

R500 Radiation Scanner



High-sensitivity sensor

Detect α β γ X radiation

Computer analysis software

Description

R500 radiation scanner has awarded the creative design by AMT due to its excellent design. The R500 has adopted the nuclear radiation sensor standards as recommended by the American Bureau of Standards and it has a 2 inch large flat high sensitivity sensor. R500 radiation scanner can detect α β γ and x-rays intensity. Range of measurement is from $0.01\mu\text{Sv/h}$ to $2000\mu\text{Sv/h}$.

R500 radiation scanner meet the ergonomics design, special designed grip, easy to grasp, the palm will not be polluted. With a correction factor function, customer can self calibration accuracy; Patent algorithm, it owns the background value stability as well as fast response, meantime improved sensitivity, Protection from electromagnetic interference using anti-saturation circuitry. Calibration of this unit can be done remotely so there is no need for direct contact at the time of calibration. The R500 has CE certification, EMC certification and is manufactured to ISO9001 quality standards.

Application

Model R500 can be easily used in restaurants, hotels, home, public places, laboratories, power plants, quarries, emergency rescue stations, metal treatment plants, underground oil fields, and oil pipeline equipment, environmental protection, police stations and other departments. It can also be used to:

Inspect food pollution

Inspect environmental pollution

Inspect radioactivity of porcelain tableware and glass etc

Inspect radioactivity of materials architecture such as stone etc

Inspect radioactivity of underground drilling pipes and equipment

Inspect harmful radiation in personal precious property and jewelry

Inspect X-ray intensity of Medical and industrial X-ray instrumentation

Inspect radon radiation and cesium pollution in the surrounding environment

Inspect landfill and garbage dumps in danger of nuclear radiation contamination

Product features

Large end-window GM detector

Large LCD with bar graph display

Types of measured Ray: α β γ and x ray

Patent background tracking algorithm, the realization of high stability and fast response

Ray selector switch: combined selection of α β γ and x ray

Display units complete: cps, cpm, Sv/h, rme/h

Stain-proof sets, as a special, avoid people and detector polluted

Telescopic distance measuring nuclear radiation to avoid bodily harms (matching)

Optional wired 1km transmission RS485 distance

History data can be uploaded to PC

Optional PC 1 with 4 or 1 with 8 system

Features

1. Slide cover



By opening the slide you are able to detect α β γ and x-rays



By closing the slide the sensor is dual protected and can detect gamma and x-rays

2. Stain-proof sets

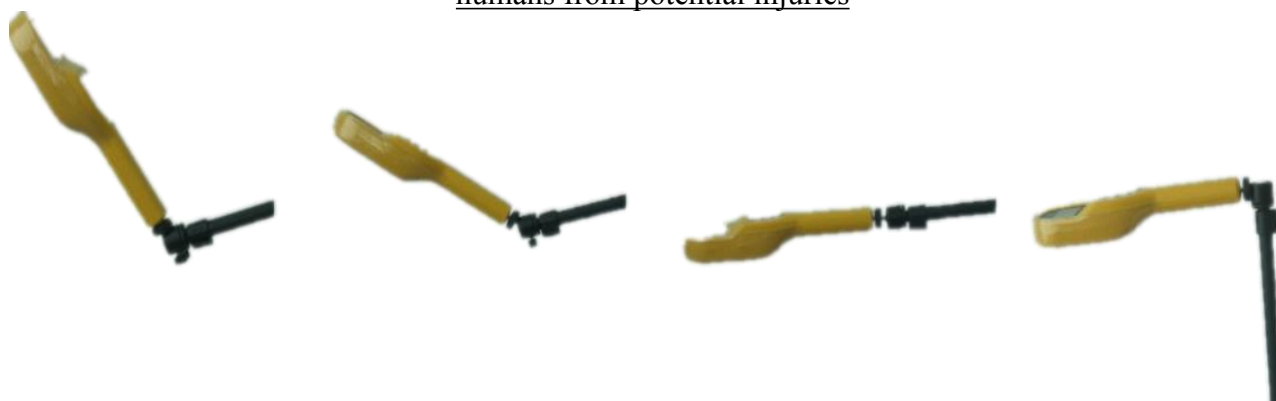


With stain proof sets, even if contacting with materials polluted by radiation there is no need for concern just replace the stain-proof sleeve on the R500

