

Main Application: Charged-particle spectroscopy in vacuum or in air with ambient light; cleanable.

Ordering Information

- **To Order:** Add the appropriate letter **prefix** for the mounting desired. Example: **BR**-015-050-100.
- **NOTE:** Alpha Suite Compatible Detectors: ULTRA-AS and Low-Background R Series detectors in B-mount are guaranteed compatible with the Alpha Suite products (DUO, MEGA, ARIA, ENSEMBLE). All other detectors require an approved special for compatibility and warranted specifications.

Active Area (mm ²)	Guaranteed Maximum Resolution (keV)**		Minimum Resolution Depth 100 μm	Minimum Resolution Depth 300 μm	Guaranteed Maximum Resolution (keV)**		Minimum Resolution Depth 500 μm
	α	β	Model No.	Model No.	α	β	Model No.
	50	15 17	7 8	R-015-050-100 R-017-050-100	R-015-050-300 R-017-050-300	15 17	7 8
150	16 19	10 11	R-016-150-100 R-019-150-100	R-016-150-300 R-019-150-300	16 18	10 11	R-016-150-500 R-018-150-500
300	19 21	13 15	R-019-300-100 R-021-300-100	R-019-300-300 R-021-300-300	19 21	13 15	R-019-300-500 R-021-300-500
450	20 24	14 19	R-020-450-100 R-024-450-100	R-020-450-300 R-024-450-300	20 24	14 18	R-020-450-500 R-024-450-500
600	25 33	17 28	R-025-600-100 R-033-600-100	R-025-600-300 R-033-600-300	25 33	19 29	R-025-600-500 R-033-600-500
900	30 40	25 35	R-030-600-100 R-040-600-100	R-030-600-300 R-040-600-300	30 53	25 48	R-030-900-500 R-053-900-500
2000	50 60	45 55	R-050-2000-100 R-060-2000-100	R-050-2000-300 R-060-2000-300	50 80	45 75	R-050-2000-500 R-080-2000-500

* Supplied in B Mount unless specified otherwise by the appropriate letter prefix. Other areas, depths, and configurations available on special order. **First three digits of Model No. indicate total system resolution FWHM for 241AM, 5.486-MeV alphas, using standard ORTEC electronics and 0.5-μs shaping time constants. Beta resolution approximated by pulse generator width FWHM.

“SEE-NO-ALPHA” R Series

R Series detectors are available in a “SEE-NO-ALPHA” version. Detectors delivered will have been checked for noise, and the resolution specification is warranted. To guard against backscattering contamination, the detector will not have been exposed to an alpha source.

Active Area (mm ²)	Minimum Depletion Depth 100 μm
	Model No.
300	TR-SNA-300-100
450	TR-SNA-450-100
600	TR-SNA-600-100

Active Area (mm ²)	Minimum Depletion Depth 100 μm
	Model No.
300	BR-SNA-300-100
450	BR-SNA-450-100
600	BR-SNA-600-100
900	BR-SNA-900-100

R Series

Ruggedized® Partially Depleted Silicon Detectors

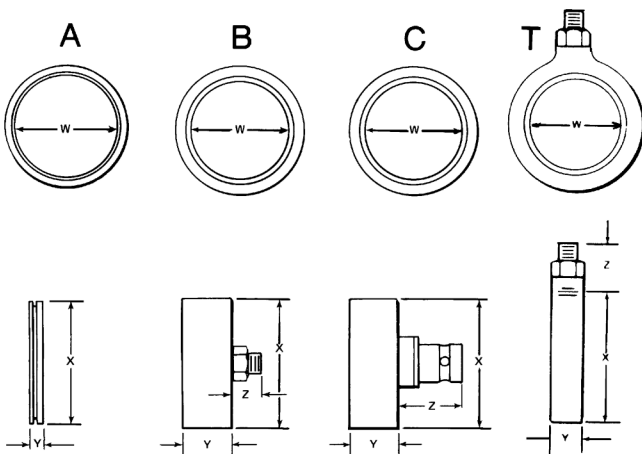
Mounting Arrangements

- A This is a "ring mount"; i.e., the silicon wafer is offered on its ring without output connectors.
- B Microdot connector on the rear of the can.
- C BNC connector on the rear of the can.
- T Microdot on the side of the can; without adjustable screws.

Dimensions are given in millimeters.

Detector Size (mm ²)	W (Nominal)	Type A Mount		Type B Rear Microdot			Type C Rear BNC			Type T § Transmission Mount		
		X	Y	X	Y	Z	X	Y	Z	X	Y	Z
050	8.0	15.2	3.7	16.7	12.3	7.1	16.7	12.3	15.9	19.4	7.9	9.9
150	13.8	22.0	3.7	23.6	12.3	7.1	23.6	12.3	15.9	26.1	7.9	9.9
300	19.5	27.1	3.7	28.6	12.3	7.1	28.6	12.3	15.9	31.6	7.9	9.9
450	23.9	30.5	3.7	32.0	12.3	7.1	32.0	12.3	15.9	34.8	7.9	9.9
600	27.6	34.1	3.7	36.1	12.3	7.1	36.1	12.3	15.9	38.4	7.9	9.9
900	33.9	43.2	3.7	45.2	12.3	7.1	45.2	12.3	15.9			
2000	51.0			65.5	12.3	7.1	65.5	12.3	15.9			
Tol.	±0.5	±0.3	±0.3	±0.3	±0.3	±0.3	±0.3	±0.3	±0.3	±0.3	±0.3	±0.3

§Built into a Microdot connector only.



Specifications subject to change
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