

# PD-10i

## PUSHBUTTON ADJUSTABLE ELECTRONIC DOSIMETER



- ▶ FULL FEATURED DOSIMETER
  - DOSE
  - DOSE RATE
  - CHIRPER
  - STAY TIME ALARMS
- ▶ LIGHTWEIGHT
- ▶ ADJUSTABLE ALARMS
- ▶ NO READER REQUIRED

### DESCRIPTION

Through patented innovations and advanced microelectronics, SAIC has packaged a full featured electronic dosimeter into a stand-alone, pager-sized device for personal use.

The PD-10i continues the heritage of accuracy and reliability found in SAIC's PD Family of Dosimetry Products. Pushbuttons on the front allow the user to adjust alarm set points and chirp increments. In addition, numerous dosimeter functions can be enabled or disabled to suit your personal needs. This feature eliminates the need for a computer reader interface when versatility and reduced system cost are a primary concern.

The Liquid Crystal Display on the dosimeter steps through Total Dose, Dose Rate, Stay Time, and Set Point Confirmation displays. The PD-10i is operational as a stand alone dosimeter, or it can be used with other SAIC dosimetry products.

Manufactured by employee-owned SAIC, the PD Family of Dosimetry Products provide your best-value solutions.

# PD-10i

## PUSHBUTTON ADJUSTABLE ELECTRONIC DOSIMETER

### PHYSICAL PARAMETERS

#### Size:

- 48 mm x 72 mm x 17 mm

#### Weight:

- Less than 90 grams with battery

#### Volume:

- 60cc

#### Ruggedness:

- Exceeds drop test requirements of ANSI N13.27 - 1981 (Tested for 40 drops from 1 meter onto concrete)

#### Sensor:

- Miniature Geiger-Mueller tube, energy compensated

### PERFORMANCE CHARACTERISTICS

#### Dose Range:

- 0  $\mu$ R to 999 R

#### Minimum Resolution:

- < 2  $\mu$ R

#### Dose Rate Range:

- $\pm 15\%$  or  $\pm 20$   $\mu$ R/h from 0  $\mu$ R/h to 500 R/h. No foldover up to 10,000 R/h. Does not include counting statistics which are less than  $\pm 20\%$  (1s) for rates >10mR/h

#### Energy Response:

- Air equivalent to within  $\pm 25\%$  from 55 keV to 6 MeV (-70% response at 40 keV)

#### Alarms:

(Alarms are set by push-buttons or through the PDR reader)

- Dose: Settings from 10  $\mu$ R to 999 R
- Pre-Dose: Settings from 10  $\mu$ R to 999 R
- Dose Rate: Settings from 40 R/h to 999 R/h
- Stay time: Settings from 6 s to 109 h
- Pre-Stay time: Settings from 6 s to 109 h

#### Chirp:

- One beep per pre-set dose increment Dose increment setting range: 2  $\mu$ R to 50 mR

#### Visual Readout:

- Dose alarm flashes "DOSE"
- Dose rate alarm flashes "RATE"
- Stay Time shows "m"

#### Dose History:

- 223 points; Interval Range: 6 s to 109 h, 6 second increments, accessed through PDR reader only

#### Power:

- Standard AA Batteries
- Alkaline > 2250 hours 2250 hours in 100 $\mu$ Sv/h field

#### Calibration:

- Factory calibration valid to first of 10 years or 300 R of accumulated exposure. Factory recalibration available.

#### Environmental:

- The above specifications are maintained from -28C to 60C and relative humidity up to at least 95%, non-condensing.

#### Rugged:

- The PD unit is rugged and has sustained high impact drop tests and loose cargo transportation tests.

#### User Set Options

- Rate Display, Rate Audio Alarm, Rate Display on Rate Alarm, Stay Time Mode, Acknowledge DOSE Alarm, Acknowledge Stay-Time Alarm, Auto Shut Down, 6 second Backlight Hold, Minimum Units in  $\mu$ R or mR, Default Background Rate Reading, Chirp

#### Warrenty

- 1 year parts and labor.



#### ADVANCED SECURITY PRODUCTS

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Note: Due to our efforts to continually improve this product, specifications, dimensions and operating procedures are subject to change without notice. All specifications and measurements are approximate, based on the standard configuration; results may vary with the application and environment.

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