

ScanMin KUTScan Analyser

Natural Gamma Measurement

Several minerals and ores have natural radiation as the result of low levels of Potassium, Uranium and Thorium. The ScanMin KUTScan analyser incorporates the latest in digital technology to measure the natural gamma ray radiation of these elements. Physical reactions of gamma rays are captured by a large scintillation detector located directly below a moving conveyor. The target element is calculated by correlation to direct measurements of the natural radioactive signatures of Potassium, Uranium and Thorium. The technology is suitable for un-beneficiated Run of Mine applications where correlations between K, U & T and analytes of interests are stable. A moisture analyser can be added as an optional extra.

The ScanMin KUTScan analyser can measure the bulk material on a conveyor belt

It is a rugged design that can operate in most industrial environments. The analyser has a wide range of applications.

Results can assist operators with:

- ore grade control
- bypass control
- contamination monitoring (e.g. Potassium concentration to smelters)

Real time elemental analysis enables active process control, allowing yields and quality to be maximised.

Possible applications

Coal mineral matter (Ash)

- Determination of quality by reporting CV and Ash content
- Moisture as an optional extra

Mineral applications

- Direct measurement of K, U and Th
- Other minerals determined by direct correlation to above

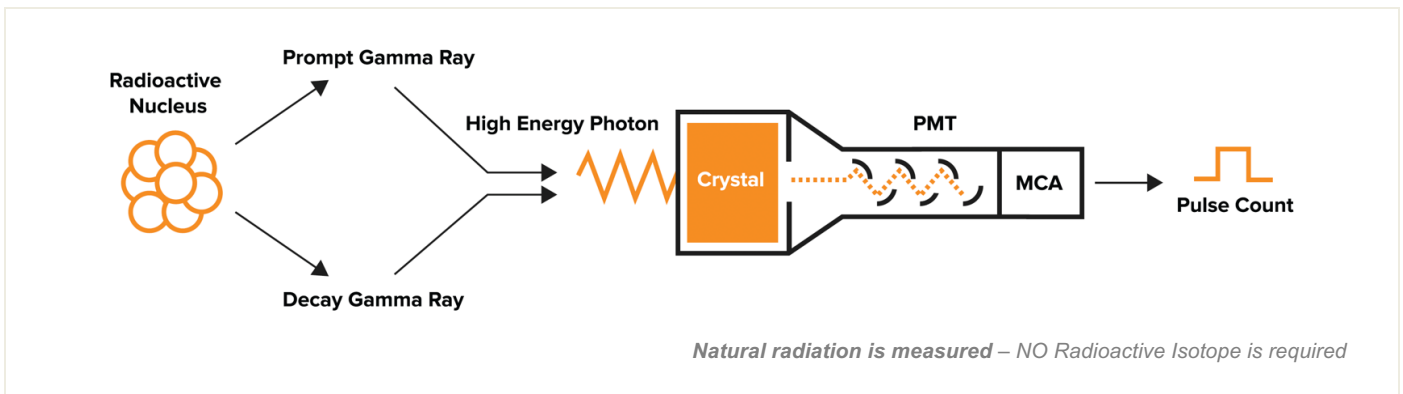
Results reporting

Elemental results are produced in real-time as instantaneous or averaged results. The ScanMin KUTScan analyser system can interface with most plant control systems, enhancing the view on the quality of the product produced by the plant.

Key features

- No isotope required – no RPO administration
- Latest digital MCA and detector technology
- Variable mass flow compensation
- Rugged design
- Few moving parts
- Low maintenance – No Wear parts or consumables
- No Radiation – Safe for personnel
- Easy to install

Technology



Technical specifications

Conveyor Width	Up to 2100mm
Bed Depth	Typical 100mm up to 350mm
Material Size	Up to 300mm
Weight	2200kg (approximate)
Electrical	110VAC – 240VAC (400VA)
Inputs	Belt speed and mass
Outputs	EthernetIP, Modbus, Profibus, OPC etc. Analysis results and status data are transmitted to the plant via data communication protocol or interface. The system is compatible with most standard industrial systems.
Enclosure	IP65. Zone21/22 also available

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