

**For Single Photon Counting, Dark Counts 100 s⁻¹ Typ. at 25 °C
For Extremely Low Light Level Detection**

SPECIFICATIONS

GENERAL

Parameter	Description / Value	Unit
Spectral response	185 to 850	nm
Wavelength of maximum response	430	nm
Photocathode	Material	Multialkali
	Minimum effective area	8 × 24
Window material	UV glass	—
Dynode	Structure	Circular-cage
	Number of stages	9
Direct interelectrode capacitances	Anode to last dynode	Approx. 4
	Anode to all other electrodes	Approx. 6
Base	11-pin base	—
Weight	Approx. 45	g
Operating ambient temperature	-30 to +50	°C
Storage temperature	-30 to +50	°C
Suitable socket	E678-11A (sold separately)	—
Suitable socket assembly	E717-63 (sold separately)	—



MAXIMUM RATINGS (Absolute maximum values)

Parameter	Value	Unit
Supply voltage	Between anode and cathode	1250
	Between anode and last dynode	250
Average anode current *		0.1

* Averaged over any interval of 30 seconds maximum.

CHARACTERISTICS (at 25 °C)

Parameter	Min.	Typ.	Max.	Unit		
Cathode sensitivity	Luminous (2856K)	140	200	—	μA/lm	
	Quantum efficiency	at 400 nm	—	23.7	—	%
		at 500 nm	—	18.3	—	%
		at 600 nm	—	10.7	—	%
		at 700 nm	—	2.7	—	%
		at 800 nm	—	0.56	—	%
Red / White ratio	0.1	0.15	—	—		
Blue sensitivity index (CS 5-58)	—	7.5	—	—		
Anode sensitivity	Luminous (2856K)	300	700	—	A/lm	
Gain	—	3.5 × 10 ⁶	—	—		
Dark counts *	—	100	300	s ⁻¹		
Anode dark current (After 30 min storage in darkness)	—	0.2	1	nA		
Time response	Anode pulse rise time	—	2.2	—	ns	
	Electron transit time	—	22	—	ns	
	Transit time spread (TTS)	—	1.2	—	ns	

* Measured at the plateau voltage.

VOLTAGE DISTRIBUTION RATIO AND SUPPLY VOLTAGE

Electrodes	K	Dy1	Dy2	Dy3	Dy4	Dy5	Dy6	Dy7	Dy8	Dy9	P
Distribution ratio	1	1	1	1	1	1	1	1	1	1	1

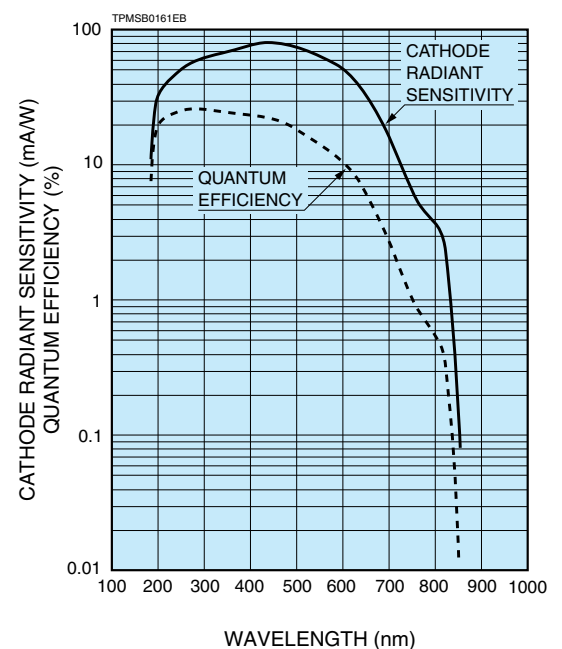
Supply voltage: 1000 V, K: Cathode, Dy: Dynode, P: Anode

VOLTAGE DISTRIBUTION RATIO FOR PLATEAU TEST

Electrodes	K	Dy1	Dy2	Dy3	Dy4	Dy5	Dy6	Dy7	Dy8	Dy9	P
Distribution ratio	1	1	1	1	1	1	1	1	2	1	1

Supply voltage: 1000 V, K: Cathode, Dy: Dynode, P: Anode

Figure 1: Typical spectral response



PHOTOMULTIPLIER TUBE R4632

Figure 2: Anode luminous sensitivity and gain characteristics

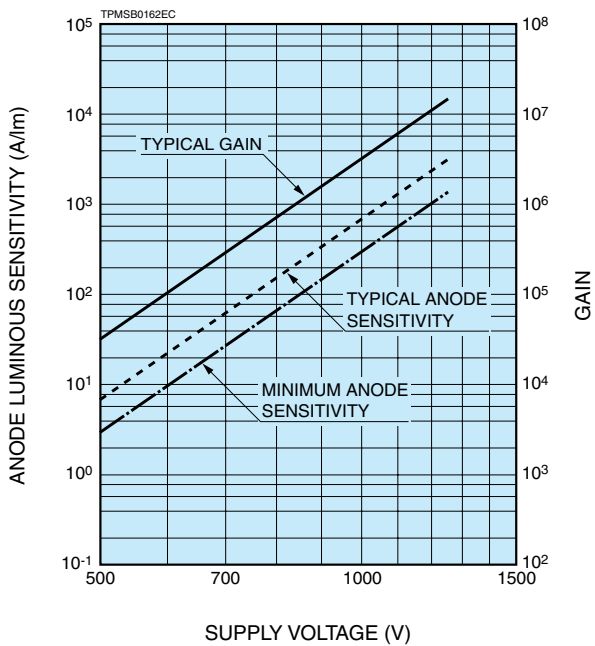


Figure 3: Dimensional outline and basing diagram (Unit: mm)

