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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<br>• State inspectors<br>• Government agencies<br>• Police and fire departments<br>• Emergency response and hazmat teams<br>• Nuclear medicine labs<br>• Hospital radiation safety officers<br>• 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)<br>0 mR/h to 50 mR/h (2.5 sec)<br>0 mR/h to 500 mR/h (2 sec)<br>0 R/h to 5 R/h (2 sec)<br>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) | |

**Fluke.** *Keeping your world up and running.®*

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