

The C9028-01 is a high voltage power supply socket assembly for 28 mm (1-1/8") diameter head-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 +15 V and connecting to a potentiometer or a 0 V to +5 V for high voltage adjustments.

FEATURES

- Superior DC Output Linearity
- Fast High Voltage Programming Response
- Wide High Voltage Output Range
- Low Ripple Noise
- Compact and Lightweight

SPECIFICATIONS

GENERAL

Parameter	Description / Value	Unit
Applicable PMTs	28 mm (1-1/8 inch) Dia. head-on types (R6094, R374, R5929, R2228 etc.)	—
Input Voltage	+15 ± 1	V
Input Current	Max. 60	mA
Linear DC Output Current of PMT ^(A) at -1000 V	Typ. 100	μA
Anode Ripple Noise (HV=1000 V, RL=1 MΩ +25 pF)	1	mV
Operating Ambient Temperature	0 to +40	°C
Storage Temperature	-15 to +60	°C
Weight	60	g

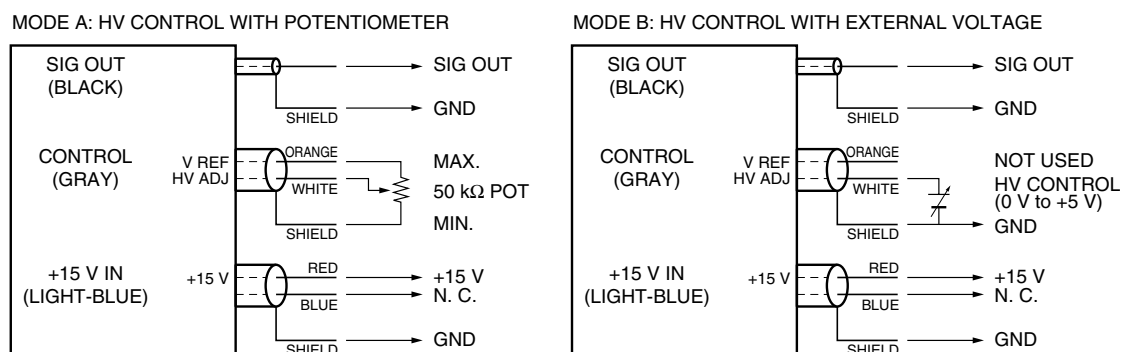
NOTE: (A) Within: ±2 % linearity

HIGH VOLTAGE POWER SUPPLY

Parameter	Description / Value	Unit	
Output Voltage Range	0 to -1250	V	
Line Regulation Against ±1 V Input Change	Typ. ±0.01	%	
High Voltage Control	0 V to +5 V or external 50 kΩ potentiometer	—	
Settling Time ^(B)	Vcont: 4 V to 2 V	300	ms
	Vcont: 2 V to 4 V	80	ms
Temperature Coefficient of High Voltage Output	Typ. ±0.01	%/°C	

NOTE: (B) To be shown with the time period of setting to stable high voltage from changing control voltage (Vcont).

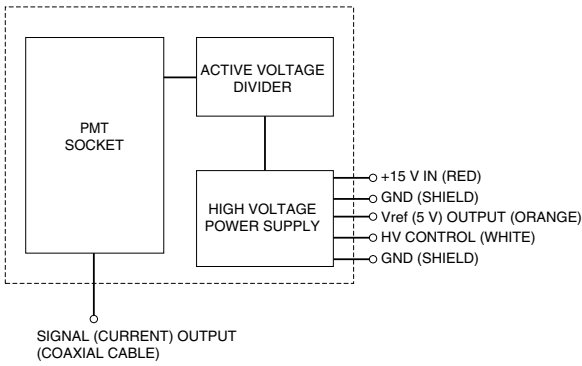
Figure 1: Wire Connection



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HIGH VOLTAGE POWER SUPPLY SOCKET ASSEMBLY (DP-TYPE) C9028-01

Figure 2: Schematic Diagram



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Figure 3: High Voltage Controlling Characteristic

