VACUUM GAUGE HEAD , BAYARD-ALPERT TYPE

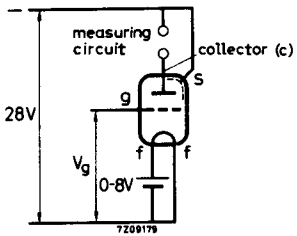
Glass envelope, ultra-high vacuum gauge head of the Bayard-Alpert type. Measuring range 10^{-3} torr to 10^{-10} torr; sensitivity approx. 12 per torr.

The gauge head is provided with two filaments, one of tungsten and one of lanthanum hexaboride.

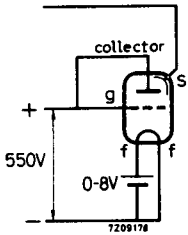
CHARACTERISTICS

Pressure range	10^{-3} to 10^{-10}	torr
Sensitivity (for nitrogen)	approx. 12	per torr
Emission current range	1 μA to 75	mA
Filament characteristics	see page 3	
Insulation resistance		
collector to other electrodes	min. 10^{14}	Ω
grid to other electrodes	min. 10^{12}	Ω

TYPICAL OPERATING CONDITIONS



Measurement



Outgassing

Grid voltage, in combination with fil. 1	V_g +145	V
in combination with fil. 2	+178	V
Emission current (see also page 3)		
measurement	100 μA, 1 mA or 10	mA
outgassing	75	mA

LIMITING VALUES

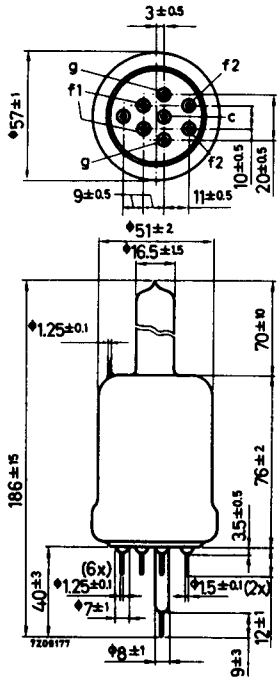
Pressure (filament litt)	max.	10^{-3}	torr
Filament voltage	max.	8	V
Emisssion current	max.	75	mA
Grid input power	max.	40	W
Bulb temperature during operation	max.	100	°C
Bake-out temperature	max.	450	°C

MECHANICAL DATA

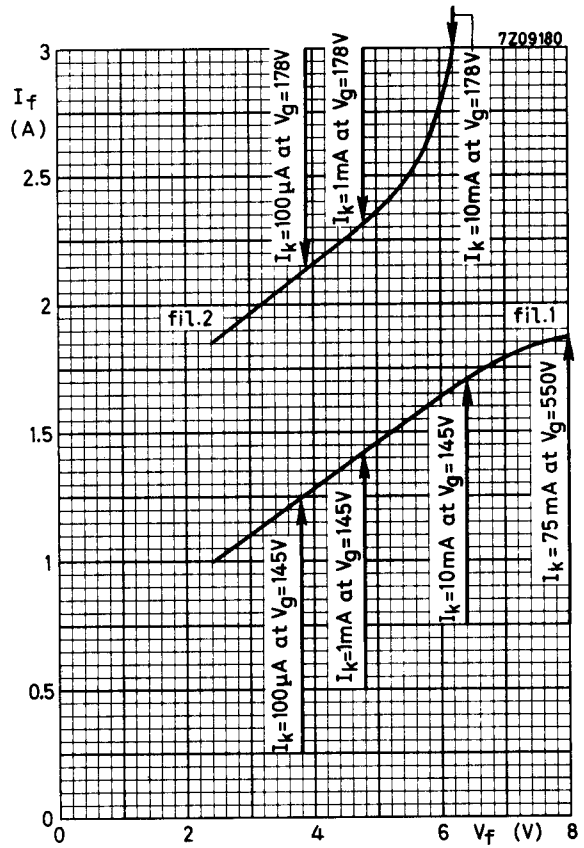
Dimensions in mm

Material

Tubulation	W1 glass
Filament 1	Tungsten
Filament 2	Lanthanum hexaboride (La Br 6)



Mounting position: any


7Z09180
I_f (A)
3
2.5
2
1.5
1
0.5
0
0
2
4
6
8
V_f (V)
fil.2
fil.1
I_k=100µA at V_g=178V
I_k=1mA at V_g=178V
I_k=10mA at V_g=178V
I_k=100µA at V_g=145V
I_k=1mA at V_g=145V
I_k=10mA at V_g=145V
I_k=75 mA at V_g=550V

PHILIPS

Data handbook

Electronic components and materials

IOG17

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3	3	1968.03
4	FP	2001.05.17