

Multimeters and Clamp Meter

Overview

Measure AC/DC voltage, current, resistance, continuity, capacitance, frequency, duty cycle, or temperature with one of these tough Southwire meters. Trust that all these Southwire meters meet or exceed the UL's various testing equipment standards and carry the UL mark. Regardless if just testing for the presence of voltage, or troubleshooting the toughest problem, we have you covered.

- Up to CAT IV safety ratings
- Test for AC/DC voltage, current, resistance, continuity, and more
- · Auto and manual ranging
- Models available with non-contact voltage and detectors; built-in LED flashlight
- Models available with temperature function and include the thermocouple and adapter
- · All include batteries and test leads



Multimeters and Clamp Meter					
Part Number	Description	Price	Weight (lbs)	Qty/Pkg	
<u>10031S</u>	Southwire digital multimeter, AC/DC voltage, DC current, resistance, continuity and battery tester, CAT III 600V. Test leads included.	\$32.50	0.91	1	
<u>10041N</u>	Southwire autoranging digital multimeter, AC/DC voltage, AC/DC current, resistance, continuity, capacitance, frequency, non-contact AC voltage detection, battery tester and temperature, CAT III 600V. Test leads included.	\$52.00	0.97	1	
14060S	Southwire TechnicianPRO autoranging digital multimeter, AC/DC voltage, AC/DC current, resistance, continuity, capacitance, frequency and temperature, CAT IV 600V/CAT III 1000V. Test leads included.	\$111.00	1.7	1	
16020N	Southwire autoranging digital multimeter, AC/DC voltage, AC/DC current, resistance, continuity, capacitance, frequency and non-contact AC voltage detection, CAT I VAC 600V. Built-in test leads included.	\$39.50	0.64	1	
23070T	Southwire MaintenancePRO autoranging clamp meter, True RMS AC/DC voltage, AC/DC current, resistance, continuity, capacitance and frequency, CAT IV 600V/CAT III 1000V. Test leads included.	\$206.00	1.84	1	



Safety Category Ratings					
Category Rating	Typical Applications				
CAT IV	Connection point to utility power and outdoor conductors	Electricity meters, primary overcurrent protection equipment Outside and service entrance, service drop from pole to building, run between meter and panel Overhead line to detached building, underground line to well pump			
CAT III	Three-phase circuits and single phase lighting circuits in commercial buildings	Equipment in fixed installations, such as switchgear and polyphase motors Bus and feeder in industrial plants Feeders and short branch circuits, distribution panel devices Lighting systems in larger buildings Appliance outlets with short connections to service entrance			
CAT II	Single-phase receptacles and connected loads	 Appliance, portable tools, and other household and similar loads Outlet and long branch circuits Outlets at more than 10 meters (30 feet) from CAT III source Outlets at more that 20 meters (60 feet) from CAT IV source 			
CATI	Electronics	Protected electronic equipment Equipment connected to (source) circuits in which measures are taken to limit transient overvoltages to an appropriately low level			

The measurement category (CAT) rating and voltage rating is determined by a combination of the meter, test probes and any accessories connected to the meter and test probes. The combination rating is the LOWEST of any individual component.

Work on de-energized circuits whenever possible. Use proper lock-out/tag-out procedures. Always assume a circuit is live until verified otherwise. When working on live power circuits the protection of flame resistant clothing, safety glasses or safety face shield, and insulated gloves should be worn at a minimum.

As a rule of thumb the closer the tested device is to the power source the higher the Category Level should be. Category Levels (CAT) are determined by UL & IEC and are explained in detail in IEC61010.