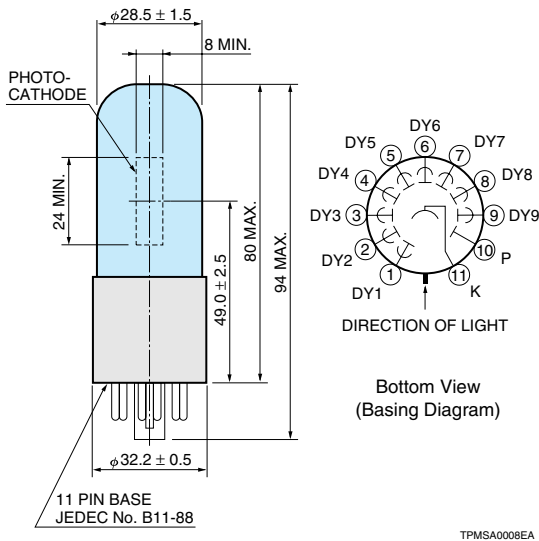
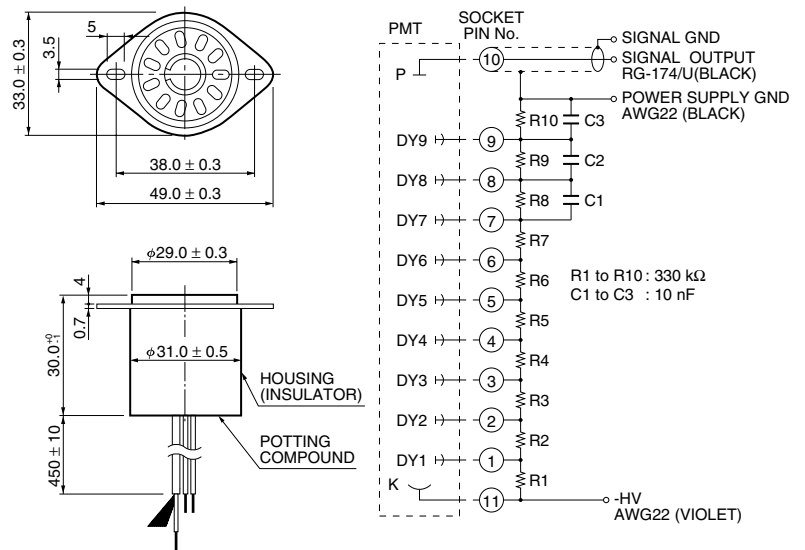


Figure 4: Accessories (Unit: mm) Sold separately

D type socket assembly E717-63



* Hamamatsu also provides C4900 series compact high voltage power supplies and C12597-01, C8991 DP type socket assemblies which incorporate a DC to DC converter type high voltage power supply.

Warning—Personal Safety Hazards
Electrical Shock—Operating voltages applied to this device present a shock hazard.

HAMAMATSU PHOTONICS K.K. www.hamamatsu.com

HAMAMATSU PHOTONICS K.K., Electron Tube Division

314-5, Shimokanzo, Iwata City, Shizuoka Pref., 438-0193, Japan, Telephone: (81)539/62-5248, Fax: (81)539/62-2205

U.S.A.: Hamamatsu Corporation: 360 Foothill Road, Bridgewater, N.J. 08807-0910, U.S.A., Telephone: (1)908-231-0960, Fax: (1)908-231-1218 E-mail: usa@hamamatsu.com

Germany: Hamamatsu Photonics Deutschland GmbH: Arzbergerstr. 10, D-82211 Herrsching am Ammersee, Germany, Telephone: (49)8152-375-0, Fax: (49)8152-2658 E-mail: info@hamamatsu.de

France: Hamamatsu Photonics France S.A.R.L.: 19, Rue du Saule Trapu, Parc du Moulin de Massy, 91882 Massy Cedex, France, Telephone: (33)1 69 53 71 00, Fax: (33)1 69 53 71 10 E-mail: infos@hamamatsu.fr

United Kingdom: Hamamatsu Photonics UK Limited: 2 Howard Court, 10 Tewin Road, Welwyn Garden City, Hertfordshire AL7 1BW, United Kingdom, Telephone: (44)1707-294888, Fax: (44)1707-325777 E-mail: info@hamamatsu.co.uk

North Europe: Hamamatsu Photonics Norden AB: Torshamngatan 35 SE-164 40 Kista, Sweden, Telephone: (46)8-509-031-00, Fax: (46)8-509-031-01 E-mail: info@hamamatsu.se

Italy: Hamamatsu Photonics Italia S.r.l.: Strada della Moia, 1 int. 6, 20020 Arese (Milano), Italy, Telephone: (39)02-93581733, Fax: (39)02-93581741 E-mail: info@hamamatsu.it

China: Hamamatsu Photonics (China) Co., Ltd.: B1201 Jianning Center, No.27 Dongsanhuan Beilu, Chaoyang District, Beijing 100020, China, Telephone: (86)10-6586-6006, Fax: (86)10-6586-2866 E-mail: hpc@hamamatsu.com.cn

Taiwan: Hamamatsu Photonics Taiwan Co., Ltd.: 8F-3, No.158, Section2, Gongdao 5th Road, East District, Hsinchu, 300, Taiwan R.O.C. Telephone: (886)03-659-0080, Fax: (886)07-811-7238 E-mail: info@tw.hpk.co.jp

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