

# PHILIPS

DB 10-3

DG 10-3

DR 10-3

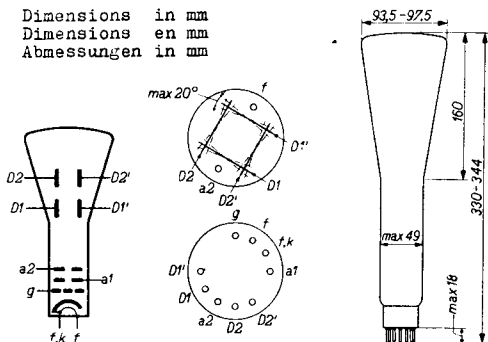
High vacuum CATHODE RAY TUBE for oscillography  
TUBE A RAYONS CATHODIQUES à vide poussé pour oscillographie  
Hochvakuum KATHODENSTRAHLRÖHRE für Oszillographie

|        | <u>DB 10-3</u> | <u>DG 10-3</u> | <u>DR 10-3</u>       |
|--------|----------------|----------------|----------------------|
| Screen | blue           | green          | long persistent      |
| Ecran  | bleu           | vert           | à longue persistance |
| Schirm | blau           | grün           | lang nachleuchtend   |

Heating: indirect by A.C. or D.C.  
Chauffage: indirect par C.A. ou C.C.  
Heizung: indirekt durch Wechsel- oder Gleichstrom

Vf = 4,0 V  
If = 0,55 A

Dimensions in mm  
Dimensions en mm  
Abmessungen in mm



Base, culot, Fuss: FJ

Focusing  
Focalisation  
Fokussierung

electrost.

Deflection  
Déviation  
Ablenkung

double electrostatic  
électrostatique double  
doppel-elektrostatisch

D1D1' symmetr.

D2D2' asymmetr.

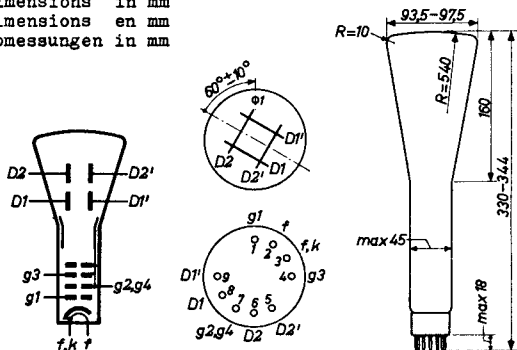
D2' has to be connected to a<sub>2</sub>  
D2' est à connecter à a<sub>2</sub>  
D2' soll mit a<sub>2</sub> verbunden werden

CATHODE RAY TUBE for oscillography  
 TUBE A RAYONS CATHODIQUES pour oscillographie  
 KATHODENSTRAHLRÖHRE für Oszillographie

| Screen<br>Ecran<br>Schirm | Fluorescence<br>Fluorescence<br>Fluoreszenz        | Persistence<br>Persistance<br>Persistenz |
|---------------------------|--|--|
| DB 10-3                   | blue<br>bleu<br>blau                               | short<br>courte<br>kurz                  |
| DG 10-3                   | green<br>vert<br>grün                              | medium<br>moyenne<br>mittel              |
| DR 10-3                   | greenish-yellow<br>jaune-verdâtre<br>grünlich-gelb | long<br>longue<br>lang                   |

Heating : indirect by A.C. or D.C.  $V_f = 4,0 V$   
 Chauffage : indirect par C.A. ou C.C.  
 Heizung : indirekt durch Wechsel-  $I_f = 0,56 A$   
 oder Gleichstrom

Dimensions in mm  
 Dimensions en mm  
 Abmessungen in mm



Base, culot, Sockel: FJ

D2' has to be connected to g2,g4

D2' est à connecter à g2,g4

D2' ist mit g2,g4 zu verbinden

Earthing of g2,g4 is recommended

Il est recommandé de mettre g2,g4 à la terre

Es empfiehlt sich g2,g4 zu erden

|              |               |                       |
|--------------|---------------|-----------------------|
| Capacitances | Cg = 8,5 pF   | CD2 = 7,8 pF          |
| Capacités    | Ck = 5,0 pF   | CD2' = 7,4 pF         |
| Kapazitäten  | CD1 = 6,7 pF  | CD1D1' = 2,5 pF       |
|              | CD1' = 6,3 pF | CD2D2' = 2,6 pF       |
|              |               | CD1D1'-D2D2' = 0,5 pF |

|              |       |                 |        |
|--------------|-------|-----------------|--------|
| Net weight   |       | Shipping weight |        |
| Poids net    | 270 g | Poids brut      | 800 g  |
| Nettogewicht |       | Bruttogewicht   |        |
|              |       | 4 pieces        |        |
|              |       | 4 pièces        | 2500 g |
|              |       | 4 Stück         |        |

|                       |                          |                       |
|-----------------------|--------------------------|-----------------------|
| Line width            | (Va2 = 1000 V)           | 0,4 mm <sup>1</sup> ) |
| Epaisseur de la ligne | (I <sub>l</sub> = 0,5μA) |                       |
| Linienbreite          |                          |                       |

