



SURVEY METERS

ADM 300A(V1B)

Multi-Functional Survey Meter



FEATURES

- Internal GM detectors for Beta and Gamma detection
- Microprocessor based with easy-to-read LCD alphanumeric display
- Beta window for ambient levels for contamination on “samples” eliminating the need for a second unit
- Analog and digital displays provide both trending and accuracy
- Nine decades of operation (from environmental to accident levels) and will not saturate in over 100 Sv/hr (10 000 R/hr) field
- Unique “Time-To-Count” GM technology provides high accuracy and allows calibration with license free sources
- Displays and stores up to 100 data points
- Dose and dose rate alarms across entire measurement range
- Switch activated chirper provides audible “rate” for use in noisy work environments
- Predictive algorithm provides estimate of time in the field before alarm
- Illuminated display for operating in low light conditions
- RS-232 Serial and USB computer port
- Contamination resistant sealed membrane keypad

DESCRIPTION

The ADM300A(V1B) Multi-Functional Survey Meter detects, measures and digitally displays levels of gamma radiation dose rate from 0.01 $\mu\text{Sv/h}$ to 100 Sv/h. The analog display covers 0.01 $\mu\text{Sv/h}$ to 10 Sv/h. The ADM300A(V1B) detects and displays relative level of beta particles. This meter measures, stores, and digitally displays accumulated dose from 0.01 μSV to 100 Sv. The analog display covers 0.01 μSV to 10 Sv. This portable instrument is rugged and reliable, and designed for use in all environments.

CANBERRA’s unique Time-to-Count technique is employed in this meter to eliminate the dead time and saturation effects that are common with conventional Geiger Mueller detectors. This functionality allows wide range detection with unsurpassed accuracy and linearity.

When coupled with optional external “Smart” probes, the ADM300A(V1B) instrument can be used to measure, store, and display Alpha, Beta, Gamma, and X-ray radiation. “Smart” probes store probe ID, calibration data and have an internal high voltage power supply.

ADM300A(V1B) | MULTI-FUNCTIONAL SURVEY METER

SPECIFICATIONS

Detectors:

- Two GM detectors (low-range for gamma and beta radiation, high range only for gamma radiation) located internally, facing the rear panel of the instrument.

Range:

- Low-range detector: 0,01 μ Sv/h to 50 mSv/h (Dose rate)
- High-range detector: 30 mSv/h to 100 Sv/h (Dose rate)
- Dose rate:
 - 0.01 μ Sv/h to 50 mSv/h for Beta radiation
 - 0.01 μ Sv/h to 100 Sv/h for gamma rays
- Accumulated dose: 0,01 μ Sv to 100 Sv
- Dose rate: \pm 15% up to 100 Sv/h
- Dose: \pm 15% up to 10 Sv
- Linearity: \pm 5%
- Response time: two to five seconds
- Dimensions: 4,8 x 11,1 x 21,6 cm³ (1.88 x 4.38 x 8.50 in.3) (H x W x L)
- Weight: 2.6 lb (1,17 kg)

Data and Communication:

- Automatic Data Logging feature allows the automatic collection of internal or external probe data at a settable periodic rate when the signal is above a settable threshold.
- GPS support allows position coordinates to be saved when logging data.
- Training Mode allows the ADM300A(V1B) to display a simulated radiation field as calculated from an attached GPS and a preset radiation pattern.
- User default settings can be collected and stored internally.
- RS-232 Serial and USB computer port to support the use of PC based setup software and provide the ability to calibrate via a remote connection.

Display:

- Liquid crystal display (LCD) shows three digits, decimal point and unit of measure for dose rate/count rate or accumulated dose. Also indicates low batteries and faults.

Alarms:

- Audible and/or visual (LED) alarm independently settable for dose rate and accumulated dose.

Power:

- Main power: four x AA batteries
- Vehicle power: 12 to 24 V DC (when vehicle mounted)
- AC power: supplies 6 V DC input: 100 to 240 V ac 50 or 60 Hz
- USB power: supplied to instrument through the USB connection
- Main power (battery life): 200 hours typical

Environmental:

- Altitude transportation: 10 000 m (32 808 ft)
- Altitude operating range: 4572 m (15 000 ft) above sea level
- Operating temperature: from -30 °C to +50 °C (from -22 °F to 122 °F)
- Operating humidity: from 0 to 95%
- Meets the environmental conditions specified by EN 61010, Installation Category I, Pollution Degree 2
- Storage temperature: from -40 °C to +60 °C (from -40 °F to 140 °F)
- Shock/vibration: meets requirements of MILSTD-810
- EMI/EMC: meets requirements of MIL-STD-461
- Water resistance: splash proof and momentary immersion proof

ORDERING INFORMATION

- ADM300A(V1B)

ADM300A(V1B) COMPATIBLE PROBES *

- ABSP-100 Alpha/Beta scintillator probe
- AP-100 Alpha probe
- BP-100 Beta (pancake GM)
- BGP-100 Gamma with Beta window
- BSP-100A Beta scintillator probe
- XP-100 CaF₂ (Eu) scintillator (2 in. dia)
- XP-120 NaI(Tl) scintillator (5 in. dia) low energy X-rays with extended range

* All probes require model KC-100 coil cord for use with the ADM300A(V1B)

ADM300A(V1B) ACCESSORIES

- Carrying case (CC-100)
- Pouch (CP-100)
- Coil cord (KC-100)
- Headphones (EM-100)
- Earphone volume controller (VC-100)
- Gun handle (HG-100)
- GCF-200 calibration fixture.



CANBERRA

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