EPHD17103

(Counting measurement)

1.Overview

EPHD17103 scintillation detector is a high temperature resistant and anti-vibration scintillation detector. It integrates high temperature NaI (Tl) crystal, high temperature PMT and voltage divider circuit. The unique design ensures the stable performance of the detector in high temperature vibration environment.This product has the advantages of simple and convenient use, high reliability and not easy to damage. It is mainly used for natural gamma counting measurement in oil logging environment.

2.Specifications

- Detector diameter (mm) ····· Φ47
- Detector length (mm) ····· 348
- Scintillator size (mm) ····· Φ40×200
- Input voltage Max. (V) ····· 1800
- Plateau length 175℃ Min. (V) ····· 100
- Pulse amplitude resolution 25℃ Max. ····· 15%
- Pulse amplitude resolution 175℃ Max. ····· 20%
- High temperature output pulse amplitude decreases [2] 175℃ relative to 25℃ Max. ····· 70%
- High temperature life[3] Min. ····· 400
- Vibration[4] ····· 5g rms，50Hz～500Hz
- Shock ····· 100g，11ms
- Operating temperature[5] (℃) ····· -30～175
- Storage temperature[5] (℃) ····· -30~70

- Performance tests use ^{137}Cs
- High temperature output pulse amplitude decrease =(Output pulse amplitude at 25°C - 175 Output pulse amplitude at °C)/25℃ Output pulse amplitude × 100%
- 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 when the detector is operating at high temperature
- Resonance frequency ≥500Hz
- Tempreature change rate during detector operation and storage≤3℃/min

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

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