

No Adjustments Required, High Voltage Power Supply and 1/10 Prescaler Incorporated

Model H5920-01 is a compact photon counting head comprising a PMT, 1/10 prescaled photon counting circuit, and high voltage power supply. Its operation only requires connecting a ± 5 Vdc power supply and a pulse counter; no need for discrimination level or high voltage adjustment by the user.

FEATURES

- No Adjustments Required
- High Voltage Power Supply Incorporated
- 1/10 Prescaler Incorporated
- Requires Only ± 5 Vdc Sources
- Compact and Lightweight

APPLICATIONS

- Chemiluminescence Detection
- Bioluminescence Detection
- Other Low Level Light Detection

SPECIFICATIONS

● MAXIMUM RATINGS

| Parameter | Value | Unit |
|-----------------------|------------|--------------|
| Supply Voltages | ± 6 | Vdc |
| Count Rate | 30* | Mcps |
| Operating Temperature | 0 to +40 | $^{\circ}$ C |
| Operating Humidity | 80 | %RH Max. |
| Storage Temperature | -20 to +60 | $^{\circ}$ C |
| Storage Humidity | 90 | %RH Max. |

● GENERAL SPECIFICATIONS(at 25 $^{\circ}$ C)

| Parameter | Value | Unit | |
|-----------------------------------|----------------------|--------------|---------|
| Photosensitive Area | 15 | mm dia. Min. | |
| Sensitive Wavelength Range | 300 to 650 | nm | |
| Response (at 400nm) | 3.2×10^5 * | cps/pW | |
| Counting Linearity ^(A) | 10* | Mcps | |
| Dark Count | 10* | cps | |
| Pulse Pair Resolution | 5.3 | ns | |
| Output Voltage Into 50 | 3.3 | V | |
| Output Pulse Width | 25 | ns | |
| Input Voltages | +5/ -5 ($\pm 5\%$) | Vdc | |
| Input Currents at 10Mcps* Output | +5 Vdc | 125 | mA Max. |
| | -5 Vdc | 50 | |
| Weight | H5920-01 | 135 | g |
| | Mounting Flange | 25 | |

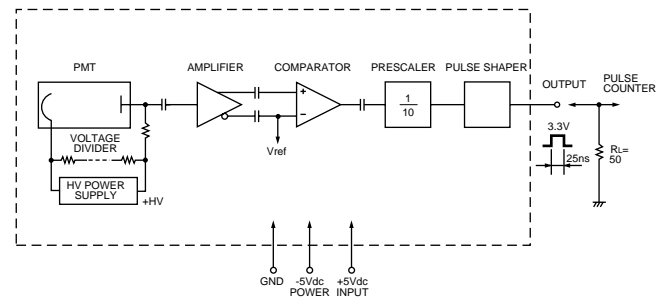
(A) at -10% deviation from linear output.

NOTE : The count data of H5920-01 (marked*) are not prescaled.
The actual counts are 1/10 of those indicated in this data sheet.



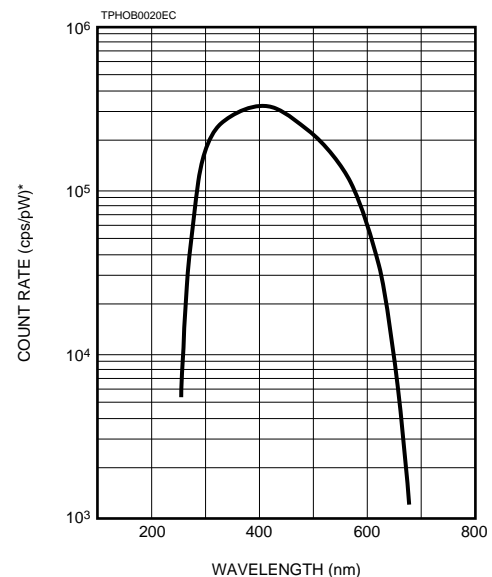
▲ H5920-01 with Optional Mounting Flange E6264

Figure 1 : Internal Diagram



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Figure 2 : Spectral Counting Characteristic



INTEGRATED PHOTON COUNTING HEAD with 1/10 PRESCALER H5920-01

Figure 3 : Linearity (Dynamic Range)

