

# CURRENT MEASUREMENT PROBES

## SL SERIES AC/DC CURRENT PROBES

### SL SERIES

*Compact, long nose probes designed for accurate measurements of low currents with 10mA<sub>dc</sub> sensitivity, capable of measuring both AC and DC current*

### SPECIFICATIONS

MODELS	SL206	SL261
<b>ELECTRICAL</b>		
Nominal Range	2A; 80A	10A; 100A <sub>ac/dc</sub> peak
Measurement Range	10mA to 80A <sub>dc</sub> 10mA to 60A <sub>ac</sub>	100 mA to 100A <sub>ac/dc</sub> peak
Transformation Ratio	Voltage output	
Output Signal	2A: 1mV/mA (2V @ 2A) 80A: 10mV/A (0.8V @ 80A)	10A: 100mV/A (1V @ 10A) 100A: 10mV/A (1V @ 100A)
Phase Shift (DC to 65 Hz) (1mV/mA Range) (10mV/mA Range) (100mV/mA Range)	1° 1° -	- <1° <1.5°
Overload	120A continuous	Red LED indicator
Frequency Range	DC to 8kHz	DC to 100kHz (-3dB with current derating)
Load Impedance	100kΩ (1mV/mA); 10kΩ (1V/A)	>1MΩ/100pF
Working/Common Mode Voltage	600V <sub>rms</sub>	
Output Termination	5 ft (1.5m) lead with double insulated 4mm safety banana plugs	6.5 ft (2 m) coaxial cable with insulated BNC terminal
<b>MECHANICAL</b>		
Operating Relative Humidity	10° to 30°C: 85 ± 5% RH (without condensation) 40° to 50°C: 45 ± 5% RH (without condensation)	
Maximum Conductor Size	0.46" (11.8mm)	
Dimensions	9.09 x 1.42 x 2.64" (231 x 36 x 67mm)	
Weight	11.6 oz (330g) with battery	
Material	Polycarbonate UL 94	
<b>ENVIRONMENTAL</b>		
Operating Temperature	32° to 122°F (0° to 50°C)	
Storage Temperature	-22° to 176°F (-30° to 80°C)	
<b>SAFETY</b>		
Electrical	EN 61010-2-32, 600V CAT III	
CE Mark	Yes	
UL Approval	No	Yes

Consult factory for NIST Calibration prices



SL206 W/ BANANA PLUGS



SL261 W/ BNC CONNECTOR



Only SL261

### FEATURES

#### SL SERIES AC/DC CURRENT PROBES






- Low AC and DC measurements
- Measures from 10mA to 100A
- Dual range selection
- Unique design for probing in crowded wiring areas
- Hall effect sensor technology
- UL approved for the US and Canada (not SL206)
- Flame retardant UL94 V2 rated
- Use with DMMs, voltmeters and other voltage measuring instruments

CATALOG NO.	DESCRIPTION
1201.45	AC/DC Current Probe Model SL206 (2A, 1mV/mA & 80A, 10mV/A, Lead)
1201.51	AC/DC Current Probe Model SL261 (10A, 100mV/A & 100A, 10mV/A, BNC)



