



## ELECTRONIC TUBE REFERENCE

# 18503

Specialized - Radiation Counter electronic tube

CONSOLIDATED TECHNICAL DATA

**1 SECTION**

CONSTRUCTION

**GEIGERMULLERCOUNTER**

Philips self-quenching Geiger-Müller radiation counter for ionizing-radiation measurement. Its manufacturer data characterize stable counting operation through specified threshold, plateau, background, timing, and detector-life limits.

## GENERAL CHARACTERISTICS

|                     |                        |                      |               |
|---------------------|------------------------|----------------------|---------------|
| BASE DESIGNATION    | —                      | BASE PINS            | —             |
| NOMINAL HEATER      | — / —                  | PARALLEL HEATER      | — / —         |
| HEATING             | Indirect; cold cathode | SERIES OPERATION     | Not specified |
| CATHODE ARRANGEMENT | Separate cathodes      | SECTION CONSTRUCTION | Similar       |

## SECTION RATINGS

|                                                                                                      |       |
|------------------------------------------------------------------------------------------------------|-------|
| <b>SECTION1</b> GeigerMullerCounter                                                                  |       |
| MAXIMUM PLATE VOLTAGE                                                                                | 425 V |
| <i>Published ratings and characteristics promoted semantically from the approved Philips source.</i> |       |

Self-quenching Geiger-Muller radiation counter for gamma and neutron measurement; thermal-neutron use is supported with external cadmium foil.



## SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

# 1957 Philips Receiving and Amplifying Tubes

Published test conditions and operating points. Values on this page are preserved as reported by this source.

## 1957 PHILIPS RECEIVING AND AMPLIFYING TUBES

## Section 1 · GeigerMullerCounter

| CHARACTERISTIC                |                    |                                 |
|-------------------------------|--------------------|---------------------------------|
| PARAMETER                     | PUBLISHED VALUE    | CONDITION / NOTE                |
| Starting Voltage Maximum      | 325 V              | —                               |
| Plateau Length                | 250 V              | —                               |
| Minimum Plateau Length        | 225 V              | —                               |
| Beginning of Plateau Maximum  | 425 V              | —                               |
| Plateau Slope Maximum         | 0.02 %/V           | At published counting condition |
| Dead Time Maximum             | 100 us             | —                               |
| Background Count Maximum      | 20 counts/min      | Published shielding condition   |
| Count Life Expectancy Minimum | 50000000000 counts | —                               |

| OTHER                       |                 |                  |
|-----------------------------|-----------------|------------------|
| PARAMETER                   | PUBLISHED VALUE | CONDITION / NOTE |
| Maximum Ambient Temperature | 75 C            | —                |



## SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

# 1999 Philips 0-D

Published test conditions and operating points. Values on this page are preserved as reported by this source.

## 1999 PHILIPS 0-D

## Section 1 · GeigerMullerCounter

| CONSTRUCTION             |                                         |                  |
|--------------------------|-----------------------------------------|------------------|
| PARAMETER                | PUBLISHED VALUE                         | CONDITION / NOTE |
| Filling                  | Neon, argon and halogen quenching agent | —                |
| Cathode wall thickness   | 250 mg/cm <sup>2</sup>                  | —                |
| Cathode inside diameter  | 14.4 mm                                 | —                |
| Cathode effective length | 40 mm                                   | —                |

| CAPACITANCE                |                 |                  |
|----------------------------|-----------------|------------------|
| PARAMETER                  | PUBLISHED VALUE | CONDITION / NOTE |
| Interelectrode capacitance | 2 pF            | —                |

| CHARACTERISTICS              |                    |                  |
|------------------------------|--------------------|------------------|
| PARAMETER                    | PUBLISHED VALUE    | CONDITION / NOTE |
| Starting voltage minimum     | 275 V              | —                |
| Starting voltage maximum     | 325 V              | —                |
| Beginning of plateau maximum | 425 V              | —                |
| Plateau length minimum       | 225 V              | —                |
| Plateau slope typical        | 0.01 %/V           | —                |
| Plateau slope maximum        | 0.02 %/V           | —                |
| Dead time maximum            | 100 usec           | —                |
| Shielded background maximum  | 10 counts/min      | 2inPb;1/8inAl    |
| Expected count life minimum  | 50000000000 counts | —                |

### TUBE TINKER

An independent reference for electronic tubes, vacuum tubes,  
and their source documents.

[Catalog](#)   [Tube types](#)   [Full books](#)   [Blog](#)   [Feedback & corrections](#)

© 2026 Tube Tinker