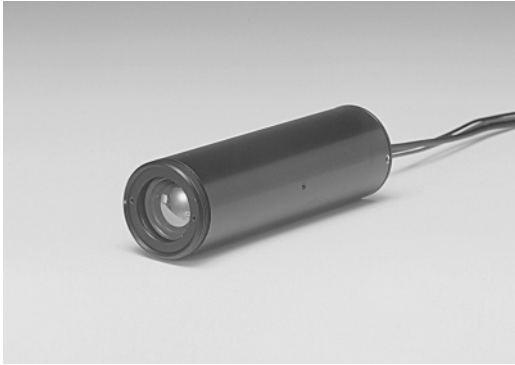


Head-on PMT

Photon Counting Head H7360 Series



The H7360 series is a wide sensitive area photon counting head device containing a 25-mm (1") head-on photomultiplier tube, high-voltage power supply circuit and photon counting circuit. Since those circuits are designed for wide band, the H7360 series can operate at a high count rate. The high voltage supply for photomultiplier tube and the discriminator level are preset to optimum values so that photon counting can be performed just by connecting a +5 V supply and a pulse counter.

The H7360-01 is of low noise, the H7360-02 has enhanced detection efficiency in the visible range, and the H7360-03 covers sensitivity from the visible to near infrared.

A mount flange (E6264) is provided as an option for easy installation to measurement equipment.

Product Variations

Type No.	Spectral Response	Features
H7360-01	300 nm to 650 nm	Low noise
H7360-02		High detection efficiency
H7360-03	300 nm to 850 nm	For visible to near IR range

Specifications

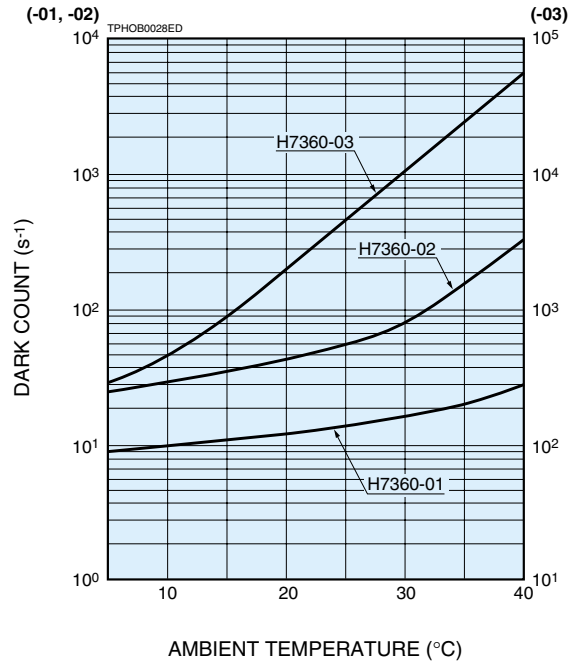
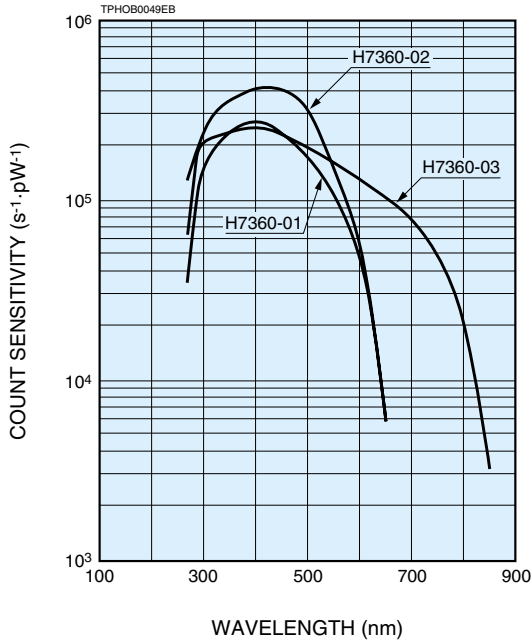
Parameter		H7360 Series			Unit	
Suffix		-01	-02	-03		
Input Voltage		+4.75 to +5.25			V	
Max. Input Voltage		+6			V	
Max. Input Current		140			mA	
Effective Area		φ22			mm	
Peak Sensitivity Wavelength		375	420	420	nm	
Count Sensitivity	Typ.	300 nm	1.4×10^5	2.3×10^5	2.1×10^5	$s^{-1} \cdot pW^{-1}$
		400 nm	2.7×10^5	4.1×10^5	2.5×10^5	
		500 nm	1.7×10^5	3.4×10^5	2.0×10^5	
		600 nm	4.6×10^4	5.7×10^4	1.3×10^5	
		700 nm	—	—	7.8×10^4	
Count Linearity *1		6.0×10^6			s^{-1}	
Dark Count *2	Typ.	15	60	5000	s^{-1}	
	Max.	80	300	15000		
Pulse-pair Resolution		18			ns	
Output Pulse Width		9			ns	
Output Pulse Height *3		Typ. 3			V	
Recommended Load Resistance		50			Ω	
Signal Output Logic		Positive logic			—	
Operating Ambient Temperature		+5 to +40			°C	
Storage Temperature		-20 to +50			°C	
Weight	Main Body	140			g	
	Mount Flange	25				

