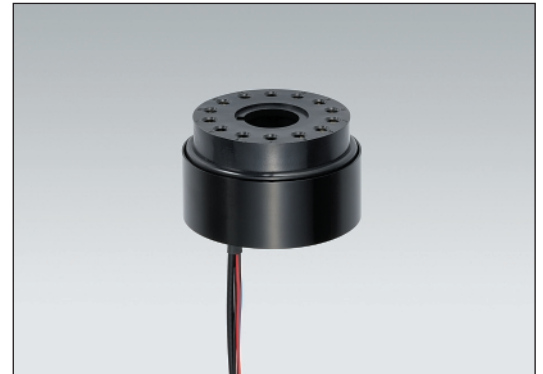


The C13002 series is a high voltage power supply socket assembly for head-on photomultiplier tubes (PMT), incorporating a regulated high voltage power supply and an active voltage divider. It enables simple yet stable PMT operations with extended DC output linearity by only supplying +15 V and connecting to a potentiometer or a 0 to +6 V for high voltage adjustment.



FEATURES

- Superior DC output linearity
- Low power consumption
- Fast high voltage programming response
- Low anode ripple/noise

SPECIFICATIONS

Parameter		C13002-01	C13002-02	Unit
Applicable photomultiplier tubes		Head-on type R6231, R6232, R6233, R6234 R6235, R6236, R6237, etc.	Head-on type R1306, R1307, etc.	—
Input voltage		+15 ± 1		V
Max. input voltage		+18		V
Max. input current ^(A)		60	65	mA
PMT	Linear DC output current of PMT ^{(B)(C)}	Min.	100	μA
	Anode ripple / noise ^(D)	Typ.	0.5	mV p-p
		Max.	1	
High voltage power supply	Output voltage range		0 to -1500	V
	Specification guaranteed output voltage range		-200 to -1500	V
	Line regulation against ±1 V input voltage change ^(B)		±0.01	%
	Output voltage control		Control voltage (0 to +6 V) or potentiometer (50 kΩ)	
	Recommended output voltage control range		+0.8 to +6	V
	Control voltage input impedance		100	kΩ
	Output voltage programming response ^(E)	Max.	80	ms
	Temperature coefficient ^(B)	Typ.	±0.01	%/°C
Operating ambient temperature / humidity ^(F)		0 °C to +45 °C / Below 85 %		—
Storage temperature / humidity ^(F)		-15 °C to +60 °C / Below 90 %		—
Weight	Typ.	122		g

NOTE: ^(A)Without PMT ^(B)Input voltage = +15 V, control voltage = +4 V ^(C)Within 2 % linearity
^(D)Cable RG-174/U, cable length 450 mm, load resistance = 1 MΩ, load capacitance = 22 pF
^(E)For 0 % to 99 % high voltage change ^(F)No condensation

Figure 1: DC linearity characteristics

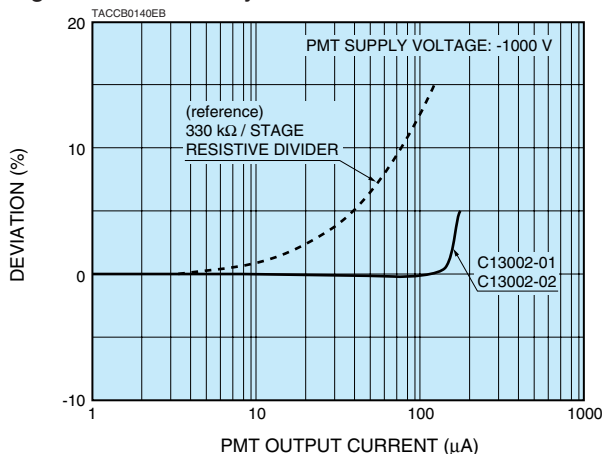
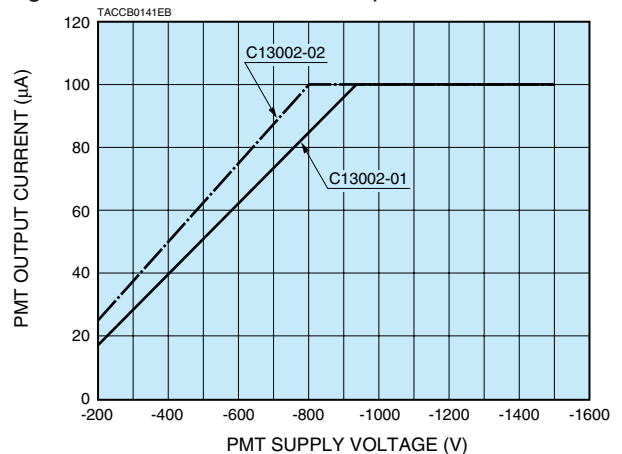


Figure 2: Practical PMT DC output limits



* Photomultiplier tube must be used with a supply voltage within the rated range.

