

Thermistor Bolometers TB16 Series

High Performance - Small Immersion Lens

TB 16 Series Thermistor Bolometers with Small Immersion Lens are extremely rugged, reliable, broad band Infrared Detectors. Broad band spectral sensitivity from the 2 to 1,000 microns is limited in practice by the lens selection. Germanium lenses are standard.

Detectivity (D^*) of an active Thermistor element improves by a factor of almost four over standard D^* when it is immersed with the small immersion lens. There are two Thermistor material options available - High or Low resistivity in a range of active areas and time constants.

Applications

- Railroad Hot-Box Detection Systems
- Industrial Temperature Measurement
- Space-Borne Horizon Sensors
- Radiometers

Features

- Wide Spectral Range: 2 -> 1,000 μm
- Rugged Construction
- DC Operation

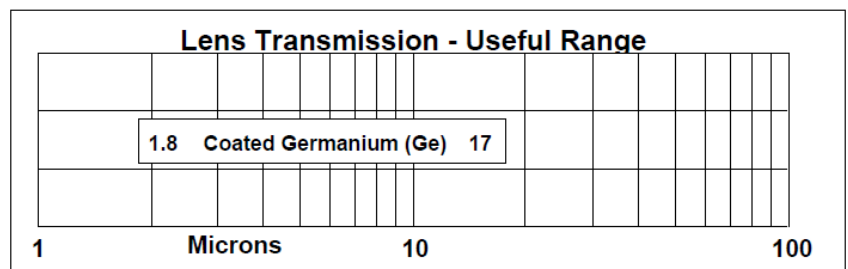
Typical Model Specifications

Model TB16 -	0.05 SR	0.1 SR	0.15 SR	0.25 SR	0.3 SR
Element Dimensions (mm)	0.05 x 0.05	0.1 x 0.1	0.15 x 0.15	0.25 x 0.25	0.3 x 0.3
Thermistor Resistivity (Megohm/sq.)	2.5 or 0.25	2.5 or 0.25	2.5	0.25	0.25
Time Constant (ms)	1.2, 2.5	1.2, 2.5	2.5	2.5	2.5

Options

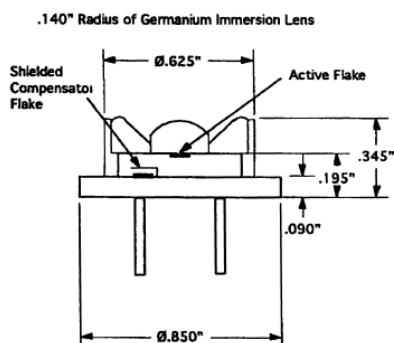
Package - Flange or Pin Base

Lens - Hemisphere, Hyperhemisphere

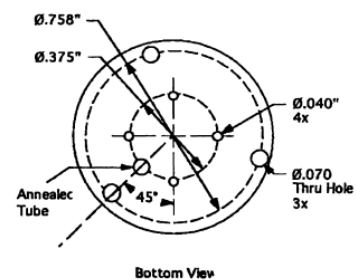


Flange-Base Package

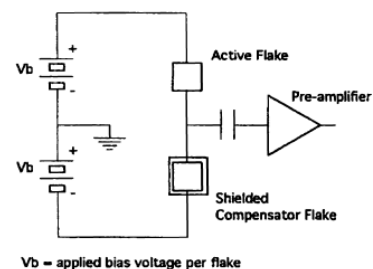
Mechanical Data



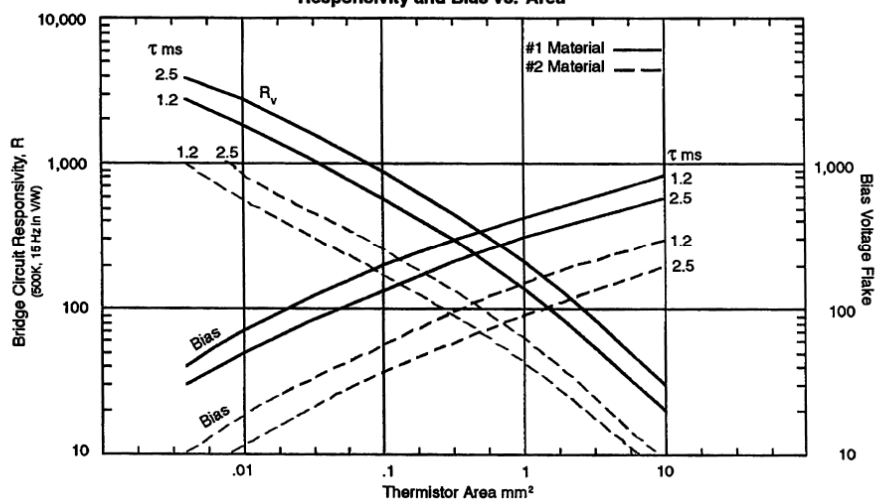
Pin-Out



Circuit Diagram



Responsivity and Bias vs. Area



Relative Responsivity vs. Frequency

