



THE PHOENIX

CLAMP METER SERIES



The Problem:

A common problem all contractors have faced at some time is the difficulty to take current measurements in tight and cramped work environments. To take a current reading on an individual wire meant someone was going to use their fingers, sort the wires, pull the wire in question out and take a clamp reading. This has brought two big problems, first: reaching in and opening the clamp has either been impossible, or undesirable due to the hazards associated with live contact points. Second: every time you pull a wire out of a tight location, you risk damaging or loosening the wire's connections.

The Design:

The most important stage of any product design is... listening. Through surveys, service calls, and interviews with technicians and tech schools, we clarified what contractors liked, hated, and wanted from their test instruments. We then compared that list against what's available on the market, and our direction was obvious. To accomplish this would require unprecedented cooperation between Marketing, Production, Product Design and certain key wholesalers through whom we reach our customers.

The Solution:

We seized this opportunity to provide our customers with more benefits for a competitive price. When we sat down to design the Phoenix series, we set out to create the leading series of clamp-on meters in the industry. We listened carefully to our customers to make sure we had everything needed. Then having designed the best clamp-on meter in its class, we took it one step further with the addition of the innovative hook, which works on all 3 models. Now a change of clamp heads allows users to transform the Phoenix, enabling them to work in tight spaces at a new level of efficiency and safety.

The Phoenix:

The Phoenix series offers the highest combination of function, features, and safety offered in a meter today. Combined with The Hook extended clamp head, no contractor will have to compromise their safety, efficiency, or comfort.

Quick Reference Selection If you measure. . .	DL269 Phoenix I	DL279 Phoenix II	DL289 Phoenix III
AC current in tight or cramped spaces	X*	X*	X*
Motor or line current	X	X	X
Supply or control voltage	X	X	X
System board voltage checks	X	X	X
Flame safe guard	X	X	X
Motor run or start faults	X	X	X
Circuit continuity or specified resistance	X	X	X
Motor in-rush	X	X	X
Frequency of variable speed drives & supply power	X	X	X
Temperature		X	X
Quick check of live wires		X	X
Two readings simultaneously		X	X
Non-linear loads or distorted waveforms (TRMS)			X

*Available with the CH2 - The Hook, extended clamp head (sold separately)



Featuring The New
WORKLIGHT

Featuring The New
DETACHABLE HEAD

THE PHOENIX I

DL269 CLAMP METER

All You Need For General Electrical Applications!

Functions

- 750V AC/1000V DC
- 400A AC
- 2000 μ A AC/DC
- 40M Ω Resistance/Continuity
- 4000 μ F Capacitance
- Frequency/Duty Cycle
- Diode
- MIN/MAX display

Features

- Detachable clamp head
- Worklight
- Magnetic mount
- Large backlight display
- Test lead storage
- Test lead holder on clamp head
- Data hold
- Auto off
- Three year limited warranty

Safety Compliance

- CAT III 600V, CAT II 1000V

Accessories Included

- ATL59 Test leads
- Zippered case
- 2 AAA batteries

Optional Accessories

- CH2 Extended Clamp Head (*The Hook*)



THE PHOENIX II

DL279 HVAC/R CLAMP METER

All You Need For HVAC/R Applications!

Functions

- 750V AC/1000V DC
- 400A AC
- 2000 μ A AC/DC
- 40M Ω Resistance/Continuity
- 4000 μ F Capacitance
- -40 ~ 752°F Temperature (K type)
- Frequency/Duty Cycle
- Non-Contact Voltage
- Diode
- MIN/MAX display

Features

- Detachable clamp head
- Worklight
- Magnetic mount
- Dual backlight display
- Test lead storage
- Test lead holder on clamp head
- Data hold
- Auto off
- Three year limited warranty

Safety Compliance

- CAT III 600V, CAT II 1000V

Accessories Included

- ATL59 Test leads
- K type probe (no adapter required)
- Zippered case
- 2 AAA batteries

Optional Accessories

- CH2 Extended Clamp Head (*The Hook*)



THE PHOENIX III

DL289 TRUE-RMS CLAMP METER

All You Need For True RMS Applications!

Functions

- True RMS
- 750V AC/1000V DC
- 400A AC
- 2000 μ A AC/DC
- 40M Ω Resistance/Continuity
- 4000 μ F Capacitance
- -40 ~ 752°F Temperature (K type)
- Frequency/Duty Cycle
- Non-Contact Voltage
- Diode
- MIN/MAX display

Features

- Detachable clamp head
- Worklight
- Magnetic mount
- Dual backlight display
- Test lead storage
- Test lead holder on clamp head
- Data hold
- Auto off
- Three year limited warranty

Safety Compliance

- CAT III 600V, CAT II 1000V

Accessories Included

- ATL59 Test leads
- K type probe (no adapter required)
- Zippered case
- 2 AAA batteries

Optional Accessories

- CH2 Extended Clamp Head (*The Hook*)



4.8%
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220
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PPH
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87.88
88.88
55.0
34.8%
75.0
88.88
72.1

AC Amps Measurement - Jaw Input (45Hz to 400Hz)

Range	Resolution	Accuracy	Overload Protection
40A	0.01A	±2.9% +15 dgts	600V
400A	0.1A	±1.9% +8 dgts	

*DL269 400A range only

*DL289 45Hz to 400Hz True RMS (Crest factor <3:1)

DC Low Amps Measurement (test lead input)

Range	Resolution	Accuracy	Overload Protection
400µA	0.01µA	±1.2% +3 dgts	2000µA / 600V
2000µA	0.1µA		

AC Low Amps Measurement (test lead input)

