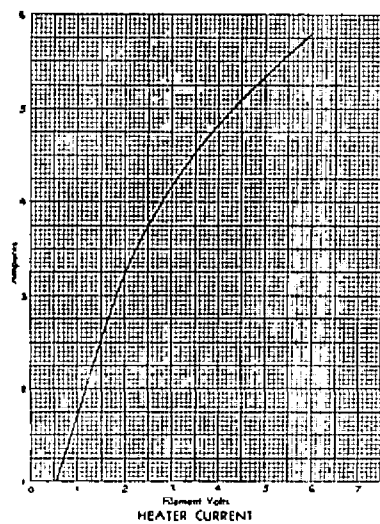
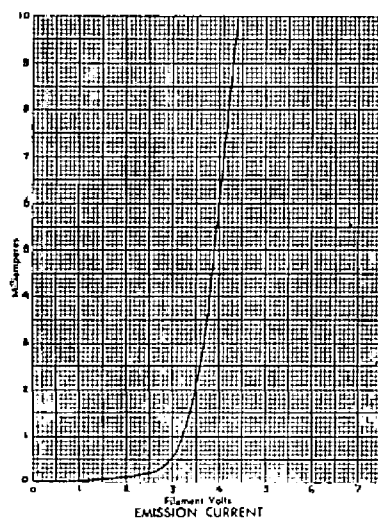
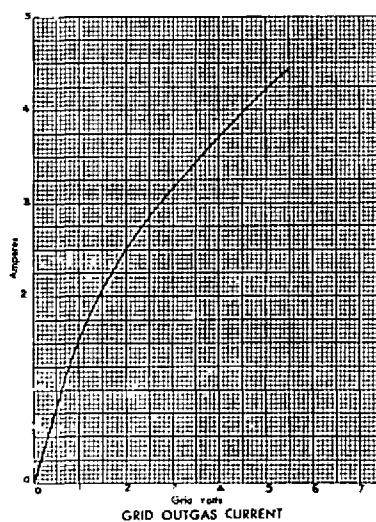


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