

PHOTOMULTIPLIER TUBE

83095 600

BURLE

PRELIMINARY
Mar 2004

FEATURES:

- New Low Profile, Lightweight PMT.
- 8-Stage, Head-On Type
- 3" (76mm) Round, Stiff Pin
- Excellent PHR and Stability

APPLICATIONS:

- Scintillation Counting
- Gamma Cameras
(with added PET/SPECT Function)



The 83095 600 is a compact, low profile 3" (76mm) head-on PMT designed specifically for gamma camera use but is ideal for a host of general scintillation counting applications. The 83095 600 8-stage design offers excellent energy resolution and long term stability

GENERAL

Parameter		Value	Unit
Spectral Response		300 to 660	nm
Wavelength of Maximum Response		370	nm
Photocathode	Material	Bialkali	--
Window Material and Cross Section		B270 Glass or Equivalent. Plano-plano.	--
Dynode	Structure	Box and Grid / Linear	--
	Number of Stages	8	--

Maximum Ratings (Absolute Maximum Values)

Parameter		Value	Unit
Supply Voltage	Between Anode and Cathode	1500	Vdc
Average Anode Current		0.1	mA
Ambient Temperature		- 40 to + 70	C

Characteristics (at 25 °C)

Parameter		Min.	Typ.	Max.	Unit
Cathode Sensitivity	Blue (with CS-5-58 filter)	8.6	11.3	--	μA/lm-b
	Quantum efficiency at 370nm	--	32.6	--	%
Anode Sensitivity ¹⁾	Blue (with CS-5-58 filter)		0.9	--	A/lm-b
Current Amplification ¹⁾		--	88500	--	--
Anode Dark Current (after 30min, HV = 1000 V) ¹⁾		--	3.5		nA
Pulse Height Resolution (with 3 x 3 Inch NaI(Tl). Co-57) ¹⁾			8.5	9.2	%
Time Response ¹⁾	Anode Pulse Rise Time		TBD	--	ns
	Electron Transit Time		TBD	--	ns
	Transit Time Spread (T.T.S.)	FWHM	TBD	--	ns
		FWTM	TBD	--	ns

¹⁾ Measured with the condition shown in Table 1 except where noted.

Table 1

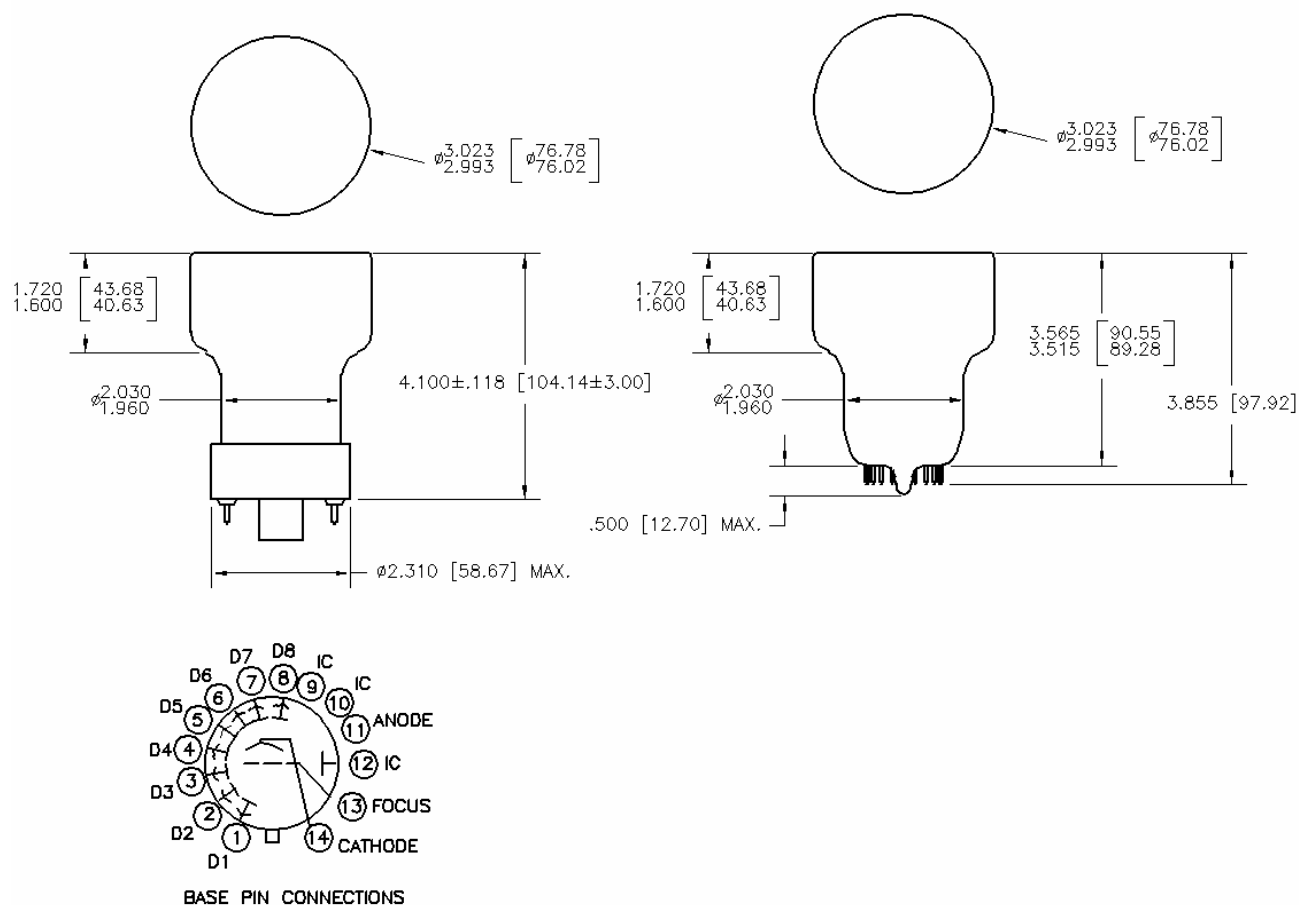
VOLTAGE DISTRIBUTION RATIO AND SUPPLY VOLTAGE (+1000 Volts)

Electrodes	K	F	Dy1	Dy 2	Dy 3	Dy 4	Dy 5	Dy 6	Dy 7	Dy 8	P
Ratio	1	1	1	1	1	1	1	1	1	1	1

Supply Voltage: 1000Vdc, K : Cathode F : Focus Dy : Dynode P : Anode



Outline Drawing BURLE 83095-600



Accessories:

Socket Connector

Available upon request.

HV Power Supply

Bench: PF1053

Modular: PF1041

Magnetic Shield

Standard and custom MU-Metal shields available.

Packaging & Electronics:

Engineering will entertain custom designs for packaging, VDNs, Electronics, Integrated Units, Mounted Circuit Boards, etc.

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