URANIUM ORE FACE SCANNING SYSTEM

(GM Based) TYPE : FS 900

Technical Data

FEATURES :

- Conforms to ANSI N42.17A performance specifications for Health Physics instrumentation (portable).
- Compact, light weight, portable, hand-held, battery powered instrument.
- Modes of Data Acquisition : CPS, CPM and GRADE.
- Detector : GM Tube.
- Choice of Adj. TC (Time Constant) in 'GRADE', acquisition mode.
- Built-in automatic BG (Background) recording and subtraction provided to indicate net CPS, CPM or ore GRADE in PPM.
- Can store 1000 readings at users choice.
- Built-in USB Port facilitates data downloading into PC.

Uranium Ore Face Scanning System, Type : FS900 manufactured by Nucleonix Systems is exclusively designed to meet the requirements in Uranium mines for oreface scanning for mining purposes to estimate the ore grade.

Measuring Unit developed by Nucleonix Systems is a compact, light weight, portable and battery powered unit. System essentially has two part consisting of

(a) Electronic measuring unit.
(b) Face scanning probe assembly comprising of a detector with adequate shielding is 2p geometry and a long connecting cable.

Unit has three modes for data acquisition namely CPS, CPM and GRADE. In GRADE mode when operated this instrument directly reads, computes and displays ore grade in ppm. Of course the reading is updated on each time constant (TC).

Initially, this unit is to be calibrated using ore standards. First BG (Background) and averaged BG is acquired and remembered by the unit. Then user can place one to three standard graded samples and enter their values into the system. Once this is done, unit gets calibrated and is ready for use.

FILE NAME : NSPL/DOC / DS / FS900 / 01

VER_20170809

SPECIFICATIONS

Radiation Detected : Gamma

Detector : Halogen Quenched Beta-Gamma Radiation Detector Type : GM137.

Detector Probe : GM Detector type GM 137 enclosed in cylindrical shell covered with adequate 1" Lead Shielding on all sides excepting on measuring ore Face & connected to measuring unit through a 5 Pin I/O connector.

Modes of Data Acquisition : CPS, CPM & GRADE.

Audio : Built-in piezo buzzer provides beeps for every detected pulse.

User Interface : User interface is through SEVEN control buttons START, STOP, PROG, STORE / RECALL, INC & DEC, POWER ON / OFF.The above functions allow the user to program & operate the instruments in different modes.

TC Selection : 5 sec to 99 sec (Applicable for GRADE mode CPS, CPM).

Measuring Range for Grade : 0.001 to 1.0% e U_3O_8.

Background correction : Automatic subtraction.

Visual Indication :

1) Dotmatrix LCD display for reading CPS, CPM & GRADE.
2) Low battery indication on LCD display.

Data storage memory : Stores readings upto 1000 readings in built-in EEPROM. Stored data can be recalled on the display or transmitted to PC through USB Port.

Data Communication : Built-in serial port facilitates data down loading into PC. Data Communication Software with connecting cable can be provided at extra cost as an additional option.

Dimensions :
106.52W x 196.58L x 164 Ht in mm (approx).

Probe :
186.61 mm Length x 20mm dia (approx) - without Lead Shielding & handle.