





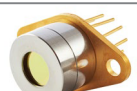


Detector's packages and infrared windows

	Package type	Cooling	Window	Detector type
	BNC	uncooled	no	PC, PCI, PV, PVI, PVM, PVMI
	TO39	uncooled	no	PC, PCI, PV, PVI, PVA, PVIA, PVM, PVMI
	PEM-SMA	uncooled	yes	PEM, PEMI
	PEM-TO8	uncooled	yes	PEM, PEMI
	TO8	uncooled	no	PCQ, PVMQ
	TO8	TE cooled	yes	PC-2TE, PC-3TE, PC-4TE PCI-2TE, PCI-3TE, PCI-4TE PV-2TE, PVA-2TE, PV-3TE, PV-4TE PVI-2TE, PVIA-2TE, PVI-3TE, PVI-4TE PVM-2TE PVM-2TE, PVM-3TE, PVM-4TE
	TO66	TE cooled	yes	PC-2TE, PC-3TE, PC-4TE PCI-2TE, PCI-3TE, PCI-4TE PV-2TE, PVA-2TE, PV-3TE, PV-4TE PVI-2TE, PVIA-2TE, PVI-3TE, PVI-4TE PVM-2TE PVM-2TE, PVM-3TE, PVM-4TE

Uncooled detectors are typically provided in BNC or TO39 packages without the window.

The exception are the specialized PEM packages. Due to magnetic circuit incorporated into the package, 3° wedged zinc selenide anti reflection coated (wZnSeAR) window is supplied to protect against external pollution. There are two versions of packages dedicated for photoelectromagnetic detectors:

- PEM-SMA with SMA signal output connector which makes it convenient in use,
- PEM-TO8 on TO8 header which enables integration with VIGO preamplifier

Encapsulation

Thermoelectrically cooled detectors are mounted in metal packages: TO8 and TO66 sealed with IR windows. The packages are filled with dry, heavy, noble gases (Krypton / Xenone mixture) of low thermal conductivity. Water vapor condensation is prevented by humidity absorber container mounted inside the package and careful polymer sealing. For low temperature fluctuation anti-convection shields is also apply.

Infrared windows

We provide two types windows as a standard:

- 3° wedged sapphire (wAl_2O_3)
- 3° wedged zinc selenide anti-reflection coated (wZnSeAR)

3° wedge prevents „fringing” – unwanted interference effects.

Material	Hardness, kg/mm ²	Wedging	Anti-reflection coating	Symbol
sapphire	1370	3°	no	wAl_2O_3
zinc selenide	120	3°	yes	wZnSeAR

Spectral transmission of wAl_2O_3 and wZnSeAR windows (typical example)

