

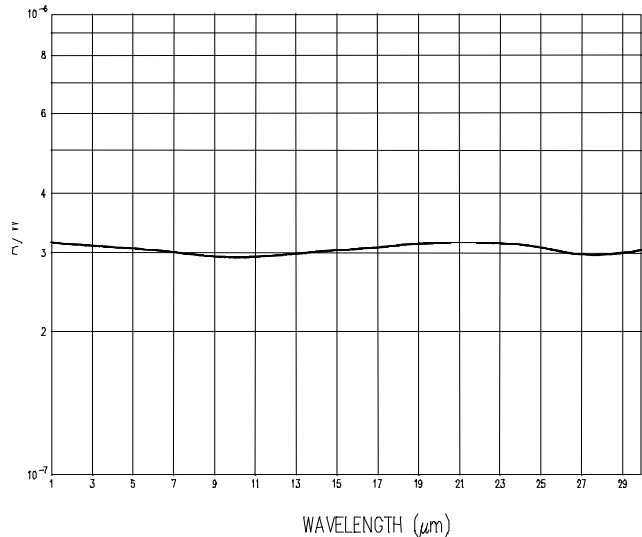
OL 740-17 and OL 740-17C Pyroelectric Detectors

The OL 740-17 is a moderately sensitive, broadband pyroelectric detector. The spectral response is relatively constant over a wide wavelength range. The pyroelectric detector has a 5 mm diameter, blackened lithium tantalate crystal and a high-sensitivity current mode preamplifier sealed into a TO-99 transistor housing with an infrared transmitting KRS-5 window. This preamplifier converts the extremely small AC current signal to millivolt levels suitable for voltage mode amplifiers. The detector is stable, non-hygroscopic and relatively insensitive to ambient temperature changes. The detector is mounted in an acoustically dampened housing.

The OL 740-17C consists of the OL 740-17 calibrated for spectral response from 1 to 20 μm . It is particularly useful as a working standard for calibration of other infrared detectors.

The relative spectral response of the OL 740-17C is based on spectral evaluation of the blackened coating and the transmittance of the KRS-5 window. An absolute calibration is performed relative to a NIST-traceable standard detector at a wavelength of 1.0 μm .

Typical Spectral Responsivity of OL 740-17C Thermal Detector



SPECIFICATIONS

NEP (Noise Equivalent Power).....	8×10^{-8} W
Responsivity	3×10^{-7} A/W (163 Hz)
Wavelength Region	0.6 to 30 μm
Active Area.....	5 mm diameter
Output Impedance.....	75 ohms
Frequency Response	1 Hz to 2 kHz
Operating Temperature	10° to 30° C
Supply Voltage.....	± 15 V max, ± 5 V min

