

# CURRENT MEASUREMENT PROBES

## SL SERIES AC/DC CURRENT PROBES

600 V  
CAT III



### SL SERIES

*Precision AC/DC current measurement without circuit interruption*

**TOTAL FLEXIBILITY**  
Compatible with AEMC® and non-AEMC® instruments!



SL306



SL361



SCAN TO  
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### FEATURES

#### SL SERIES AC/DC CURRENT PROBES

- SL 306 is compatible with meters featuring banana inputs
- SL361 is compatible with oscilloscopes and meters with BNC inputs
- **Compact and portable design** makes it easy to access hard-to-reach spaces
- **Automatic standby mode** after 10 minutes of inactivity to **prolong battery life** (can be disabled)
- **Overload indicator** that **prevents damage** to the device when the current exceeds the measurement capacity
- Wide jaw opening **accommodates large conductors** (up to 0.46 in (11.8 mm) in diameter)
- DC zero adjustment function to **eliminate offset errors** before each measurement
- 9 V battery or external 5 V power via micro-USB (up to 80 hours with alkaline battery)
- Safety standard 600 V CAT III and 300 V CAT IV
- **Precise measurements** with low uncertainty, accuracy of  $\pm 2\%$  for 2 A range and  $\pm 4\%$  for 80 A range (Model SL306)
- **Bandwidth of up to 100 kHz**, allowing for accurate measurement of high-frequency signals (Model SL361)

MODELS	SL306	SL361
ELECTRICAL		
Nominal Range	1.5 A <sub>AC</sub>   2 A <sub>DC</sub> ; 60 A <sub>AC</sub>   80 A <sub>DC</sub>	10 A <sub>peak</sub> ; 100 A <sub>peak</sub>
Measurement Range	5 mA to 1.5 A <sub>AC</sub>   2 A <sub>DC</sub> 50 mA to 60 A <sub>AC</sub>   80 A <sub>DC</sub>	100 mA to 100 A <sub>peak</sub>
Bandwidth	20 kHz (-3 dB) (depending on current value)	100 kHz (-3 dB) (depending on current value)
Output Signal	1 mV/mA (1 V/A) (2 A range) 10 mV/A (80 A range)	100 mV/A (10 A range) 10 mV/A (100 A range)
Phase Shift (DC to 65 Hz)		
1 mV/mA Range	< 1 °	-
10 mV/mA Range	< 1 °	< 1 °
100 mV/mA Range	-	< 1.5 °
Load Impedance	≥ 1 MΩ and ≤ 100 pF	
Common Mode Voltage (600 V max) with AC measurement (max)	600 V at 50/60 Hz: ≤ 1 mA/100	600 V at 50/60 Hz: ≤ 1 mA/100 V at 400 Hz: ≤ 7 mA/100 V
MECHANICAL		
Power Supply	9 V alkaline battery or 5 V <sub>DC</sub> via micro-USB (up to 80 hours with alkaline battery)	
Output Termination	4.9 ft (1.5 m) two-wire cable terminated by (2) male banana plugs	6.5 ft (2 m) coaxial cable terminated by (1) insulated BNC plug
Maximum Conductor Ø Size	Ø.46 in (11.8 mm)	
Dimensions	(9.09 x 1.42 x 2.64) in (231 x 36 x 67) mm	
Weight	11.6 oz (330 g) with battery	
ENVIRONMENTAL		
Operating Relative Humidity	(0 to 85) % RH with a linear decrease above 95 °F (35 °C)	
Operating Temperature	(14 to 122) °F (-10 to 50) °C	
Storage Temperature	(-22 to 176) °F (-30 to 80) °C	
SAFETY		
Electrical	IEC 61010-1, IEC 61010-2-032, 600 V CAT III, 300 V CAT IV	
Ingress Protection	IP20	
UL Approval	Yes	

Consult factory for NIST Calibration prices.

### ACCESSORIES/REPLACEMENTS

#### CAT. #2153.78

Adapter - US Wall Plug to USB

#### CAT. #2138.66

Cable – 6 ft. USB Type A - Type B micro

#### CAT. #2118.46

Adapter – Banana (Female) – BNC (Male)  
(XM-BB) 600 V CAT III (Model SL306 only)

#### CAT. #2119.94

Adapter – BNC (Female) to 4mm Banana (Male)  
600 V CAT III (Model SL361 only)



Cat. #2153.78



Cat. #2138.66



Cat. #2119.94  
(Model SL361 only)



Cat. #2118.46  
(Model SL306 only)

