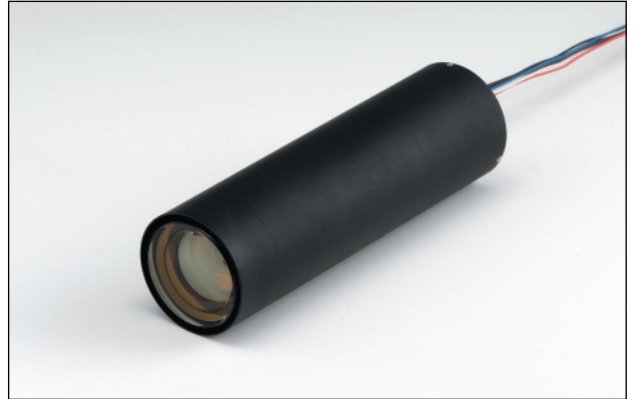


## OVER VIEW

The H11411 is a photomultiplier tube module that integrates a 51-mm (2") diameter head-on photomultiplier tube with a high-voltage power supply circuit. The H11411 has a large effective photocathode area of 46 mm diameter and this product is suited for scintillation counting application.

## FEATURES

- High energy physics
- Radiation measurement
- Industrial measurement
- Fast time response



## SPECIFICATIONS

(at +25 °C)

Parameter		Value	Unit	
Spectral response		300 to 650	nm	
Input voltage		+11.5 to +15.5	V	
Max. input voltage		+18	V	
Max. input current *1		5.0	mA	
Max. output signal current *2		200	μA	
Max. control voltage		+1.9 (Input impedance 1 MΩ)	V	
Recommended control voltage adjustment range		+0.5 to +1.8 (Input impedance 1 MΩ)	V	
Effective area		φ46	mm	
Peak sensitivity wavelength		420	nm	
Cathode	Luminous sensitivity	Min.	60	
		Typ.	90	
	Blue sensitivity index (CS 5-58)	Typ.	10.5	
	Red / White ratio	Typ.	—	
Radiant sensitivity *3		Typ.	85	
Anode	Standard type	Luminous sensitivity *2	Min.	30
			Typ.	300
	Radiant sensitivity *2 *3	Typ.	2.8 × 10 <sup>5</sup>	
		Dark current *2 *4	Typ.	6
		Max.	40	
Rise time *2		2.0	ns	
Ripple noise *2 *5 (peak to peak)		Max.	1	
Settling time *6		Max.	10	
Operating ambient temperature *7		+5 to +50	°C	
Storage temperature *7		-20 to +50	°C	
Weight		560	g	

**NOTE:** \*1: At +15 V input voltage, +1.75 control voltage, and output current equal to dark current

\*2: Control voltage=+1.75 V

\*3: Measured at the peak sensitivity wavelength

\*4: After 30 minutes storage in darkness, output of dark current.

\*5: Cable RG-174/U, Cable length 450 mm, Load resistance= 1 MΩ, Load capacitance=22 pF

\*6: The time required for the output to reach a stable level following a change in the control voltage from +1.0 V to +0.5 V.

