

C6270 is a high voltage power supply socket assembly for 28mm(1-1/8 inch) diameter side-on photomultiplier tubes (PMT), incorporating a regulated high voltage power supply and an active voltage divider. It enables simple yet stable PMT operations with extended DC output linearity by only supplying +15Vdc and connecting to a potentiometer or a 0 to +5V for high voltage adjustments.

### FEATURES

- Superior DC Output Linearity
- Fast High Voltage Programming Response
- Low Power Consumption
- Wide High Voltage Output Range
- Low Ripple/Noise
- Low Cost

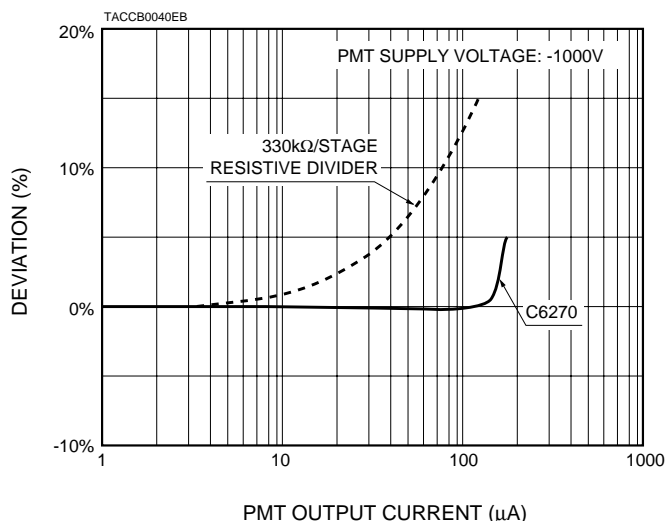
### SPECIFICATIONS

| Parameter                                      | Description / Value                     | Unit      |
|--|---|-----------|
| Applicable PMT                                 | 28mm(1-1/8 inch) diameter side-on types | —         |
| Input Voltage                                  | +15 ± 1                                 | Vdc       |
| Input Current at Maximum High Voltage          | 45                                      | mA Typ.   |
| Output Voltage Range                           | 0 to -1250                              | Vdc       |
| Linear DC Output of PMT ③                      | at - 1000V                              | 100       |
|  | at - 500V                               | 50        |
| Line Regulation Against ± 1V Input Change      | ±0.01                                   | % Typ.    |
| Ripple/Noise in High Voltage Output            | 0.008                                   | %p-p Typ. |
| High Voltage Control                           | 0 to +5V or external 50kΩ potentiometer | —         |
| High Voltage Programming Response ②            | 80                                      | ms Typ.   |
| Temperature Coefficient of High Voltage Output | ±0.01                                   | %/°C Typ. |
| Operating Temperature                          | 0 to +50                                | °C        |
| Storage Temperature                            | -20 to +60                              | °C        |

