

# Dielectric Withstand Tester

For Safety Agency Production Line Compliance Testing



## HYPOT II MODEL 4500D

Entry level 500VA Hipot tester with simple PLC control. It has the features and flexibility that makes it the perfect choice for all your manual 500VA testing needs.



## FEATURES AND BENEFITS

**FEATURE BENEFIT** **Maximum output current of 100 milliamps AC**  
The 4500D offers enough output current to test capacitive loads in AC mode and allows compliance with standards requiring 500VA output.

**FEATURE BENEFIT** **Front panel LCD displays test parameters and results**  
A front panel LCD allows the operator to monitor the test. The display holds the results after a test item failure so that the operator can easily review the test results. Indications of high fail and continuity failure are clearly displayed.

**FEATURE BENEFIT** **Monitoring of current down to 10 microamps AC**  
This allows the 4500D to be used even when test requirements only allow a very low level of acceptable leakage current.

**FEATURE BENEFIT** **Electronic ramp and dwell settings**  
Electronic Ramp provides a gradual and timed method to increase output voltage to the DUT, minimizing any damage from quickly over-applying high voltage to sensitive DUTs while electronic dwell keeps test results consistent by ensuring that the test duration is the same for each product tested.

**FEATURE BENEFIT** **Test setup memories**  
The operator can store and recall test setups, thus eliminating the need to re-enter setup information.

**FEATURE BENEFIT** **Safety agency listing**  
The 4500D is CE and TUV listed which means it has passed the tough design and performance tests as called out in EN 61010 and IEC 1010.

**FEATURE BENEFIT** **PLC remote inputs and outputs**  
The standard 9 pin interfaces provide outputs for Pass, Fail, and Test in Process. Inputs include Test and Reset. This gives the user all the basic remotes required to configure the 4500D through simple PLC relay control.

**FEATURE BENEFIT** **Built-In remote interlock**  
A remote interlock provides a way to connect a safety enclosure or other safety device to protect the operator from exposure to high voltage.

**FEATURE BENEFIT** **Built-in continuity test mode**  
The 4500D meets ground continuity test requirements called out by UL and other safety agencies.

**FEATURE BENEFIT** **Low-current sense**  
This will monitor the minimum level of current flow, thus ensuring that the DUT is properly connected and that the hipot test is being performed.

**FEATURE BENEFIT** **Adapter box for products terminated in a line cord**  
The standard US style receptacle box allows easy testing of hipot and continuity on line cord terminated products. As an additional benefit, termination boxes are available for testing products with line cords configured for other countries.

**FEATURE BENEFIT** **Simple menu driven parameters**  
The easy-to-follow setup screens ensure that the operator correctly sets up all test parameters.

# USER FRIENDLY FEATURES

- **No load setup of trip current and output voltage.**
- **Automatic storage of test program.**
- **Tamper proof front panel controls.**
- **Line and load regulation.**
- **Software calibration control.**
- **User selectable output voltage frequencies of 50 or 60 hertz.**
- **Output voltage fine adjustment.**
- **User selectable input voltage.**
- **Flashing high voltage indicator.**

## MODEL 4500D Specifications

INPUT	
<b>DIELECTRIC WITHSTAND TEST MODE</b>	115/230V selectable, $\pm 10\%$ variation, 50/60 Hz $\pm 5\%$
<b>FUSE</b>	115 VAC, 230VAC – 15A fast acting 250VAC
<b>OUTPUT</b>	Rating: AC 0 – 5000V, 10V / step, 100mA Regulation: $\pm (1\% \text{ of output} + 5V)$
<b>VOLTAGE SETTING</b>	0V – Max output rating, 10V / step Accuracy: $\pm (2\% \text{ of Setting} + 5V)$ (relative to displayed output) Can be adjusted during operation via UP and DOWN arrow keys.
<b>OUTPUT FREQUENCY</b>	50/60 Hz selectable
<b>WAVE FORM</b>	Sinewave, Crest Factor = 1.3 - 1.5, $<2\%$ THD
<b>DWELL TIME SETTING</b>	0 and 0.2 – 999.9 seconds, 0.1 second / step “0” for constant
<b>RAMP TIME SETTING</b>	0 and 0.2 – 999.9 seconds, 0.1 second / step 0 ramp setting = 0.1 seconds fixed ramp
<b>FAILURE SETTING</b>	High limit: 0.00 – 99.99 mA, 0.01 mA / step Low limit: 0.00 – 99.99 mA, 0.01 mA / step (0=OFF) Accuracy: $\pm (2\% \text{ of setting} + 0.02 \text{ mA})$
<b>METERING</b>	Voltmeter (4 digits) Range: AC 0.00 – 5.00 KV Resolution: 0.01 KV Accuracy: $\pm (2\% \text{ of reading} + 10 \text{ V})$ Ammeter (4 digits) Range: AC 0.00 - 99.99 mA Resolution: 0.01 mA Accuracy: $\pm (2\% \text{ of reading} + 0.02 \text{ mA})$
<b>TIMER DISPLAY</b>	Range: 0.0 – 999.9 seconds Resolution: 0.1 seconds Accuracy: $\pm (0.1\% \text{ of reading} + 0.05 \text{ sec})$
<b>GROUND CONTINUITY CHECK</b>	Current: DC 0.1 A $\pm 0.01A$ , fixed Max. ground resistance: $1 \Omega \pm 0.1\Omega$ , fixed

GENERAL	
<b>REMOTE CONTROL AND SIGNAL OUPUT</b>	The following input and output signals are provided through two 9 pin D type connectors; 1. Inputs: Test, Reset, Interlock 2. Outputs: Pass, Fail, Test in Process
<b>PROGRAM MEMORY</b>	5 Sets
<b>SECURITY</b>	Lockout capability to avoid unauthorized access to test set-up program.
<b>LINE CORD</b>	Detachable 7ft. (2.13m) power cable terminated in a three prong grounding plug.
<b>TERMINATIONS</b>	128 x 64 dot resolution with front panel contrast setting.
<b>ALARM VOLUME SETTING</b>	Front panel adjustable volume setting with 10 set points.
<b>LINE CORD</b>	Detachable 6 ft. (1.80m) power cable terminated in a three prong grounding plug.
<b>TERMINATIONS</b>	5ft. (1.52m) high voltage and return leads (2) with clips and a standard U.S. style (NEMA 5-15) remote receptacle box for testing items terminated with a line cord. International receptacles also available.
<b>MECHANICAL</b>	Tilt-up front feet Dimensions (W x H x D) 17 x 5.8 x 12 in. (432 x 147 x 305mm) Weight: 56.70 Lbs. (25.92 kgs)
<b>ENVIRONMENTAL</b>	Operating Temperatures: 32°- 104°F (0° - 40°C) Relative Humidity : 0 to 80%
<b>CALIBRATION</b>	Traceable to National Institute of Standards and Technology (NIST). Calibration controlled by software. Adjustments are made through front panel keypad in a restricted access calibration mode. Calibration information stored in non-volatile memory.