

TRMS Leakage Current Meter Model 565



The TRMS Clamp-On Leakage Current Meter Model 565 is designed to measure low AC currents, which are typically leakage currents in ground conductors. Low currents are measured using either the 60mA or the 600mA range. The high sensitivity of the probe (10 μ A and 100 μ A) is possible through special jaw construction and, in particular, critical shielding of the jaws. At low measurement levels, this shielding out of the noise is critical for low sensitivity, accuracy and stability.

Leakage current may be measured on a ground conductor and through the vector sum on multi-conductors. On a grounded system, clamp around the two or three conducting legs (not the ground conductor). The vector sum of the load currents will cancel out, leaving the leakage current measured.

The Model 565 may be used as a standard clamp-on meter measuring to 100Arms, as well as V_{AC} and V_{DC}, resistance and continuity (with a buzzer). In mA_{AC} and A_{AC}, a low-pass filter, which will ignore all

harmonic currents, can be activated. In this mode, only the fundamental signal is measured. The difference between the full frequency signal (WIDE displayed on LCD) and Filtered mode (50/60Hz displayed on LCD) essentially corresponds to the current attributable to harmonics.

The Model 565 is ergonomic in design and fits well in the hand, facilitating one hand operation. The jaw size is compact yet designed to accommodate the most common conductors up to 1" (26mm) in diameter.

Features

- Check for leakage and locate insulation breakdowns on live circuits
- Measures leakage current up to 600mA with up to 10 μ A resolution
- Measures current up to 100Arms
- Measures up to 600VAc/Dc
- Measures Hz on either V or A inputs
- Measures Resistance and Continuity
- Hold feature freezes Value
- Max feature keeps track of highest measured In-rush value
- Zero button ideal for measuring relative values
- Filter to isolate 50/60Hz fundamental from harmonics
- Compatible with VDE 0404

Applications

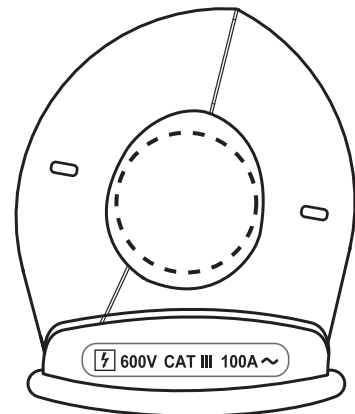
- Ground fault current measurement
- Electrical safety compliance testing
- Medical device safety testing
- Process loop monitoring
- General AC load monitoring
- Industrial troubleshooting



Measuring leakage current on a ground wire with the TRMS Leakage Current Meter Model 565



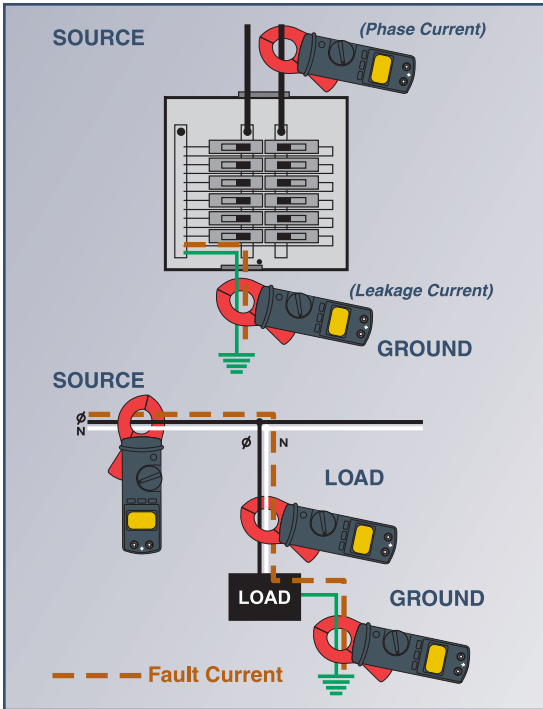
The Model 565 includes two color-coded test leads, soft carrying case and user manual.



Jaw Opening: 1.10" (28mm)
Conductor Size:
1" (26mm)

MODEL		565	
ELECTRICAL			
mA AC Current (TRMS, Auto-Ranging)			
Measurement Range		0 to 600mA	
Resolution	60mA 600mA	0.01mA (10µA) 0.1mA (100µA)	
Accuracy	50 to 60Hz 50 to 500Hz 500Hz to 3kHz	1.2% of Reading ± 5cts 2.5% of Reading ± 5cts 3.5% of Reading ± 10cts	
AC Current (TRMS, Auto-Ranging)			
Measurement Range		10 to 100A	
Resolution	10A 100A	0.001A (1mA) 0.01A (10mA)	
Accuracy	50 to 60Hz 50 to 500Hz 500Hz to 3kHz	1.2% of Reading ± 5cts 2.5% of Reading ± 5cts 3.5% of Reading ± 10cts	
AC Voltage (TRMS)			
Measurement Range		0 to 600V	
Resolution		0.1V	
Accuracy	50 to 60Hz 50 to 500Hz 500Hz to 3kHz	1.0% of Reading ± 5cts 1.2% of Reading ± 5cts 2.5% of Reading ± 10cts	
DC Voltage			
Measurement Range		0 to 600V	
Resolution		0.1V	
Accuracy		1.0% of Reading ± 3cts	
Frequency (Auto-Ranging)			
Function		A-Hz	V-Hz
Resolution	0 to 100Hz 100Hz to 1kHz	0.1Hz 1Hz	0.1Hz 1Hz
Sensitivity		10mArms min	5Vrms min
Accuracy		0.5% of Reading ± 2cts	
Resistance			
Measurement Range		0 to 1kΩ	
Resolution		0.1Ω	
Accuracy		1.0% of Reading ± 3cts	
Continuity			
Measurement Range		0 to 1kΩ	
Resolution		0.1Ω	
Buzzer		<35Ω ± 25Ω	
Overload Protection		660Vrms/150Arms – OL is displayed and buzzer will sound	
Nominal Sample Rate		Two measurements per second (approx.)	
MAX Sample Rate		100ms	
Filter		On (50/60Hz only); Off (Full frequency range)	
In-Rush		Max 100ms sample time	
Power Source		Two 1.5V AAA batteries	
Battery Life		45 hrs (approx.)	
Power-Off		10 min approx with user override	
Low Battery Indication		⊖+ is displayed when battery voltage is low	
MECHANICAL			
Dimensions		8.5 x 2.5 x 1.18" (218 x 64 x 30mm)	
Jaw Opening		1.10" (28mm)	
Maximum Conductor Size		1" (26mm)	
Weight		10 oz (280g) with batteries	
DISPLAY			
Display Type		Four digit LCD	
Backlight		LED with 180 sec Auto-Off	
ENVIRONMENTAL			
Operating Temperature		32° to 104°F (0° to 40°C); <80% RH (non-condensing)	
Storage Temperature		14° to 140°F (-10° to 60°C); <70% RH (non-condensing)	
SAFETY			
Safety Rating		EN 61010-1 Ed. 2001, EN 61010-2-032 Ed. 2003, 600V, Cat. III	
Double Insulation <input type="checkbox"/>		Yes	
CE Mark		Yes	

Typical Points for Measuring Leakage Current



On single phase systems, the Model 565 will measure leakage current at the source, the load or the ground.

Construction



ORDERING INFORMATION **CATALOG NO.**
TRMS Leakage Current Meter Model 565 (TRMS, 100A, 600V_{AC/DC}, Hz, Ohms, Continuity) Cat. #2117.56

