

# Geiger Selection Guide



## Gamma Detectors

Detection of gamma radiation at low dose rates. These tubes are suitable for use in environmental monitoring, and for sweeping areas which may have traces of radioactive sources on them.

## Beta, Gamma Detectors

Detection of beta and gamma radiation at low, intermediate and high dose rates. These types have a wide range of applications e.g. personal dosimetry, military and defense equipments.

## Alpha Beta, Gamma Detectors with End window

Detection of alpha, beta and gamma radiation at low dose rates. This range of mica-window tubes is used for monitoring all types of radiation in a wide variety of environments.

## C Series - Beta, Gamma Detectors

Detection of alpha, beta and gamma radiation at low dose rates. This range tubes is used for monitoring all types of radiation in a wide variety of environments.

Type	Sensitivity			Plateau			Counting Rate At 10 <sup>-2</sup> Gy/h (count/s)▲	Dead Time (μS)	Back-Ground Shielded (count/min.)	Dose Rate Range (mGy/h)	
	α	β	γ	Threshold (V)	Length (V)	Slope (% / V)					
ZP1200			•	40	400	200	0.04	28	90	10	10 <sup>-3</sup> – 10 <sup>2</sup>
ZP1210			•	140	400	100	0.15	110	200	70	3 x 10 <sup>-4</sup> – 10
ZP1220			•	240	400	100	0.15	180	210	90	2 x 10 <sup>-4</sup> – 3
ZP1220/01			•	240	400	100	0.15	180	210	60	2 x 10 <sup>-4</sup> – 3
ZP1221/01 *			•	240	400	100	0.15	180	210	60	2 x 10 <sup>-4</sup> – 3
ZP1201 *			•	40	400	200	0.04	20	110	10	10 <sup>-3</sup> – 40
ZP1221 *			•	240	400	100	0.15	180	210	90	2 x 10 <sup>-4</sup> – 3
ZP1301 *			•	7	500	100	0.30	340 Δ	13	1	10 <sup>-1</sup> – 1 x 10 <sup>4</sup>
ZP1302 *			•	7	500	100	0.30	340 Δ	13	12 – 120	10 <sup>-1</sup> – 1 x 10 <sup>4</sup>
ZP1313 *			•	16	500	150	0.15	1600 Δ	15	2	10 <sup>-2</sup> – 1 x 10 <sup>3</sup>
ZP1321 *			•	28	500	150	0.08	9	55	12	3 x 10 <sup>-3</sup> – 10 <sup>2</sup>
ZP1202 **			•	40	400	200	0.04	20	110	10	10 <sup>-3</sup> – 40
ZP1221/02 **			•	240	400	100	0.15	180	210	60	23 x 10 <sup>-4</sup> – 3
ZP1304 **			•	7	500	100	0.30	340 Δ	13	1	10 <sup>-1</sup> – 1 x 10 <sup>4</sup>
ZP1314 **			•	16	500	150	1.15	1600 Δ	15	2	10 <sup>-2</sup> – 1 x 10 <sup>3</sup>
ZP1324 **			•	27	500	150	0.08	9	55	12	3 x 10 <sup>-3</sup> – 10 <sup>2</sup>
ZP1300		•	•	7	500	100	0.30	300 Δ	11	1	10 <sup>-1</sup> – 1 x 10 <sup>4</sup>
ZP1310		•	•	16	500	150	0.15	1600 Δ	15	2	2 x 10 <sup>-2</sup> – 4 x 10 <sup>3</sup>
ZP1320		•	•	28	500	150	0.08	9	45	12	3 x 10 <sup>-3</sup> – 2 x 10 <sup>2</sup>
ZP1400		•	•	9c	400	200	0.04	25	90	10	10 <sup>-3</sup> – 10 <sup>2</sup>
ZP1431		•	•	27.8a	450	250	0.04	44	230	25	6 x 10 <sup>-4</sup> – 6
ZP1442		•	•	19.8c	500	200	0.09	16	65	9	3 x 10 <sup>-3</sup> – 10 <sup>2</sup>
ZP1452		•	•	17.8c	500	250	0.07	29	60	25	10 <sup>-3</sup> – 20
ZP1480		•	•	17d	400	100	0.20	24	120	30	10 <sup>-3</sup> – 20
ZP1401	•	•	•	9a	400	200	0.04	25	90	10	10 <sup>-3</sup> – 10 <sup>2</sup>
ZP1430	•	•	•	27.8a	450	250	0.04	44	230	25	6 x 10 <sup>-4</sup> – 6
ZP1441	•	•	•	19.8a	500	200	0.09	16	65	9	3 x 10 <sup>-3</sup> – 10 <sup>2</sup>
ZP1451	•	•	•	27.8a	500	250	0.07	29	60	14	10 <sup>-3</sup> – 20
ZP1481	•	•	•	17d	400	100	0.20	24	120	30	10 <sup>-3</sup> – 20
ZP1490	•	•	•	28a	450	250	0.06	29	65	15	10 <sup>-3</sup> – 20
ZP1402 *	•	•	•	9a	400	200	0.04	20	110	10	10 <sup>-3</sup> – 10 <sup>2</sup>
<b>C Series</b>											
C300		•	•	9	500	150	0.2	170 Δ	7	1	10 <sup>-1</sup> – 10 <sup>5</sup>
C1300		•	•	7	500	100	0.3	360 Δ	11	1	10 <sup>-1</sup> – 2 x 10 <sup>4</sup>
C301 *		•	•	9	500	150	0.2	140 Δ	7	1	10 <sup>-1</sup> – 10 <sup>5</sup>

