

**Main Application:** Time-of-Flight measurements with heavy ions.

## Ordering Information

- **To Order:** Add the appropriate letter **prefix** for the mounting desired. Example: **ED-020-010-15** or **TD-015-050-50**. Unless specified otherwise, supplied in E Mount for up to 40.0  $\mu\text{m}$  thickness; in T Mount for  $>40.0 \mu\text{m}$  thickness.
- **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 <sup>2</sup> )	Maximum Thickness Variation ( $\mu\text{m}$ )	Depletion Depth† 15 $\mu\text{m}$ Range 7-15 $\mu\text{m}$	Depletion Depth† 25 $\mu\text{m}$ Range 15.1-25 $\mu\text{m}$	Depletion Depth† 40 $\mu\text{m}$ Range 25.1-40 $\mu\text{m}$	Depletion Depth 50 $\mu\text{m}$ Range 40.1-65 $\mu\text{m}$	Depletion Depth 75 $\mu\text{m}$ Range 65.1-85 $\mu\text{m}$	Depletion Depth 100 $\mu\text{m}$ Range 85.1-110 $\mu\text{m}$
		Model No.	Model No.	Model No.	Model No.	Model No.	Model No.
10	$\pm 0.5$	D-020-010-15					
50	$\pm 0.5$	D-035-050-15	D-035-050-25	D-020-050-40	D-015-050-50	D-015-050-75	D-015-050-100
150	$\pm 1.0$		D-060-150-25	D-035-150-40	D-030-150-50	D-030-150-75	D-025-150-100
300	$\pm 1.0$		D-095-300-25	D-055-300-40	D-045-300-50	D-040-300-75	D-030-300-100
450	$\pm 3.0$		D-100-450-25	D-090-450-40	D-070-450-50	D-060-450-75	D-060-450-100

\* All standard totally depleted detectors are cut off-axis from the parent crystal at a specific angle that will minimize channeling. Larger areas available on special order. Other areas and depths available on special order.

\*\* First three digits of Model No. indicate total system noise width measured with standard ORTEC electronics and 0.5- $\mu\text{s}$  shaping time constants. Noise width is given for the smallest thickness (largest capacitance) in each range and specified nominal area. For high-capacitance units, performance depends on actual thickness and area.

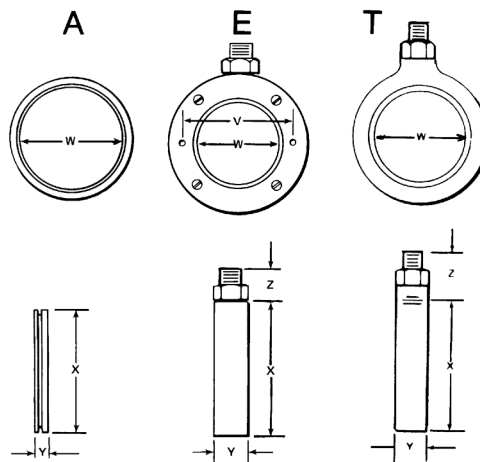
## Mounting Arrangements

- A** This is a "ring mount"; i.e., the silicon wafer is offered on its ring without output connectors. This infrequently used arrangement is available on special request. For 40  $\mu\text{m}$  to 100  $\mu\text{m}$  detectors.
- E** This is a special type of transmission mount in which four screws can be carefully adjusted to avoid excessive pressure on particularly fragile silicon wafers. For up to 40.0  $\mu\text{m}$  thick detectors.
- T** Microdot connector on the side of the can (open back) for depletion depth  $>40.0 \mu\text{m}$ .

Detector Size (mm <sup>2</sup> )	W (Nominal)	Type A Mount		Type E† Demountable Transmission				Type T Transmission Mount		
		X	Y	X	Y	Z	V	X	Y	Z
050	8.0	15.2	3.7	25.1	7.7	7.0	18.2	19.4	7.9	9.9
150	13.8	22.0	3.7	31.9	7.7	7.0	25.0	26.1	7.9	9.9
300	19.5	27.1	3.7	37.1	7.7	7.0	30.1	31.6	7.9	9.9
450	23.9	30.5	3.7	40.2	7.7	7.0	33.3	34.8	7.9	9.9
Tol.	$\pm 0.5$	$\pm 0.3$	$\pm 0.3$	$\pm 0.5$	$\pm 0.3$	$\pm 0.3$	$\pm 0.3$	$\pm 0.3$	$\pm 0.3$	$\pm 0.3$

†E Mounts may be disassembled by removing screws. V dimension provides distance between mounting holes that are 1.7 mm in diameter and suitable for 0.080 screws.

Dimensions are given in millimeters.



Specifications subject to change  
020821