

Static Decay Timer

PDT-740B

Data Sheet

Measure decay times for ionizers and materials

The PDT-740B Static Decay Timer is designed to measure the time required for a 1,000 Volt charge to dissipate to less than 100, 50 or less than 10 Volts in tenths of a second. This extremely useful accessory is used with the PFM-711A or PFM-711B Field Meter and CPM-720A or CPM-720B Charge Plate Monitor to evaluate Ionizer Decay Time in accordance with ESD Association Ionization Standard ANSI/ESD STM3.1.

The PDT-740B may be used to evaluate the static decay capabilities of materials, personnel, equipment and other products. It is compatible with most portable CPM's and field meters having an analog output (10,000 Volts equals 1 Volt). Completely automatic, the PDT-740B is simple to operate and easy to use.





Data Sheet

Specifications for the PDT-740B Static Decay Timer

| | |
|-------------------|---|
| Controls | OFF-ON Cut Off Voltage, 10, 50 and 100 Volts (Selects Voltage to stop timing) |
| Indicators | Green LED: Decay Cycle Ready > ± 1 kV, CPM voltage > $\pm 1,000$ Volts Red LED: Timing in Progress, CPM voltage decay timing activated LOBAT: Displayed when battery voltage < 6.0 Volts |
| Display | Liquid Crystal Display (LCD) displays elapsed decay time from $\pm 1,000$ Volts to selected Cut Off voltage in seconds and tenths of a second (00.0) |
| Polarity | Automatically senses Positive & Negative voltage references |
| Zero & Reset | Automatically Resets Timer and Display to 00.0 when Charge Plate Monitor voltage > ± 1 kV. Reset indicated when Green LED Decay Cycle Ready LED is ON |
| Response | Approximately 200 milliseconds in combination with PFM-711A and Charge Plate Monitor |
| Timing Range | From 0.2 to 159.9 seconds |
| Timing Setpoints | Reset when voltage input $100\text{mv} \pm 2\text{ mv}$ (1,000 Field Meter Volts $\pm 20\text{ V}$) Cut Off Voltage @ 100 V: $10\text{mv} \pm 0.2\text{ mv}$ (100 Field Meter Volts $\pm 2\text{ V}$) Cut Off Voltage @ 50 V: $5\text{mv} \pm 0.2\text{ mv}$ (50 Field Meter Volts $\pm 2\text{ V}$) Cut Off Voltage @ 10 V: $1\text{mv} \pm 0.2\text{ mv}$ (10 Field Meter Volts $\pm 2\text{ V}$) |
| Accuracy | Cut Off Voltage @ 100 V: Typically $\pm 5\%$ Cut Off Voltage @ 50 V: Typically $\pm 5\%$ Cut Off Voltage @ 10 V: Typically $\pm 10\%$ |
| Power | One (1) standard 9 Volts battery, PROCELL, Eveready #216 (NEDA 1604, JIS 006P, IEC 6F22) Eveready #216 |
| Battery Life | > 40 hours typical |
| Dimension (LxWxH) | 4.50" x 2.75" x 1.0" (11.4 cm x 7 cm x 2.5 cm) |
| Weight | 6.5 oz with battery installed (184g) |