

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



SR701



FEATURES

- Measurement range of 1mA to 1200A_{AC}
- 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	1000:1	50mA to 100A 50mA to 90A	–		–		N/A	0.39" (10mm)	N/A	Leads
	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.

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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°	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 _{Ac}	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		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	
 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)	6.6 ft (2m) Lead w/BNC
	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.