

# Botron B48382 Technical Data Sheet

## Overview:

The Botron B48382 AIM Audit Ionization Meter is a compact, portable survey instrument for measuring electrostatic charge and ion balance. The AIM measures electrostatic charges up to 20 kV (20,000 V) at a distance of 1" (25 mm). Results are simultaneously displayed both numerically and in bar graph format on the large LCD. Also great for measuring ion balance on your workbench, the AIM will display ionization and polarity from -200V to +200V.

## Product Notes and Features

- Easy to Use
- Lightweight & Compact
- Automatic Range Switching
- Accurate & Repeatable Measurements
- Digital & Bar Graph Display
- Auto Power Off

## PROPERTIES

## SPECIFICATIONS

Measuring Range:	0 to $\pm 1.49$ kV (Lo range) $\pm 1.0$ kV to $\pm 20.0$ kV (Hi range) (Range hysteresis: $\pm 1.0$ kV to $\pm 1.5$ kV) 0 to $\pm 200$ V (Ion Balance range)
Measuring Distance:	1" $\pm 1/64$ " (25mm $\pm 0.5$ mm); LED guide for correct distance
Response Time:	<1 s
LCD Renewal Rate:	5 times/s
Accuracy:	$\pm 10$ %
Ambient Conditions:	50°-100°F, (10° - 40°C); 0 - 60 %RH
Bar Graph Precision:	$\pm 0.1$ kV for low range $\pm 1.5$ kV for high (Hi) range; $\pm 15$ V for ion balance range
Digital Reading:	Auto-ranging, Ion Balance Mode, Battery Capacity, Error Sign
Alarm:	Yes
Power Source:	9 V, 6F22Y manganese battery.
Battery Life:	In excess of 30 hours.
Size:	4 7/8" x 2 7/8" x 1"
Weight:	6 oz. (170g)
Case Material:	Conductive resin (ABS)

## PART NUMBERS

**B48382** AIM Electrostatic Field Meter



## DISPLAY FEATURES

Bar graph; red LCD positive polarity voltage, blue LCD negative polarity voltage

## OPERATION

The AIM has four push buttons.

Left on for 5 minutes, it will automatically turn itself off.

The HOLD button is green and holds the display of a measured charge.

The hold measurement feature enables the user to use the meter in inaccessible areas.

The IB button is blue and prepares the field meter for Ion Balance measurement.

The ZERO button is gray and sets the meter to a zero charge.

A display of [+] or [-] next to the digital numeric value represents the polarity of the static electricity being measured. In addition, the color of the bars in the bar graph indicates the polarity of the static charge. Red and blue bars indicate positive and negative charges respectively.

The AIM can also be used to measure ion balance voltage (residual voltage).

## DIGITAL READING

Auto-ranging, three digits x.xx = 0 to  $\pm 1.49$  kV

xx.x =  $\pm 1.0$  kV to  $\pm 20.0$  kV (Hi)

xxx = 0 to 200 (Ion Balance)

Ion Balance mode display: [IB] is displayed

Battery capacity display indicator

HOLD switch to retain display after measurement

Error sign [ERR] appears if the sensor is damaged

## ALARM FEATURE

Beep sound will be heard during the following actions:

Power on: one beep

Power on with Auto Off feature disabled: [Depress power button for more than 3 seconds] three beeps

Auto power-off: short beeps at 1 second interval for 5 seconds before power off

Over range: Continuous sound