

YD-860 Area X-γ Monitoring System



Product Description

The YD-860 Area X-γ Monitoring System is an on-line continuous radiation monitoring device. It features custom-developed radiation monitoring software based on the Android operating system. Reliable RS485 communication is employed between the main unit and each probe, ensuring that the main unit displays the real-time dose rate of every connected probe, presents data curves, and continuously indicates the current probe status (online / offline / alarm). Each probe is equipped with an independent tri-colour audible and visual alarm unit. The main unit supports multiple types of radiation probes from the company's product range, offering excellent expandability and compatibility. In addition to ensuring data stability and accuracy, the system provides data storage and export functions for convenient archiving and documentation.

Features

- Android-based main unit with custom-developed radiation monitoring software ensures real-time processing of monitoring data and system status.
- 10.1-inch 1280 × 800 IPS high-definition capacitive touchscreen with an intuitive operator interface for rapid familiarisation and straightforward operation.
- A single main unit supports simultaneous connection of multiple probes (four by default; custom configurations of more than four probes available upon request).
- Two-level alarm threshold configuration (high and low) is supported; each probe may be independently configured with alarm thresholds. Audible and visual alarm functions are provided, with distinct alarm tones for different threshold levels.
- Real-time probe status is displayed for each connected probe: online / offline / alarm.
- The main unit is equipped with an integrated high-performance tri-colour audible and visual alarm unit supporting two distinct alarm sound modes.
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- Historical dose rate curves are displayed, including real-time curve, hourly distribution

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curve, and user-defined date range curve.

- Probe communication: standard RS485 interface with a transmission distance of up to 800 metres.
- External USB interface is provided, compatible with a wide range of standard USB devices for direct connection and data export.
- Data storage and USB export functions are provided for convenient archiving and documentation.
- The main unit is compatible with multiple radiation detector types, including energy-compensated GM counters, plastic scintillators, ionisation chambers, and neutron detectors.

Applications

The system is intended for radiation management in a broad range of X and γ radiation settings, including medical facilities, disease control and prevention, environmental protection, metallurgy, petroleum, chemical processing, radiological laboratories, radiation processing, and various other X and γ radiation fields.

Specifications

The main unit is compatible with multiple radiation detector types offered by the company, such as GM counters, plastic scintillators, ionisation chambers, and neutron detectors.

Parameter	Specification
Detector	Energy-compensated GM counter (scintillator detector optional)
Energy response	40 keV – 3 MeV; ≤20%
Detectable radiation types	X, γ
Measurement range	Dose rate: 0.05 μSv/h – 10 mSv/h
Display	10.1-inch colour touchscreen LCD
Relative intrinsic error	≤±10% (¹³⁷ Cs, 100 μSv/h)
Response time	1 s
Operating environment	Temperature: –25°C to +50°C; relative humidity: ≤95% (at 40°C)
Power supply	220 V AC mains
Dimensions and weight	Main unit: 400 × 300 × 120 mm, 7.6 kg; Probe: φ50 × 212 mm, 350 g; Alarm beacon: φ70 × 280 mm, 250 g

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Main Unit Display Interface



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