

## 1. Overview



EPHD23203 high temperature scintillation detector is a high temperature resistant scintillation detector for natural gamma counting logging. It integrates high temperature NaI (TI) crystal, PMT and voltage divider circuit. The unique design ensures the stable performance of the detector in high temperature logging environment. This product has the advantages of simple and convenient use, high reliability and not easy to damage. It is mainly used in natural gamma counting measurement in oil logging environment.

## 2. Specifications

▶ Detector diameter (mm)	.....	Φ35
▶ Detector length (mm)	.....	288
▶ Scintillator size (mm)	.....	Φ30×180
▶ Pulse amplitude resolution <sup>1)</sup> 25°C Max.	.....	15%
▶ Pulse amplitude resolution <sup>1)</sup> 175°C Max.	.....	20%
▶ High temperature and normal temperature counting rate deviation Max.	.....	5%
▶ High temperature plateau length <sup>1)</sup> Min. (V)	.....	100
▶ High temperature life <sup>2)</sup> Min.	.....	400
▶ Vibration <sup>3)</sup>	.....	5g rms, 50Hz~500Hz
▶ Shock	.....	100g, 11ms
▶ Operating temperature <sup>4)</sup> (°C)	.....	-30~+175 °C
▶ Storage temperature <sup>4)</sup> (°C)	.....	-30~+70

● All the above tests use a <sup>137</sup>Cs source; Other tests are performed in a natural gamma environment

● High temperature life: Total time accumulated in high temperature operation when the output pulse amplitude drops to 50% of the initial value or the noise edge exceeds 60 keV after high temperature operation (175°C) of the detector

● Resonance frequency ≥500Hz

● Temperature change rate during detector operation and storage ≤3 °C/min

## 3. Overall dimensions and connection methods (unit: mm)

### ● EPHD23203

