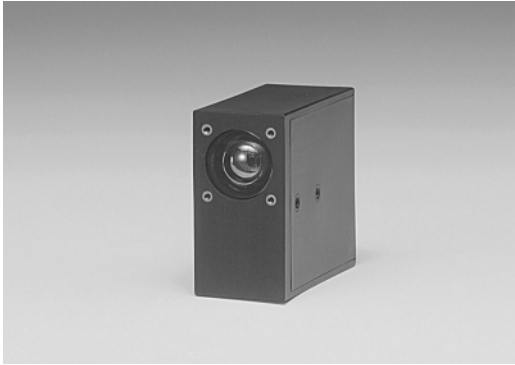


Compact Head-on PMT

Photosensor Modules H7826 Series



The H7826 series photosensor modules consist of a 19-mm (3/4") diameter head-on photomultiplier tube and a high-voltage power supply circuit. The length of the photomultiplier tube used here is short compared to other photomultiplier tubes of the same diameter, making it compact even though it has a large light input diameter of 15 mm. The H7826 also has excellent resistance to vibration and shock compared to other photomultiplier tubes, making it ideal for use in portable equipment.

Product Variations

| Type No. | Spectral Response | Features |
|-----------|-------------------|--|
| H7826 | 300 nm to 650 nm | For general applications in visible range |
| H7826P | | For photon counting |
| H7826-01 | 300 nm to 850 nm | For general applications in visible to near IR range |
| H7826P-01 | | For photon counting |

Specifications

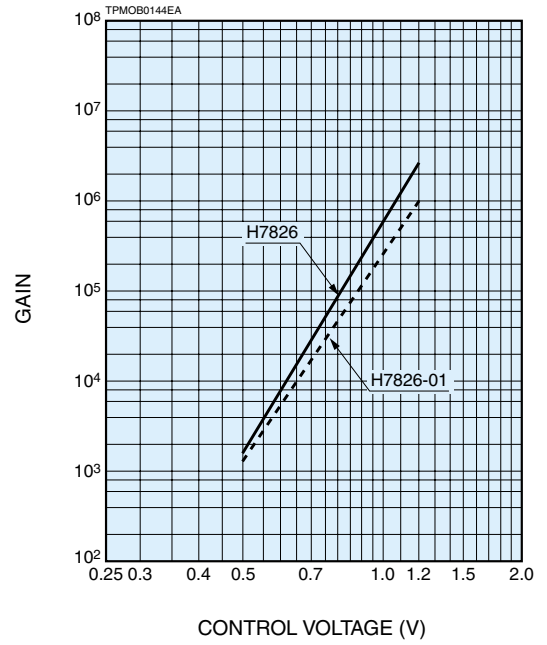
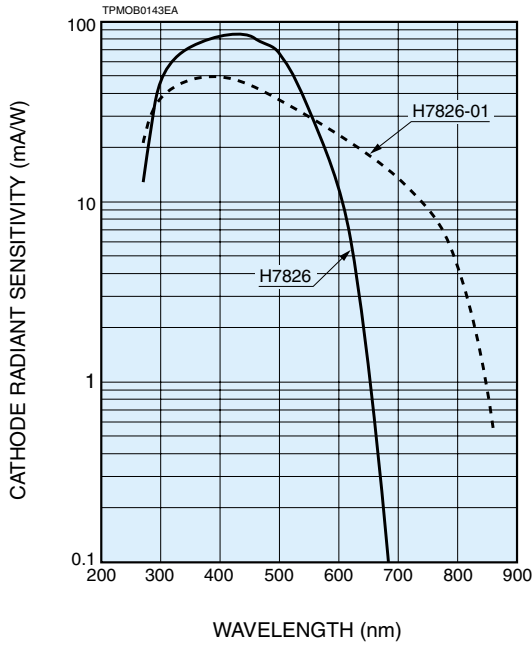
| Parameter | | H7826 | H7826-01 | H7826P | H7826P-01 | Unit | |
|--|----------------------------------|-------------------------------|-----------------------|-----------------------|-----------------------|---------------------|------|
| Input Voltage | | +11.5 to +15.5 | | | | V | |
| Max. Input Voltage | | +18 | | | | V | |
| Max. Input Current | | 35 | | | | mA | |
| Max. Output Signal Current | | 100 | | | | μA | |
| Max. Control Voltage | | +1.2 (Input impedance 100 kΩ) | | | | V | |
| Recommended Control Voltage Adjustment Range | | +0.5 to +1.1 | | | | V | |
| Effective Area | | φ15 | | | | mm | |
| Sensitivity Adjustment Range | | 1: 10 ³ | | | | — | |
| Peak Sensitivity Wavelength | | 420 | 380 | 420 | 380 | nm | |
| Cathode | Luminous Sensitivity | Min. | 60 | 80 | 60 | μA/lm | |
| | | Typ. | 90 | 120 | 90 | | |
| | Blue Sensitivity Index (CS 5-58) | 10.5 | — | 10.5 | — | — | |
| | Red/White Ratio | — | 0.2 | — | 0.2 | — | |
| Radiant Sensitivity *1 | | 85 | 49 | 85 | 49 | mA/W | |
| Anode | Luminous Sensitivity *2 | Min. | 10 | | — | | A/lm |
| | | Typ. | 50 | 30 | — | | |
| | Radiant Sensitivity *1 *2 | | 4.7 × 10 ⁴ | 1.3 × 10 ⁴ | — | | A/W |
| | Dark Current *2 *3 | Typ. | 3 | | 3 | | nA |
| | | Max. | 20 | | 20 | | |
| | Gain *2 | Min. | — | | 1.8 × 10 ⁶ | 1 × 10 ⁶ | — |
| Dark Count *3 | Typ. | — | | 200 | 2000 | s ⁻¹ | |
| | Max. | — | | 500 | 3500 | | |
| Rise Time *2 | | 1.5 | | | | ns | |
| Ripple Noise *2 *4 (peak to peak) Max. | | 1 | | | | mV | |
| Settling Time *5 | | 0.2 | | | | s | |
| Operating Ambient Temperature | | +5 to +45 | | | | °C | |
| Storage Temperature | | -20 to +50 | | | | °C | |
| Weight | | 70 | | | | g | |

