

PE50
PHOTO-CELL

GENERAL

The PE50 is a miniature gas-filled photo-cell with a Caesium-Oxygen-Silver cathode surface, having maximum sensitivity in the red and infra-red region of the spectrum. The bulb is blackened except for a window 21×11.6 mm opposite the cathode.

RATING—Absolute Values

Approximate Overall Sensitivity (av)	120*	$\mu\text{A/L}$
Approximate Primary Sensitivity (av)	20**	$\mu\text{A/L}$
Maximum Gas Amplification Factor	10†	
Maximum Working Voltage	90	V
Maximum Average Cathode Current	2.5	μA
Maximum Averaging Time	30	S
Maximum Peak Cathode Current	8.0	μA
Maximum Peak Cathode Current Density	15	$\mu\text{A/cm}^2$
Maximum Dark Current	0.1‡	μA
Minimum Insulation resistance between electrodes	1,000	$\text{M}\Omega$

NOTES

* Measured at 0.02 lumens with lamp colour temperature 2700°K and a cell series resistance of $1.0 \text{ M}\Omega$.
Anode Voltage = 90 volts.

† Gas Amplification Factor is the ratio of current at 90 volts to current at 25 volts under the conditions mentioned above.

‡ Measured at 90 volts with $1.0 \text{ M}\Omega$ series resistance, zero illumination.

** The Primary sensitivity is measured at an anode voltage of 25 volts at which ionisation has not taken place.

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INTER-ELECTRODE CAPACITANCE (pF)

Anode/Cathode	c_{a-k}	3.0
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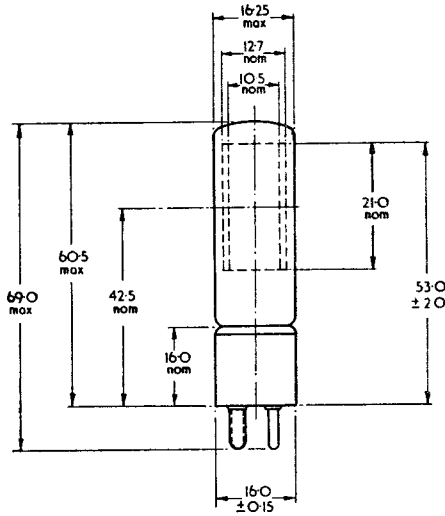
DIMENSIONS

Maximum Overall Length	69.0 mm
Maximum Seated Height	60.5 mm
Light Centre from Seat (nominal)	42.5 mm
Maximum Bulb Diameter	16.25 mm
Maximum Base Diameter	16.15 mm
Cathode Length (nominal)	21.0 mm
Effective Cathode Width	11.6 mm
Window Area	2.4 cm ²
Projected Cathode Area	2.4 cm ²
Approximate Nett Weight	1 oz
Approximate Packed Weight	4 $\frac{3}{4}$ oz

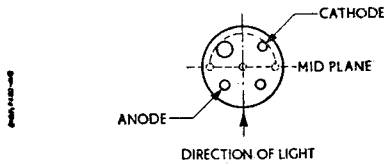
MOUNTING POSITION—Unrestricted.

BASE—Miniature 4 Pin (B4B)

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BLANK PINS NOT CONNECTED



Viewed from free end of pins.

All Dimensions in mm.