NOTE: ② within 2% linearity

③ For 0 to 99% high voltage change

Figure 1: Linearity Characteristics



# HIGH VOLTAGE POWER SUPPLY SOCKET ASSEMBLY C6270

Figure 2: High Voltage Controlling Characteristics

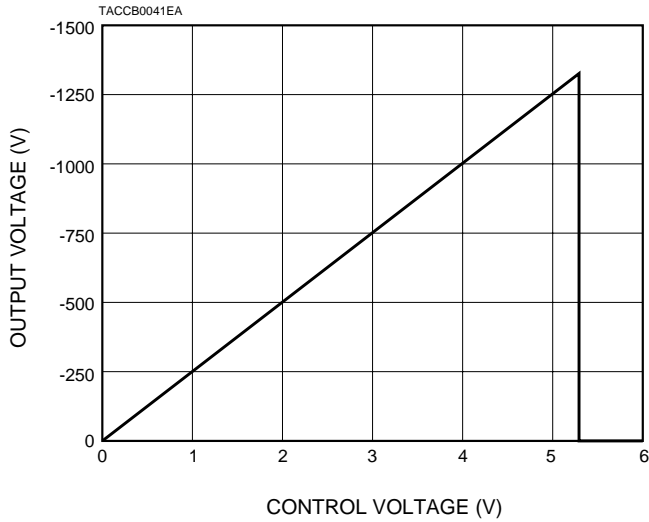


Figure 3: Practical PMT Output Limits

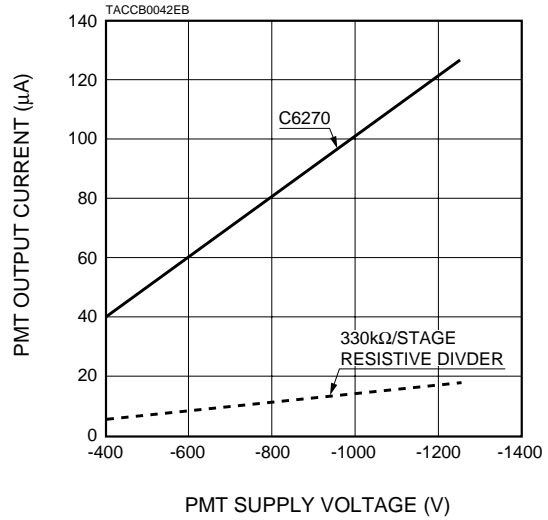
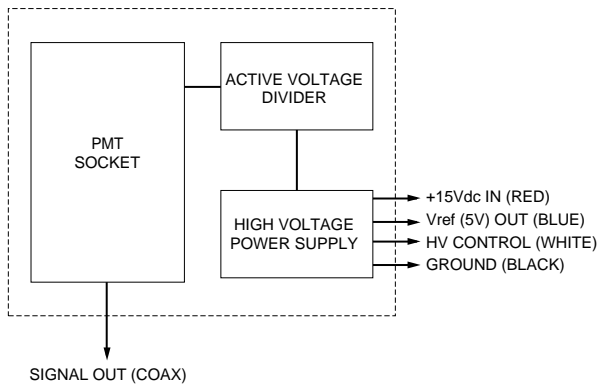
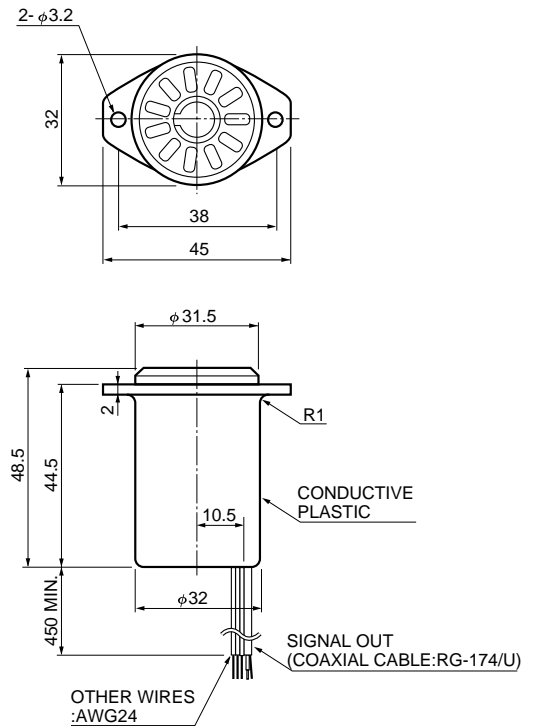


Figure 4: Schematic Diagram



TACCC0095EA

Figure 5: Dimensional Outline (Unit: mm)



TACCA0156EC

## HAMAMATSU

HAMAMATSU PHOTONICS K.K., Electron Tube Center

314-5, Shimokanzo, Toyooka-village, Iwata-gun, Shizuoka-ken, 438-0193, Japan, Telephone: (81)539/62-5248, Fax: (81)539/62-2205

U.S.A.: Hamamatsu Corporation: 360 Foothill Road, P. O. Box 6910, Bridgewater, N.J. 08807-0910, U.S.A., Telephone: (1)908-231-0960, Fax: (1)908-231-1218

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

France: Hamamatsu Photonics France S.A.R.L.: 8, 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

United Kingdom: Hamamatsu Photonics UK Limited: Lough Point, 2 Gladbeck Way, Windmill Hill, Enfield, Middlesex EN2 7JA, United Kingdom, Telephone: (44)181-367-3560, Fax: (44)181-367-6384

North Europe: Hamamatsu Photonics Norden AB: Färögatan 7, S-164-40 Kista Sweden, Telephone: (46)8-703-29-50, Fax: (46)8-750-58-95

Italy: Hamamatsu Photonics Italia: S.R.L.: Strada della Moia, 1/E, 20020 Arese, (Milano), Italy, Telephone: (39)02-935 81 733, Fax: (39)02-935 81 741

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