

CURRENT MEASUREMENT PROBES

SR SERIES CURRENT PROBES

SR700 SERIES

Excellent linearity and low phase shift, plus a broad frequency response, permit accurate measurements of current for power and power quality measurements

SPECIFICATIONS

MODELS	SR701	SR704	SR752	SR759
ELECTRICAL				
Nominal Range	1000A _{AC}			1; 10; 100; 1000A _{AC}
Measurement Range	1mA to 1200A _{AC}	100mA to 1200A _{AC}		1mA to 1200A _{AC}
Transformation Ratio	1000: 1	Voltage output		
Output Signal	1mA/A (1A _{AC} @ 1000A)	1mV/A (1V _{AC} @ 1000A)	1000; 100; 10; 1mV/A, (1V _{AC} @ 1, 10, 100 or 1000A)	
Phase Shift	1 to 10A: ≤2° 10 to 100A: ≤1° 100 to 1200A: ≤0.7°			(1A Range) 0.1 to 1.2 A: ≤10 ° (10A Range) 0.1 to 1A: ≤5°; 1 to 12A: ≤2° (100A Range) 1 to 10 A: ≤2°; 10 to 120A: ≤1° (1000A Range) 10 to 100A: ≤2°; 100 to 1200A: ≤1°
Overload	1200A for 40 min ON, 20 min OFF			
Frequency Range	30Hz to 5kHz; current derating above 1kHz using the formula: 1000A x 1/F (in kHz)			
Load Impedance	5Ω max	100kΩ min		
Working/Common Mode Voltage	600V CAT III			
Output Termination	Two 4mm safety banana jacks	5 ft (1.5m) lead with 4mm safety banana plugs		
MECHANICAL				
Jaw Opening	2.25" (57mm) max			
Maximum Conductor Size	2.05" (52mm)			
Maximum Bus Bar Size	One 1.95 x 0.19" (50 x 5mm)			
Dimensions	4.37 x 8.50 x 1.77" (111 x 216 x 45mm)			
Weight	1.21 lbs (550g)			
Material	Polycarbonate UL 94			
ENVIRONMENTAL				
Operating Temperature	14° to 122°F (-10° to 50°C)			
Storage Temperature	-4° to 158°F (-20° to 70°C)			
Operating Relative Humidity	0 to 85%	0 to 90%		
SAFETY				
Electrical	EN 61010-2-32			
UL Approval	Yes - Canada and United States			
Double Insulation	Yes			
CE Mark	Yes			

Consult factory for NIST Calibration prices

CATALOG NO.	DESCRIPTION
2116.29	AC Current Probe Model SR701 (1000A, 1mA/A, Jack) HA* L**
2116.30	AC Current Probe Model SR704 (1000A, 1mA/A, Lead) HA* L**
2116.32	AC Current Probe Model SR752 (1000A, 1mV/A, Lead) HA*
2116.33	AC Current Probe Model SR759 (1A, 10A, 100A, 1000A, mV/A, Lead) HA*

*HA - High Accuracy and Phase Shift, **L - Limited open Voltage Output



FEATURES

- Measurement range of 1mA to 1200Aac
- Large jaw opening accommodates conductors up to two 500MCM conductors
- Ergonomic design and easy operation
- Low phase shift for power measurements
- Available with mA output signals
- Designed for DMMs, recorders, loggers, oscilloscopes, power and harmonic meters
- UL approved

ACCESSORIES

Catalog #1017.45

4mm Banana plug adaptor
(Safety Leads to non-recessed plug)

