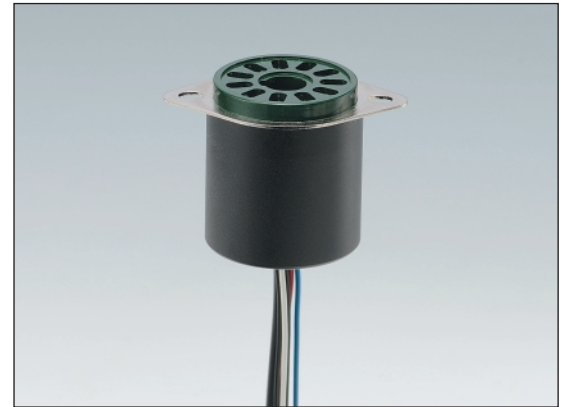


C12597-01 is a high voltage power supply socket assembly for 28 mm (1-1/8 inch) diameter side-on photomultiplier tubes (PMT), incorporating a regulated high voltage power supply and an active voltage divider. It enables highly stable PMT operations with extended DC output linearity by only supplying +15 V and connecting to a potentiometer or a 0 to +5 V for high voltage adjustments.



FEATURES

- Superior DC output linearity
- Fast high voltage programming response
- Compact
- Low ripple/noise

SPECIFICATIONS

Parameter	Description / Value	Unit
Applicable PMT	φ 28 mm (1-1/8 inch) side-on type	—
Input voltage	+15 ± 1	V
Max. input voltage	+18	V
Max. input current	60	mA
Output voltage range	0 to -1250	V
Specification guaranteed output voltage range	-200 to -1250	V
Linear DC output of PMT ^(A) at -1000 V	Typ. 100	μA
Line regulation against ±1 V input change	Typ. ±0.01	%
Anode ripple noise (p-p) ^(B)	Typ. 0.5	mV
	Max. 1	
Output voltage control	Control voltage (0 to +5 V) or external potentiometer (50 kΩ)	—
Control voltage input impedance	100	kΩ
Output voltage programming response ^(C)	Typ. 80	ms
Temperature coefficient of high voltage output	Typ. ±0.01	%/°C
Operating ambient temperature / humidity ^(D)	0 °C to +50 °C / Below 85 %	—
Storage temperature / humidity ^(D)	-15 °C to +60 °C / Below 90 %	—
Weight	45	g

NOTE: (A) Within 2 % linearity (B) Load resistance = 1 MΩ, load capacitance = 22 pF (measurement frequency 100 MHz max.)
 (C) For 0 % to 99 % high voltage change (D) No condensation

Figure 1: DC linearity characteristics

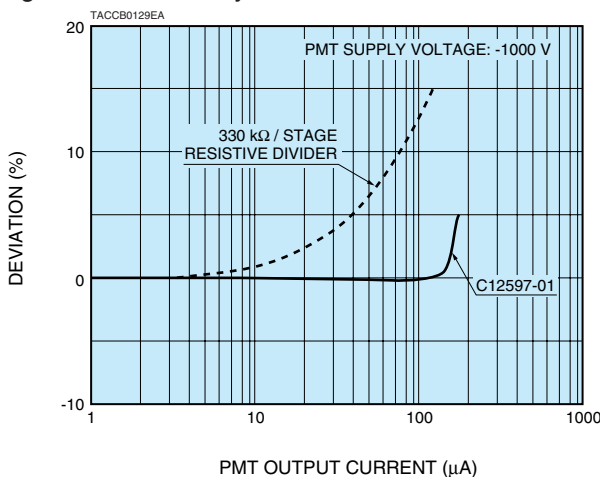
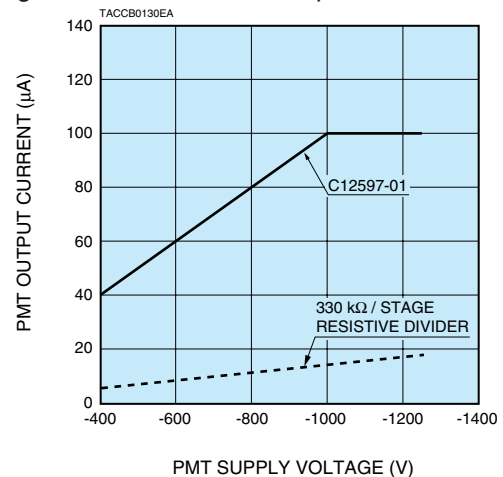


