

FEATURES

- High quantum efficiency: GaAsP/GaAs photocathode
- Compact
- For photoncounting (P type)



▲Left: H16200 Series, Right: H16201 Series

SPECIFICATIONS

GENERAL

at 25 °C

Parameter		-40	P-40	-50	P-50	Unit		
Input voltage		+11.5 to +15.5				V		
Max. input voltage		+18				V		
Max. input current ^①		12				mA		
Max. output signal current		40				μA		
Max. control voltage		+0.9 (Input impedance 30 kΩ)				V		
Recommended control voltage adjustment range		+0.5 to +0.8				V		
Effective area		φ5				mm		
Spectral response		300 to 740		380 to 900		nm		
Peak quantum efficiency wavelength		520		630		nm		
Cathode	Quantum efficiency	at peak quantum efficiency wavelength	Min.	40	14	%		
			Typ.	45	19			
	at 800 nm	Min.	—	11				
		Typ.	—	15				
Radiant sensitivity	at peak quantum efficiency wavelength	Min.	168	70	mA/W			
		Typ.	189	95				
	at 800 nm	Min.	—	71				
		Typ.	—	97				
Anode	Radiant sensitivity ^②	at peak quantum efficiency wavelength	Min.	1.0 × 10 ⁵	1.7 × 10 ⁵	4.2 × 10 ⁴	7.0 × 10 ⁴	A/W
			Typ.	1.9 × 10 ⁵	3.8 × 10 ⁵	9.5 × 10 ⁴	1.9 × 10 ⁵	
		at 800 nm	Min.	—	4.3 × 10 ⁴	7.1 × 10 ⁴		
			Typ.	—	9.7 × 10 ⁴	1.9 × 10 ⁵		
	Dark current ^{②③}	Min.	3	—	4	—	nA	
		Typ.	10	—	12	—		
	Dark count ^{②③}	Min.	—	6000	—	7500	s ⁻¹	
		Typ.	—	18 000	—	22 500		
Gain ^②	Min.	6.0 × 10 ⁵	1.0 × 10 ⁶	6.0 × 10 ⁵	1.0 × 10 ⁶	—		
	Typ.	1.0 × 10 ⁶	2.0 × 10 ⁶	1.0 × 10 ⁶	2.0 × 10 ⁶			
Rise time ^②		Typ.				1.0	ns	
Ripple noise ^{②④} (peak to peak)		Max.				0.6	mV	
Setting time ^⑤		Typ.				0.2	s	
Operating ambient temperature ^⑥						+5 to +35	°C	
Storage temperature ^⑥						-20 to +50	°C	
Weight						H16200: 76 / H16201: 100	g	

NOTE: ① At +15 V input voltage and +0.8 V control voltage in darkness ② Control voltage = +0.8 V
 ③ After 30 minutes storage in darkness ④ Load resistance = 1 MΩ, Load capacitance = 22 pF
 ⑤ The time required for the output to reach a stable level following a change in the control voltage from +0.9 V to +0.5 V.
 ⑥ No condensation

