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 LEARN MORE

MODELS	SL306	SL361
ELECTRICAL		
Nominal Range	1.5 A_{AC} | 2 A_{DC}; 60 A_{AC} | 80 A_{DC}	10 A_{peak}; 100 A_{peak}
Measurement Range	5 mA to 1.5 A_{AC} | 2 A_{DC} 50 mA to 60 A_{AC} | 80 A_{DC}	100 mA to 100 A_{peak} 500 mA to 100 A_{peak}
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	600 V max Current leakage at 50/60 Hz: ≤ 1 mA/100 V	600 V max Current leakage 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_{DC} 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 0.46 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.

FEATURES

SL SERIES AC/DC CURRENT PROBES

- SL306 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 ±2% for 2 A range and ±4% for 80 A range *(Model SL306)*
- **Bandwidth of up to 100 kHz,** allowing for accurate measurement of high-frequency signals *(Model SL361)*

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 SL361only)

Cat. #2118.46 (Model SL306 only)

CAT. #	DESCRIPTION
2153.08	AC/DC Current Probe Model SL306 (1.5 A_{AC}, 2 A_{DC}, 1 mV/mA (1 V/A) & 60 A_{AC}, 80 A_{DC}, 10 mV/A, Lead)
2153.09	AC/DC Current Probe Model SL361 (10 Apeak, 100 mV/A & 100 Apeak, 10 mV/A, BNC)

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_{DC} / A_{AC}	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_{DC} / A_{AC}	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 1.5 A 50 mA to 60 A	5 mA to 2 A 50 mA a 80 A	–	1 mV/mA 10 mV/A	< 1 °	0.46 in (11.8 mm)	N / A	Leads	2153.08
	**SL361**	–	100 mA a 10 Apeak 500 mA a 100 Apeak		–	100 mV/A 10 mV/A	< 1 °	0.46 in (11.8 mm)	N / A	Lead w/BNC	2153.09
	**MD301**	1000:1	(2 to 500) A	–		1 mV_{DC} / A_{AC}	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_{AC}	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.
Consult factory for NIST Calibration price.