

- A Detector Description
- B 4 pi Eff (Decimal)
- C CPM Background
- D Width (mm)
- E Length (mm)
- F Detector Area (cm²) = Product (D:E)/100
- G Time in seconds over a "SPOT" of contamination at a scan speed of 2 inches per second = D/50.8
- H Static MDA in DPM for a 1 minute count = 3/B+Product(4.65,SQRT(C))/B
- I Static MDA in DPM/100 cm² for a 1 minute count = Product(H,100)/F3
- J Static time in minutes to detect 100 DPM/100cm² = +I/100
- K Scanning MDA DPM = 3/P+Product (3.29,SQRT(S))/P
- L Scanning MDA in DPM/100cm² = Product(K,100)/F
- M Scan speed in inches per sec to detect 100 DPM/100cm² = Product(2,100)/L3
- N Time in minutes to survey 1 M² at 2 inches per second = (1000000/E/50.8/60)
- O Time in minutes to survey 1 M² to 100 DPM/100cm² = Product(N,2)/M
- P change seconds to minutes and change CPM to DPM = Product(B,G)/60
- Q add time constant for MDA calculation = 1 + G/60
- R CPM times time over a spot = =Product(C,G)/60
- S under the square root sign in the MDA formula = Product(Q:R)

NOTES:

For pancake type detectors use Product(D:E,3.14)/400 to calculate detector area. For "Pancake" detectors you should overlap the scan by 50% to normalize the detection. This will double the time to scan an area.