Operating characteristics  
 Caractéristiques d'utilisation  
 Betriebsdaten

|       |             |
|-------|-------------|
| Va2 = | 1000 V      |
| Va1 = | 200 - 340 V |
| -Vg = | 18 - 46 V   |
| Ia2 = | 0 - 750 μA  |
| Ia1 = | -6 - +4 μA  |
| N1 =  | 0,65 mm/V   |
| N2 =  | 0,57 mm/V   |

Limiting values  
 Caractéristiques limites  
 Grenzdaten

|            |        |                       |                      |
|------------|--------|-----------------------|----------------------|
| Va2 = max. | 1200 V | VD1D1' = max.         | 300 V <sup>2</sup> ) |
| Va2 = min. | 800 V  | VD2D2' = max.         | 300 V <sup>2</sup> ) |
| Va1 = max. | 500 V  | W <sub>l</sub> = max. | 3 mW/cm <sup>2</sup> |
| Vg = max.  | 0 V    | RD = max.             | 5 MΩ                 |
| -Vg = max. | 150 V  | Rg = max.             | 1,5 MΩ               |

<sup>1</sup>) Measured on a circle of 50 mm diameter  
 Mesure à un cercle de 50 mm diamètre.  
 Gemessen an einem Kreis von 50 mm Durchmesser

<sup>2</sup>) Peak value; valeur de crête; Scheitelwert

|               |                        |                 |
|---------------|------------------------|-----------------|
| Focusing      | electrostatic          |                 |
| Concentration | électrostatique        |                 |
| Fokussierung  | elektrostatisch        |                 |
| Deflection    | double electrostatic   | D1D1' symmetr.  |
| Déviation     | électrostatique double | D2D2' asymmetr. |
| Ablenkung     | doppel-elektrostatisch |                 |

Capacitances  
Capacités  
Kapazitäten

|          |   |        |                      |   |        |
|----------|---|--------|----------------------|---|--------|
| $C_{g1}$ | = | 5 pF   | $C_{D2'}$            | = | 5,9 pF |
| $CD_1$   | = | 4,7 pF | $CD_1D_1'$           | = | 1,9 pF |
| $CD_1'$  | = | 5,3 pF | $CD_2D_2'$           | = | 2,6 pF |
| $CD_2'$  | = | 6,2 pF | $CD_1D_1' - D_2D_2'$ | = | 0,3 pF |

|                        |                          |                      |
|------------------------|--------------------------|----------------------|
| Line width             | ( $V_{g2, g4} = 1000$ V) | 0,4 mm <sup>1)</sup> |
| Epaisseur de la ligne. | ( $I_f = 0,5 \mu A$ )    |                      |
| Linienbreite           |                          |                      |

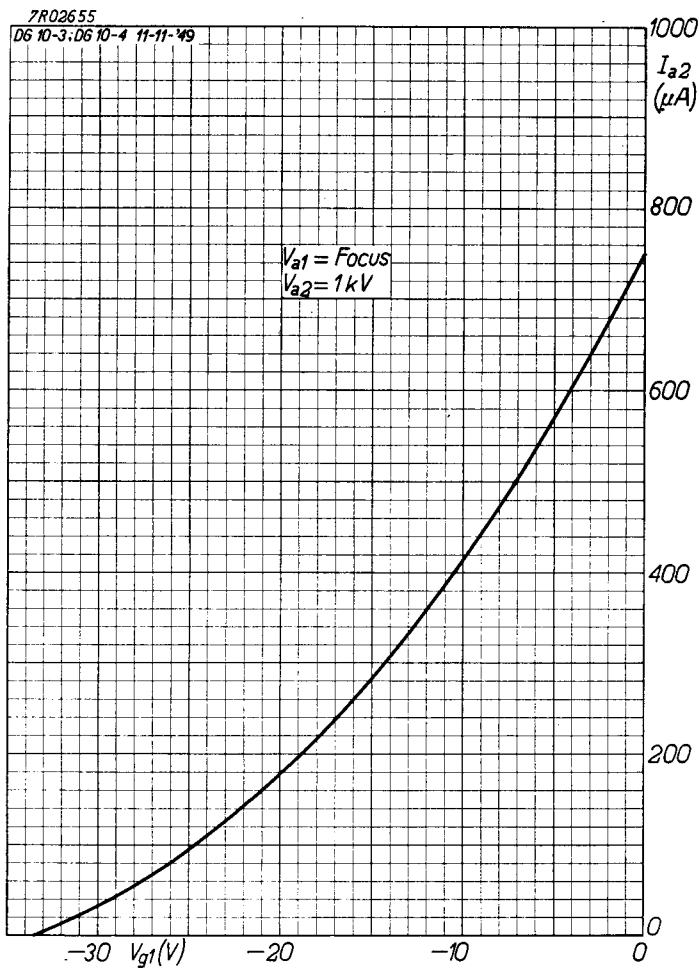
Operating characteristics  
Caractéristiques d'utilisation  
Betriebsdaten