*1: Random pulse, at 10 % count loss

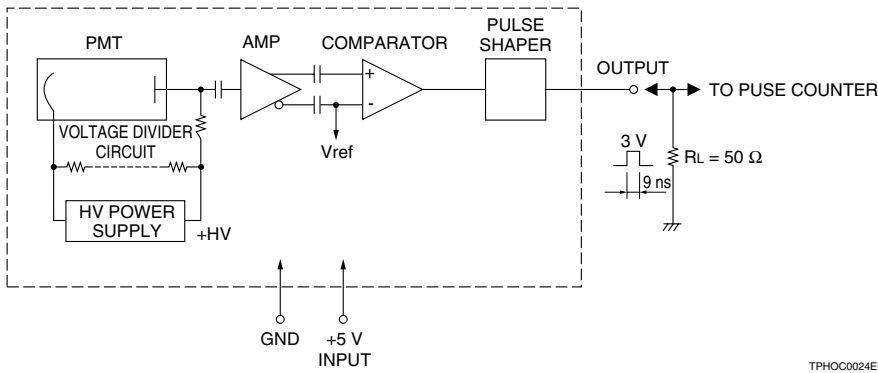
*2: After 30 minute storage in darkness

*3: With input voltage +5 V, Load resistance 50 Ω and Coaxial cable RG-174/U (450 mm)

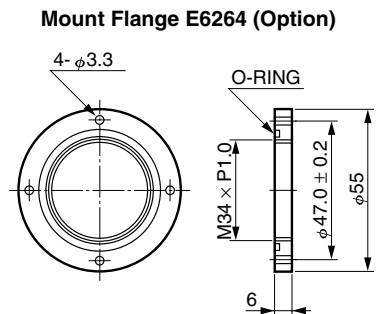
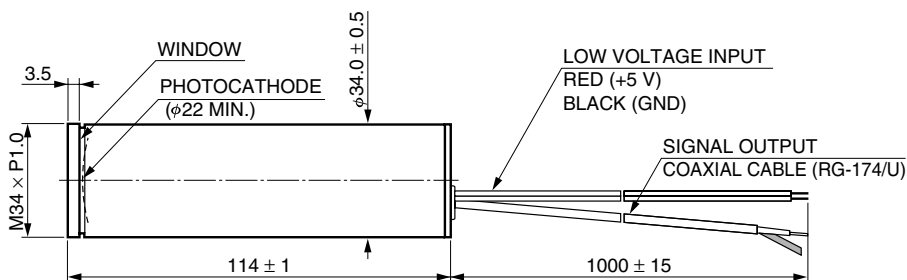
Characteristics (Count sensitivity, Dark count)



Block Diagram



Dimensional Outlines (Unit: mm)



TPHOA0024EB