

TELESCOPIC SURVEY METER

TL-103M

SALIENT FEATURES

- Auto ranging • Micro Controller Based • LCD Display • Digital reading • 0.1mR/hr to 999R/hr
- Rugged S.S. 9 Section Telescope • Anti-rotation groove to prevent wire twisting • Quick extension / retraction • Battery Voltage Measurement



INTRODUCTION

Telescopic Survey Meter Type TL-103M has been designed to monitor nuclear radiation (Beta & Gamma) with a telescopic probe, to avoid personal exposure. GM Tubes are used in this instrument to measure radiation from 0.1mR/hr to 999R/hr. Standard batteries provided for this instrument are alkaline R14 (UM-2U) size 1.5V cells. Digital display provides easy readability as compared to analog meter with multiple dials, of which meter needle may get sticky.

It is to be noted that telescopic probe of TL-103M is made up of S.S. against aluminium, SS has advantages of reduced sag, superior strength and easy decontamination. And it also has an anti-rotation groove to prevent twisting of wire. Further, while extending the telescope, user do not have to do any screwing/ locking of every section. This reduces time of extending retracting in emergency. Telescope is designed with 9 sections to achieve maximum extended length & minimum retracted length.

This microcontroller based instrument has autoranging facility, so in emergency, user does not have to change the range. Also, battery voltage can be read on the display, so that its serviceability is ensured beforehand

TECHNICAL SPECIFICATIONS

Radiation Detected	: Beta (β) & Gamma (γ)		
Detectors	: 2 Nos. GM Detectors: i) Low Range GM tube (Range 0.1mR/hr to 250mR/hr.) ii) High Range GM Tube (Range 0.05R/hr to 999R/hr)		
Instrument Dimension	: 100cm approx. length when retracted & 400cm approx. length when extended.		
Telescope Material	: Stainless Steel		
Telescope Extension / Retraction Method	: Quick & simple. No need to lock/screw each section to extend/retract Ideal for emergency action.		
Number of Sections	: 9 sections optimized for maximum extended length & minimum retracted length.		
Wire Twist Prevention	: Wire twisting is prevented by not allowing rotation of telescope sections. It is achieved by providing an anti-rotation groove in each section.		
GM Detector Protection	: In retracted condition, GM detector sits inside the telescope, saving it from any shock.		
Instrument Housing	: Aluminium Casting		
Doserate Range (Autoranging)	Range	Resolution	
	00.0 to 99.9 mR/hr	0.1 mR/hr	} Low Range
	100 to 250 mR/hr	1.0 mR/hr	
	0.05 to 9.99 R/hr	0.01 R/hr	} High Range
	10.0 to 99.9 R/hr	0.1 R/hr	
	100 to 999 R/hr	1.0 R/hr	
Exposure Rate Limit	: 5000R/hr		
Response Time	: 2 to 3 sec approximately.		
Stability	: About 10% of full scale of the range.		
Energy Response	: 200KeV to 1.2MeV		
Accuracy	0.1mR/hr to 100R/hr	$\pm 20\%$	
	100R/hr to 999R/hr	$\pm 30\%$	
Display	: 4 digit LCD (0.5") (illuminated)		
Audio	: Buzzer provided		
Batteries	: 4 x 1.5Volts size R14(UM-2U) alkaline cells		
Battery Compartment	: In handle of the instrument		
Battery Voltage Measurement	: Available		
Low Battery Indication	: Indicated on display		
Weight (w/o carrying case)	: 3.2 Kgs. approx.		
Accessories (optional)	: Carrying case		

Note: All optional items at an extra cost.

Cat. No. TL-103M/0708

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