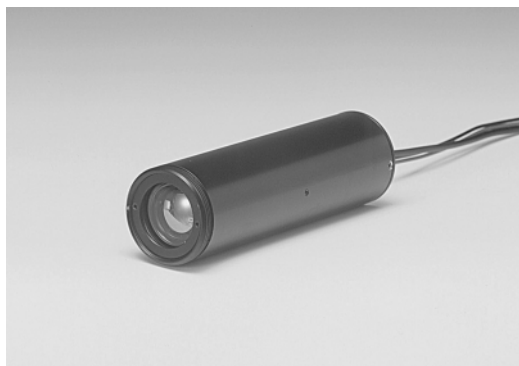


Head-on PMT

Photon Counting Head H7360 Series



The H7360 series is a wide sensitive area photon counting head device containing a 25-mm (1") diameter head-on photomultiplier tube, a high-voltage power supply circuit and a 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

This product can't be used at vacuum environment or reduced pressure environment.

Specifications

(at +25 °C)

Parameter			H7360-01	H7360-02	H7360-03	Unit
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 ·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 *4			+5 to +40			°C
Storage Temperature *4			-20 to +50			°C
Weight		Main Body	140			g
		Mount Flange	25			

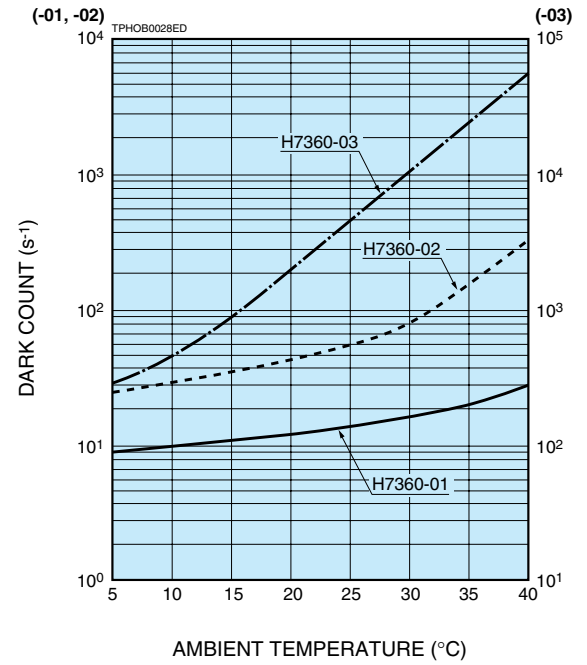
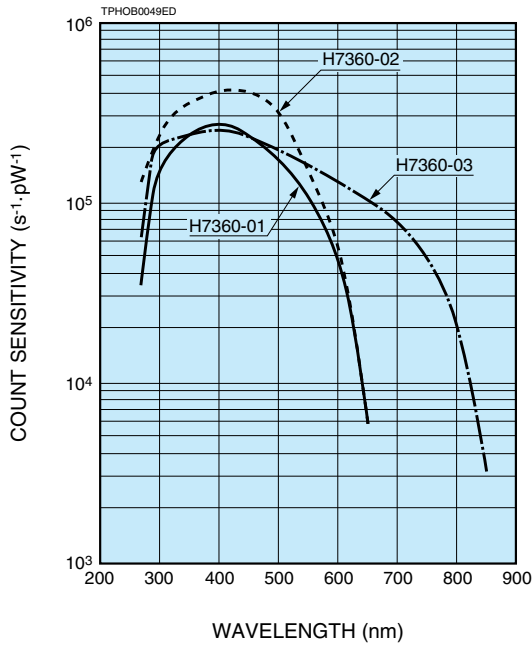
*1: Random pulse, at 10 % count loss

*2: After 30 minutes storage in darkness

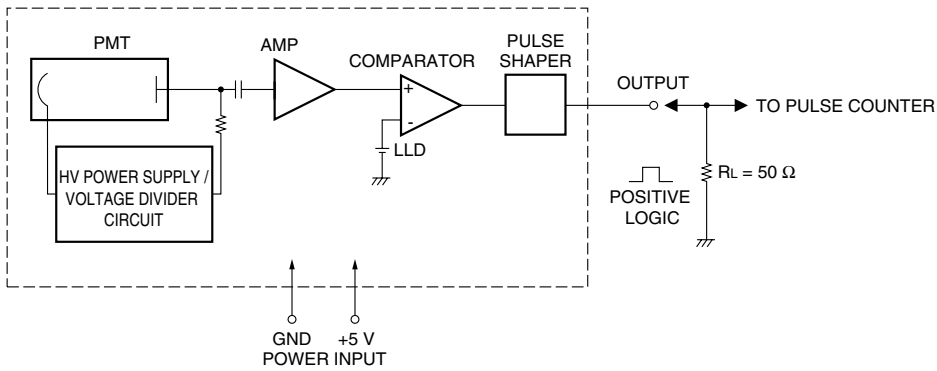
*3: With input voltage +5 V, Load resistance 50 Ω

*4: No condensation

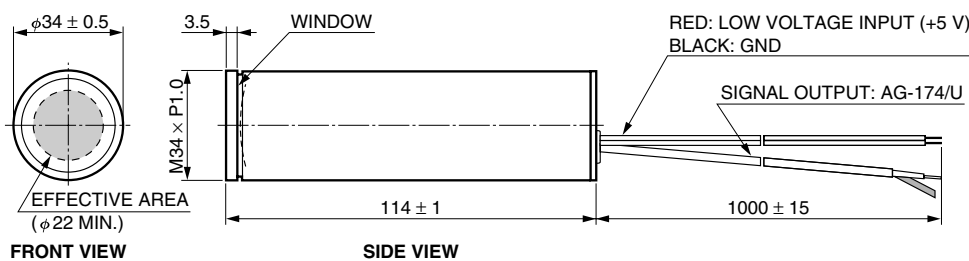
Characteristics (Count sensitivity, Dark count)



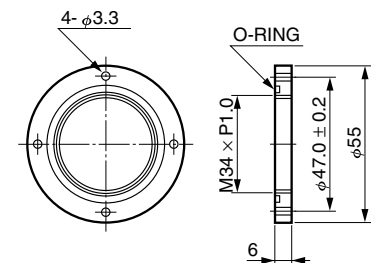
Block Diagram



Dimensional Outlines (Unit: mm)



MOUNT FLANGE E6264 (Sold Separately)



TPHQA0024EE