

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



Fig. 1 TBM-3D



Fig. 2 PAS-9 PROBE

### FEATURES:

- BATTERY OPERATION
- 2 SEPARATE SCALE FACTORS FOR RATE & TOTAL
- HIGH VOLTAGE 400V-1200V DC
- 0.1-99 sec TIME CONSTANT FOR RATEMETER
- 8 DIGIT LCD DISPLAY
- OPTIONAL ALARM
- BRING YOUR OWN STOP WATCH, IDEAL FOR LONG COUNT - UP TO 24hr OR MORE
- ANY GM OR SCINTILLATION ALPHA, BETA, GAMMA, X-RAY, POSITRON DETECTOR.
- OPTIONAL RS-232 SERIAL OUTPUT

**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)

**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.

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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# DIGITAL RATEMETER/SCALER

## TBM-3D WITH PAS-9 PROBE

### PAS-9

Alpha Scintillation Probe with a 4-1/2" diameter x 0.8 mg/cm window. The 100 cm face of this probe allows rapid surveys to be made of personnel, equipment or flat surfaces. Back-ground 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)

### SPECIFICATIONS:

#### Detector: PAS-9

Mates with GM Probes or scintillation detectors.

Detector connector: BNC - Standard

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

#### DIGITAL RATEMETER (TBM-3D)

Power: Batteries: 6 AA cells.

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

Battery Check: Push button and LED indicator.

- Construction:** All plug in circuit cards, essentially no wires. Rugged, lightweight
- Dimensions:** 7.6cm H x 14cm W x 7.6cm D (3" x 5.3" x 3") excluding handle and knobs.
- Weight:** TBM-3D – 3lbs. PAS-9 – 1lb Total – 4lbs
- Options:** Alarm circuit with red LED and audio alarm  
RS-232 serial circuit  
Pre-amp for proportional detectors  
Other connectors - MHV etc

Digital Display	RATEMETER	SCALER
Range	6 digit LCD	8 digit LCD
User Settable Scale Factor	0.1 -20,000 count/sec	•0-10,000,000 counts
Time Constant	0.01 to 99 seconds Display Refresh Rate	Free Running

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