*1: Measured at the peak sensitivity wavelength *2: Control voltage = +1.0 V *3: After 30 minute storage in darkness

*4: Cable RG-174/U, Cable length 450 mm, load resistance = 1 MΩ, load capacitance = 22 pF

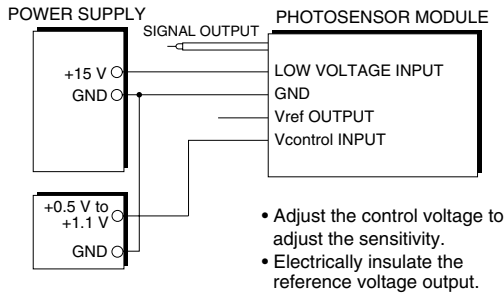
*5: The time required for the output to reach a stable level following a change in the control voltage from +1.0 V to +0.5 V.

Characteristics (Cathode radiant sensitivity, Gain)

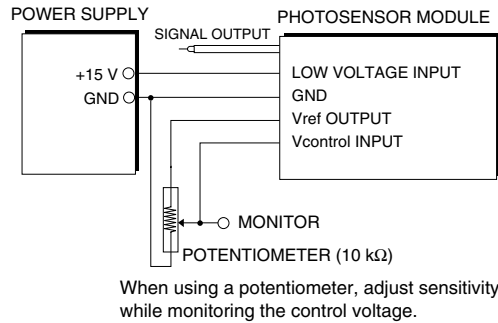


Sensitivity Adjustment Method

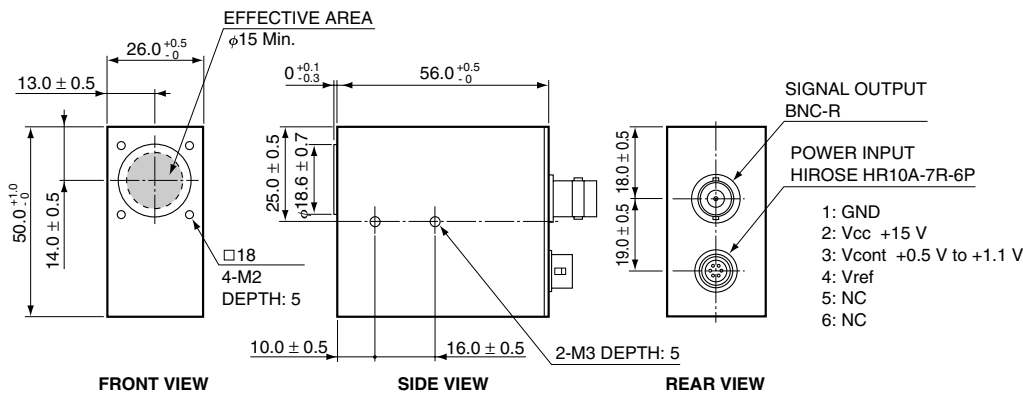
Voltage Programming



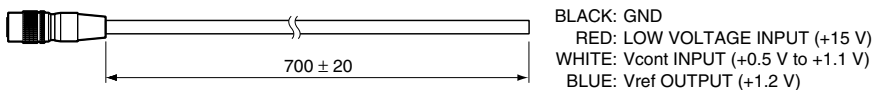
Resistance Programming



Dimensional Outlines (Unit: mm)



Power cable with connector (HIROSE HR10A-7P-6S) is supplied with the H7826 series



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