

MODEL 3030 Alpha/Beta Scaler

INDICATED USE: Simultaneous Alpha/Beta sample counting

DETECTOR: ZnS(Ag) adhered to plastic scintillation material

TUBE: 2" (5.1cm) diameter magnetically shielded photomultiplier

WINDOW: 0.4 mg/cm² aluminized mylar

ACTIVE and OPEN AREA: 20.3 cm²

SAMPLE HOLDER: Brass housing with Stainless Steel sample tray capable of holding 1" or 2" diameter samples

EFFICIENCY(4pi geometry):

ALPHA: 32%-Th-230; 39%-U-238;
37%-Pu-239

BETA: 8%-C-14; 27%-Tc-99;
29%-Cs-137; 26%-Sr-90/Y-90

CROSS TALK: Alpha to Beta: 10% or less
Beta to Alpha: 1% or less

BACKGROUND: Alpha - 3 cpm or less
Beta-Gamma - Typically 80 cpm or less (25 μ R/hr field)

AUDIO: Built in unimorph type speaker with volume control to provide a dual tone (1 for each channel) click-per-event audio

STATUS INDICATORS: Backlit indicators for **QC**-Daily QC check needed; **OL**-Scintillation detector is in overload condition; **CPM/DPM**-Counting in CPM or DPM mode; α **AL**/ β **AL**-Count has exceeded alarm setpoint

SCALERS: 2 ea. 6 digit LCD displays with backlights providing a range of 0 - 999999 counts (started by **COUNT** button)

SCALER LINEARITY: Reading within $\pm 2\%$ of true value

COUNT TIMER: Adjustable from 0.1 - 60 minutes (PC setting is user-defined via PC software)

HIGH VOLTAGE: Adjustable from 200 - 2500 volts

THRESHOLD: BETA - 4mV
ALPHA - 175mV

BETA WINDOW: 50mV

DATA-OUTPUT: 9 pin RS-232 port

POWER: 85 - 265 VAC, 50-60 Hz single phase (less than 100 mA) with battery backup

CONSTRUCTION: Aluminum housing with Gray polyurethane enamel paint and sub-surface printed front panel

TEMPERATURE RANGE: -4°F (-20°C) to 122°F (50°C)
May be certified to operate from -40°F (-40°C) to 150°F (65°C)

SIZE: 9" (22.9 cm)H X 6" (15.2 cm)W X 9" (22.9 cm)D

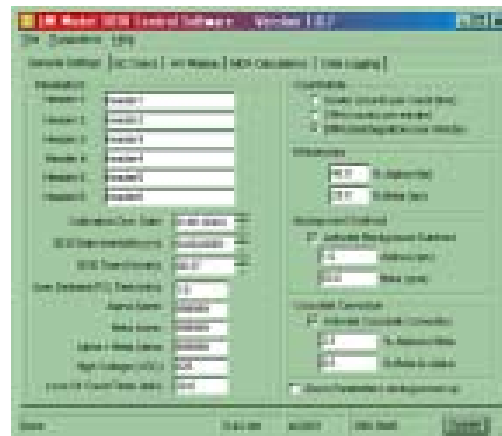
WEIGHT: Approximately 40 lbs (18 kg)

SOFTWARE: PC based to perform setup and calibration routines including background subtract, crosstalk correction, cpm/dpm modes, daily QC check parameters, alarm levels, and automatic plateaus. All parameters are stored in the instrument in non-volatile memory. Logging of data is also available with software collecting and storing the following data:

Sample Number	Sample Date	Sample Time	Alpha Count
Beta Count	Sample Type	Comments	



Part No: 48-3204



MODEL 3030
PC Software Main Display