

Silicon Surface Barrier Detector

H Series Super-Rugged, Ion-Implanted Passivated, Bakeable High-Temperature-Operation Silicon Detectors

This is one of the most versatile of the silicon detectors. Capable of operation to 60° C and of being baked to 200° C, the H Series has the most rugged surface ever put on a silicon detector. There are applications in materials science, space, health physics, radiation chemistry, and fission product research, and use in nonair-conditioned areas. Warranted performance specified at 1 μ s using an EG&G ORTEC 572 Amplifier. These detectors are supplied in N or M Mount. Please specify.

Active Area (mm ²)*	Guaranteed Max Resolution (keV) at 20°C		Guaranteed Max Resolution (keV) at 60°C		Minimum Depletion Depth (100 μ m) Model No.
	α	β	α	β	
50	16	9	30	26	H-016-050-100
100	18	12	30	26	H-018-100-100
200	19	12	30	26	H-019-200-100
300	21	14	35	31	H-021-300-100
450	21	15	35	31	H-021-450-100

NH - 016 - 050 - 300 - S

α : 16 keV @ 20°C
 β : 9 keV @ 20°C

50 mm²
300 μ m
N mount

*Larger areas available on special order.

I Series Ion-Implanted Passivated Partially Depleted Silicon Detectors

For charged-particle spectroscopy in adverse environments, the I Series detectors are extremely rugged and reliable. Warranted performance specified at 1 μ s using an EG&G ORTEC 572 Amplifier. These detectors are supplied with N or M Mount. Please specify.

Active Area (mm ²)*	Guaranteed Max Resolution (keV)		Minimum Depletion Depth 100 μ m Model No.
	α	β	
25	14	6	I-014-025-100
50	15	7	I-015-050-100
100	16	9	I-016-100-100
200	18	12	I-018-200-100
300	19	13	I-019-300-100
450	21	16	I-021-450-100

*Larger areas available on special order.

K Series Partially or Totally Depleted Silicon Surface Barrier Detectors

Main Application: High-resolution $\Delta E/E$ particle identification in close-mounted telescope geometries.

Supplied with Compact K Mount. This mount has a side-mounted Microdot and comes in two configurations: a transmission mount with both sides open (-dE) and a closed mount with only the front side open (-E).

Partially Depleted

Active Area (mm ²)	Guaranteed Maximum Resolution		Minimum Depletion Depth		
			150 μ m	300 μ m	500 μ m
α	β	Model No.	Model No.	Model No.	
25	13	6	KK-013-025-150-E	KK-013-025-300-E	KK-013-025-500-E
100	14	7	KK-014-100-150-E	KK-014-100-300-E	KK-014-100-500-E
200	16	10	KK-016-200-150-E	KK-016-200-300-E	KK-016-200-500-E
300	17	13	KK-017-300-150-E	KK-017-300-300-E	KK-017-300-500-E
450	18	13	KK-018-450-150-E	KK-018-450-300-E	KK-018-450-500-E

Last letter in model number, "-E," signifies a partially depleted detector. "-dE" signifies a ΔE , a totally depleted detector. Other models and resolutions are available in the Compact Series on special request.

Totally Depleted

Active Area (mm ²)	Guaranteed Maximum Resolution		Minimum Depletion Depth		
			150 μ m	300 μ m	500 μ m
α	β	Model No.	Model No.	Model No.	
25	15	6	KK-015-025-150-dE	KK-015-025-300-dE	KK-015-025-500-dE
100	16	8	KK-016-100-150-dE	KK-016-100-300-dE	KK-016-100-500-dE
200	18	10	KK-018-200-150-dE	KK-018-200-300-dE	KK-018-200-500-dE
300	19	12	KK-019-300-150-dE	KK-019-300-300-dE	KK-019-300-500-dE
450	23	17	KK-023-450-150-dE	KK-023-450-300-dE	KK-023-450-500-dE