

CURRENT MEASUREMENT PROBES

FLEXIBLE CURRENT PROBES

AMPFLEX® FLEXIBLE CURRENT PROBES

Flexible AC current probe composed of a flexible sensor and an electronic module

SPECIFICATIONS

MODELS	MEASUREMENT RANGE	OUTPUT SIGNAL	SENSOR LENGTH	MAX CONDUCTOR SIZE	CATALOG NO.
300-24-2-10	30/300 A	100/10 mV/A	24 in (610 mm)	8 in (203 mm)	2112.88
300-120-2-10	30/300 A	100/10 mV/A	120 in (3048 mm)	38 in (970 mm)	2113.39
1000-24-1-1	1000 A	1 mV/A	24 in (610 mm)	8 in (203 mm)	2112.39
1000-24-2-1	100 A /1000 A	10/1 mV/A	24 in (610 mm)	8 in (203 mm)	2112.98
1000-36-2-1	100/1000 A	10/1 mV/A	36 in (914 mm)	11 in (279 mm)	2113.00
3000-24-1-1	3000 A	1 mV/A	24 in (610 mm)	8 in (203 mm)	2112.46
3000-36-1-1	3000 A	1 mV/A	36 in (914 mm)	11 in (279 mm)	2112.48
3000-24-2-1	300 A /3000 A	10/1 mV/A	24 in (610 mm)	8 in (203 mm)	2113.05
3000-36-2-1	300/3000 A	10/1 mV/A	36 in (914 mm)	11 in (279 mm)	2112.00
3000-48-2-1	300/3000 A	10/1 mV/A	48 in (1219 mm)	15 in (381 mm)	2112.01
6000-36-2-0.1	600/6000 A	1/0.1 mV/A	36 in (914 mm)	11 in (279 mm)	2113.21
30000-24-2-0.1	3000/30,000 A	1/0.1 mV/A	24 in (610 mm)	8 in (203 mm)	2113.33

Consult factory for NIST Calibration prices. Consult factory for special offers and ranges/lengths not shown.

Note: Output is safety shrouded 4 mm male banana plug.

FLEXPROBE® FLEXIBLE CURRENT PROBE MODEL 24-3001

Low cost AC current measurement probe designed to plug into digital multimeters, oscilloscopes and power recorders

SPECIFICATIONS

MODEL	24-3001
ELECTRICAL	
Current Range	300 AAC / 3000 AAC
Output Signal	mV output (4000 mV peak max)
Three Position Slide Switch	
10 mV/A	5 A to 300 Arms
1 mV/A	50 A to 3000 Arms
ON/OFF	
Power Supply	9 V Alkaline battery (included)
MECHANICAL	
Maximum Conductor Size	7.6 in (193 mm)
Sensor Length	24 in ± 1 in (610 ± 25) mm
Cable Length	6.5 ft (2 m)
Output Termination	Double insulated 14 in (356 mm) lead with safety banana plugs

Consult factory for NIST Calibration prices

CATALOG NO. DESCRIPTION

2120.81 FlexProbe® Model 24-3001 (Lead)



FEATURES

- Models ranging from (0.5 to 30,000) Arms
- Accuracy $\pm 1\%$ of Reading
- TRMS measurements when connected to a TRMS instrument
- No core saturation or damage if overloaded
- Over range LED for measurement circuitry
- Waterproof sensor
- 9 V Alkaline battery, typically provides 150 hours of continuous operation (battery included)
- Shape memory for custom pre-shaping of sensor before use (no drooping)
- Very high frequency response
- Low phase shift for power measurements of $< 1.3^\circ$, 0.7° typical
- Insensitive to DC, measures only AC component on DC + AC signals
- Excellent linearity
- Lightweight



ACCESSORIES

BANANA (FEMALE)
BNC (MALE) (XM-BB)






Catalog #2118.46

(optional for AmpFlex® & FlexProbe® Flexible Current Probes)



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 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	—		—	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 mVdc/Aac	N/A	0.39 in (10 mm)	N/A	Leads	2129.21
	MN103	—	1 mA to 10 A (1 to 100) A	—		1 mV/mA 1 mV/A	N/A	0.47 in (12 mm)	N/A	Leads	1031.02
	MN114	—	1 mA to 10 A	—		100 mV/A	< 8 °	0.47 in (12 mm)	N/A	Leads	2110.71
	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 mVdc/Aac	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	—		—			< 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
	SL206	—	10 mA to 1.5 A 50 mA to 60 A	10 mA to 2 A 50 mA to 80 A	—	1 mV/mAac/dc 10 mV/Aac/dc	< 1 °	0.46 in (12 mm)	N/A	Leads	1201.45
	MD301	1000:1	(2 to 500) A	—		1 mVdc/Aac	N/A	1.18 in (30 mm) (2 x 500) kcmil	(2.48 x 0.20) in (63 x 5) mm	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 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 ± 4.5 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 ± 450) mA	—	10 mV/mA	N/A		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 °		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










AMPFLEX® AND MINIFLEX® PROBES - SELECTION CHARTS

SERIES	MODEL	RATIO	MEASUREMENT RANGE	OUTPUT SIGNAL	MAXIMUM CONDUCTOR SIZE	CATALOG NO.
	MF 300-10-2-10-HF	—	30 A / 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 A / 30 A / 300 A / 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 A / 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 A / 1000 A	10 mV/A, 1 mV/A	7.48 in (190 mm)	2112.98
	1000-36-2-1	—	100 A / 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 A / 3000 A	10 mV/A, 1 mV/A	7.48 in (190 mm)	2113.05
	3000-48-2-1	—	300 A / 3000 A	1 mV/A	15 in (381 mm)	2112.01
	6000-36-2-0.1	—	600 A / 6000 A	1 mV/A, 0.1 mV/A	11 in (280 mm)	2113.21
	30000-24-2-0.1	—	3000 A / 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 VOLTAGE	PHASE SHIFT*	MAXIMUM CONDUCTOR SIZE		OUTPUT CONNECTION
	AC	DC			Ø CABLE	BUS BAR	
 SL261	100 mA to 10 A (1 to 100) A		100 mV/A 10 mV/A	< 1.5 °	0.46 in (12 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 in (20 mm)	10 ft (3 m) Lead w/BNC
	(0.005 to 6) A	—	200 mV/A	< 4 °			
	(0.1 to 120) A	—	10 mV/A	< 2.2 °			
 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.
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