

Qualified
by the PTB
(Government
Authority)



- WIDE RANGE OF 0.002 mR/h TO 3000 mR/h
OR 0.02 μ Sv/h TO 30 mSv/h
- EXCELLENT ENERGY RESPONSE OF 20 keV
TO 1.3 MeV
- SMALL SIZE – LIGHT WEIGHT
- VARIABLE METER RESPONSE TIME
- LARGE SCALE – 270° DEFLECTION
- FOUR STANDARD D CELLS – QUICKLY
REPLACEABLE

SZINTOMAT 6134

DOSE RATE METER

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SZINTOMAT 6134 – DOSE RATE METER

The instrument is designed for measuring minimal dose rates over a wide energy range. The measuring range extends from background effect to 3 R/h, the energy range for gamma radiation covering 20 keV to 1,3 MeV. The power supply for the instrument is obtained from commercial dry cell batteries. Particularly clear indication of the dose rate is obtained by the use of a scale with a pointer deflection of 270°.

Measurements which were previously possible only with great difficulty can now be made easily and elegantly with the SZINTOMAT 6134, for example geological surveys, radiation measurement on X-ray plants, stay radiation measurements etc. The low energy sensitivity of the instrument is obtained by a special scintillator combination which is used in conjunction with a highly stable photomultiplier.

The fluorescent light generated in the scintillator by the incident radioactive radiation, is converted and amplified by the photomultiplier into an electrical current which is proportional to the incident radiation. This current is indicated on a measuring instrument with a 270° pointer deflection after further amplification in a highly stabilised D. C. amplifier. The time constant of this instrument is adjustable in several stages. Precise measured values are therefore obtained even for very small dose rates.

Specifications

Detector	Special scintillator combination
Ranges	Ten linear ranges 0–0.1, 0–0.3, 0–1, 0–3, 0–10, 0–30, 0–100, 0–300, 0–1000, 0–3000 mR/h or 0–1, 0–3, 0–10, 0–30, 0–100, 0–300 µSv/h; 0–1, 0–3, 0–10, 0–30 mSv/h full scale
Accuracy	± 20 %
Response time (3 stages)	1, 4, 16 seconds
Energy dependence	less than 15 % between 20 keV and 1.3 MeV
Temperature range	–20°C–50°C
Batteries	Four D size cells 1.5 V, complying with BA-30 or IEC R 20, all batteries or accumulators of this standard size may be used
Battery life	Carbon-zinc type appr. 50 hours, Alkaline-manganese type appr. 100 hours
Dimensions	285 x 100 x 200 mm
Weight	Appr. 3.6 kg

– SUBJECT TO CHANGE WITHOUT NOTICE –



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