

# DIGITAL RATEMETER/SCALER TBM-3D WITH PAS-9 PROBE



Fig. 1 TBM-3D



Fig. 2 PAS-9 PROBE

数字率表/定标器  
TBM-3D带PAS-9探头

## FEATURES:

特点



**TECHNICAL ASSOCIATES**

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Divisions of



US NUCLEAR CORP

# DIGITAL RATEMETER/SCALER

## TBM-3D WITH PAS-9 PROBE

- BATTERY OPERATION •2 SEPARATE SCALE FACTORS FOR RATE & TOTAL  
电池驱动•2个不同比例系数用于率&总量
- HIGH VOLTAGE 400V-1200V DC •0.1-99 sec TIME CONSTANT FOR RATEMETER  
高压400V-1200V DC•0.1-99 秒时间常数
- 8 DIGIT LCD DISPLAY  
8位数LCD显示
- OPTIONAL ALARM  
选购报警器
- BRING YOUR OWN STOP WATCH, IDEAL FOR LONG COUNT - UP TO 24hr OR MORE  
手动计时，理想用于长时计数-可长达24小时或更久
- ANY GM OR SCINTILLATION ALPHA, BETA, GAMMA, X-RAY, POSITRON DETECTOR.  
任何GM或闪烁 $\alpha$ ， $\beta$ ， $\gamma$ ，X-ray 位置探头
- OPTIONAL RS-232 SERIAL OUTPUT  
选购RS-232串口输出

**TBM-3D:** Automatic Scaler is a battery operated instrument. Uses include sample or wipe counter. "Frisker" monitor and lab monitor. It includes a digital ratemeter operating mode in which it presents 6 full decades of accurate readout without switching. The **TBM-3D** is also used as an area monitor, again making use of the digital ratemeter modes covering six decades and also utilizing the optional preset alarm. (Figure 1)

**TBM-3D:** 自动定标器为电池驱动的一款仪器，用途包括样品或擦拭计数器，“搜查”监测器和实验室监测器。包含一款数字率表，操作模式下显示6个数级精确读数。**TBM-3D**也可用作区域监测器，使用数字率表模式读出6个数级，还有可选购预设报警（图一）

**DESCRIPTION:** This is a multi-purpose lightweight Scaler with internal replaceable battery. All 400-1200V GM and scintillation probes are usable with the **TBM-3D** as are digital ion chamber and gas proportional probes. The **TBM-3D** is a sturdy table top or portable instrument incorporating both scaler and ratemeter functions.

描述：此款为多用途轻量定标器带内置可更换电池。和数字电离室和流气正比计数器一样，所有400-1200V GM和闪烁探头与**TBM-3D**兼容。**TBM-3D**是一款耐用桌面或便携仪器，配备定标器和率表功能。

Pulses are seen via flashing red LED for visual service in dark areas. Gate time for the scaler is free running mode. Readings directly in mR/hr or other units can be made by choosing correct scaling factors for the scaler and the ratemeter.



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## TBM-3D WITH PAS-9 PROBE

通过闪烁红色LED可在暗处看到脉冲。定标器选通时间为自由运行模式，读数直接读出 mR/hr，通过选择正确定标器和率表比例常数制定出其它单位。

### PAS-9

Alpha Scintillation Probe with a 4-1/2" diameter x 0.8 mg/cm window. The 100 cm<sup>2</sup> face of this probe allows rapid surveys to be made of personnel, equipment or flat surfaces. Background is in the order of several counts per hour. Sensitivity is 10 to 20% for 5 MeV. alphas based on 4Pi geometry (20 to 40% based on 2 geometry). The protective grid is physically separated from the window thus making contamination of the window extremely unlikely. Grid may be removed for cleaning without disturbing the window. some sacrifice of sensitivity has been make for this feature. (Figure 2 Pg.1)

### PAS-9

α 闪烁探头带一个直径4-1/2" x 0.8 mg/cm 窗。100cm<sup>2</sup>探头表面允许对人员，设备或平坦表面进行快速检测。本底每小时几次计数，5MeV阿尔法灵敏度10 -20%，4π 几何（2π 为20 -40%）保护格栅和窗实际分开使得窗极其不易污染。格栅可移除清理而无需影响到窗，此功能稍稍影响到灵敏度（图二，1页）

### SPECIFICATIONS:

#### 规格

#### Detector: PAS-9

Mates with GM Probes or scintillation detectors.

与GM探头或闪烁探头搭配

Detector connector: BNC – Standard

探头连接件：BNC-标准

Detector Bias Supply: 400 V DC to 1200 V regulated and filtered - other voltage levels optional

探头偏压电源：400V DC-1200V 滤波，稳压-提供其它电压。

### DIGITAL RATEMETER (TBM-3D)

#### 数字率表 (TBM-3D)

Power: Batteries: 6 AA cells.

电源：电池 6节AA

Battery Life: 100 hours with Alkaline cells (200 hours with - Lithium cells).



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## TBM-3D WITH PAS-9 PROBE

电池寿命：100小时碱性电池（200小时锂电池）

Battery Check: Push button and LED indicator.

电池检测：按钮和LED指示灯

•**Construction:** All plug in circuit cards, essentially no wires. Rugged, lightweight  
**结构：**全部插卡式电路卡，基本无线，结实轻量

•**Dimensions:** 7.6cm H x 14cm W x 7.6cm D (3" x 5.3" x 3") excluding handle and knobs.  
**尺寸：**7.6cm H x 14cm W x 7.6cm D (3" x 5.3" x 3")，不含把手

•**Weight:** TBM-3D – 3lbs. PAS-9 – 1lb Total – 4lbs  
**重量：**TBM-3D – 3磅. PAS-9 – 1磅 总重-4磅

•**Options:** Alarm circuit with red LED and audio alarm

**选购：**带红LED和声音报警的报警电路

RS-232 serial circuit

RS-232串口电路

Pre-amp for proportional detectors

用于正比探头前置放大器

Other connectors - MHV etc

其它连接件-MHV 等

Digital Display 数字显示	RATEMETER 率表	SCALER 定标器
Range 量程	6 digit LCD 6位数LCD	8 digit LCD 8位数LCD
User Settable Scale Factor 用户设定定标常数	0.1 -20,000 count/sec 0.1 -20,000计数/秒	•0-10,000,000 counts 0-10,000,000计数
Time Constant 时间常数	0.01 to 99 seconds Display Refresh Rate 0.01-99秒显示刷新率	Free Running “自由运转”模式



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