CAT. #	DESCRIPTION
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2153.08	AC/DC Current Probe Model SL306 (1.5 A <sub>AC</sub> , 2 A <sub>DC</sub> , 1 mV/mA (1 V/A) & 60 A <sub>AC</sub> , 80 A <sub>DC</sub> , 10 mV/A, Lead)
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2153.09	AC/DC Current Probe Model SL361 (10 A <sub>peak</sub> , 100 mV/A & 100 A <sub>peak</sub> , 10 mV/A, BNC)
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# CURRENT MEASUREMENT PROBES

## GENERAL PURPOSE PROBES SELECTION CHART

Series	Model	Ratio	Measurement Range		Output Signal		Phase Shift**	Maximum Conductor Size		Output Connection	CAT. #
			AC	DC	Current	Voltage		Ø Cable	Bus Bar		
	MN01	1000:1	(2 to 150) A	—	1 mA/A*	—	N / A	0.39 in (10 mm)	N / A	Leads	2129.17
	MN02	1000:1	50 mA to 100 A 50 mA to 90 A	—	1 mA/A*	—	N / A	0.39 in (10 mm)	N / A	Leads	2129.20
	MN05	—	5 mA to 10 A (1 to 100) A	—	—	1 mV/mA 1 mV/A	N / A	0.39 in (10 mm)	N / A	Leads	2129.19
	MN09	—	(1 to 150) A	—	—	100 mV <sub>DC</sub> / A <sub>AC</sub>	N / A	0.39 in (10 mm)	N / A	Leads	2129.21
	MN134	—	1 mA to 10 A	—	—	100 mV/A	< 10°	0.39 in (10 mm)	N / A	Leads	2129.22
	MN185	1000:1	50 mA to 120 A	—	1 mA/A	—	< 3.5°	0.47 in (12 mm)	N / A	Jacks	100.185
	MN255	—	(0.1 to 24) A (0.1 to 240) A	—	—	100 mV/A 10 mV/A	< 2.5°	0.78 in (20 mm)	N / A	Leads	2115.81
	MN261	—	(0.1 to 24) A (0.5 to 240) A	—	—	100 mV/A 10 mV/A	< 6°	0.78 in (20 mm)	N / A	BNC	2115.82
	MN291	—	(0.5 to 240) A	—	—	100 mV <sub>DC</sub> / A <sub>AC</sub>	N / A	0.78 in (20 mm)	N / A	Leads	2115.84
	MN307	—	10 mA to 12 A	—	—	100 mV/A	< 2.5°	0.78 in (20 mm)	N / A	Leads	2116.23
	MN312	1000:1	(0.1 to 200) A	—	1 mA/A*	—	< 2.5°	0.78 in (20 mm)	N / A	Jacks	2116.24
	MN352	—	(0.1 to 150) A	—	—	10 mV/A	< 2.5°	0.78 in (20 mm)	N / A	Jacks	2116.26
	MN353	—	(0.1 to 150) A	—	—	10 mV/A	< 2.5°	0.78 in (20 mm)	N / A	Leads	2116.27
	MN373	—	(0.01 to 2.4) A (0.1 to 200) A	—	—	1000 mV/A 10 mV/A	< 3°	0.78 in (20 mm)	N / A	Leads	2116.28
	MN375	—	(0.1 to 10) A	—	—	100 mV/A	< 1.5°	0.78 in (20 mm)	N / A	Leads	2115.41
	MN379	—	5 mA to 6 A (0.1 to 120) A	—	—	200 mV/A 10 mV/A	< 4°	0.78 in (20 mm)	N / A	Leads	2153.01
	MN379T	—	5 mA to 6 A (0.1 to 120) A	—	—	200 mV/A 10 mV/A	< 4°	0.78 in (20 mm)	N / A	Lead w/BNC	2153.02
	SL306	—	5 mA to 60 A	5 mA to 80 A	—	1 mV/mA 10 mV/A	< 1°	0.46 in (11.8 mm)	N / A	Leads	2153.08
	SL361	—	(0.1 to 100) A	—	—	100 mV/A (10 A range) 10 mV/A (100 A range)	< 1°	0.46 in (11.8 mm)	N / A	Lead w/BNC	2153.09
	MD301	1000:1	(2 to 500) A	—	—	1 mV <sub>DC</sub> / A <sub>AC</sub>	N / A	1.18 in (30 mm) (2 x 500) kcmil	(2.48 x 0.20) in (63 x 5) mm	Leads	1201.07
	MD305	1000:1	(1 to 600) A	—	1 mA/A	—	< 1°	1.18 in (30 mm) (2 x 500) kcmil	(2.48 x 0.20) in (63 x 5) mm	Leads	1201.36

\*Output protection for open secondary.

\*\*Phase shift indicated at maximum rating.

