

Infrared Detectors with Built-in Preamplifiers (Non-cooled Types, TE-cooled Types)

Integral detector/Preamplifier combination assures easy handling and reliable operation

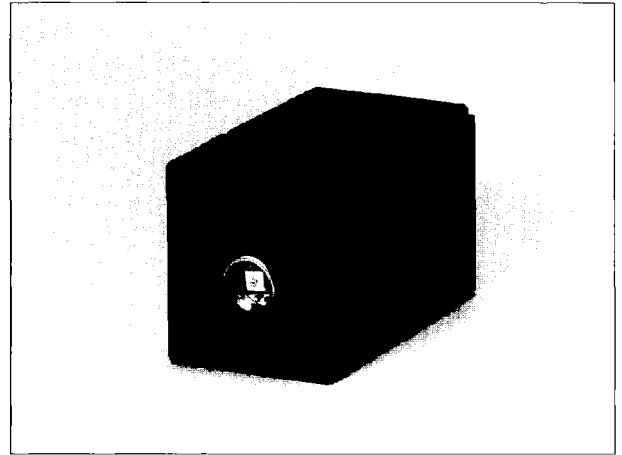
These devices integrate an infrared detector with the matched preamplifier into a compact case. By simply connecting to a DC power supply, they are easily operable and detect infrared radiation. Both noncooled types and TE-cooled types are provided for each of the InGaAs, Ge, PbS and PbSe detectors. (MCT detector is available only in TE-cooled type.) We also manufacture custom devices according to your specific requirements.

● SPECIFICATIONS (Common)

| | |
|-----------------------|---------------|
| Operating Temperature | -0 to +40 °C |
| Storage Temperature | -20 to +50 °C |

● ACCESSORIES (Optional)

- Power supply for noncooled types (±15 V) : C3871
- Power supply for TE-cooled types (±15 V, +2.5 V) : C3871-03



● ACCESSORIES (Supplied)

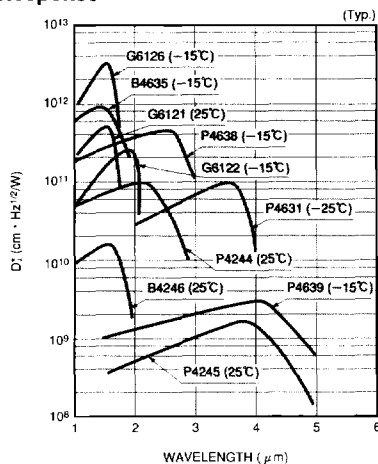
- DC power supply cable
- 4-conductor cable for noncooled types : 2 m (connector installed at one end)
- 6-conductor cable for TE-cooled types : 2 m (connector installed at both sides)

Instruction manual

(Typical data)

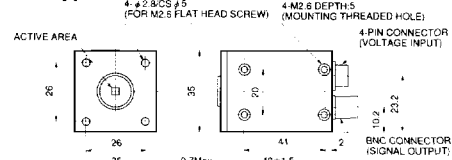
| Type No. | Detector Element | Active Area (mm) | Element Temperature (°C) | Peak Wavelength (μm) | Cutoff Wavelength (μm) | Photo Sensitivity S at λp (V/W) | NEP (W/Hz ^{1/2}) | Frequency Response (Hz) | Output Impedance (Ω) | Input Voltage (V) | Maximum Current Consumption (mA) | Maximum Output Voltage RL=1 kΩ (V) |
|-------------------------|------------------|------------------|--------------------------|----------------------|------------------------|---------------------------------|----------------------------|-------------------------|----------------------|-------------------|----------------------------------|------------------------------------|
| Non-cooled Types | | | | | | | | | | | | |
| G6121 | InGaAs | φ5 | 25 | 1.55 | 1.7 | 1×10 ⁶ | 5×10 ⁻¹³ | 0 to 8000 | 50 | ±15 | ±15 | +10 |
| B4246 | Ge | φ5 | 25 | 1.55 | 1.9 | 4×10 ⁵ | 3×10 ⁻¹¹ | 0 to 10000 | 50 | ±15 | ±15 | +10 |
| P4244 | PbS | 4×5 | 25 | 2.2 | 2.9 | 3×10 ⁶ | 4×10 ⁻¹² | 0.2 to 1000 | 50 | ±15 | ±15 | ±10 |
| P4245 | PbSe | 3×3 | 25 | 3.8 | 4.8 | 5×10 ⁴ | 2×10 ⁻¹⁰ | 0.2 to 10000 | 50 | ±15 | ±15 | ±10 |
| TE-cooled Types | | | | | | | | | | | | |
| G6122 | InGaAs | φ1 | -15 | 1.95 | 2.05 | 1.7×10 ⁸ | 3×10 ⁻¹³ | 0 to 2200 | 50 | ±15, +2.5 | +60, -30, +1100 | +10 |
| G6126 | InGaAs | φ5 | -15 | 1.55 | 1.66 | 5×10 ⁷ | 7×10 ⁻¹⁴ | 0 to 1200 | 50 | ±15, +2.5 | +50, -30, +1100 | +10 |
| B4635 | Ge | φ5 | -15 | 1.52 | 1.9 | 5×10 ⁶ | 3×10 ⁻¹³ | 0 to 1300 | 50 | ±15, +2.5 | +80, -30, +1100 | +10 |
| P4638 | PbS | 4×5 | -15 | 2.5 | 3.2 | 3×10 ⁷ | 8×10 ⁻¹³ | 0.2 to 500 | 50 | ±15, +2.5 | +50, -20, +1100 | ±10 |
| P4639 | PbSe | 3×3 | -15 | 4.2 | 5.1 | 2×10 ⁵ | 1×10 ⁻¹⁰ | 0.2 to 10000 | 50 | ±15, +2.5 | +50, -20, +1100 | ±10 |
| P4631 | MCT | 1×1 | -25 | 3.6 | 3.7 | 2×10 ⁷ | 1×10 ⁻¹² | 5 to 20000 | 50 | ±15, +2.5 | +60, -10, +1100 | ±2.5 |

● Spectral Response



● Dimensional Outlines (Unit: mm)

Noncooled Types



TE-cooled Types

