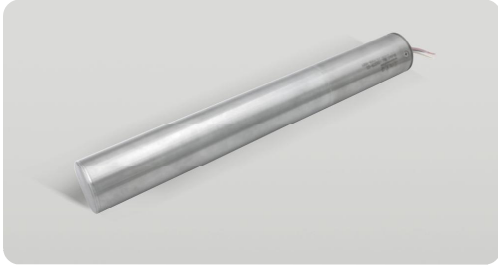


1. Overview



EPHD18403 high-temperature scintillation detector is a high temperature resistant anti-vibration gamma ray logging scintillation detector. 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 perforation 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)	Φ47
▶ Detector length (mm)	348
▶ Scintillator size (mm)	Φ40×200
▶ Pulse amplitude resolution 25°C Max.	15%
▶ Pulse amplitude resolution 175°C Max.	20%
▶ High temperature output pulse amplitude decreases ²⁾ 175°C relative to 25°C Max.	70%
▶ High temperature plateau length Min. (V)	100
▶ High temperature life ³⁾ Min.	400
▶ Vibration ⁴⁾	Random 20grms, 50Hz~ 1000Hz
▶ Shock	500g@0.5ms
▶ Operating temperature ⁵⁾ (°C)	-30~+175
▶ Storage temperature ⁵⁾ (°C)	-30~+70

● Performance tests use ¹³⁷Cs

● High temperature output pulse amplitude decrease = (Output pulse amplitude at 25°C - 175 Output pulse amplitude at °C) / Output pulse amplitude at 25°C × 100%;

● High temperature life: The time it takes for the detector to work continuously after preheating at high temperature of 175°C, and the output pulse amplitude of the detector decreases by half relative to the initial value

● Resonance frequency ≥1000Hz

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

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

● EPHD18403