Note: Model MN185 are not CE compliant. MN200 & MN300 series are UL approved except MN379.

Consult factory for NIST Calibration price.

# CURRENT MEASUREMENT PROBES

## GENERAL PURPOSE PROBES SELECTION CHART

SERIES	MODEL	RATIO	MEASUREMENT RANGE		OUTPUT SIGNAL		PHASE SHIFT**	MAXIMUM CONDUCTOR SIZE		OUTPUT CONNECTION	CAT. #
			AC	DC	CURRENT	VOLTAGE		Ø CABLE	BUS BAR		
	MR415	—	(0.5 to 400) A	(0.5 to 600) A	—	1 mV/A	≤ 1.5 °	1.18 in (30 mm)	2 bus bar (1.24 x 0.39) in (31 x 10) mm	5 ft (1.5 m) Lead	1200.80
	MR416	—	(0.5 to 40) A (0.5 to 400) A	(0.5 to 60) A (0.5 to 600) A	—	10 mV/A 1 mV/A	≤ 2.2 ° ≤ 1.5 °	1.53 in (39 mm)	2 bus bar (1.95 x 0.19) in (50 x 5) mm	5 ft (1.5 m) Lead	1200.82
	MR526	—	(0.5 to 100) A (0.5 to 1000) A	(0.5 to 150) A (0.5 to 1400) A	—	10 mV/A 1 mV/A	≤ 2 ° ≤ 1.5 °	1.53 in (39 mm)	2 bus bar (1.95 x 0.19) in (50 x 5) mm	5 ft (1.5 m) Lead	1200.83
	SR601	1000:1	(0.1 to 1200) A	—	1 mA/A*	—	< 0.5 °	2.05 in (52 mm)	(1.95 x 0.19) in (50 x 5) mm	Jacks	2113.43
	SR604	1000:1	(0.1 to 1200) A	—	1 mA/A*	—	< 0.5 °	2.05 in (52 mm)	(1.95 x 0.19) in (50 x 5) mm	Leads	2113.44
	SR651	—	(0.1 to 1200) A	—	—	1 mV/A	< 0.5 °	2.05 in (52 mm)	(1.95 x 0.19) in (50 x 5) mm	Jacks	2113.45
	SR701	1000:1	1 mA to 1000 A	—	1 mA/A*	—	< 0.7 °	2.05 in (52 mm)	(1.95 x 0.19) in (50 x 5) mm	Jacks	2116.29
	SR704	1000:1	1 mA to 1000 A	—	1 mA/A*	—	< 0.7 °	2.05 in (52 mm)	(1.95 x 0.19) in (50 x 5) mm	Leads	2116.30
	SR752	—	(0.1 to 1000) A	—	—	1 mV/A	< 0.7 °	2.05 in (52 mm)	(1.95 x 0.19) in (50 x 5) mm	Leads	2116.32
	SR759	—	1 mA to 1 A 10 mA to 10 A (0.1 to 100) A (1 to 1000) A	—	—	1000 mV/A 100 mV/A 10 mV/A 1 mV/A	< 1 °	2.05 in (52 mm)	(1.95 x 0.19) in (50 x 5) mm	Leads	2116.33
	K100	—	0.1 mA to 3 A	0.05 mA to ± 4 A	—	1 mV/mA	N / A	0.18 in (4.5 mm)	N / A	Plugs	1200.67
	K110	—	(0.1 to 300) mA	(0.05 to ± 400) mA	—	10 mV/mA	N / A	0.18 in (4.5 mm)	N / A	Plugs	2111.73
	LM102	1000:1	50 mA to 200 A	—	1 mA/A*	—	< 3 °	0.63 in (16 mm)	N / A	Leads	2153.04
	LM103	—	(0.1 to 200) A	—	—	1 mV/A	< 3 °	0.63 in (16 mm)	N / A	Leads	2153.05

\*Output Protection for open secondary.

\*\*Phase shift indicated at maximum rating.

Note: All SR probes listed on this chart are UL approved, however not all SR series probes are UL approved; please consult factory.

Consult factory for NIST Calibration price.