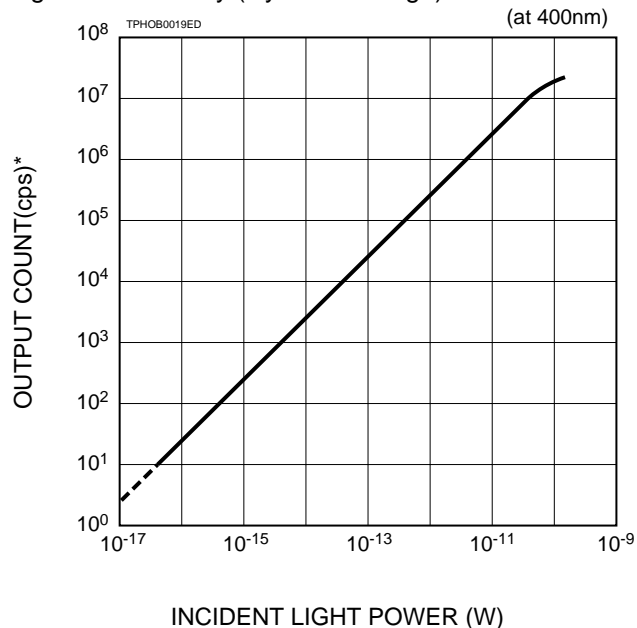


Figure 4 : Typical Dark Count vs. Temperature

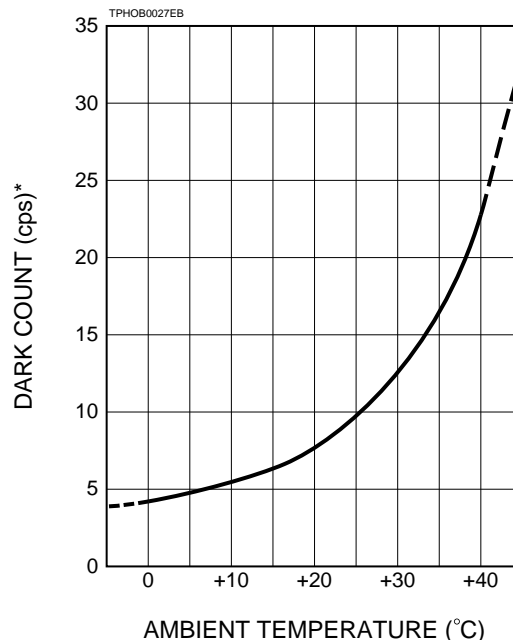
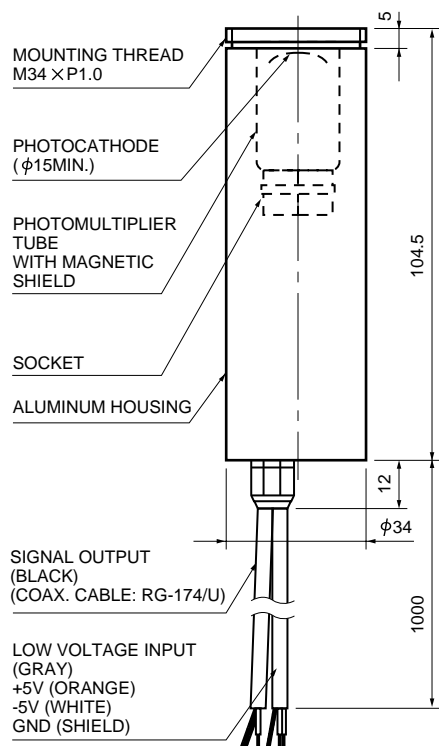
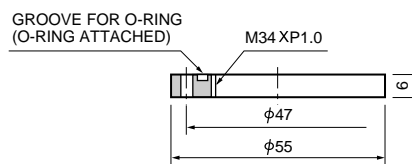
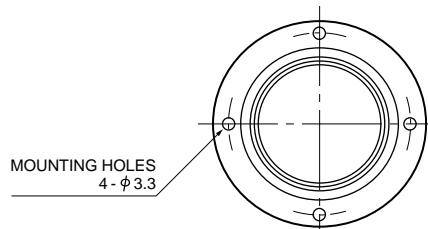


Figure 5 : Dimensional Outline (Unit : mm)



OPTIONAL MOUNTING FLANGE E6264



Material : Aluminum

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TPHOA0012EA

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