

- Alpha and beta continuous air monitoring (counting in adverse environment).
- Rugged and reliable.
- Ion-implanted front contact.
- Protective polymer front-contact coating.
- Low bias voltage.
- Advanced surface passivation for total device stability.



Continuous air monitoring (CAM) instrumentation is used for counting, or rough-spectroscopy, of alpha particles from filters used with continuous air monitors. ULTRA CAM detectors set a new standard for silicon detectors for this purpose.

Since CAM instruments must work in air, exterior light, and under uncontrolled ambient conditions, the entrance contact of the ULTRA CAM detectors is coated with both an aluminum evaporation and a thin polymer film for protection against adverse environmental conditions, such as high humidity.

ULTRA CAM detectors have active areas ranging from 300 to 2000 mm<sup>2</sup>. They operate at low voltage (+15 to 24 volts). This means that a separate HV supply is not required; the NIM +24 volt supply can be used for application of bias.

ULTRA CAM detectors are designed for use in air and are not suitable for use in a vacuum. These sealed detectors should not be put into a vacuum.

### Ordering Information

Supplied with B Mount unless otherwise specified.

| Active Area (mm <sup>2</sup> ) | Minimum Depletion Depth 100 μm* Model No. |
|--------------------------------|---|
| 300                            | U-CAM-300                                 |
| 450                            | U-CAM-450                                 |
| 490                            | U-CAM-490                                 |
| 600                            | U-CAM-600                                 |
| 900                            | U-CAM-900                                 |
| 1200                           | U-CAM-1200                                |
| 2000                           | U-CAM-2000                                |

\*Deeper detectors available on special order.

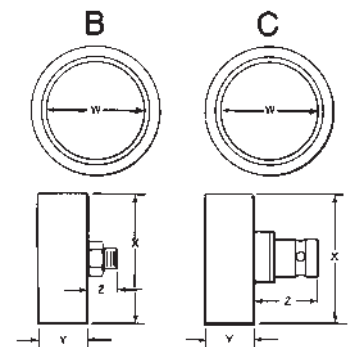
### Mounting Arrangements

**B** Microdot connector on the rear of the can.

**C** BNC connector on the rear of the can.

W, X, Y, and Z dimensions are given in millimeters.

| Detector Size (mm <sup>2</sup> ) | W (Nominal) | Type B Rear Microdot |      |      | Type C Rear BNC |      |      |
|----------------------------------|-------------|----------------------|------|------|-----------------|------|------|
|                                  |             | X                    | Y    | Z    | X               | Y    | Z    |
| 300                              | 19.5        | 28.6                 | 12.3 | 7.1  | 28.6            | 12.3 | 15.9 |
| 450                              | 23.9        | 32.0                 | 12.3 | 7.1  | 32.0            | 12.3 | 15.9 |
| 490                              | 25.0        | 33.4                 | 12.3 | 7.1  | 33.4            | 12.3 | 15.9 |
| 600                              | 27.6        | 36.1                 | 12.3 | 7.1  | 36.1            | 12.3 | 15.9 |
| 900                              | 33.9        | 45.2                 | 12.3 | 7.1  | 45.2            | 12.3 | 15.9 |
| 1200                             | 40.0        | 48.8                 | 12.3 | 7.1  | 48.8            | 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 |



Specifications subject to change  
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