# CURRENT MEASUREMENT PROBES

## GENERAL PURPOSE PROBES SELECTION CHART

Series	Model	Ratio	Measurement Range		Output Signal		Phase Shift**	Maximum Conductor Size		Output Connection	Catalog No.
			AC	DC	Current	Voltage		Ø Cable	Bus Bar		
	MN01	1000:1	2 to 150A	-	1mA/A*	-	N/A	0.39" (10mm)	N/A	Leads	2129.17
	MN02	1000:1	50mA to 100A 50mA to 90A	-		-	N/A	0.39" (10mm)	N/A	Leads	2129.20
	MN03	-	2 to 100A	-	-	1mV/A	N/A	0.39" (10mm)	N/A	Leads	2129.18
	MN05	-	5mA to 10A 1 to 100A	-	-	1mV/A 1mV/A	N/A	0.39" (10mm)	N/A	Leads	2129.19
	MN09	-	1 to 150A	-	-	100mVdc/Aac	N/A	0.39" (10mm)	N/A	Leads	2129.21
	MN103	-	1mA to 10A 1 to 100A	-	-	1mV/A 1mV/A	N/A	0.47" (12mm)	N/A	Leads	1031.02
	MN114	-	1mA to 10A	-	-	100mV/A	<8°	0.47" (12mm)	N/A	Leads	2110.71
	MN185	1000:1	50mA to 120A	-	1mA/A	-	<3.5°	0.47" (12mm)	N/A	Jacks	100.185
	MN255	-	0.1 to 24A 0.1 to 240A	-	-	100mV/A 10mV/A	<2.5°	0.78" (19.8mm)	N/A	Leads	2115.81
	MN291	-	0.5 to 240A	-	-	100mVdc/Aac	N/A	0.78" (19.8mm)	N/A	Leads	2115.84
	MN307	-	10mA to 12A	-	-	100mV/A	<2.5°	0.78" (19.8mm)	N/A	Leads	2116.23
	MN312	1000:1	0.1 to 200A	-	1mA/A*	-	<2.5°	0.78" (19.8mm)	N/A	Jacks	2116.24
	MN352	-	0.1 to 150A	-	-	10mV/A	<2.5°	0.78" (19.8mm)	N/A	Jacks	2116.26
	MN353	-		-	-	10mV/A	<2.5°	0.78" (19.8mm)	N/A	Leads	2116.27
	MN375	-	0.1 to 10A	-	-	100mV/A	<1.5°	0.78" (19.8mm)	N/A	Leads	2115.41
	MN379	-	5mA to 6A 0.1 to 120A	-	-	200mV/A 10mV/A		0.78" (19.8mm)	N/A	Leads	2153.01
	SL206	-	10mA to 1.5A 50mA to 60A	10mA to 2A 50mA to 80A	-	1mV/mAac/dc 10mV/Aac/dc	<1°	0.46" (11.8mm)	N/A	Leads	1201.45
	MD301	1000:1	2 to 500A	-	-	1mVdc/Aac	N/A	1.18" (30mm) 2 x 500kc-mil	2.48 x 0.20" (63 x 5mm)	Leads	1201.07

\*Output Protection for open secondary

\*\*Phase shift indicated at maximum rating





Note: Models MN103, MN106, MN114 & 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	CATALOG NO.
			AC	DC	CURRENT	VOLTAGE		Ø CABLE	BUS BAR		
	MR415	–	0.5 to 400A	0.5 to 600A	–	1mV/A	≤1.5°	1.18" (30mm)	2 bus bar 1.24 x 0.39" (31.5 x 10mm)	5 ft (1.5m) Lead	1200.80
	MR416	–	0.5 to 40A 0.5 to 400A	0.5 to 60A 0.5 to 600A	–	10mV/A 1mV/A	≤2.2° ≤1.5°	1.53" (39mm)	2 bus bar 1.95 x 0.19" (50 x 5mm)	5 ft (1.5m) Lead	1200.81
	MR526	–	0.5 to 100A 0.5 to 1000A	0.5 to 150A 0.5 to 1400A	–	10mV/A 1mV/A	≤2° ≤1.5°	1.53" (39mm)	2 bus bar 1.95 x 0.19" (50 x 5mm)	5 ft (1.5m) Lead	1200.83
	SR601	1000:1	0.1 to 1200A	–	1mA/A*	–	<0.5°	2.05" (52mm)	1.95 x 0.19" (50 x 5mm)	Jacks	2113.43
	SR604	1000:1	0.1 to 1200A	–	1mA/A*	–	<0.5°	2.05" (52mm)	1.95 x 0.19" (50 x 5mm)	Leads	2113.44
	SR651	–	0.1 to 1200A	–	–	1mV/A	<0.5°	2.05" (52mm)	1.95 x 0.19" (50 x 5mm)	Jacks	2113.45
	SR701	1000:1	1mA to 1000A	–	1mA/A*	–	<0.7°	2.05" (52mm)	1.95 x 0.19" (50 x 5mm)	Jacks	2116.29
	SR704	1000:1	1mA to 1000A	–	1mA/A*	–	<0.7°	2.05" (52mm)	1.95 x 0.19" (50 x 5mm)	Leads	2116.30
	SR752	–	0.1 to 1000A	–	–	1mV/A	<0.7°	2.05" (52mm)	1.95 x 0.19" (50 x 5mm)	Leads	2116.32
	SR759	–	1mA to 1A 10mA to 10A 0.1 to 100A 1 to 1000A	–	–	1000mV/A 100mV/A 10mV/A 1mV/A	<1°	2.05" (52mm)	1.95 x 0.19" (50 x 5mm)	Leads	2116.33
	K100	–	0.1mA to 3A	0.05mA to ±4A	–	1mV/mA	N/A	0.18" (4.5 mm)	N/A	Plugs	1200.67
	K110	–	0.1mA to 300mA	0.05mA to ±450mA	–	10mV/mA	N/A		N/A	Plugs	2111.73
	LM102	1000:1	50mA to 200A	–	1mA/A*	–	<3°	0.63" (16 mm)	N/A	Leads	2153.04
	LM103	–	0.1 to 200A	–	–	1mV/A	<3°		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 (2m) coaxial cable with insulated BNC connector rated 600Vrms



