FLUKE®

Fluke 481
Radiation Survey Meter

Technical Data

The Fluke 481 Radiation Survey Meter is a portable and practical means for identifying irradiated goods, and for helping remediate contamination and safety issues while minimally impacting operations.

Use of the device reassures employees that radiation risks are known, monitored and measured for their protection. If radiation is found, a clear and quantifiable result allows managers to comply with federal guidelines, without overreacting with unnecessary steps that might halt operations, impact productivity or lead to lost revenue.

Features Include:

- Detects skin-dose (beta particle) and deep-dose (gamma) and X-ray radiation
- Requires no adjustments; simple two button operation
- Delivers quickly read, correct value through autoranging capability
- Easily visible inside truck trailers and other low-light conditions with automated backlight
- Works reliably indoors or outdoors thanks to sealed case
- 30% more accurate than other available meters
- Delivers more than one week of continuous operation from two 9-volt alkaline batteries
- Proven in use by state and local governmental emergency response professionals, state inspectors, HAZMAT teams and nuclear power workers
- Measures both dose and dose-rate
- Useful for contamination-detection, general radiation area surveys, radiation-level monitoring, and hazardous materials assessment
- Ruggedized Fluke design

Fluke 481 Radiation Survey Meter

Detector	Ion chamber
End users	• X-ray manufacturers • State inspectors • Government agencies • Police and fire departments • Emergency response and hazmat teams • Nuclear medicine labs • Hospital radiation safety officers • Nuclear power workers
Radiation detected	beta, x-ray, gamma

Specifications

Radiation detected	Beta	> 100 keV
	Gamma	> 7 keV
Operating ranges, response time	0 mR/h to 5 mR/h (8 sec) 0 mR/h to 50 mR/h (2.5 sec) 0 mR/h to 500 mR/h (2 sec) 0 R/h to 5 R/h (2 sec) 0 R/h to 50 R/h (2 sec)	
Accuracy	Within 10 % of readings between 10 % and 100 % of full scale indication on any range, exclusive of energy response	
Detector	Chamber (cc volume air ionization)	349 cc
	Chamber wall (phenolic)	246 mg/cm2
	Chamber window (mylar)	6.6 mg/cm2
	Beta slide	440 mg/cm2
Automatic features	Auto-zeroing, auto-ranging, and auto-backlight	
Power requirements	Two 9 V alkaline, 200 hours operation	
Warm-up time	One minute	
Display LCD analog/digital with backlight	Analog	100 element bar graph 6.4 cm long. Bar graph is divided into 5 major segments, each labeled with the appropriate value for the range of the instrument
	Digital	2.5 digit display is followed by a significant zero digit depending on the operating range of the instrument. The units of measurement are indicated on the display at all times. Digits are 6.4 mm (0.25 in) high. Low battery and freeze indicators are also provided on the display
Modes	Integrate mode	Operates continuously 30 seconds after the instrument has been turned on. Integration is performed even if the instrument is displaying in mR/h or R/h
	Freeze mode	Will place a tick mark on the bar graph display to hold on the peak displayed value. The unit will continue to read and display current radiation values
Environmental	Temperature range	-4 °F to 122 °F
	Relative humidity	0 % to 100 % (at 140 °F)
	Geotropism	< 1 %
Dimensions (W x D x H)	10 cm x 20 cm x 15 cm (4 in x 8 in x 6 in)	
Weight	1.11 kg (2.5 lb)	

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