3. Telescope link



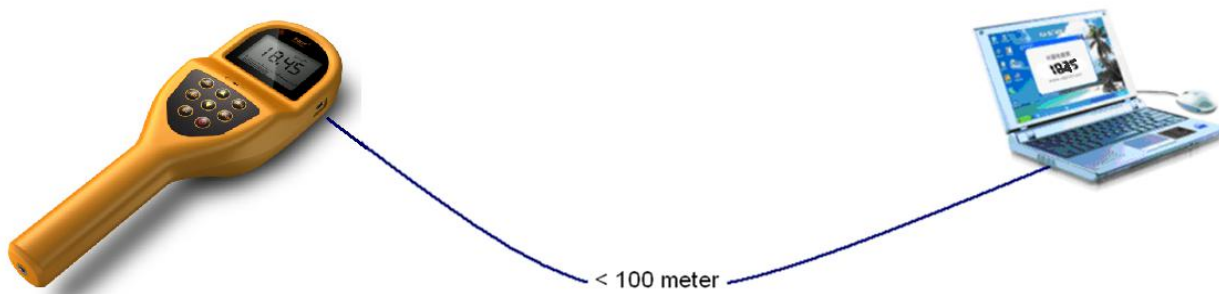
Telescope link can extend to 1.5 meter maximum to remotely detect radiation rays and protect humans from potential injuries



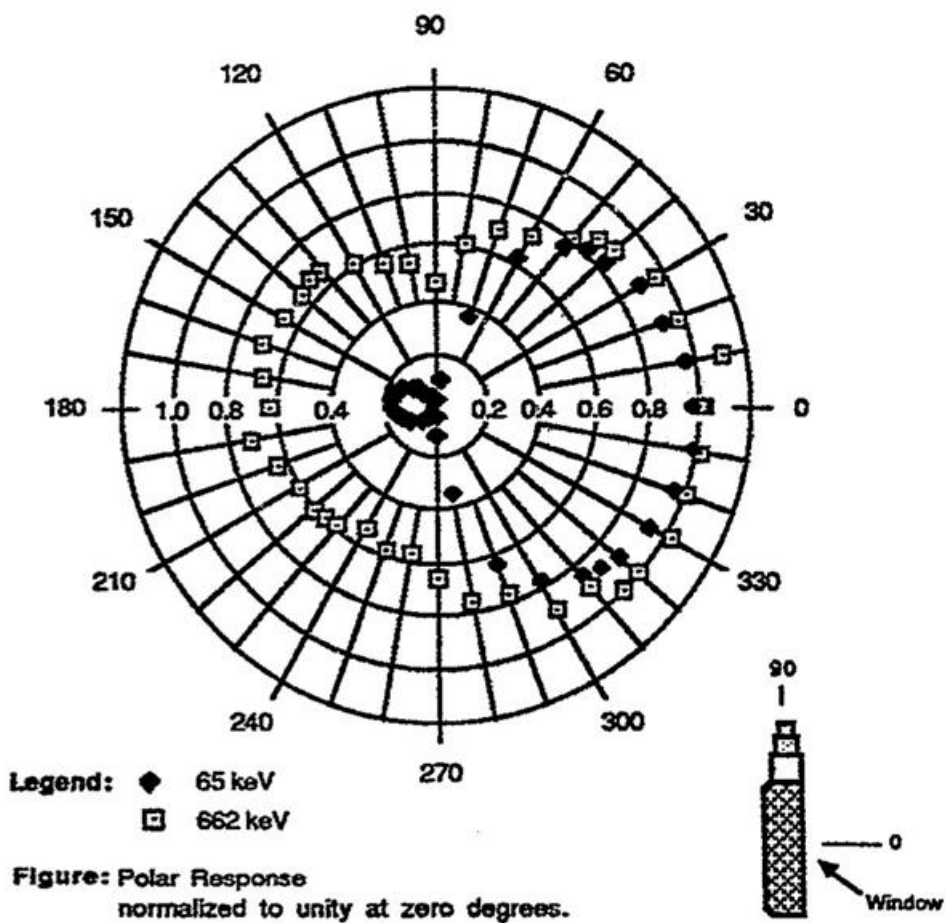
The point angle of the telescopic rod can be randomly adjusted