### Jacks

Two standard safety banana jacks (4mm)



### Leads

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







### Shrouded Banana Plugs

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










# AMPFLEX® AND MINIFLEX® PROBES - SELECTION CHARTS

SERIES	MODEL	RATIO	MEASUREMENT RANGE	OUTPUT SIGNAL	MAXIMUM CONDUCTOR SIZE	CATALOG NO.
	MF 300-10-2-10-HF	–	30A / 300A	100mV/A, 10mV/A	2.95" (70mm)	2126.84
	MA114	–	3A / 30A / 300A / 3000A	1mV/mA, 100mV/A 10mV/A, 1mV/A	4" (101mm)	2153.41
	300-24-2-10	–	30A / 300A	100mV/A, 10mV/A	7.48" (190mm)	2112.88
	1000-24-1-1	–	1000A	1mV/A	7.48" (190mm)	2112.39
	1000-24-2-1	–	100A / 1000A	10mV/A, 1mV/A	7.48" (190mm)	2112.98
	1000-36-2-1	–	100A / 1000A	10mV/A, 1mV/A	11" (290mm)	2113.00
	3000-24-1-1	–	3000A	1mV/A	7.48" (190mm)	2112.46
	3000-36-1-1	–			11" (290mm)	2112.48
	3000-24-2-1	–	300A / 3000A	10mV/A, 1mV/A	7.48" (190mm)	2113.05
	6000-36-2-0.1	–	600A / 6000A	1mV/A, 0.1mV/A	11" (290mm)	2113.21
	30000-24-2-0.1	–	3000A / 30,000A		7.48" (190mm)	2113.33
	24-3001	–	300A / 3000A <sub>Ac</sub>	10mV/A, 1mV/A	7.48" (190mm)	2120.81

Consult factory for NIST Calibration price

## OSCILLOSCOPE & BNC TERMINATED PROBES

MODEL	MEASUREMENT RANGE		OUTPUT SIGNAL VOLTAGE	PHASE SHIFT*	MAXIMUM CONDUCTOR SIZE		OUTPUT CONNECTION
	AC	DC			Ø CABLE	BUS BAR	
 SL261	100mA to 10A 1 to 100A		100mV/A 10mV/A	<1.5°	0.46" (11.8mm)	N/A	6.5 ft (2m) Lead w/BNC
 MN261	0.1 to 24A 0.5 to 240A	–		<2.5°	0.78" (19.8mm)		
 SR661	0.1 to 12A 0.1 to 120A 1 to 1200A		100mV/A 10mV/A 1mV/A	<1°	2.05" (52mm)	1.96 x 0.19" (50 x 5mm)	
 MN251T MN379T	0.5 to 240A 0.005 to 6A 0.1 to 120A		1mV/A 200mV/A 10mV/A	<2.5° <4° <2.2°	0.78" (20mm)	0.78" (20mm)	10 ft (3m) Lead w/BNC
 MH60	0.5 to 100A	0.5 to 100A	10mV/A	<1°	1.02" (26mm)	N/A	6.6 ft (2m) Lead w/BNC
 MR417	0.5 to 40A 0.5 to 400A	0.5 to 60A 0.5 to 600A	10mV/A 1mV/A	≤2.2° ≤1.5°	1.18" (30mm)	2 bus bar 1.24 x 0.39" (31.5 x 10mm)	
 MR527	0.5 to 100A 0.5 to 1000A	0.5 to 150A 0.5 to 1400A		≤2.2° ≤1.5°	1.53" (39mm)	2 bus bar 1.96 x 0.19" (50 x 5mm)	

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

