EPHD22903

(Counting while drilling)

1.Overview

EPHD22903 scintillation detector (while drilling) is a high temperature resistant and vibration-resistant scintillation detector for measuring azimuth gamma. It integrates high temperature NaI (Tl) crystal, high temperature PMT assembly, high voltage power supply and processing circuit, which can directly output TTL digital level. The unique shielding design determines that the detector is more sensitive to gamma rays passing through the window.This product has the advantages of simple and convenient use, high reliability and not easy to damage. It is mainly used to determine azimuth gamma in oil logging environment for geological steering.

2.Specifications

Detector diameter (mm)	Φ36
Detector length (mm)	391
Scintillator size (mm)	Φ25.3 × 153
Input current Max. (mA)	22(Input voltage 24V)
Output signal (Positive TTL)	+5V Relative to ground ,5μs～10μs
High temperature and normal temperature counting rate deviation Max.	5%
Counting rate change induced by vibration [2] Max.(s^{-1})	√BASE[2]
Natural gamma counting rate [3] Min. (s^{-1})	70
High temperature life [4] Min.(h)	400
Vibration [5]	20grms，50Hz～1000Hz
Shock	500g，0.5ms
Operating temperature [6](℃)	-30～+175
Storage temperature [6](℃)	-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
- Test environment: Specified test site (Detector Production Workshop of BHP)
- High temperature life: Total time accumulated in high temperature operation when the detector operates at 175°C with a 10% change in the output counting rate relative to the initial value
- Resonance frequency ≥1000Hz
- Tempreature change rate during detector operation and storage≤3℃/min

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

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