

Infrared detector module with preamp

Metal dewar type

High sensitivity modules of easy-to-use



These devices combine a dewar type detector with a compatible preamplifier, and easily operate to detect infrared radiation just by connecting to a DC power supply. InGaAs, InSb and MCT (HgCdTe) detectors are provided as standard devices (liquid nitrogen cooling). Custom-designed devices with different active areas, FOV or amplifier gain, etc. are also available to meet your specific needs.

Features

- Compact integral detector unit
- Optimum connections between the detector element and pre-amplifier allow amplified signals to be easily obtained.

Applications

- Infrared detection

Accessories (Optional)

- Power supply for preamplifier (± 15 V) C3871

Accessories (Supplied)

- 4-conductor cable (for DC power supply):
2 m (connector installed at one end) A4372-02
- BNC-BNC coaxial cable (for signal output): 2 m E2573
- Instruction manual

Specifications / Absolute maximum ratings

Type No.	Detector element	Active area (mm)	External input voltage (V)	Absolute maximum ratings		
				External input voltage (V)	Operating temperature Topr (°C)	Storage temperature Tstg (°C)
G7754-01	InGaAs	$\phi 1$	$\pm V_s$ *1	± 18	0 to +40	-20 to +50
G7754-03		$\phi 3$				
P7751-01	InSb	$\phi 0.6$				
P7751-02		$\phi 2$				
P7752-10	MCT	1 × 1	± 15			

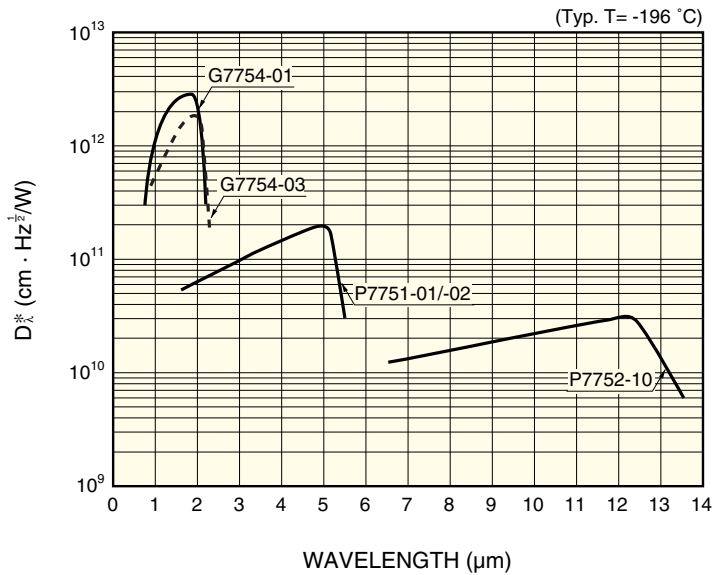
*1: $V_s = 12$ to 15 V

Electrical and optical characteristics (Typ.)

Type No.	Measurement condition	Peak sensitivity wavelength λ_p (μm)	Cut-off wavelength λ_c (μm)	Photo sensitivity S $\lambda = \lambda_p$ (V/W)	NEP (W/Hz ^{1/2})	Frequency response -3 dB (Hz)	Output impedance (Ω)	Maximum output voltage RL=1 k Ω (V)	Maximum current consumption *2 (mA)
	Element temperature T (°C)								
G7754-01	-196	2.0	2.4	2×10^9	3×10^{-14}	2 to 500	50	± 10	± 15
G7754-03				5×10^8	1.5×10^{-13}	2 to 500		± 10	± 15
P7751-01		5.3	5.5	3×10^8	3×10^{-13}	5 to 10000		± 10	± 20
P7751-02				1.5×10^8	1×10^{-12}	5 to 12000		± 10	± 20
P7752-10		12	14	2×10^6	3×10^{-12}	5 to 140000		± 3	+60, -10

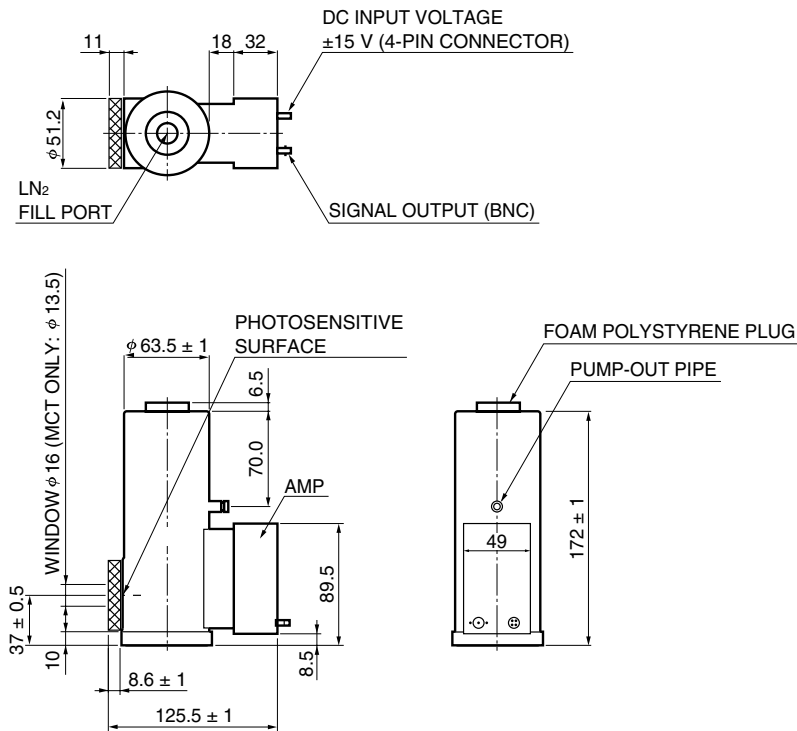
*2: $V_s = 15$ V

■ Spectral response



KIRD0076EC

■ Dimensional outline (unit: mm)



KIRDA0010EB

■ Precaution for use

- The detector should not be placed horizontally during use.
- Using these detectors in an environment subjected to vibration may cause microphonic noise. Take measures to prevent vibration as needed.

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