## OUTPUT TERMINATIONS

### Lead with BNC

Insulated 6.5 ft (2 m) coaxial cable with insulated BNC connector rated 600 Vrms



### Jacks

Two standard safety banana jacks (4 mm)



### Leads

Double/reinforced 5 ft (1.5 m) leads with 4 mm safety banana plug







### Shrouded Banana Plugs

Two 4 mm safety banana plugs; standard ¾ in (19 mm) spacing










# CURRENT MEASUREMENT PROBES

## AMPFLEX® AND MINIFLEX® PROBES - SELECTION CHARTS

SERIES	MODEL	RATIO	MEASUREMENT RANGE	OUTPUT SIGNAL	MAXIMUM CONDUCTOR SIZE	CAT. #
	MF 300-10-2-10-HF	—	(30 / 300) A	100 mV/A, 10 mV/A	2.95 in (75 mm)	2126.84
	MF 3000-14-1-1-HF	—	3000 A	1 mV/A	3.93 in (100 mm)	2126.86
	MA114	—	(3 / 30 / 300 / 3000) A	1 mV/mA, 100 mV/A 10 mV/A, 1 mV/A	4 in (101 mm)	2153.41
	300-24-2-10	—	(30 / 300) A	100 mV/A, 10 mV/A	7.48 in (190 mm)	2112.88
	1000-24-1-1	—	1000 A	1 mV/A	7.48 in (190 mm)	2112.39
	1000-24-2-1	—	(100 / 1000) A	10 mV/A, 1 mV/A	7.48 in (190 mm)	2112.98
	1000-36-2-1	—	(100 / 1000) A	10 mV/A, 1 mV/A	11 in (280 mm)	2113.00
	3000-24-1-1	—	3000 A	1 mV/A	7.48 in (190 mm)	2112.46
	3000-36-1-1	—	3000 A	1 mV/A	11 in (280 mm)	2112.48
	3000-24-2-1	—	(300 / 3000) A	10 mV/A, 1 mV/A	7.48 in (190 mm)	2113.05
	3000-48-2-1	—	(300 / 3000) A	10 mV/A, 1 mV/A	15 in (381 mm)	2112.01
	6000-36-2-0.1	—	(600 / 6000) A	1 mV/A, 0.1 mV/A	11 in (280 mm)	2113.21
	30000-24-2-0.1	—	(3000 / 30,000) A	1 mV/A, 0.1 mV/A	7.48 in (190 mm)	2113.33
	24-3001	—	300 A / 3000 A <sub>AC</sub>	10 mV/A, 1 mV/A	7.48 in (190 mm)	2120.81

Consult factory for NIST Calibration price.

## OSCILLOSCOPE & BNC TERMINATED PROBES

MODEL	MEASUREMENT RANGE		OUTPUT SIGNAL	PHASE SHIFT*	MAXIMUM CONDUCTOR SIZE		OUTPUT CONNECTION
	AC	DC	VOLTAGE		Ø CABLE	BUS BAR	
 SL361	(0.1 to 100) A		100 mV/A 10 mV/A	< 1.5 °	0.46 in (11.8 mm)	N / A	6.5 ft (2 m) Lead w/BNC
 MN261	(0.1 to 24) A (0.5 to 240) A	—	100 mV/A 10 mV/A	< 2.5 °	0.78 in (20 mm)	N / A	6.5 ft (2 m) Lead w/BNC
 SR661	(0.1 to 12) A (0.1 to 120) A (1 to 1200) A	—	100 mV/A 10 mV/A 1 mV/A	< 1 °	2.05 in (52 mm)	(1.96 x 0.19) in (50 x 5) mm	6.5 ft (2 m) Lead w/BNC
 MN251T MN379T	(0.5 to 240) A	—	1 mV/A	≤ 2.5 °	0.78 in (20 mm)	(0.78 x 0.19) in (20 x 5) mm	10 ft (3 m) Lead w/BNC
	(0.005 to 6) A (0.1 to 120) A	—	200 mV/A 10 mV/A	≤ 4 ° ≤ 2.2 °	0.78 in (20 mm)	(0.78 x 0.19) in (20 x 5) mm	10 ft (3 m) Lead w/BNC
 MH60	(0.5 to 100) A	(0.5 to 100) A	10 mV/A	< 1 °	1.02 in (26 mm)	N / A	6.6 ft (2 m) Lead w/BNC
 MR417	(0.5 to 40) A (0.5 to 400) A	(0.5 to 60) A (0.5 to 600) A	10 mV/A 1 mV/A	≤ 2.2 ° ≤ 1.5 °	1.18 in (30 mm)	2 bus bar (1.24 x 0.39) in (32 x 10) mm	6.6 ft (2 m) Lead w/BNC
 MR527	(0.5 to 100) A (0.5 to 1000) A	(0.5 to 150) A (0.5 to 1400) A	10 mV/A 1 mV/A	≤ 2.2 ° ≤ 1.5 °	1.53 in (39 mm)	2 bus bar (1.96 x 0.19) in (50 x 5) mm	6.6 ft (2 m) Lead w/BNC

\*Phase shift indicated at maximum rating. Note: All probes are rated 600 V CAT III and CE compliant. Not all models are UL approved; please consult factory.  
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