HIGH VOLTAGE POWER SUPPLY SOCKET ASSEMBLY (DP-TYPE) C13002 SERIES

Figure 3: High voltage controlling characteristics

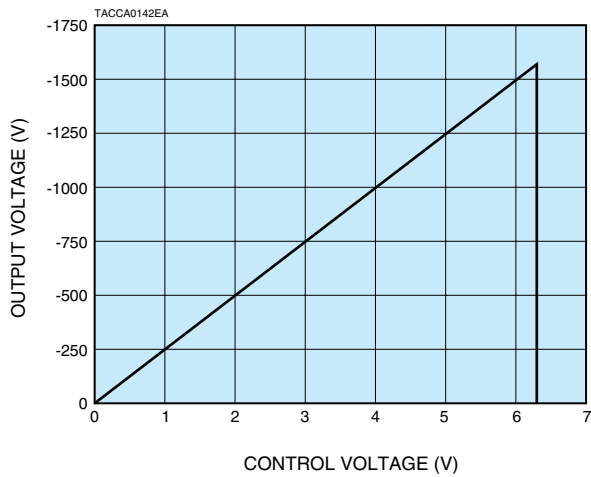


Figure 4: Schematic diagram

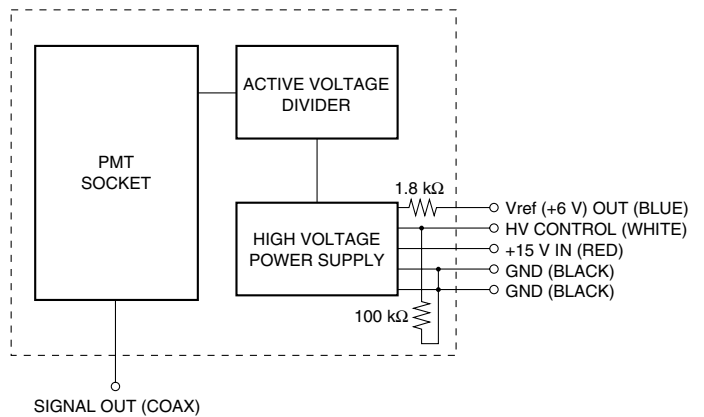


Figure 5: Adjustment method of High voltage

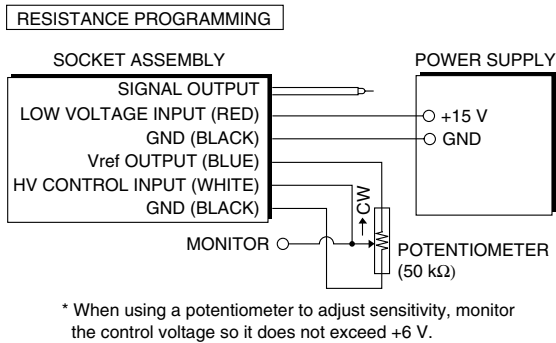
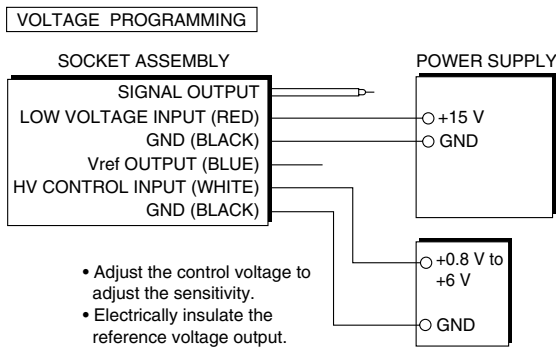
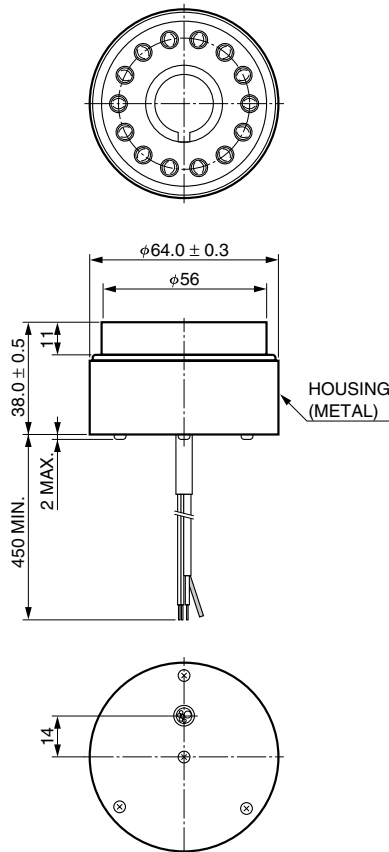


Figure 6: Dimensional outline (Unit: mm)



SIGNAL OUTPUT	COAXIAL CABLE RG-174/U *
+15 V INPUT	AWG24, RED
GND	AWG24, BLACK
HV CONTROL	AWG24, WHITE
Vref OUTPUT	AWG24, BLUE
GND	AWG24, BLACK

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

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