

# 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 (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	φ1	±Vs *1	±18	0 to +40	-20 to +50
G7754-03		φ3				
P7751-01	InSb	φ0.6				
P7751-02		φ2				
P7752-10	MCT	1 × 1				

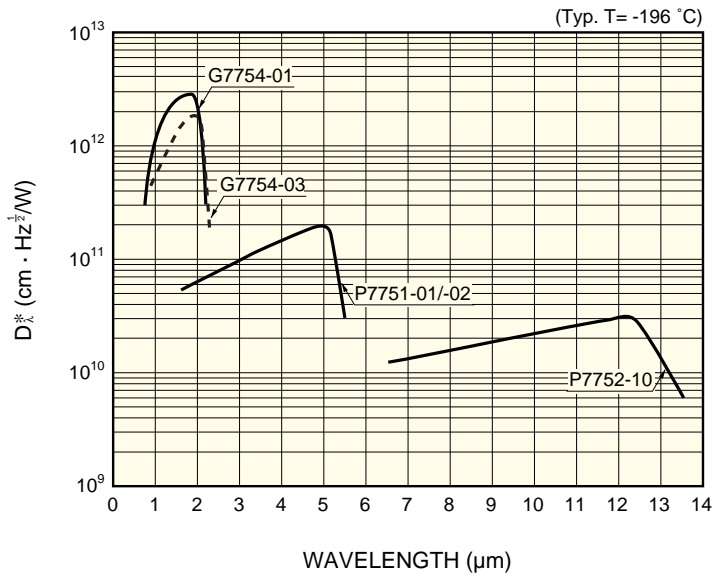
\*1: Vs=12 to 15 V

### ■ Electrical and optical characteristics (Typ.)

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

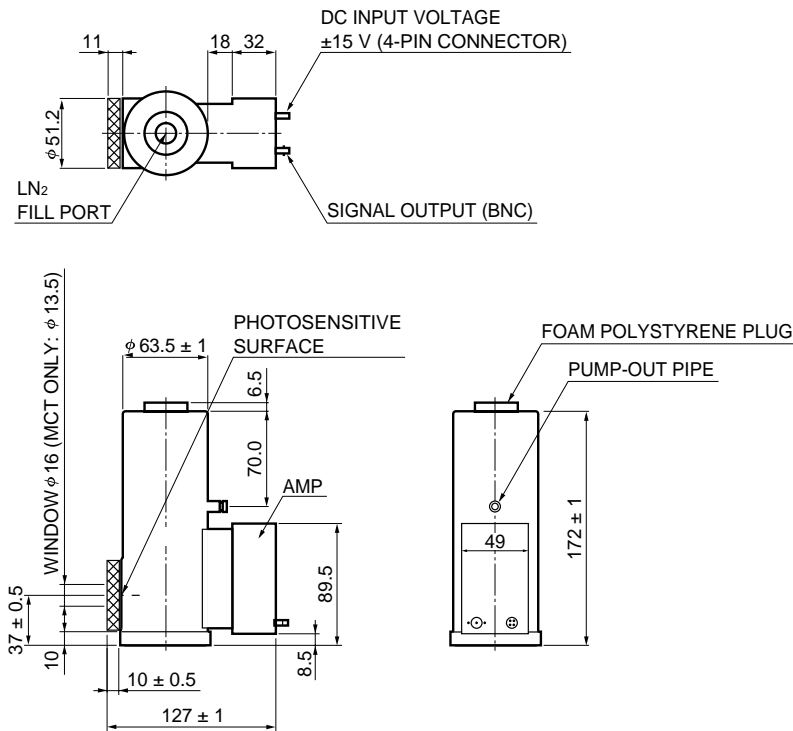
\*2: Vs=15 V

## ■ Spectral response



KIRDB0076EC

## ■ Dimensional outline (unit: mm)



KIRDA0010EC

## ■ 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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