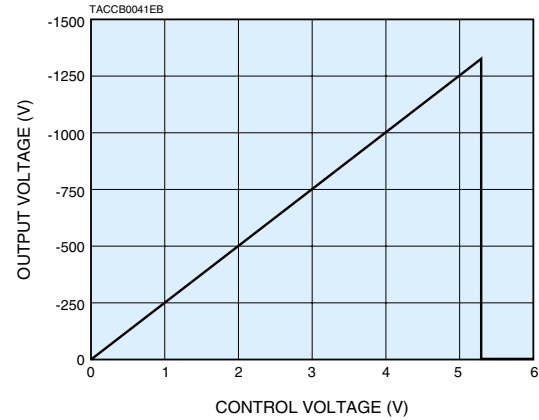


Figure 4: Linearity Characteristics

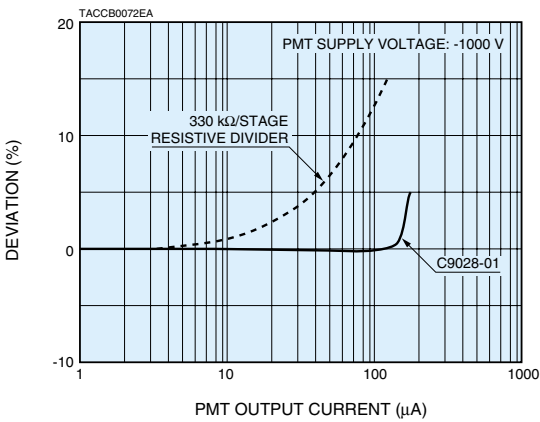


Figure 5: Practical PMT Output Limits

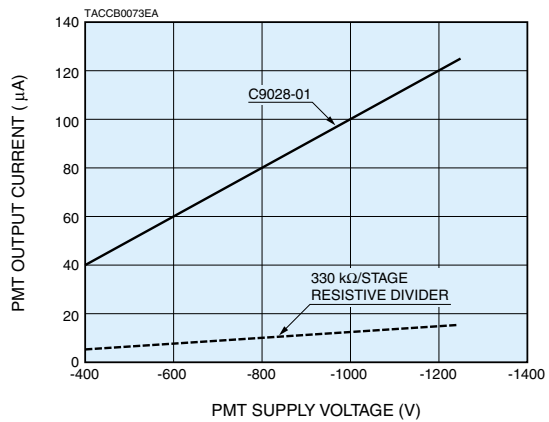
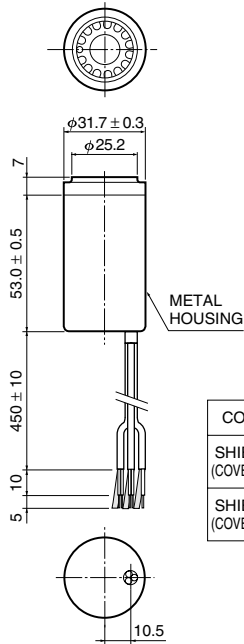


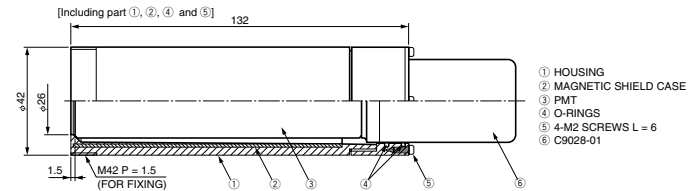
Figure 6: Dimensional Outline (Unit: mm)



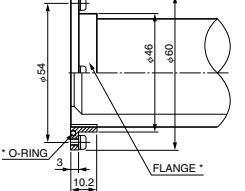
COAX RG-174/U	BLACK	SIGNAL OUTPUT	CLEAR
		GND	SHIELD
SHIELDED CABLE (COVERING TWIST PAIR)	GRAY	Vcont INPUT	WHITE
		Vref OUTPUT	ORANGE
		GND	SHIELD
SHIELDED CABLE (COVERING TWIST PAIR)	LIGHT BLUE	+15 V INPUT	RED
		NO CONNECTION	BLUE
		GND	SHIELD

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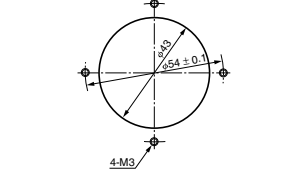
HOUSING E7718 (SOLD SEPARATELY)



[HOW TO USE THE HOUSING WITH FLANGE]



[SUGGESTED FIXTURE LAYOUT FOR THE FLANGE]



* THE FLANGE AND O-RING ARE AVAILABLE TO BE SOLD SEPARATELY AS P/N: A7719.

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HAMAMATSU

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