|              |   |           |
|--------------|---|-----------|
| $V_{g2, g4}$ | = | 1000 V    |
| $V_{g3}$     | = | 200-340 V |
| $-V_{g1}$    | = | 18-46 V   |
| $N_1$        | = | 0,65 mm/V |
| $N_2$        | = | 0,55 mm/V |

Limiting values  
Caractéristiques limites  
Grenzdaten

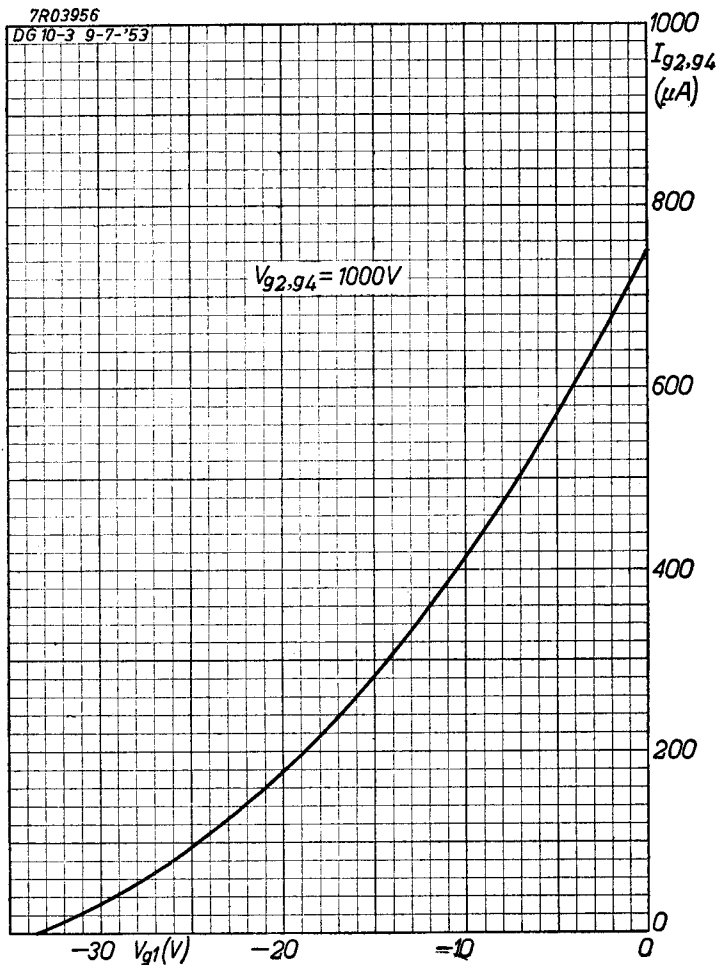
|                            |        |              |   |                           |
|----------------------------|--------|--------------|---|---------------------------|
| $V_{g2, g4} = \text{max.}$ | 1200 V | $V_{D1D1'p}$ | = | max. 300 V                |
| $V_{g2, g4} = \text{min.}$ | 800 V  | $V_{D2D2'p}$ | = | max. 300 V                |
| $V_{g3} = \text{max.}$     | 500 V  | $W_f$        | = | max. 3 mW/cm <sup>2</sup> |
| $V_{g1} = \text{max.}$     | 0 V    | $R_D$        | = | max. 5 M $\Omega$         |
| $-V_{g1} = \text{max.}$    | 150 V  | $R_{g1}$     | = | max. 1,5 M $\Omega$       |

<sup>1)</sup> Measured on a circle of 50 mm diameter  
Mesuré à un cercle de 50 mm diamètre  
Gemessen an einem Kreis von 50 mm Durchmesser



