

For Scintillation Counting, Fast Time Response
51 mm (2 inch) Diameter, Bialkali Photocathode, 10-stage, Head-on Type

SPECIFICATIONS

GENERAL

Parameter		Description / Value	Unit
Spectral Response		300 to 650	nm
Wavelength of Maximum Response		420	nm
Window Material		Borosilicate glass	—
Photocathode	Material	Bialkali	—
	Minimum Effective Area	$\phi 46$	mm
Dynode	Structure	Linear focused	—
	Number of Stages	10	—
Base		Temporary Base	—
Operating Ambient Temperature		-30 to +50	°C
Storage Temperature		-80 to +50	°C

MAXIMUM RATINGS (Absolute Maximum Values)

Parameter		Value	Unit
Supply Voltage	Between Anode and Cathode	2000	V
Average Anode Current		0.1	mA

CHARACTERISTICS (at +25 °C)

Parameter		Min.	Typ.	Max.	Unit
Cathode Sensitivity	Luminous (2856 K)	70	95	—	$\mu\text{A}/\text{lm}$
	Blue Sensitivity Index (CS 5-58)	9	11	—	—
Anode Sensitivity	Luminous (2856 K)	40	400	—	A/lm
Gain		—	4.2×10^6	—	—
Anode Dark Current (After 30 minute storage in darkness)		—	50	300	nA
Time Response	Anode Pulse Rise Time	—	2	—	ns
	Electron Transit Time	—	24	—	ns
	Transit Time Spread (FWHM)	—	280	—	ps
Pulse Linearity (± 2 % deviation)		—	50	—	mA

NOTE: Anode characteristics are measured with a voltage distribution ratio and supply voltage shown below.

VOLTAGE DISTRIBUTION RATIO AND SUPPLY VOLTAGE

Electrodes	K	G	Dy1	Dy2	Dy3	Dy4	Dy5	Dy6	Dy7 (Acc)	Dy8	Dy9	Dy10	P
Ratio	1.3	4.8	1.5	1.5	1	1	1	1	1	1	1	1	1

Supply Voltage: 1750 V, K: Cathode, Dy: Dynode, P: Anode, G: Grid,

Acc to be connected to Dy7 with a protection resistor (R13) in series. (See Figure 4)

