

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

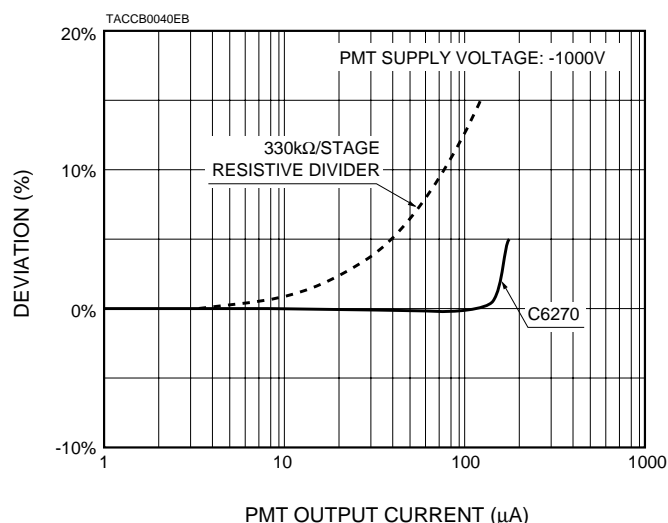
### ■ SPECIFICATIONS

Parameter	Description / Value		Unit
Applicable PMT	28mm(1-1/8 inch) diameter side-on types		—
Input Voltage	$+15 \pm 1$		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	$\mu$ A Typ.
	at - 500V	50	
Line Regulation Against $\pm 1$ V Input Change	$\pm 0.01$		% Typ.
Ripple/Noise in High Voltage Output	0.008		%p-p Typ.
High Voltage Control	0 to +5V or external 50k $\Omega$ potentiometer		—
High Voltage Programming Response ④	80		ms Typ.
Temperature Coefficient of High Voltage Output	$\pm 0.01$		%/ $^{\circ}$ C Typ.
Operating Temperature	0 to +50		$^{\circ}$ C
Storage Temperature	-20 to +60		$^{\circ}$ C

NOTE: ③ within 2% linearity

④ For 0 to 99% high voltage change

Figure 1: Linearity Characteristics



# HIGH VOLTAGE POWER SUPPLY SOCKET ASSEMBLY C6270

Figure 2: High Voltage Controlling Characteristics

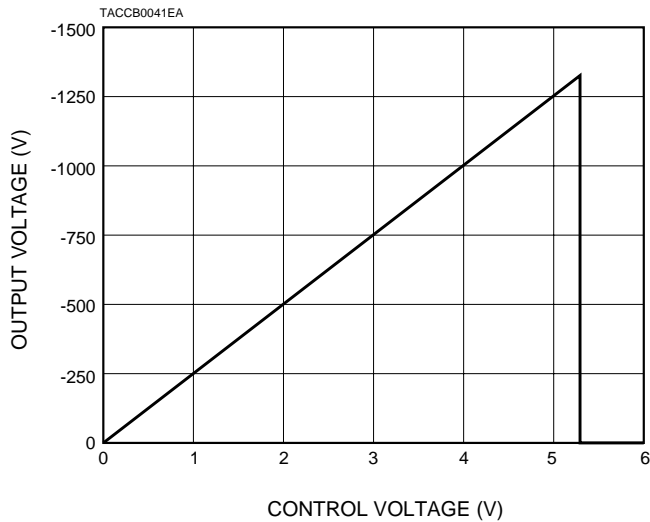


Figure 3: Practical PMT Output Limits

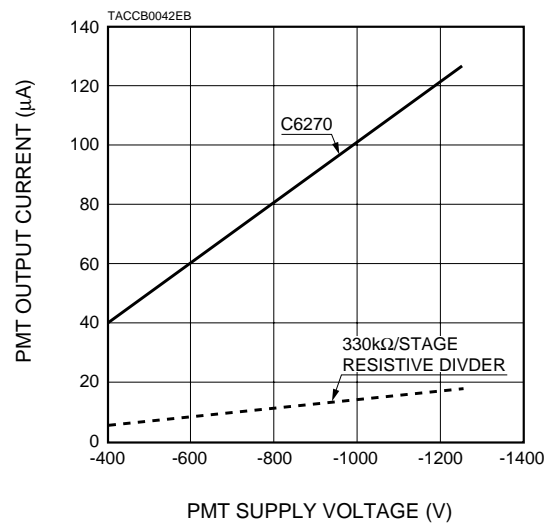


Figure 4: Schematic Diagram

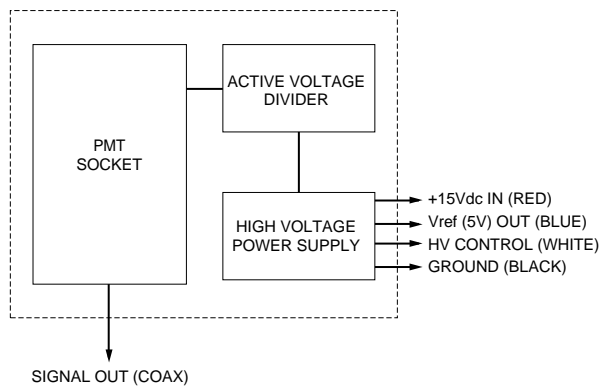
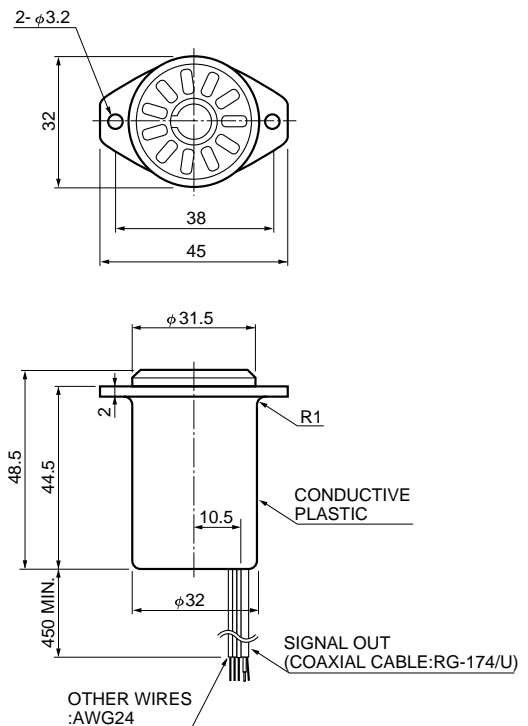


Figure 5: Dimensional Outline (Unit: mm)



## HAMAMATSU

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