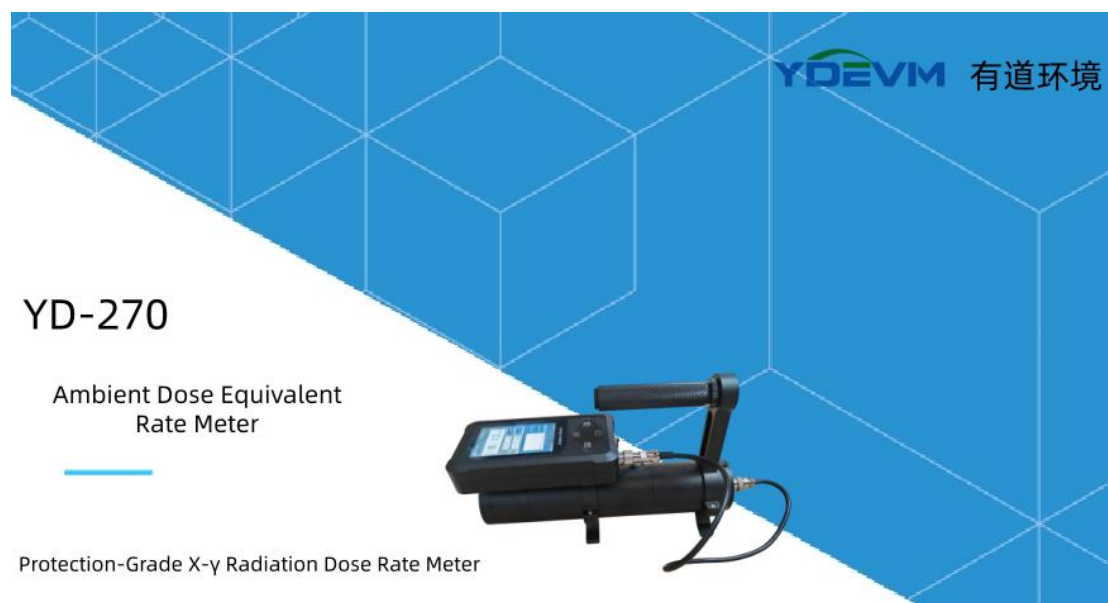


YD-270 Protection-Grade X-γ Ambient Dose Equivalent Rate Meter



Product Description

The YD-270 Protection-Grade X-γ Ambient Dose Equivalent Rate Meter is equipped with a plastic scintillator detector and an optional energy-compensated GM tube detector. The instrument features high sensitivity and a wide measurement range, and is designed for use in X and γ radiation fields under complex environmental conditions. It provides accurate measurement of X and γ ambient dose equivalent rates.

Features

- High-speed embedded microprocessor ensures real-time processing of monitoring data and system status.
- Employs a scintillator detector coupled with an imported photomultiplier tube (PMT), delivering rapid response to X and γ radiation.
- 3.5-inch colour touchscreen LCD with a user-friendly interface in both Chinese and English, designed for intuitive and efficient operation.
- Real-time dose equivalent rate curve display; maximum reading for each individual measurement is shown.
- Cumulative dose equivalent is automatically saved and retained after power loss; alarm records can be manually reviewed.
- Alarm thresholds for dose equivalent rate and cumulative dose equivalent are independently configurable.
- Storage capacity of 4000 alarm data records; main unit with built-in GM tube detector (optional).
- Integrated real-time clock displays year, month, and day; clock continues to operate during power interruptions.

Youdao Environmental Technology (Shenzhen) Co., Ltd.

5th Floor, Jiada R&D Building, No. 5 Songpingshan Road, Nanshan District, Shenzhen, PRC

<https://ydhjkj.cn>; sales@ydhjkj.cn; +86-755-23736433 / +86-18129873251

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Applications

The instrument is intended for use in X and γ radiation monitoring and survey across a broad range of settings, including medical facilities, disease control and prevention centres, environmental protection, metallurgy, petrochemicals, chemical processing, radiological laboratories, industrial radiography, radiation processing, mining, and various other X and γ radiation fields.

Specifications

Parameter	Specification
Detector	Φ50.8 × 50.8 mm plastic scintillator with photomultiplier tube (PMT); energy-compensated GM tube (optional, built into main unit)
Energy response	20 keV – 7 MeV
Detectable radiation types	X, γ
Measurement range	Dose equivalent rate: 30 nSv/h – 10 mSv/h (optional: 50 nSv/h – 1 Sv/h); Cumulative dose equivalent: 0 – 9999 mSv
Display	3.5-inch colour touchscreen LCD
Sensitivity	≥500 cps/(μSv/h)
Relative intrinsic error	≤±10 % (¹³⁷ Cs, 100 μSv/h)
Response time	1 s
Operating environment	Temperature: –40 °C to +50 °C; relative humidity: ≤95 % (at 40 °C)
Power supply	7.4 V rechargeable lithium battery; battery voltage continuously monitored with low-battery icon flashing alert
Enclosure	Fully aluminium alloy, robust construction
Weight and dimensions	Approx. 1.3 kg (excluding battery); Main unit: 85 × 150 × 40 mm; Detector probe: φ58 × 265 mm (excluding mounting bracket)

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