Specifications

| | |
|---------------------------------------|---|
| Types of measured ray | α β γ and x ray(Ray selection switch) |
| Range | Radiation dose rate:0.01 μ Sv/h-2000 μ Sv/h; 0.001mrem/hr-200mrem/hr Impulse dose rate:0-9999cps Radiation dose accumulation:0.001 μ Sv-999Sv |
| Gamma sensitivity | 1 μ Sv/h \geq 7cps (Cs137) |
| Energy response | 20keV- 3MeV (energy compensation selection switch) |
| Sensor | Large GM tube effective diameter 45mm MICA window density1.5-2.0mg/ cm ² |
| Output port | USB Port (with special USB extend cable to opt which can extend to 100M) |
| Background value stability | \pm 0.02 μ Sv/h (8 hours) |
| Display | Large LCD with bar graph display |
| Efficiency | Pu239(α)about40%;Am-241(5.5MeV α)about36%;Sr-90(546KeV,2.3MeV β max)about65%;C-14(156KeV β max)about8%;Bi-210(1.2 Me/V β max) about64% |
| Anti saturation | Exceed the maximum reading of up to 100 times |
| Calibration | Calibration factor adjustable |
| Alarm function | Audible and visual alarm, alarm value setting fully adjustable default: 5 μ Sv/hr |
| Precision | \pm 15% |
| Storage | Manually or automatically |
| Software | Transmit data in real-time to computer for displaying analyzing and recording |
| Influence of the electromagnetic wave | Negligible |
| 10 times geomagnetic field influence | None |
| Working temperature | -20 $^{\circ}$ C to 60 $^{\circ}$ C |
| Storage temperature | -30 $^{\circ}$ C to 75 $^{\circ}$ C |
| Working humidity | <90%R.H (condensate) |
| Atmospheric pressure | 75kPa-110kPa |
| Weight | 450g |
| Dimension | L300mm, W90mm, H40mm |
| Power | 3 AA battery Continuous operation for up to 30 days |
| Quality certifications | European CE, ISO9001 |
| Optional | A multi PC software (optional: 2 units, 4 units, 8 units, 16 units.....) |



Data is transmitted in real-time to computer for displaying and analyzing



Angle response data

Option: Telescopic link



| | |
|-------------------|---------|
| Model: | MP-4 |
| Section number | 4 |
| Max pipe diameter | Φ25.8mm |
| Max height | 153cm |
| Reduced height | 49cm |
| weight(kg) | 0.32kg |

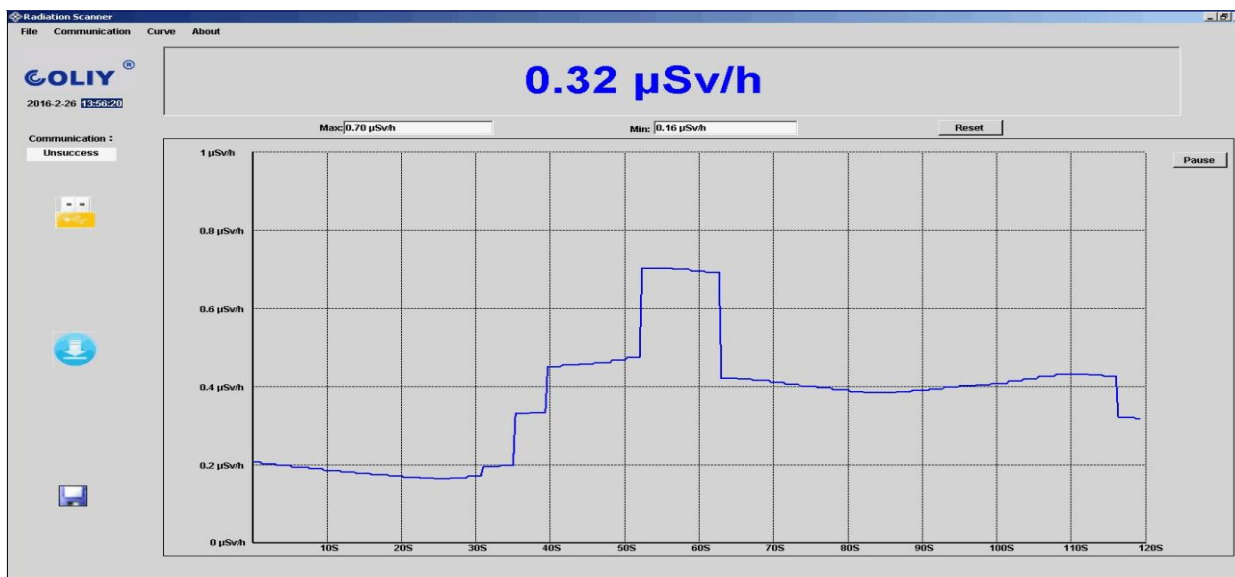
Use: distance-detecting nuclear radiation to avoid human radiation exposure. The point angle of the telescopic rod can be randomly adjusted.



