# **PRELIMINARY**

# H7422 MOD/H7422P MOD Specifications

## MOD:W/O COOLER, With PROTECTION CIRCUIT 50uA

## **Maximum Ratings**

Parameter	<b>-40/-50</b> <sup>*1</sup>	Unit
Main unit input voltage	+18	V dc
Operating temperature	+5 to +25	Cel
Storage temperature	-20 to +50	Cel
Output Current	2	μA
Control Voltage (Vcontrol)	+0.9(Input impedance for Vcont. is 100 k $\Omega$ )	V

 $<sup>^{*1}</sup>$  with protection circuit / limit 50 uA

### **Specifications General**

(Ta = 25 Cel)

Parameter	-40	-50	Unit
Spectral response (A)	300 to 720	380 to 890	nm
High voltage power supply and Voltage Regulator Supply voltage range	+11.5 to +15.5		V dc
High voltage power supply and Voltage Regulator Supply Current Requirement (Maximum)	6	mA	
Supply Adjustable Range (Relative Sensitivity)	1:50		-
Setting Time(Sensitivity Control)*1	0.2		S
Effective Area (dia.)	5		mm
Weight (Approx.)	110		g

<sup>\*1)</sup> Stabilized time in the control voltage adjustment from +1.0 V to +0.5 V.

#### **Series Characteristics**

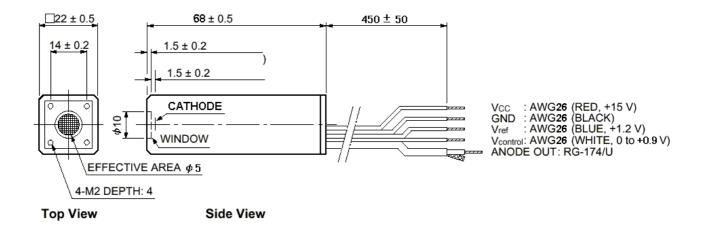
(Ta = 25 Cel)

Parameter		-40	-50	Unit	
H7422 MOD	Radiant Sensitivity	at 420 nm	54	7.5	Typical × 10 <sup>-6</sup> A/nW
		at 550 nm	88	25	
		at 800 nm	•	45	
	Dark Current <sup>(A) (B)</sup>	Typical	3.35	4.1	nA
		Maximum	9.35	11.6	
H7422P MOD	Radiant Sensitivity	at 420 nm	108	15	Typical × 10 <sup>-6</sup> A/nW
		at 550 nm	176	50	
		at 800 nm	•	90	
	Dark Count <sup>(B) (C)</sup>	Typical	6000	7500	1/s
		Maximum	18000	22500	
Induced Ripple in Signal		0.6		Maximum mV p-p	
Anode Pulse Rise Time <sup>(A)</sup>		1.00		ns	
Recommended Control Voltage Range Vcontrol		+0.50 to +0.80		V	

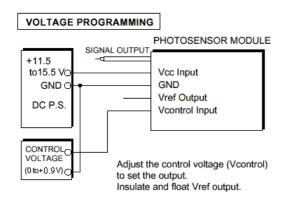
- (A) Control Voltage: +0.8 V; Temperature control at 25 Cel.
- (A) Control Voltage: 40.6 V; Temperature control at 25 Cel.
  (B) After 30 min storage in darkness.
  (C) Control Voltage: Plateau; Temperature control at 25 Cel.
  (D) Measured across 1 MOhm / 22 pF load

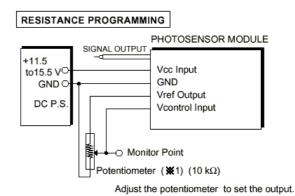
#### **Dimensions**

Unit: mm



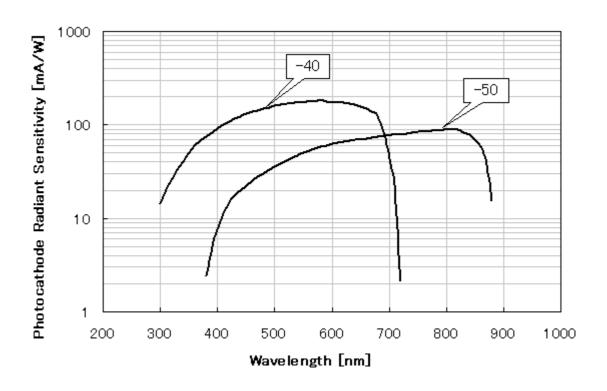
## Wiring Examples For Sensitivity Adjustment



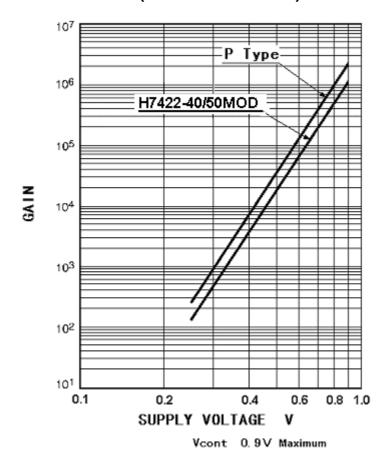


★1 It is recommended to monitor the control voltage with a multimeter and adjust the voltage within maximum +0.9 V.

# Typical Spectral Photocatode Radiant Sensitivity (H7422/H7422P MOD)

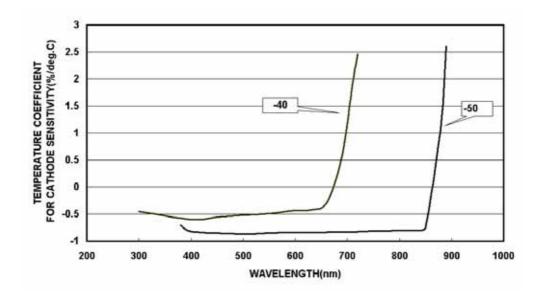


# Typical Gain Characteristics (H7422/H7422P MOD)



Temperature control at 10 Cel

## **Temperature Coefficient**



For further information, contact our sales office in your country.

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Characteristics and specifications are subject to change without prior notice.

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