IR Detectors Packages

VIGO detectors are mounted in several packages (please see Table below).
The packages are filled with dry, heavy noble gases for low thermal conductivity (Kr/Xe mixtures). Water vapor condensation is prevented by careful sealing and water absorbers applied inside the package.

Package	Detector Type
TO8 	PC*), PCI*), PV*), PVI*), PVM*), PVMI*), PC-nTE, PCI-nTE, PV-nTE, PVI-nTE, PVM-nTE, PVMI-nTE, PCQ, PVMQ
TO39 	PC, PCI, PV, PVI, PVM, PVMI
BNC 	PC, PCI, PV, PVI, PVM, PVMI
PEM 	PEM, PEMI
Quadrant*) 	PCQ, PVMQ

*) *Upon special request.*
For detailed information please see Appendix – Technical Drawings.

Applications

The typical applications of the VIGO System S.A. detectors are given in the Table below. Please, provide detailed system requirements – our Engineering Team recommend optimum solution.

Applications	Detector Series - Examples
Spectroscopy	PCI-2TE, PVI-nTE, PVI, PCI
Positioning Systems	PV, PV-2TE
Laser Metrology	PV, PV-2TE, PVM, PVM-2TE, PEM, PEMI
High Speed Operation	PVI-nTE, PVI, PVM, PVMI, PEM, PEMI
Analysis of Spatial and Time Distribution of Laser Beam	PV, PV-nTE, PVM, PVM-nTE
Remote Temperature Measurements	PV-nTE, PVI-nTE, PVI-nTE, PCI, PCI-nTE
Heterodyne Detection	PV-2TE, PVI-nTE, PCI, PCI-nTE
Biomedical Applications	PV, PVI-nTE, PVM, PVMI, PEM, PEMI
Pyrometers, Scanners	PV-2TE, PVI-nTE, PCI, PCI-nTE
Thermal Imagers	PV-2TE, PVI-nTE, PCI, PCI-nTE
Gas Analysis	PCI-2TE, PVI-nTE, PVI, PCI
LIDAR	PVI-nTE, PCI-nTE
Detection and Monitoring of Thermal Objects	PV-2TE, PVI-nTE PCI, PCI-nTE
Laser-Matter Interaction Studies	PV, PV-2TE, PVM, PVM-2TE, PEM, PEMI
Fire, Flame and Human Body Detection	PV-2TE, PVI-nTE, PCI, PCI-nTE
Free Space Optical Communication	PVI-nTE, PVI
Laser Threat Warning	PCI, PVI, PVMI
Tracking Systems	PV, PV-2TE, PC, PCI, PCI-2TE, PC-2TE
Nondestructive Material Testing	All Devices

IR Windows

VIGO TE cooled detectors are typically provided with:

- 3° wedged **Al_2O_3** windows (**wAl2O3**)
- 3° wedged **ZnSe AR coated** windows (**wZnSeAR**)

3° wedge prevents “fringing” - interference from stray back reflections.

We offer windows optimized for different spectral bands also. Percentage of MWIR and LWIR radiation that can pass through VIGO detector windows is presented in the Figures below. Windows can be anti-reflection (**AR**) coated on two surfaces.

It is possible to use windows provided by the User (upon request).

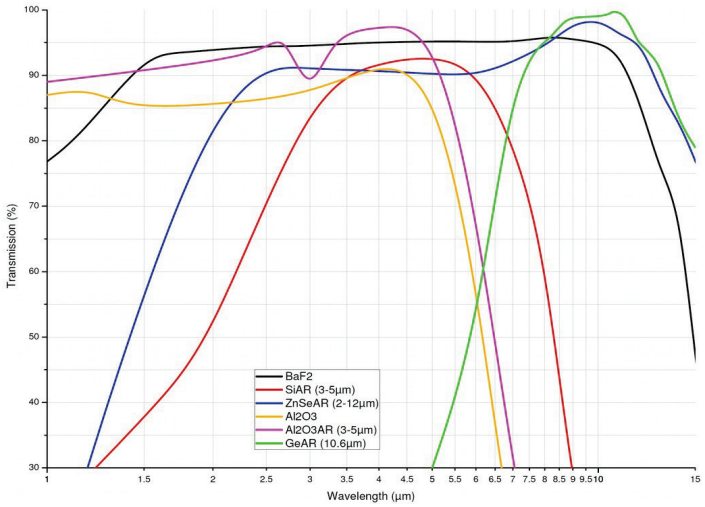

Figure. Percentage of IR radiation that can pass through the window.