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## Glass Tubes

Detection of Gamma, Beta radiation with a range of thin wall Glass Detectors including detectors for measuring contaminated liquids.

Type	Sensitivity			Operating Voltage V	Min. Plateau Length V	Max. Slope % / V	Active Length mm	Life Expectation Counts	Sensitivity cpm/mR/hr	Shielded Background cpm	Liquid Capacity ml	Temp. Range °C	Temp. Coeff. V / °C	Wall / Window Density mg/cm <sup>2</sup>
	Band													
	α	β	γ											
B6H		•	•	370	100	0.15	64	10 <sup>10</sup>	2000	15	–	-55 to +60	0.2	25 to 35
B12H		•	•	370	100	0.15	123	10 <sup>10</sup>	5600	30	–	-55 to +60	0.2	25 to 35
B12N		•	•	675	120	0.10	120	10 <sup>10</sup>	5000	30	–	-60 to +70	0.2	25 to 35
B6T		•	•	675	100	0.10	60	10 <sup>10</sup>	–	–	–	-60 to +70	0.1	25 to 35
B6TS *		•	•	675	100	0.10	60	10 <sup>10</sup>	2700	–	–	-60 to +70	0.1	–
<b>Liquid Sampling</b>														
M6H	<b>Liquid</b>			370	100	0.15	60	10 <sup>10</sup>	–	16	9	-10 to +50	0.2	25 to 35
M6H/100				500	200	0.15	60	10 <sup>10</sup>	2880	100	100	-10 to +50	0.2	25 to 35
M2Na □				510	90	0.15	21	10 <sup>10</sup>	–	20	3.5	-10 to +50	0.2	25 to 35
M2H □				370	100	0.15	20	10 <sup>10</sup>	–	7	3.5	-55 to +60	0.2	25 to 35

### Notes:

- \* = With compensating filter
- \*\* = Ambient dose compensated
- △ = Counting rate at 10 mGy/h
- ▲ = <sup>137</sup>Cs
- = Supplied with waterproof rubber jacket

### Window Thickness (mg/cm<sup>2</sup>)

- a = 1.5 to 2.0
- b = 1.5 to 2.5
- c = 2.0 to 3.0
- d = 2.5 to 3.0
- e = 2.5 to 3.5
- f = 2.0 to 2.5