Detectors for ionizing radiation

Alpha, beta, gamma, and X-ray radiation can be detected with silicon PIN photodiodes either directly via the absorption in the crystal lattice or indirectly via the measurement of the luminescence radiation of a scintillation crystal. First Sensor develops and manufactures customized photodiodes, detector arrays, and complete systems adapted to your specific requirements.

Radiation sensor with or without scintillator

The Series X from First Sensor features optimized silicon PIN photodiodes, which form wide, fully depleted space-charge regions even at low reverse voltages in order to guarantee the maximum absorption of radiation. For high-energy radiation we offer detectors with a CsI:TI scintillation crystal. Scintillators convert the ionizing radiation into visible light, which is then measured by highly sensitive photodiodes. Our flat surface mount devices can be assembled to create larger custom detector arrays with very high fitting accuracy.







First Sensor 6