

Head-on PMT

Photosensor Modules H10426 Series



The H10426 series is a photosensor module containing a 28-mm (1-1/8") diameter head-on photomultiplier tube and a high-voltage power supply. It has a photosensitive area as large as 25 mm in diameter.

Two products, one with a bialkali photocathode and one with a multialkali photocathode, are provided.

Product Variations

Type No.	Spectral Response	Features
H10426	300 nm to 650 nm	For visible range
H10426-01	185 nm to 850 nm	for UV t near IR range

This product can't be used at vacuum environment or reduced pressure environment. Please pay attention when the H10426-01 is used for measuring the light below 190 nm.

Specifications

(at +25 °C)

Parameter		H10426	H10426-01	Unit	
Input Voltage		+11.5 to +15.5		V	
Max. Input Voltage		+18		V	
Max. Input Current *1		3.0		mA	
Max. Output Signal Current		100		μA	
Max. Control Voltage		+1.5 (Input impedance 1 MΩ)		V	
Recommended Control Voltage Adjustment Range *2		+0.5 to +1.4		V	
Effective Area		φ25		mm	
Peak Sensitivity Wavelength		420		nm	
Cathode	Luminous Sensitivity	Min.	60	80	μA/lm
		Typ.	95		
	Blue Sensitivity Index (CS 5-58)	Typ.	11	—	—
	Red / White Ratio	Typ.	—	0.2	—
Radiant Sensitivity *3		Typ.	88	64	mA/W
Anode	Luminous Sensitivity *4	Min.	50	20	A/lm
		Typ.	200	80	
	Radiant Sensitivity *3 *4	Typ.	1.8 × 10 ⁵	3.4 × 10 ⁴	A/W
	Dark Current *1 *5	Typ.	2	3	nA
Max.		10	15		
Rise Time *4		4	15	ns	
Ripple Noise *4 *6 (peak to peak)		0.5		mV	
Settling Time *7		Max. 10		s	
Operating Ambient Temperature *8		+5 to +50		°C	
Storage Temperature *8		-20 to +50		°C	
Weight		270		g	

*1: At +15 V input voltage, +1.0 V control voltage, and output current equal to dark current.

*2: DAC (I²C interface) can be installed in the module. Please specify when ordering.

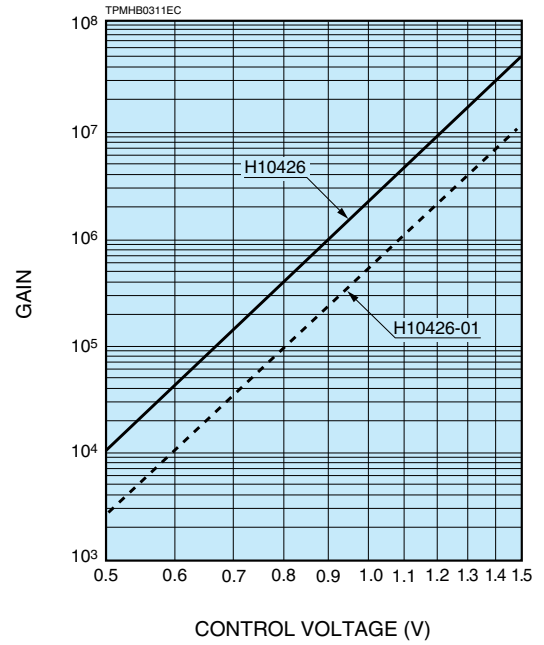
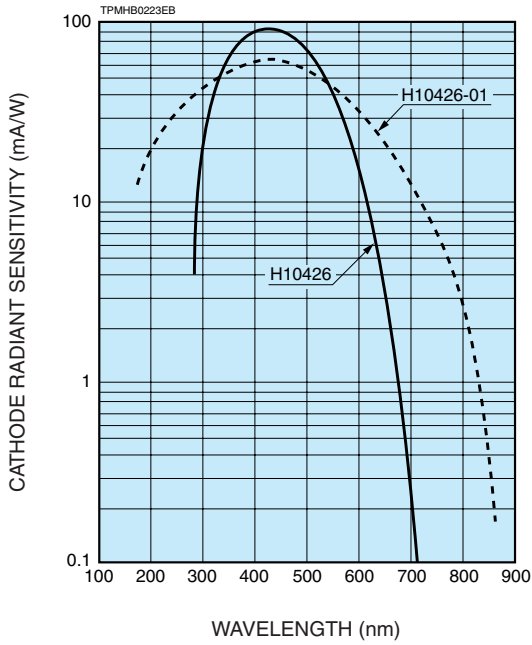
*3: Measured at the peak sensitivity wavelength *4: Control voltage = +1.0 V *5: After 30 minutes storage in darkness

*6: Cable RG-174/U, Cable length 450 mm, load resistance = 1 MΩ, load capacitance = 22 pF

*7: 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.

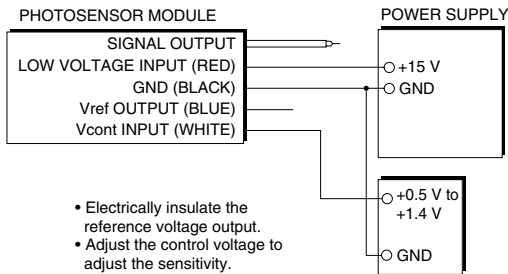
*8: No condensation

Characteristics (Cathode radiant sensitivity, Gain)

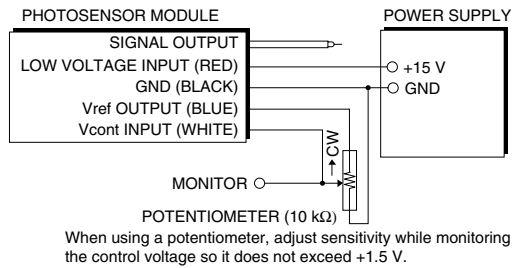


Sensitivity Adjustment Method

VOLTAGE PROGRAMMING

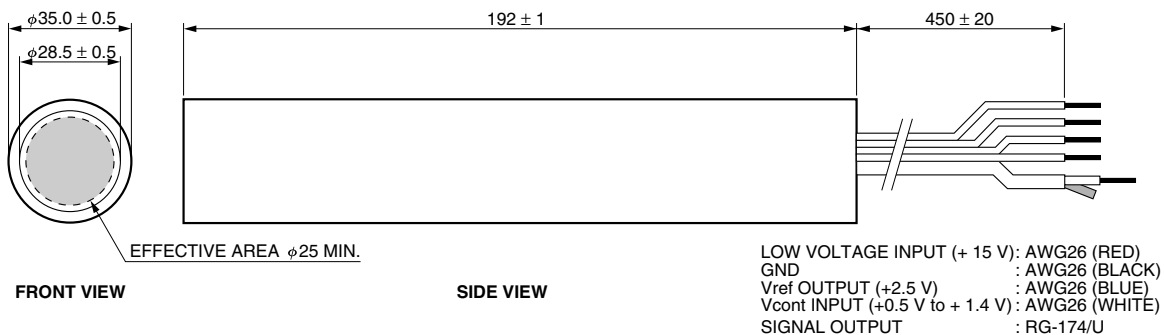


RESISTANCE PROGRAMMING



TPMOC0208EA

Dimensional Outlines (Unit: mm)



TPMOA0047EA