Range	Resolution	Accuracy	Overload Protection
400µA	0.01µA	±2.0% +5 dgts	2000µA / 600V
2000µA	0.1µA	±1.5% +5 dgts	

*DL289 45Hz to 400Hz True RMS (Crest factor <3:1)

DC Volts Measurement

Range	Resolution	Accuracy	Overload Protection
400mV	0.1mV	±0.5% +4 dgts	600V
4V	1mV		
40V	10mV		
400V	100mV		
1000V	1V	±0.8% +10 dgts	

AC Volts Measurement (45Hz to 400Hz)

Range	Resolution	Accuracy	Overload Protection
4V	1mV	±2.0% +5 dgts	600V
40V	10mV		
400V	100mV		
750V	1V		

*DL289 45Hz to 400Hz True RMS (Crest factor <3:1)

Ohms Measurement

Range	Resolution	Accuracy	Overload Protection
400Ω	100mΩ	±1.0% +4 dgts	600V
4kΩ	1Ω		
40kΩ	10Ω		
400kΩ	100Ω		
4MΩ	1kΩ		
40MΩ	10kΩ	±2.0% +4 dgts	

Diode Test

Range	Open Circuit Voltage	Test Current (typical)	Overload Protection
2.0V	< 3.0V DC	0.25mA	600V

Capacitance Measurement

Range	Resolution	Accuracy	Overload Protection
40nF	0.01nF	±3.5% +6 dgts	600V
400nF	0.1nF		
4µF	0.001µF		
40µF	0.01µF		
400µF	0.1µF		
4000µF	1µF		

Temperature Measurement (DL279 & DL289 only)

Range	Resolution	Accuracy	Overload Protection
-22° to 14°F (-30° to -10°C)	0.1°F (0.1°C)	±5.4°F (±3.0°C)	30V
15° to 752°F (-9° to 400°C)	0.1°F (0.1°C)	±1.0% +3.6°F (±1.0% +2.0°C)	

Frequency Measurement

Range	Resolution	Accuracy	Overload Protection
9.999Hz	0.001Hz	±0.1% +4 dgts	600V
99.99Hz	0.01Hz		
999.9Hz	0.1Hz		
9.999kHz	1Hz		
99.99kHz	10Hz		

Minimum frequency: 0.5Hz, DC V offset should be zero
Sensitivity: > 1.0V rms

Duty (%) Cycle Measurement

Range	Accuracy	Overload Protection
01. to 99.9%	±(0.2% per kHz +0.1%) +5 count	600V

0.5Hz to 100KHz (pulswidth > 2µ sec)

Continuity Measurement

Open Circuit voltage	Overload Protection
<2.7V	600V
Threshold Approximately <20Ω	

You'll love this

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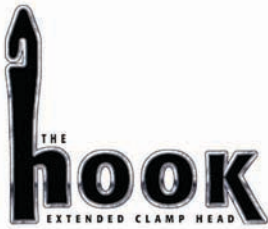


CH2

Extended Clamp Head

Featuring The New
WORKLIGHT

Featuring The New
DETACHABLE HEAD



Extend The Capabilities Of Your Phoenix Meter!

Introducing a revolutionary design for clamp-on current measurement, The Hook (CH2). The Hook provides contractors a new, safe and unique approach to measuring wires in tight or difficult locations.

The Hook snaps onto the Phoenix meter body and allows measurements of #6 wire and smaller, and currents up to 100Amps AC (the highest amperage able to travel through a #6 wire). The Hook's patent pending technology significantly reduces the impact from current on adjacent wires by providing a virtual closed core inside the tip, which increases accuracy. The Worklight feature isn't lost when exchanging the Phoenix base clamp head with The Hook, it also features a bright built-in Worklight, so wires inside dark enclosures are easy to see. The Hook works exclusively on the Phoenix Clamp Meter Series and is backed by a three year limited warranty.

Features

- Measures 100A AC (1/4" wire diameter maximum)
- Easily reaches into tight spaces
- Patent pending hook design shields readings from adjacent wires
- Features a worklight for dark work spaces
- Works exclusively with **The Phoenix Clamp Meter Series**
- Three year limited warranty



Detach Clamp Head



Attach Hook



Work Smart



THE PHOENIX

CLAMP METER SERIES



	DL269	DL279	DL289
Model:	DL269	DL279	DL289
Application:	Electrical	HVAC/R	True RMS
TRUE RMS:			
Temperature:			
Non-Contact Voltage:			
Dual Display:			
Worklight:			
Magnetic Mount:			
Test Lead Storage:			
Test Lead Holder:			
AC/DC Volts:			
AC Current:			
Capacitance:			
Resistance:			
Frequency:			
Auto/Manual Ranging:			
MIN/MAX and Data Hold:			
AC/DC Microamp:			
Duty Cycle:			
Diode/Continuity Test:			
Backlit Display:			
CAT III 600V, CAT II 1000V			
3-Year Limited Warranty:			

DL289
Clamp-On Meter



DL279
Clamp-On Meter

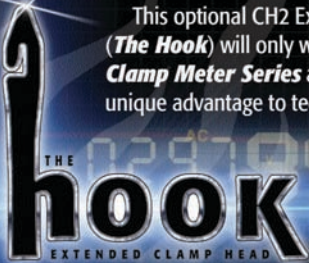


DL269
Clamp-On Meter



Optional

This optional CH2 Extended Clamp Head (*The Hook*) will only work with the *Phoenix Clamp Meter Series* and gives a new and unique advantage to technicians.



CH2
Extended Clamp
Head



You'll love this
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