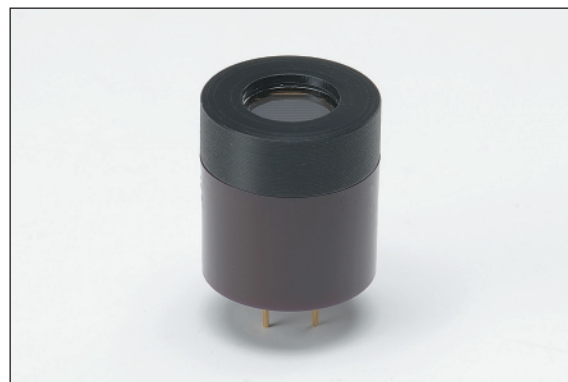


OVER VIEW

Photomultiplier tube assembly integrating a R9880U series photomultiplier tube and a voltage divider circuit.

Compared to the combination of the currently available R9880U series and E10679-51 (D-type socket assembly), the overall length of the H13175U is shortened by approximately 8 mm. This helps downsize the equipment and also improves the degree of design freedom.



LINE UP

Type No.	Spectral Response	Photocathode Material	Window Material
H13175U-110	230 nm to 700 nm	Super bialkali	Borosilicate glass
H13175U-01	230 nm to 870 nm	Multialkali	Borosilicate glass
H13175U-20	230 nm to 920 nm	Extended red multialkali with enhanced sensitivity	Borosilicate glass

SPECIFICATIONS

Parameter			H13175U-110	H13175U-01	H13175U-20	Unit
Max. Supply Voltage between Power Supply Terminals			1100			V
Total Voltage Divider Resistance			3.46			MΩ
Max. Voltage Divider Current [Ⓐ]			0.32			mA
Signal Output			DC / Pulse			—
Pulse Linearity within ±2 % [Ⓑ]		Typ.	10			mA
Effective Area			φ8			mm
Peak Sensitivity Wavelength			400	400	630	nm
Cathode	Luminous Sensitivity	Min.	80	100	350	μA/lm
		Typ.	105	200	500	
	Blue Sensitivity Index (CS 5-58)	Typ.	13.5	—	—	—
	Red / White Ratio	Typ.	—	0.2	0.45	—
	Radiant Sensitivity [Ⓒ]	Typ.	110	77	78	mA/W
Anode	Luminous Sensitivity [Ⓓ]	Min.	80	100	350	A/lm
		Typ.	210	400	1000	
	Radiant Sensitivity ^{ⒸⒹ}	Typ.	2.2 × 10 ⁵	1.5 × 10 ⁵	1.5 × 10 ⁵	A/W
	Dark Current ^{ⒹⒺ}	Typ.	1	1	10	nA
		Max.	10	10	100	
Gain [Ⓓ]		Typ.	2.0 × 10 ⁶			—
Rise Time [Ⓓ]		Typ.	0.57			ns
Transit Time [Ⓓ]		Typ.	2.7			ns
Transit Time Spread [Ⓓ]		Typ.	0.2			ns
Operating Ambient Temperature [Ⓕ]			0 to +50			°C
Storage Temperature [Ⓕ]			-15 to +50			°C
Weight			7.5			g

NOTE: (A)At dark condition (B)Pulse width 50 ns, repetition rate 1 kHz (C)Measured at the peak sensitivity wavelength

(D)Supply voltage 1000 V (E)After 30 minutes storage in darkness

(F)No condensation

PHOTOMULTIPLIER TUBE ASSEMBLY H13175U SERIES

Figure 1: Spectral Response

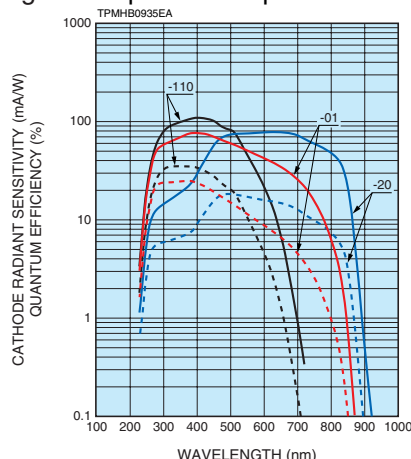


Figure 2: Gain

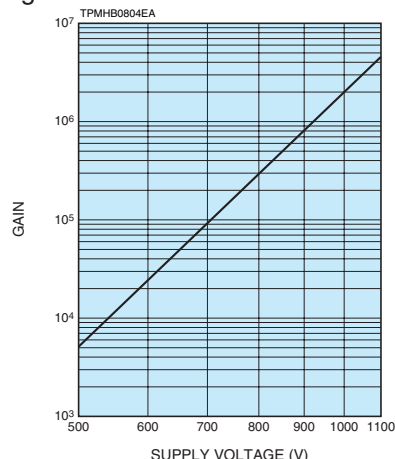
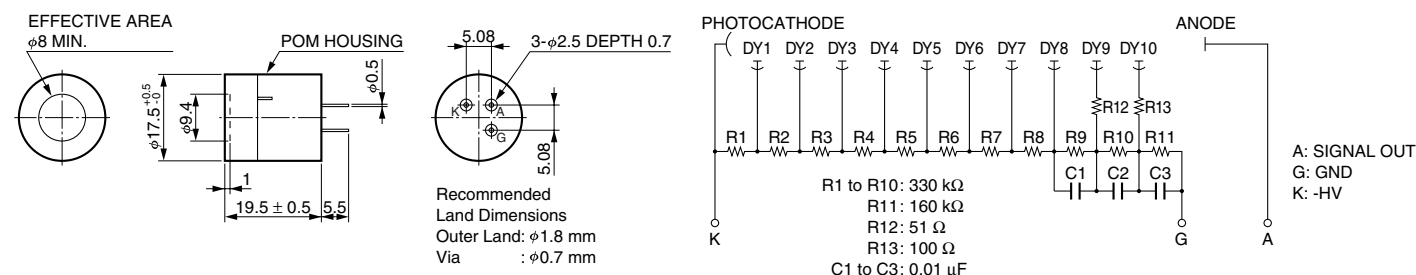


Figure 3: Dimensional Outline and Circuit Diagram (Unit: mm)



RELATED PRODUCTS

HIGH VOLTAGE POWER SUPPLY C10940 SERIES



Parameter	C10940-03	C10940-03-R2	C10940-53	C10940-53-R2	Unit
Input Voltage	+5 ± 0.5				V
Output Voltage	-10 to -1200		+10 to +1200		V
Output Current	0.6				mA
Dimensions (W × H × D)	15 × 18 × 15				mm
Interface	—	RS-485	—	RS-485	—

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 Trappu, 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: Torshamnsgatan 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 Jiaming 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

TPMH1355E01
MAY 2015 IP