\*7: No condensation

# PHOTOMULTIPLIER TUBE MODULE H11411

Figure 1: Typical spectral response

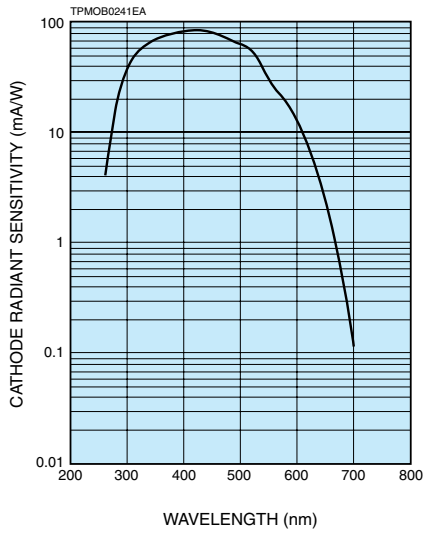


Figure 2: Typical gain

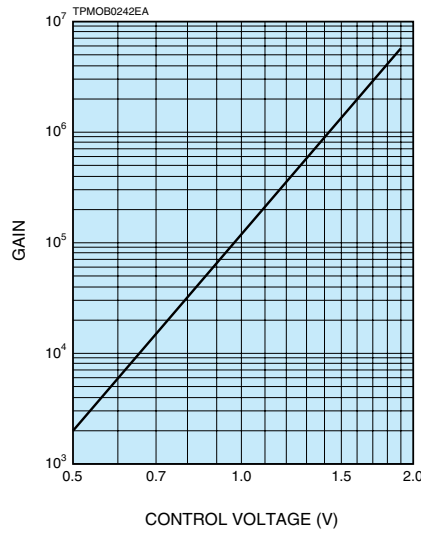


Figure 3: Ripple noise

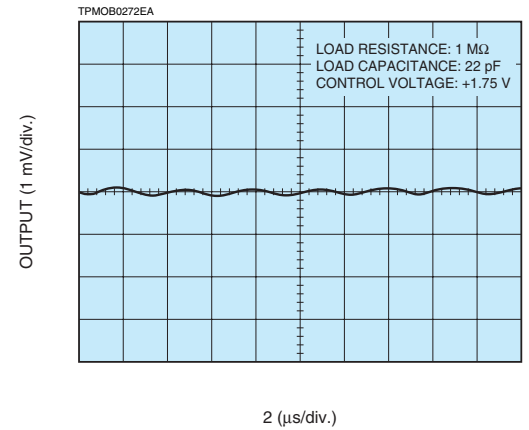
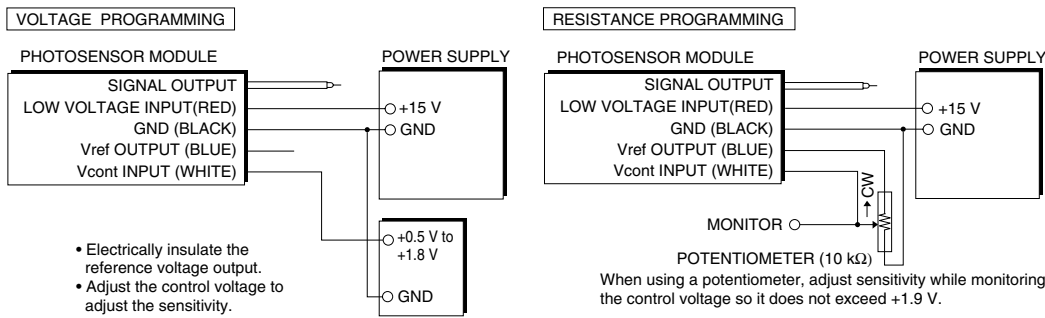
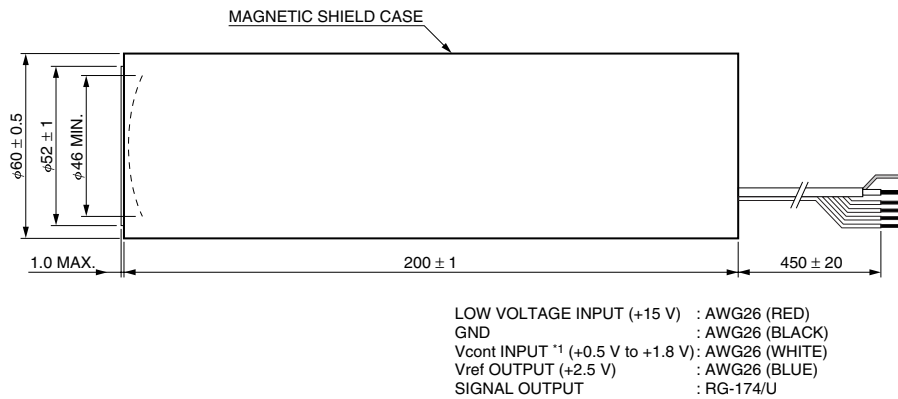


Figure 4: Sensitivity adjustment method



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Figure 5: Dimensional outline (Unit: mm)



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