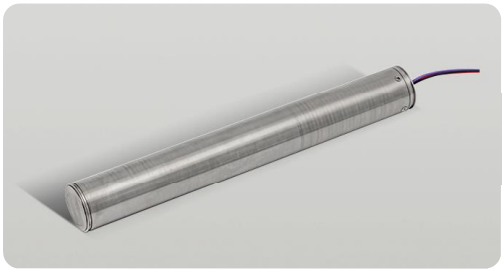
EPHD1600300

（Counting while drilling）

1.Overview



EPHD1600300 scintillation detector (while drilling) is a high temperature resistant and anti-vibration scintillation detector. It integrates high temperature and vibration-resistant NaI (Tl) scintillator, 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 in natural gamma counting measurement in oil logging environment.

2.Specifications

Detector diameter (mm)	Φ28
Detector length (mm)	215
Scintillator size (mm)	Φ21.5×125
Pulse amplitude resolution[1] 25℃ Max.	15%
Pulse amplitude resolution[1] 175℃ Max.	20%
High temperature output pulse amplitude decreases [1)2)] 175℃ relative to 25℃ Max.	80%
Plateau length[1] 175℃ Min.	100
Counting rate change induced by vibration[1)3)] Max.	√BASE[4)]
Output pulse amplitude change induced by vibration [1)5)] Max.	5%
High temperature life [1)6)] Min. (h)	400
Shock	1000g，0.5ms
Vibration [7)]	Random 30grms,50Hz～1000Hz
Operating temperature[8)] (℃)	-30~+175
Storage temperature[8)] (℃)	-30~+70

- Test with ^{137}Cs without special instructions
- High temperature output pulse amplitude decrease = (Output pulse amplitude at 25°C - Output pulse amplitude at 175℃)/ Output pulse amplitude at 25°C ×100%
- Counting rate change induced by vibration: Change in counting rate above 60 keV in vibration state relative to non-vibration state
- BASE: Counting rate of non-vibration state, count per second
- Output pulse amplitude change induced by vibration: Change in vibration state relative to non-vibration state.
- 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 ≥1000Hz
- Tempreature change rate during detector operation and storage≤3℃/min

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

- EPHD1600300