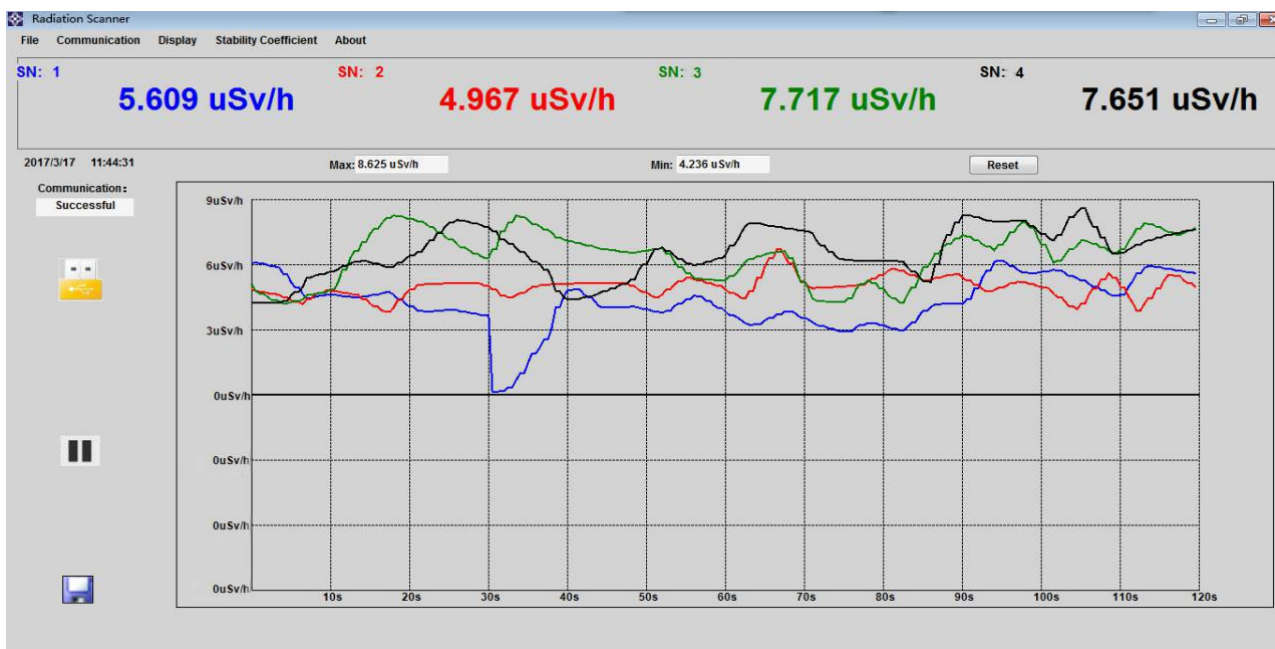
Consumables: Stain-proof sets

Data is transmitted in real-time to computer for displaying and analyzing

Software analysis



A multi PC software



Selection description

| The most popular package |
|---|
| NO.1:R500 +Stain-proof sets+PC software |
| NO.2:R500+Stain-proof sets+Telescopic link+PC software |
| NO.3:Multiple R500-RS485+PC software (optional: 2、4、6、8、16 hosts) |

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