Catalog #2118.46

Banana (Female)
BNC (Male) Adaptor

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		50mA to 100A 50mA to 90A			-					2129.20		
	MN03	2 to 100A	-		1mV/A	2129.18							
	MN05	5mA to 10A 1 to 100A	-		1mV/A 1mV/A	2129.19							
	MN103	-	1mA to 10A 1 to 100A		-	1mV/A 1mV/A	<10° <8° <3.5°	0.47" (12mm)			N/A	Jacks	1031.02
	MN106		1000:1		2 to 150A	1mA/A							-
	MN114	-	1mA to 10A		-	100mV/A							2110.71
	MN185	1000:1	50mA to 120A		1mA/A	-							100.185
	MN213	1000:1	0.5 to 240A	-	1mA/A*	-	<2.5°	0.78" (19.8mm)	N/A	Leads			2115.75
	MN251	-			-	1mV/A							2115.77
	MN253				-	10mV/A							2115.79
	MN255				0.1 to 24A 0.1 to 240A	-							100mV/A 10mV/A
	MN291	0.5 to 240A			-	100mVdc/Aac					2115.84		
	MN307	10mA to 12A			-	100mV/A					2116.23		
	MN312	1000:1	0.1 to 200A		1mA/A*	-	<2.5°			Jacks	2116.24		
	MN313					-				Leads	2116.25		
	MN352	-	0.1 to 150A		-	10mV/A	Jacks			2116.26			
	MN353				-		Leads			2116.27			
	MN373	0.01 to 2.4A 0.1 to 200A	-		1000mV/A 10mV/A	<3°				2116.28			
	MN375	0.1 to 10A	-		100mV/A	<1.5°				2115.41			
	MN379	5mA to 6A 0.1 to 120A	-		200mV/A 10mV/A					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)		Leads	1201.45		
	MD301	1000:1	2 to 500A	-	-	1mVdc/Aac	N/A	1.18" (30mm) 2 x 500kcmil	2.48 x 0.20" (63 x 5mm)		1201.07		
	MD305		1 to 600A		1mA/A*	-	<1°			1201.36			

*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.

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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	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°				1200.82
	MR525		0.5 to 1000A	0.5 to 1400A		1mV/A	≤1.5°	1.53" (39mm)	2 bus bar 1.96 x 0.19" (50 x 5mm)		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°				1200.83
	SR600	1000:1	0.1 to 1000A	—	1mA/A	—	<0.5°	2.05" (52mm)	1.96 x 0.19" (50 x 5mm)	Jacks	2113.42
	SR601				1mA/A*					Jacks	2113.43
	SR604				1mA/A*					Leads	2113.44
	SR634	250:5 500:5 1000:5	1 to 250A 1 to 500A 1 to 1000A		20mA/A 10mA/A 5mA/A*	<1°	Jacks			2113.48	
	SR651	—	0.1 to 1000A		—	1mV/A	<0.5°			Jacks	2113.45
	SR701	1000:1	1mA to 1000A		1mA/A*	—	<0.7°			Jacks	2116.29
	SR704									Leads	2116.30
	SR752	—	0.1 to 1000A		—	1mV/A	<1°			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				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				2111.73	
	LM102	1000:1	50mA to 200A	—	1mA/A*	—	<3°	0.63" (16 mm)		Leads	2153.04
	LM103	—	0.1 to 200A		—	1mV/A				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.
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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 3/4" (19mm) spacing



AMPFLEX® AND MINIFLEX® PROBES - SELECTION CHARTS

SERIES	MODEL	RATIO	MEASUREMENT RANGE	OUTPUT SIGNAL	MAXIMUM CONDUCTOR SIZE	CATALOG NO.
	MF 300-6-2-10-HF	—	30A / 300A	100mV/A, 10mV/A	1.77" (45mm)	2126.83
	MF 300-10-2-10-HF	—			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		2112.39
	1000-24-2-1	—	100A / 1000A	10mV/A, 1mV/A		2112.98
	1000-36-2-1	—			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
	3000-36-2-1	—			11" (290mm)	2112.00
	3000-48-2-1	—			15" (390mm)	2112.01
	6000-36-2-0.1	—	600A / 6000A	1mV/A, 0.1mV/A	11" (290mm)	2113.21
	30000-24-2-0.1	—	3000A / 30,000A			2113.33
	24-3001	—	300A / 3000AAC	10mV/A, 1mV/A	7.48" (190mm)	2120.81

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OSCILLOSCOPE & BNC TERMINATED PROBES

MODEL	MEASUREMENT RANGE		OUTPUT SIGNAL	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	6.6 ft (2m) Lead w/BNC
 MN261				<2.5°	0.78" (19.8mm)		
 SR661			100mV/A 10mV/A 1mV/A	<1°	2.05" (52mm)	1.96 x 0.19" (50 x 5mm)	
 MN251T MN379T			1mV/A	<2.5°	0.78" (20mm)	0.78" (20mm)	10 ft (3m) Lead w/BNC
	0.005 to 6A		200mV/A	<4°			
	0.1 to 120A		10mV/A	<2.2°			
 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.