



IC3™

Portable Ion Chamber Survey Meter (No Desiccant Required)



The IC3 survey meter provides exceptional capabilities when measuring gamma, beta, and X-ray radiation for ensuring radiological compliance for nuclear power plants, government agencies, radiopharmacies, and other radiation-sensitive environments. It accurately measures both dose and rate information helping radiation protection professionals to ensure worker safety and minimize dose to the general public.

The IC3 survey meter is a battery-operated, auto-ranging vented ion chamber survey meter that operates without the need for desiccant.

It has enhanced dose rate performance for both gamma and beta radiation, with a wide range extending up to 100 Rad/hour. The IC3 survey meter is particularly valuable in open systems where beta radiation levels may exceed the 50 Rad/hour of most ion chambers.

It is the ideal safety tool for X-Ray and non-destructive testing (NDT) safety applications. Not only does the IC3 survey meter enable a wider range of measurements and visibility; it also accurately measures dose to pulsed X-rays down to 50 nanoseconds.

FEATURES

- ✓ New Sealed Electrometer provides protection in high humidity areas while requiring no desiccant
- ✓ Highly stable, accurate dose measurement readings from 50 nanosecond X-Ray pulses
- ✓ Measures dose rate and accumulated dose
- ✓ Wide measuring range of 1 μ Sv/hr to 1 Sv/hr (0.1 mR/hr to 100 R/hr)
- ✓ Built-in memory to store data
- ✓ Large color illuminated display for ease-of-use
- ✓ Compact, lightweight design and easy-to-use, one-hand operation
- ✓ Beta Window status indication on display and alarm
- ✓ Internal accelerometer allows automated sleep function based on movement

IC3 PORTABLE ION CHAMBER SURVEY METER, NO DESICCANT

OPTIMIZED USER EXPERIENCE

The IC3 survey meter is designed for optimized user experience.

- **Portability:** Compact, lightweight and easy to use in one-hand operation.
- **Built-in Memory:** Data storage includes routine measurement points, reducing workload and manual record-keeping.
- **Backlight Display:** An illuminated display offers ease-of-use in poorly lit environments.
- **Connectivity:** An onboard connection to the Mirion ecosystem and WRM radio integrates seamlessly with existing telemetry systems, and a USB connection supports long-term monitoring systems.
- **Combination Display:** Smoothed digital readout for minimum fluctuation and a two decade analog bar graph for fast response.
- **Stored data records** can be downloaded with free software package via USB port.

SPECIFICATIONS

- **Measuring Range:** 1 μ Sv/h to 1 Sv/h (0.1 mR/h to 100 R/h)
- **Accuracy (^{137}Cs):** $\pm 10\%$ of reading within measuring range
- **Gamma Energy Dependence:** Better than $\pm 20\%$ from 20keV to 3MeV
- **Beta Energy Dependence:** Better than $\pm 20\%$ from 200keV
- **Angular Dependence (^{137}Cs):** Less than $\pm 30\%$ (for $\pm 90^\circ$ of front direction)
- **Ion Chamber Volume:** 350 cm^3
- **Chamber Wall and Beta Slide Thickness:** 1000 mg/cm^2 (tissue equivalent)
- **Window Density:** 7 mg/cm^2 Mylar
- **Response Time:**
 - 3 sec. for readings above 1 mR/h
 - 5 sec. for auto-ranging change, from Low Range to High Range (2 sec. +3 additional seconds for auto ranging delay)
- **Power Use (has Sleep Function to reduce battery consumption):**
 - Four 1.5 Volt AA batteries
 - Hours of Operation: Up to 100 hours (on lowest Backlight)
- **Display:**
 - Color TFT Display
 - 3 digits with auto ranging units of measurement
- **Data Logging:** 200 data records
- **Temperature Range:**
 - Operation: -10°C to $+50^\circ\text{C}$ (15°F - 122°F)
 - Storage: -20°C to $+60^\circ\text{C}$ (-5°F - 140°F)
- **Humidity Range:** Up to 95% RH (non-condensing)
- **Dimensions:**
Width 13 cm (5.1"), Length 24 cm (9.5"), Height 14 cm (5.5")
- **Weight:** 1000 g (2.2 lb) including batteries
- **Casing:** High impact ABS
- **Data Connection:** USB for calibration, configuration, upgrade firmware and stored data points. Optional Internal 900 MHz or 2.4 GHz RF Radio (WRM2/WiFi)
- **Threshold Alarms:** User selectable
- **Backlight:** Yes, switchable and automatic
- **Units:** Switchable US or SI
- **Speaker for Rate:** Yes
- **Speaker for Alarm:** Yes
- **Modes/Menu Options:** 4-button menu driven display with multiple modes and configurable options
- **Temperature-compensated Readings:** Yes
- **Zero Function:** Automatic
- **Desiccant:** No desiccant required
- **Pulsed X-Ray Use:** Yes, down to 50 nanoseconds



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