PHOTOSENSOR MODULE H16200/H16201 SERIES

Figure 1: Typical spectral response

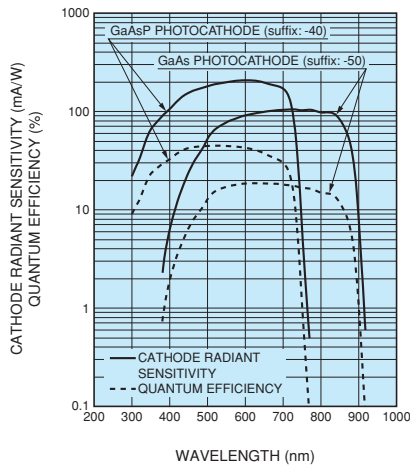


Figure 2: Typical gain

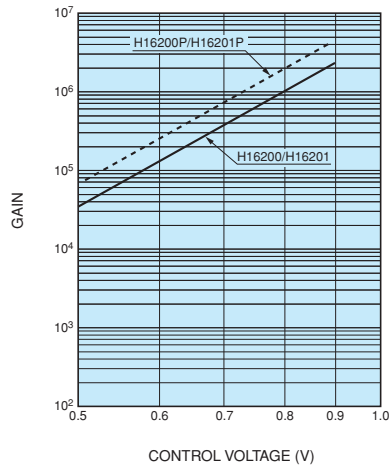


Figure 3: Sensitivity adjustment method

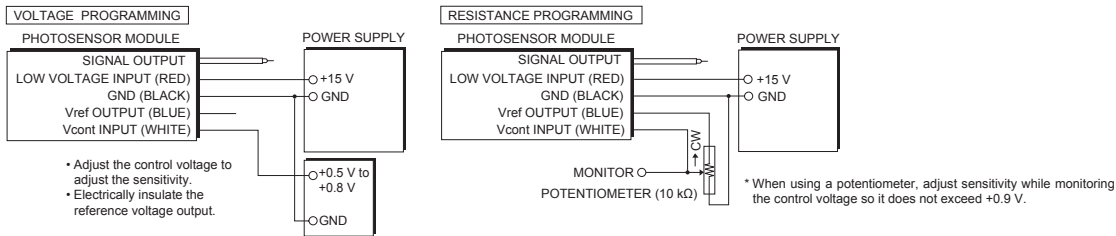
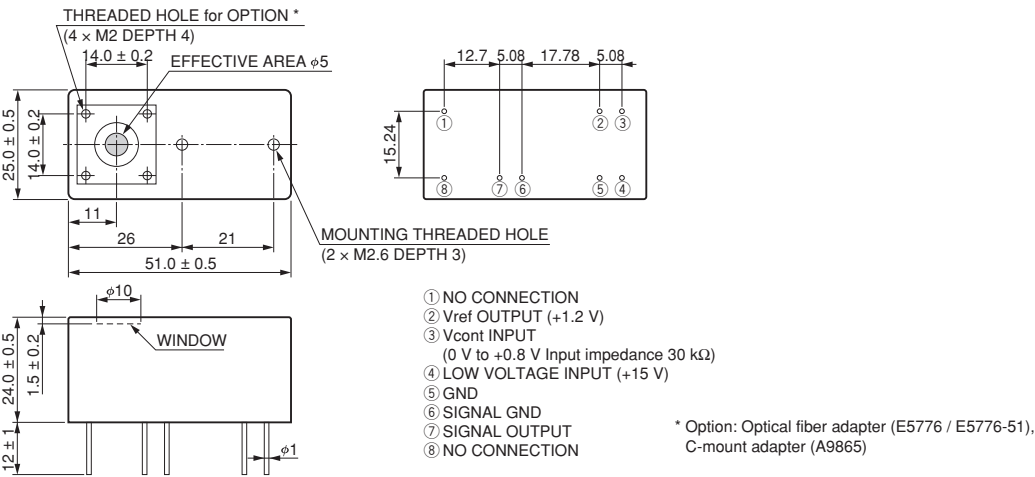
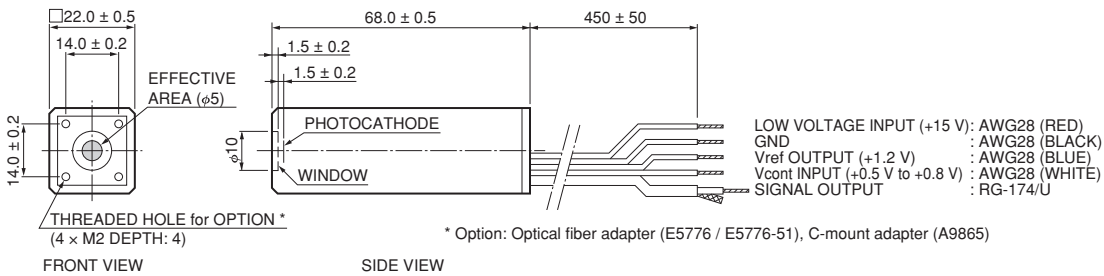


Figure 4: Dimensional outline (Unit: mm)

● H16200 Series



● H16201 Series



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