Figure 2: Practical PMT output limits



HIGH VOLTAGE POWER SUPPLY SOCKET ASSEMBLY C12597-01

Figure 3: High voltage controlling characteristics

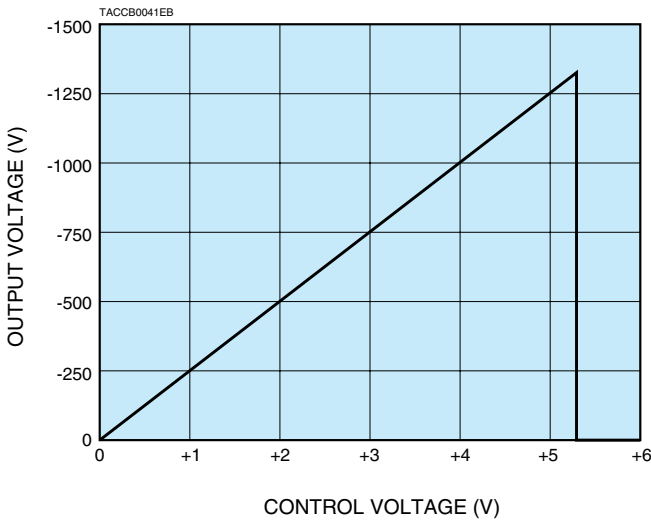
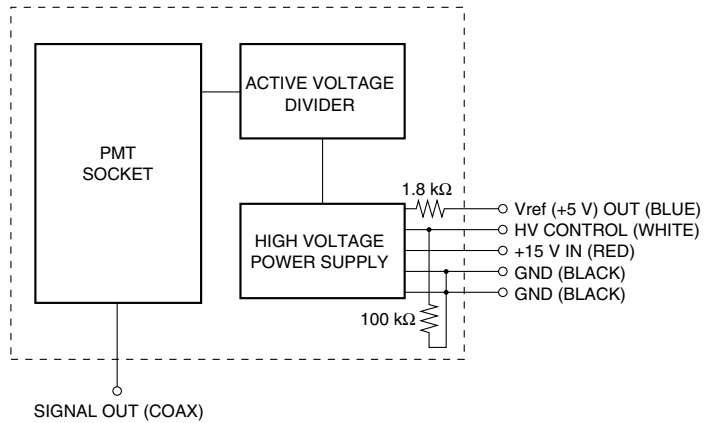
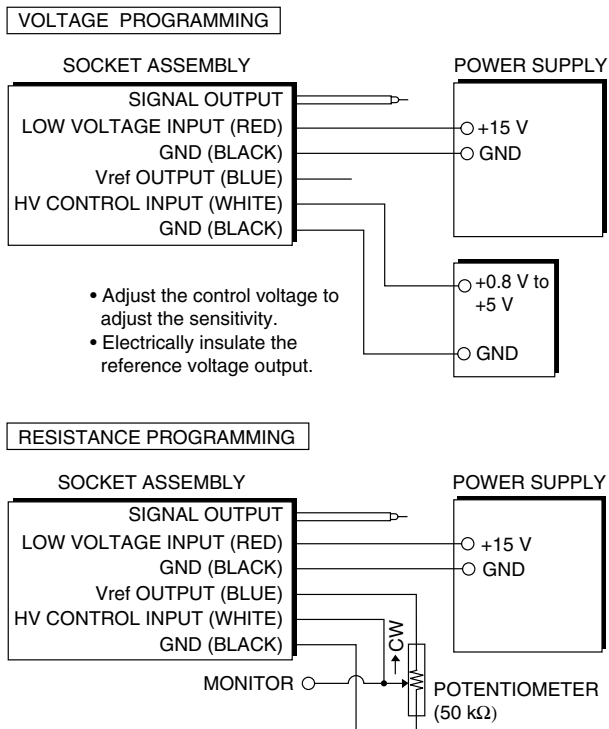


Figure 4: Schematic diagram



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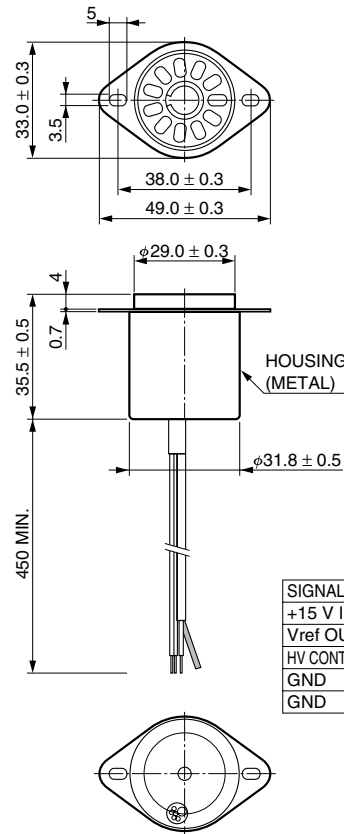
Figure 5: Adjustment method of high voltage



* When using a potentiometer to adjust sensitivity, monitor the control voltage so it does not exceed +5 V.

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Figure 6: Dimensional outline (Unit: mm)



SIGNAL OUTPUT	COAXIAL CABLE RG-174/U *
+15 V INPUT	AWG 24, RED
Vref OUTPUT	AWG 24, BLUE
HV CONTROL INPUT	AWG 24, WHITE
GND	AWG 24, BLACK
GND	AWG 24, BLACK

* Please contact us for the connector requirement. The connector can be attached to the cable upon request.

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