# PRELIMINARY

# H10770(P)A-40/-50 Specifications

#### **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

\*1 with protection circuit / limit 50 uA

### **Specifications General**

(Ta = 25 Cel) -40 Parameter -50 Unit 300 380 Spectral response nm to 720 to 890 High voltage power supply and Voltage +11.5 to +15.5 V dc Regulator Supply voltage range High voltage power supply and Voltage Regulator Supply Current Requirement 62 mΑ (Maximum) Supply Adjustable Range 1:50 -(Relative Sensitivity) Setting Time(Sensitivity Control)<sup>\*1</sup> 0.2 s Effective Area (dia.) 5 mm Weight (Approx.) 110 g

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

#### **Series Characteristics**

(Ta = 25 Cel )

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	Parameter		-40	-50	Unit
H10770A	Radiant Sensitivity	at 420 nm	54	7.5	Typical
		at 550 nm	88	25	$\times 10^{-6}$ A/nW
		at 800 nm	-	45	X TO AVITV
	Dark Current <sup>(A) (B)</sup>	Typical	3.3	4.1	<b>n</b> A
		Maximum	9.3	11.6	nA nA
H10770PA	Radiant Sensitivity	at 420 nm	108	15	Typical
		at 550 nm	176	50	$\times 10^{-6} \text{ A/nW}$
		at 800 nm	-	90	X IU AVIIW
	Dark Count <sup>(B) (C)</sup>	Typical	6000	7500	1/s
		Maximum	18000	22500	1/5
Induced Ripple in Signal <sup>(D)</sup>		0.6		Maximum mV p-p	
Anode Pulse Rise Time <sup>(A)</sup>		1.00		ns	
Recommended Control Voltage Range		+0.50 to +0.80		V	

Control Voltage : +0.8 V ; Temperature control at 25 Cel. (A)

After 30 min storage in darkness. (B)

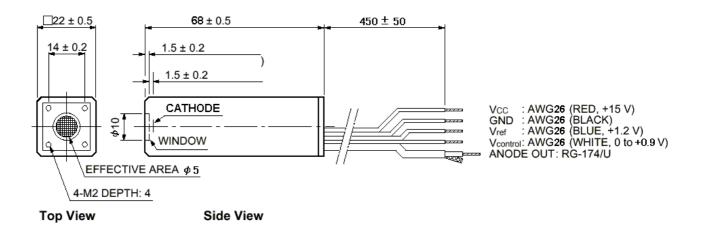
(C) Control Voltage : Plateau ; Temperature control at 25 Cel.

(D) Measured across 1 MOhm / 22 pF load

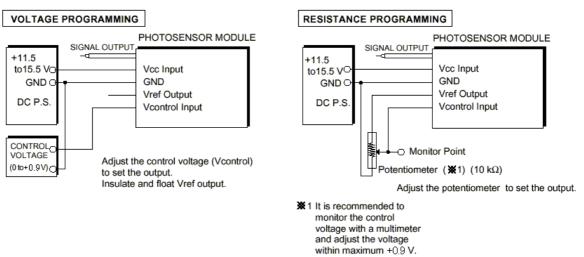


#### **Dimensions**

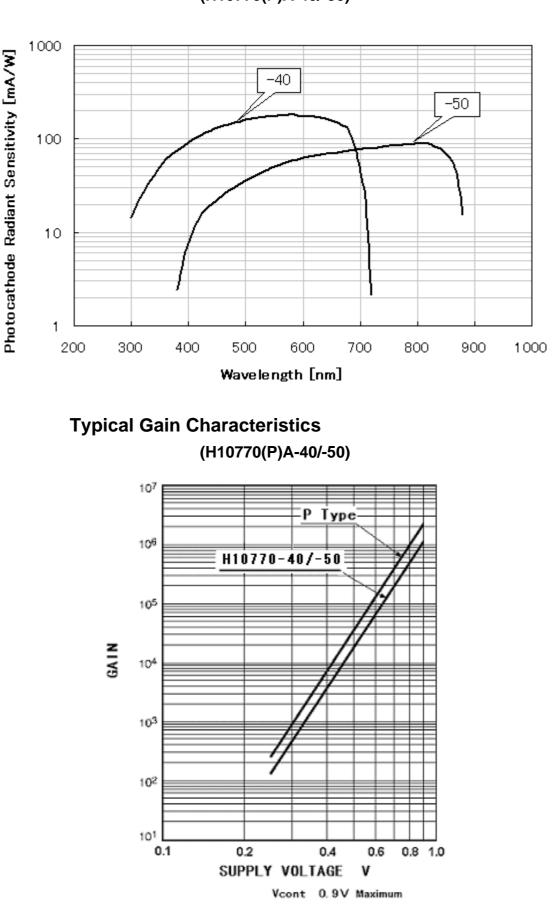
#### Unit : mm



## Wiring Examples For Sensitivity Adjustment





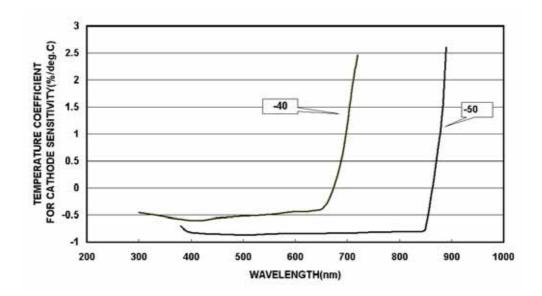


### Typical Spectral Photocatode Radiant Sensitivity (H10770(P)A-40/-50)

Temperature control at 10 Cel

HAMAMATSU

#### **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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