# PAS-853B ワイドレンジ抵抗計



ANSI/ESD S20.20 プログラムをサポートするワイドなレンジの抵抗測定器

PAS-853B は、ANSI / ESD S20.20 プログラムスタンダードの定期検証の要求事項をサポートするために、すばやく、しかも数多くの抵抗測定を行う必要があるESD プラントオーディターのために設計されたワイドな測定レンジをもつ抵抗測定器です。

PAS-853B は、ANSI/ESD541の標準抵抗測定技法に従った測定を行なうことができESD TR53 のすべての監査要求事項を満足します。

## オートモードでの試験電圧と抵抗範囲

• <10 V :  $0.01 \sim 9.9 \times 10^3 \Omega$ 

10 V (±<5%:一定の電圧) : 1.0x10<sup>4</sup> ~ 9.99x10<sup>5</sup> Ω
100 V (±<2%:一定の電圧) : 1.0x10<sup>6</sup> ~ 9.99x10<sup>12</sup> Ω

- ワイドな抵抗測定レンジ: 0.01 \(\Omega \sime 9.99x10^{12} \)\(\Omega\$
- 高い測定精度: フルレンジ平均 <±5%
- 全自動抵抗測定:抵抗測定レンジの調整、試験電圧調整、電化期間
- 全自動、または連続電化期間のコントロール
- ハイパーフォーマンスな試験リード2m付属
- 9V アルカリ積層乾電池1個による駆動が可能
- 大型 LCDによる読み取り易さ
- ESD Association規格の資材の抵抗測定とオーディットの要求事項を満足
- NISTに準拠したトレース可能な校正証明書の付属





#### **CONTROLS**

### ON/OFF Battery Bus Cut-off

Slide Switch ON SIDE OF CASE

ON: Energizes instrument and LCD displays Software Version then GO A with AUTO indication (Default)

OFF: Isolates battery and DC voltage from instrument controls and circuit. Use for transport and storage

#### **TEST Pad**

With Test Leads installed: Press once & Release. Measurements performed automatically

In conjunction with MODE changes from Auto operation to Continuous

#### MODE Pad

Steps through Auto/Voltage ranges with each press of MODE Pad:

- AUTO: Default automatic resistance range & Voltage control
- <10V: Manual Operation 0.01 to ≤10V Test
  - Resistance Range: 0.01E-1 to 9.99E9  $\Omega$
- 10V: Manual Operation at 10V (Nominal, Semi-Constant)
  - Resistance Range: 0.98E4 to 9.99E10  $\Omega$
- 100V: Manual Operation at 100V (±<5V) Constant Voltage
  - Resistance Range: 0.98E6 to 9.99E12  $\Omega$
  - When data in HOLD, press MODE to terminate HOLD without changing operational mode
  - Press MODE with TEST to change from Auto to Continuous
  - Used to measure lead resistance (NULL)
  - Used by Prostat Authorized Technicians for Voltage Calibration

#### **CONNECTIONS**

Positive (+): Test Voltage (RED) – Supplies test voltage to electrodes/fixtures

Negative (-): Current sensing (BLACK) - Conducts current from electrode, fixtures or Ground to instrument

Chassis ( A ): Shielding connection to chassis (WHITE) - Reduces transmitted energy and effect on current measurement

Note: ¾ inch spacing between RED and BLACK accommodates dual banana BNC adapters

#### **INDICATION**

Colored LED's indicate instrument operational MODE and Test Voltage (YELLOW) used for the current measurement, as well as measurement completion (GREEN LED).

- AUTO: ON during automatic operations; OFF in Manual mode
- <10V:
- 10V
- 100V
- GREEN LED: Measurement hold

#### **TYPICAL TOLERANCES**

<sup>1</sup>Nominal performance by range: 0.01E- 1 -- 1.0E 0  $\Omega$  < $\pm$ 10%,  $\pm$ 2 Counts 1.0E 0 – 9.99E10  $\Omega$  <±2%, ±2 Counts 1.0E11 -- 9.99E12  $\Omega$  <± 10%, ±4 Counts

#### **TEST VOLTAGES**

Automatically selected and controlled in AUTO mode. May be manually selected by pressing MODE pad in the following order:

<10V Variable based on resistance load

- Provides 0.001 to  $\leq$ 10V
- Functional in AUTO within range  $0.01~\Omega$  - <  $1.0E+4~\Omega$
- Manual Operation Resistance Range: 0.01E-1 to 9.99E+9  $\Omega$

10V Constant Voltage (Under Load)

- Test Voltage Varies  $\pm$  <5% in AUTO or
- Manual Operations
- Functional in AUTO within range  $1.0E+4\Omega$  - <1.0E+6  $\Omega$
- -Manual Operation Resistance Range: 0.9E+4 to 9.99E+10  $\Omega$

100V Constant Voltage (Under Load)

- Test Voltage Varies  $\pm$  <2% in AUTO or Manual Operations
- Functional in AUTO within range 1.0E+6  $\Omega$  - <1.0E+13  $\Omega$
- Manual Operation Resistance Range: 0.90E6 to 9.99E12  $\Omega$

Returns to Auto Mode

#### **MODES OF OPERATIONS**

GO A: Performs all automatic and manual voltage select functions, stops and displays measurements after Electrification Period (EP) is complete, then displays data with Green LED ON for 10 seconds.

GO C: Performs all automatic and manual voltage select functions, continuously displays measurements until the operator presses MODE or TEST pads. GO C disables electrification period controls.

#### **POWER**

One 9V alkaline transistor battery; battery life > 50 hours

#### **DIMENSIONS**

7.25 in. (184 mm) x 4.3 in, (109 mm) x 1.4 in. (36 mm)

#### WEIGHT

13.2 oz. (375 gram) with battery installed

#### **NOTES**

<sup>1</sup>Tolerance and accuracy measurements were conducted under controlled conditions with close tolerance reference resistors.

Do not attempt to open instrument case

- No internal operational parts or adjustments
- Provides access to 100DCV power supply
- Damage to instrument and environmental seals may occur
- Will void warranty
- Store instrument in case and dry environment

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