Multimeters Specifications					
Family	TechnicianPRO™	Compact Series	General Purpose		
Model Number	<u>14060S</u>	<u>16020N</u>	<u>10041N</u>	<u>10031S</u>	
Safety Rating	CAT IV 600V, CAT III 1000V	CAT IV 600V	CAT III 600V	CAT III 300V CAT II 600V	
AC/DC Voltage	1000V	600V	600V	600V	
AC/DC Current	10A	200mA	10A	10A (DC only)	
Input Impedance	10MΩ AC/DC Voltage	> 7.5MΩ AC/DC Voltage	> 10MΩ AC	C/DC Voltage	
Backlighting	Controls, Display	Display	Display -		
MAX/MIN	Х	-	-	-	
Temperature	Х	-	Х -		
Built-in NCV*	-	100V-600V	50V-600V -		
Peak Hold	-	-			
Resistance	60ΜΩ	40ΜΩ	40ΜΩ 2.0 ΜΩ		
Diode Test	Х	Х	Х -		
Capacitance	4000µF	100µF	100µF	-	
Frequency	10kHz	10kHz	10kHz -		
Duty Cycle	Х	X	Х	-	
Built-in-Worklight	Х	Х	-	-	
Drop Protection	2m	2m	2m	2m	

^{*} NCV - Non-Contact Voltage



Southwire[™] TOOLS & EQUIPMENT Clamp Meter

Overview

The Southwire23070T MaintenancePRO™ 1000A TrueRMS AC/DC clamp meter measures AC and DC current up to 1000A and with a UL listed safety rating of CAT IV 600V / CAT III 1000V, this clamp meter is built to get the tough jobs done. Other functions include: AC and DC Voltage, Resistance, Continuity, Capacitance, Frequency, Duty Cycle, Temperature, and Diode Test. A built-in non-contact AC voltage detector and flashlight provide added convenience.

- CAT IV 600V / CAT III 1000V
- 11 measuring functions
- Clamp-On function reads both AC and DC current up to 1000 Amps
- Built in non-contact AC voltage detector
- Powerful LED work light
- Includes test leads, Type K temperature probe with banana plug adapter, carrying case, and 9 volt battery



Clamp Meter Specifications				
Model Number	23070T			
Safety Rating	CAT IV 600V CAT III 1000V			
AC/DC Voltage	1000V			
AC Current	1000A			
DC Current	1000A			
True RMS	Х			
Input Impedance	10MΩ AC/DC Voltage			
Worklight	Х			
Backlit Display	Х			
Drop Protection	1.5m			
Display Count	6000			
Bar Graph	Х			
MAX/MIN/AVG	MAX/MIN			
Temperature	X			
Built-in NCV*	100-1000V			
Resistance	60ΜΩ			
Continuity	X			
Diode Test	X			
Capacitance	6000µF			
Frequency 10MHz				
Duty Cycle	X			
Auto Power Off	-			

^{*} NCV - Non-Contact Voltage



Southwire[™] TOOLS & EQUIPMENT Voltage Testers



40126

40126N NCV Dual Range 24-600V & 100-600V AC

- Green LED means power on, flashing red LED with beeper means voltage detected
- Low battery self-test
- Two modes: green means high voltage mode, yellow means low voltage mode
- Bright LED flashlight
- Thinner probe tip for working with wall outlets
- On/Off power switch
- Pocket clip for easy storage

Voltage Tester						
Part Number	Description	Price	Weight (lbs)	Qty/Pkg		
<u>40126N</u>	Southwire voltage tester, non-contact AC voltage detection, CAT IV 600V.	\$19.00	0.21	1		
* NCV - Non-Contact Voltage						

Voltage Tester Specifications				
Model #	40126N			
Safety Rating	CAT IV 600V			
Voltage Measurement Range	24-600 VAC			
NCV* Detection Range	24-600 VAC			
Input Impedance	-			
Frequency Range	50/60 Hz			
Display	-			
Worklight Yes				
Test Leads	-			
On/Off Button	Yes			
Low Batt Self Test	Yes			
Auto Power Off	Yes			
Drop Protection	1.5m			
Operating Temperature	32 to 104°F [0 to 40°C]			
Storage Temperature 14 to 140°F [-10 to 60°C				
Maximum altitude	2000m			
Humidity	Max 80% RH (NC)			
Power	Two AAA batteries (included)			



TOOLS & EQUIPMENT

Cable and Continuity Testers

Overview

The Southwire <u>40040S</u> provides a simple way of checking continuity on wires and cables. The bright LEDs and loud beeper provide a positive indication of continuity and polarity. The <u>M550</u> gives instant continuity status for category and coaxial cables. Featuring rugged double molded tester body and easy-to-interpret LED display. Both have a detachable remote that allows cables and wires to be tested after installation.





