CURRENT MEASUREMENT PROBES
MN SERIES AC CURRENT PROBES

MN307

MN300 SERIES

Compact sized probes ideal for measuring low currents and leakage currents

Standard millivolt and milliamp outputs are compatible with multimeters, data loggers and oscilloscopes

SPECIFICATIONS

MODELS	MN307	MN312	MN313	MN352	MN353	MN373	MN375	MN379*
ELECTRICAL								
Nominal Range	10AAC	150AAC				2AAC; 150AAC	10AAC	5AAC; 100AAC
Measurement Range	0.1 to 12AAC	0.1 to 200AAC				0.01 to 2.4AAC; 0.2 to 200AAC	0.1 to 10AAC	5mA to 6AAC; 0.1 to 120AAC
Transformation Ratio	Voltage output	1000:1		Voltage output				
Output Signal	100mV/A (1VAC @ 10A)	1mA/A (150mAAC @ 150A)		10mV/A (1.5VAC @ 150A)		2A: 1V/A (2VAC @ 2A) 150A: 10mV/A (1.5VAC @ 150A)	100 mV/A (1 VAC @ 10A)	5 A: 200 mV/A (1 VAC @ 5 A) 100 A: 10 mV/A (1 VAC @ 100 A)
Phase Shift	0.1 to 1A: ≤5° 1 to 5A: ≤3° 5 to 12A: ≤2.5°	0.1 to 1A: Not specified 1 to 20A: ≤3° 20 to 80A: ≤2° 80 to 150A:≤2.5° 150 to 200A: Not specified				(2A Range) Not Specified (150A Range) 0.1 to 1 A: Not specified 1 to 20 A: ≤3° 20 to 80 A:≤2° 80 to 150 A: ≤3° 150 to 200 A: ≤4°	1 to 5A: ≤1° @ 60 Hz 5 to 10A: ≤1.5° @ 60 Hz	(5A Range) 5mA: 6.5° 50mA: 5° 0.5A: 4.5° 5A: 4° (100A Range) 0.1A: 3.2° 1; 10; 100A: 2.2°
Overload	20A Continuous	200A Continuous		240A for 10 min ON, 30 min OFF			20A Continuous	200A Continuous
Frequency Range	40Hz to 10kHz						40Hz to 3kHz	40Hz to 10kHz
Load Impedance	1MΩ	1Ω		1MΩ				
Crest Factor	3 @ 10Arms with an error (due to CF) of 3%	3 @ 200A peak with an error (due to CF) of 3%		3 @ 150A peak with an error (due to CF) of 3%		3 @ 2A ; 3 @ 150A peak with an error (due to CF) of 3%	3 @ 10Arms with an error (due to CF) of 3%	Not specified
Working/Common Mode Voltage	600Vrms							
Output Termination	Double-insulated 5 ft (1.5m) lead with two 4mm safety banana plugs	Two standard safety 4mm banana jacks	Double-insulated 5 ft (1.5m) lead with two 4mm safety banana plugs	Two standard safety 4mm banana jacks	Double-insulated 5 ft (1.5m) lead with two 4mm safety banana plugs			
MECHANICAL / ENVIRONMENTAL								
Jaw Opening	0.83" (21mm)							
Maximum Conductor Size	0.78" max (20mm)							
Dimensions	5.47 x 2.00 x 1.18" (139 x 51 x 30mm)							
Weight	6.5 oz (180g)							
Material	Polycarbonate UL 94							
Operating Temperature	14° to 131°F (-10° to 55°C)							
Storage Temperature	-40° to 158°F (-40° to 70°C)							
Operating Relative Humidity	85% RH without roll-off above 95°F (95°C)							
SAFETY								
Safety Rating	EN/IEC 61010-1 600 V CAT III, EN 61010-2-32, Pollution Degree 2							
UL Approval	Yes - Canada and United States (excludes MN379)							
Ingress Protection	IP40	**Double Insulation**	Yes	**CE Mark**	Yes			

Consult factory for NIST Calibration prices

CATALOG NO.	DESCRIPTION	CATALOG NO.	DESCRIPTION
2116.23	AC Current Probe Model MN307 (12A, 100mV/A, Lead)	2116.27	AC Current Probe Model MN353 (150A, 10mV/A, Lead)
2116.24	AC Current Probe Model MN312 (150A, 1mA/A, Jack)	2116.28	AC Current Probe Model MN373 (2.4A, 1000mV/A & 150A, 10mV/A, Lead)
2116.25	AC Current Probe Model MN313 (150A, 1mA/A, Lead)	2115.41	AC Current Probe Model MN375 (10A, 100mV/A, Lead)
2116.26	AC Current Probe Model MN352 (150A, 10mV/A, Jack)	2153.01	AC Current Probe Model MN379 (5A, 200mV/A & 100A, 10mV/A, Lead)

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 CONNEC-TION	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.

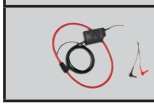
OUTPUT TERMINATIONS

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

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 / 3000AAC	10mV/A, 1mV/A	7.48" (190mm)	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	
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	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.