# PHILIPS

DB 10-3  
DG 10-3  
DR 10-3

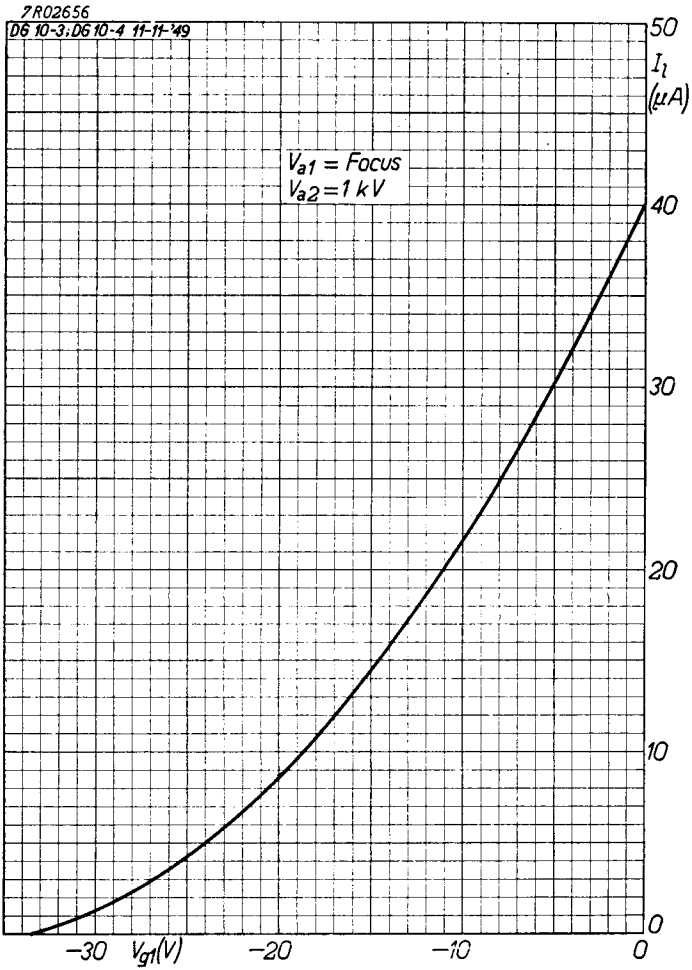


7.7.1953

A

DB 10-3  
DG 10-3  
DR 10-3

# PHILIPS

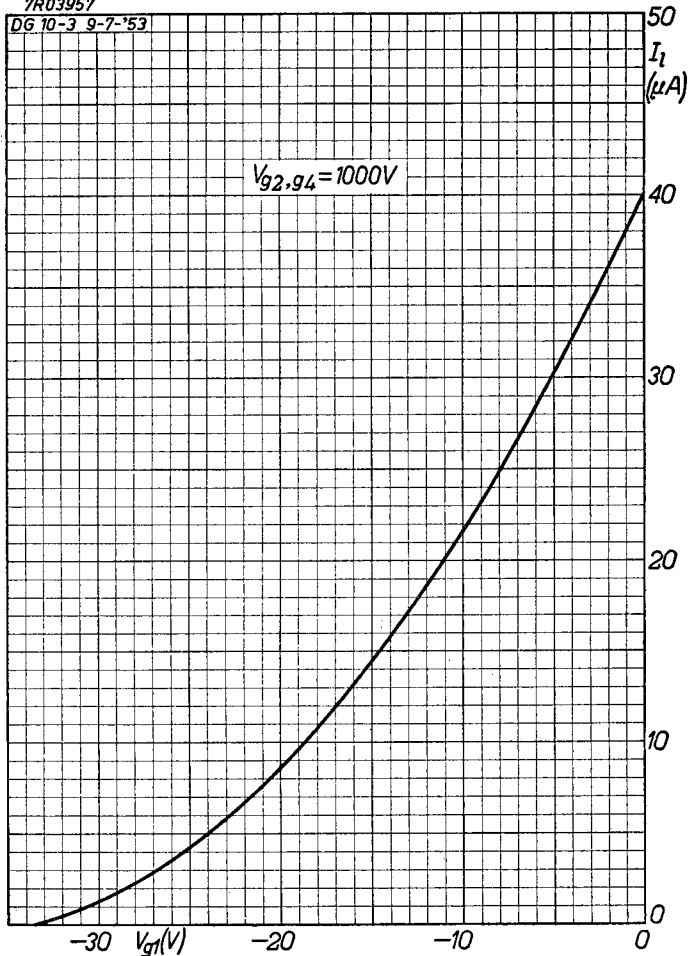


DB 10-3  
DG 10-3  
DR 10-3

# PHILIPS

7R03957

DG 10-3 9-7-'53





**PHILIPS**



*Electronic  
Tube*

**HANDBOOK**

**DB10-3 DG10-3 DR10-3**

| <b>page</b> | <b>sheet</b> | <b>date</b> |
|-------------|--------------|-------------|
| 1           | 1            | 1949.11.11  |
| 2           | 1            | 1953.08.08  |
| 3           | 2            | 1949.11.11  |
| 4           | 2            | 1953.08.08  |
| 5           | A            | 1949.11.11  |
| 6           | A            | 1953.07.07  |
| 7           | B            | 1949.11.11  |
| 8           | B            | 1953.07.07  |
| 9           | FP           | 2000.09.24  |