M550

40040S

- 40040S can trace up to 3 cables at a time
- Detachable remote indicator
- · LEDs provide visual indication of continuity
- Audible beeper on 40040S provides additional verification of electrical connections
- M550data/video cable tester detects issues with network and coaxial cables
- M550 test for correct wiring, opens, shorts, reversals, miswires, split pairs, and shielded cables
- \bullet The $\underline{\text{M550}}$ removable remote allows for the testing of installed cable
- Both units come with leads and cable required to connect to any number of cable types
- · Batteries included

Continuity Tester Specifications					
Model #	<u>40040S</u> <u>M550</u>				
Indicators	LED LED				
Maximum Cable Length	10,000 feet (3000m) 1000 feet (305m)				
On/Off Button	Yes				
Auto Power Off	No				
Operating Temperature	10 to 113°F 32 to 122°F [-12 to 45°C] [0 to 50°C]				
Storage Temperature	-4 to 140°F [-20 to 60°C]				
Humidity	Max 90% RH (NC) Max 80% RH (N				
Power	One 9 volt battery	Two AAA batteries (included)			

Testers Selection Table					
Part Number	Description	Price	Weight (lbs)	QtyPkg	
40040S	Southwire continuity tester, remote included. For use with individual wires and multiconductor cables.	\$32.00	0.46	1	
<u>M550</u>	Southwire data/video cable tester, for use with Cat 7, Cat 7a, Cat 6a, Cat 6, Cat 5e, Cat 5, Cat 4, Cat 3 and Coax.	\$49.50	0.51	1	



TOOLS & EQUIPMENT Test Kit



- The <u>10031S</u> multimeter measures AC/DC voltage, DC current, resistance, and functions as a battery tester with a safety rating of CAT III 600V. This makes this specific multimeter a must-have for every toolbox
- The 40117N Non-Contact AC Voltage Detector has flashing green LED to indicate it is on, which changes to red and a beeper sounds if voltage is detected
- Convenient LED Flashlight in the 40117N saves space in your pocket or tool pouch
- Auto power-off feature for both the 10031S and 40117N to conserve and extend battery life
- Receptacle tester detects wiring configurations and indicates correct wiring, open ground, open hot, open neutral, hot/ground reversed and hot/neutral reversed
- Includes test leads and batteries for 10031S and 40117N

Test Kit					
Part Number	Description	Price	Weight (lbs)	Qty/Pkg	
<u>10037K</u>	Southwire electrical test kit, includes 10031S manual-ranging multimeter, a non-contact AC voltage detector and receptacle tester.	\$38.50	1.2	1	

Test Kit Specifications					
Model #	<u>100318</u>	40117N	40012S		
Safety Rating	CAT III 300V CAT II 600V	CAT IV 1000V	-		
Voltage Measurement Range	600V	-	110-125VAC		
DC Current	20mA/200mA/10A (fused)	-	-		
NCV* Detection Range	-	90VAC - 1000VAC	-		
Frequency Range	45 Hz - 400 Hz	50/60 Hz	60 Hz		
Display / Indicator	LCD	Red/Green LEDS	Reg/Amber LEDS		
Worklight	-	Yes	-		
Test Leads	Removable	-	-		
On/Off Button	Rotary Switch	Momentary Button	-		
Hold	Manual (Button)	-	-		
Low Batt Self Test	-	- X -			
Auto Power Off	>15 minutes	>15 minutes >5 minutes -			
Operating Temperature	32 to 104°F [0 to 40°C]				
Storage Temperature	14 to 122°F [-10 to 50°C]				
Maximum altitude	2133m 2000m				
Humidity	Max 80% RH (NC)				
Power	One 9V battery (included)	Two AAA batteries (included)	-		

^{*} NCV - Non-Contact Voltage