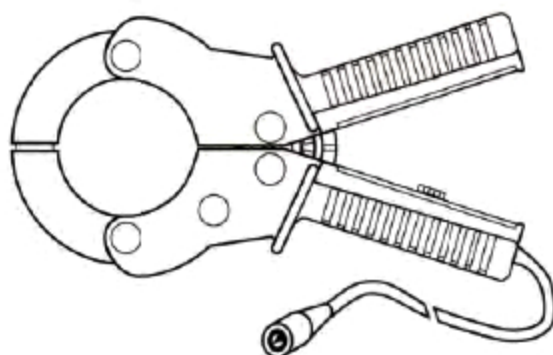


# AC Current Probe Model SD661

SD Series Probes

<b>Current:</b>	20 A pk	200 A pk	2000 A pk
<b>Output:</b>	100 mV/A	10 mV/A	1 mV/A

Portable 1000 Arms current probe with insulated BNC output cable can accurately measure AC current waveforms. The unit has proportional mV output for direct readings on oscilloscopes. Three-position slide switch on the handle selects ranges.



## ELECTRICAL SPECIFICATIONS

### Current Range:

100 mV/A: 100 mA to 20 A peak  
10 mV/A: 0.5 to 200 A peak  
1 mV/A: 5 to 2000 A peak

### Output Signal:

mV output (2000 mV peak max)

### AC Current Accuracy:

100 mV/A (100 mA to 20 A peak): 3% of reading  $\pm$  10 mV  
10 mV/A (0.5 to 200 A peak): 2% of reading  
1 mV/A (5 to 2000 A peak): 2% of reading

**Overload:** 1200 Arms for 30 mn

### Phase Shift\*:

100 mV/A	10 mV/A	1 mV/A
0.5 A: 20°	5 A: 3°	50 A: 1.6°
2 A: 15°	20 A: 2°	200 A: 0.5°
10 A: 10°	100 A: 1.5°	1000 A: 0.5°

**Frequency Range:** 5 Hz to 50 kHz (-3 dB with current derating)

**di/dt Max:** 10 A/S

**Load Impedance:** > 1 M $\Omega$ /2.2 nF

**Internal Impedance:** < 1 k $\Omega$ /2.2 nF

**Insertion Impedance (50/60 Hz):**

100 mV/A: 0.10 $\Omega$

10 mV/A: 0.02 $\Omega$

1 mV/A: 0.01 $\Omega$

(\*Reference Conditions: 23°C  $\pm$  3°K, 20 to 75% RH, 45 Hz to 1 kHz, external magnetic field < 40 A/m, no DC component, no external current carrying conductor, 1 M $\Omega$ /47 pF load, conductor centered.)

**Ampere Second Product:** 0.1 A.s

**Rise or Fall Time:** < 40  $\mu$ s

**Working Voltage:** 600 Vrms max

**Common Mode Voltage:** 600 Vrms max

**Influence of Adjacent Conductor:**

< 0.2 mA/A AC

**Influence of Conductor Position in Jaw:**

$\pm$  0.02% of reading from 10 Hz to 5 kHz

$\pm$  1% of reading from 5 to 100 kHz

## MECHANICAL SPECIFICATIONS

**Operating Temperature:**

-13° to 122°F (-25° to 50°C)

**Storage Temperature:**

-40° to 176°F (-40° to 80°C)

**Temperature Influence:** < 0.1% per °C

**Operating Relative Humidity:**

< 10°C uncontrolled

10-30°C: 85  $\pm$  5% RH

(without condensation)

40-50°C: 45  $\pm$  5% RH

(without condensation)

**Absorption and Corrosion:**

85% RH for 5 days at 30°C/50°C

**Jaw Opening:** 2.13" (54 mm)

**Maximum Conductor Size:** 2.09" (53 mm)

**Jaw Alignment Offset:** By no more than

1.5 mm.

**Drop Test:**

1.0 m on 38 mm of oak on concrete; test according to IEC 68-2-32

**Mechanical Shock:**

100 G, test per IEC 68-2-27

**Vibration:**

Test per IEC 68-2-6, Frequency Range: 10 to 55 Hz, Amplitude: 0.15 mm, 20 cycles in three directions

**Case Protection:** IP20 per IEC 529

**Polycarbonate Material:**

Handles: 10% fiberglass charged polycarbonate, UL 94 V0

Jaws: Inner coating nylon 57, Outer coating ABS (Ugical BB10101), UL 94 V2

**Dimensions:**

4.13 x 8.11 x 1.89" (105 x 206 x 48 mm)

**Weight:** 1.43 lbs (650 g)

**Color:** Dark gray handles with red jaws

**Output:**

Insulated 6-1/2 ft (2 m) coaxial cable with insulated BNC connector rated 600 Vrms

## SAFETY SPECIFICATIONS

**Electrical:**

Double insulation or reinforced insulation between primary or secondary and outer case of handle upon IEC 1010

**Common Mode Voltage:**

- 600 V Category III, Pollution: 2

- 300 V Category IV, Pollution: 2

**Electromagnetic Compatibility**

(CE mark):

EN 50081-1 Class B

EN 50082-2 Electrostatic discharge

IEC 1000-4-2

Radiated field IEC 1000-4-3

Fast transients IEC 1000-4-4

Magnetic field at 50/60 Hz IEC 1000-4-8

## ORDERING INFORMATION

## CATALOG NO.

AC Current Probe Model SD661 for Oscilloscopes includes instruction manual ..... Cat. #1201.49

### Accessories

Banana/BNC connector XF-SS (4 mm plug adaptor) ..... Cat. #2111.32