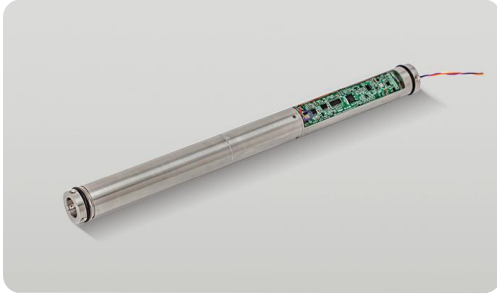


1. Overview



EPHD227 scintillation detector (while drilling) is a normal temperature anti-vibration scintillation detector for measuring natural gamma. It integrates anti-vibration NaI(Tl) crystal, PMT assembly, high voltage power supply and processing circuit, which can directly output TTL signal. The unique design ensures the stable performance of the detector in vibration environment. This product has the advantages of simple and convenient use, high reliability and not easy to damage. It is mainly used to measure natural gamma counting of coal seam in coal mine exploration environment.

2. Specifications

| | | |
|--|-------|---------------------|
| ▶ Detector diameter (mm) | ..... | Φ25 |
| ▶ Detector length (mm) | ..... | 320 |
| ▶ Scintillator size (mm) | ..... | Φ20 ×110 |
| ▶ Input voltage (V) | ..... | 11.5~12.5 |
| ▶ Input current Max. (mA) | ..... | 60 (At 12V) |
| ▶ Output signal (Positive TTL) | ..... | +5V, 5μs |
| ▶ Natural gamma counting rate Min.(s ⁻¹) | ..... | 70 |
| ▶ High temperature and normal temperature counting rate deviation ⁻¹ Max. | ..... | 5% |
| ▶ Counting rate change induced by vibration ¹⁾ Max. (s ⁻¹) | ..... | √BASE ²⁾ |
| ▶ High temperature life ³⁾ Min. (h) | ..... | 400 |
| ▶ Vibration ⁴⁾ | | 10g rms, 50Hz~500Hz |
| ▶ Shock | ..... | 200g, 6ms |
| ▶ Operating temperature ⁵⁾ (°C) | ..... | -10~+40 |
| ▶ Storage temperature ⁵⁾ (°C) | ..... | -30~+70 |

- Tested in natural gamma environment
- BASE: The average counting rate of continuous acquisition for 300s when the detector operates in non-vibration state
- High temperature life: Total time accumulated in high temperature operation when the detector operates at 40°C and the output counting rate changes by 10% relative to the initial value
- Resonance frequency ≥500Hz
- Temperature change rate during detector operation and storage ≤3°C/min

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

● EPHD227

