CURRENT MEASUREMENT PROBES DIGITAL FLEXPROBE®









MODELS 400D & 4000D

Provide a welcomed solution when accessing electrical conductors in tight places



MINIFLEX®: 400D-10 (10 in probe)



MINIFLEX®: 4000D-14 (14 in probe)



MINIFLEX®: 400D-24 (24 in probe) 4000D-24 (24 in probe) (shown)



FEATURES

- Easy access and measurement, even in confined spaces
- Measurement from 20 mAac to 4000 Aac (model dependent)
- · Available with (10, 14 and 24) inch sensor lengths
- Sensor diameter (2.75 to 8) in (70 to 203) mm (model dependent)
- Resolution down to 1 mA (model dependent)
- HOLD feature
- · Direct reading
- · Compact and simple to use
- Flexible current sensor
- True RMS
- Safety rating of 600 V CAT IV

ACCESSORIES

CAT. #5000.44

MultiFix *(universal mounting system)* for use with models 5231, 5233, 400D, and 4000D

MODELS Display Range Measurement Range	400D-10 & 400D-24 ELECTRICAL 4 Aac, 40 Aac, 400 Aac (0.020 to 3.999) A,	4000D-14 & 4000D-24 40 Aac, 400 Aac, 4000 Aac					
Measurement	(0.020 to 3.999) A,	, ,					
		(0.001.00.00) 4					
	(4.00 to 39.99) A (40.0 to 399.9) A	(0.20 to 39.99) A, (40.0 to 399.9) A, (400 to 3999) A					
Resolution	1 mA, 10 mA, 100 mA	10 mA, 100 mA, 1 A					
Sensor Diameter	400D-10: Ø 2.75 in (70 mm) 400D-24: Ø 8 in (203 mm)	4000D-14: Ø 3.94 in (100 mm) 4000D-24: Ø 8 in (203 mm)					
	400D-10: Ø 10 in (254 mm) 400D-24: Ø 24 in (610 mm)	4000D-14: Ø 14 in (355 mm) 4000D-24: Ø 24 in (610 mm)					
Bandwidth 10 Hz to 3 kHz							
	MECHANICAL						
Power Supply	(2) 1.5 V AAA	A / LR3 batteries					
Weight	Approximately 0.2	9 lb (132 g) MiniFlex®					
Casing Dimensions	(3.94 x 2.36 x 0.79)	in (100 x 60 x 20) mm					
Connection Cable Length	6 ft	(1.8 m)					
	ENVIRONMENTAL						
Operating Temperature	(32 to 122) °F (0 to 50) °C						
	SAFETY						
Safety Rating IEC 61010, 600 V CAT IV							

Consult factory for NIST Calibration prices.

PRODUCT INCLUDES

Digital FlexProbe®, (2) 1.5 V AAA batteries and user manual.

	CAT. #	DESCRIPTION
_	2153.31	Digital FlexProbe® Model 400D-10 w/6 ft Lead (TRMS, 4 Aac, 40 Aac, 400 Aac)
	2153.36	Digital FlexProbe® Model 400D-24 w/6 ft Lead (TRMS, 4 Aac, 40 Aac, 400 Aac)
	2153.32	Digital FlexProbe® Model 4000D-14 w/6 ft Lead (TRMS, 40 Aac, 400 Aac, 4000 Aac)
	2153.35	Digital FlexProbe® Model 4000D-24 w/6 ft Lead (TRMS, 40 Aac, 400 Aac)



43

CURRENT MEASUREMENT PROBES

GENERAL PURPOSE PROBES SELECTION CHART

Series	Model	Ratio	Measurem	ent Range	Outp	ut Signal	Phase			Output	CAT.#
001100	modor	Hado	AC	DC	Current	Voltage	Shift**	Ø Cable	Bus Bar	Connection	OAII II
	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	-	1 mA/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 mV _{DC} / A _{AC}	N/A	0.39 in (10 mm)	N/A	Leads	2129.21
	MN134	-	1 mA to 10 A	-		100 mVac / A ac	< 10°	0.39 in (10 mm)	N/A	Leads	2129.22
	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 mV _{DC} / A AC	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
A	MN353	-	(0.1 to 150) A	-		10 mV/A	< 2.5 °	0.78 in (20 mm)	N/A	Leads	2116.27
0	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
6	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
R	MD301	1000:1	(2 to 500) A	-		1 mV _{DC} / A _{AC}	N/A	1.18 in (30 mm) (2 x 500) kcmil	(2.48 x 0.20) in (63 x 5) mm	Leads	1201.07
6	MD305	1000:1	(1 to 600) A	-	1 mA/A	-	<1°	1.18 in (30 mm) (2 x 500) kcmil	(2.48 x 0.20) in (63 x 5) mm	Leads	1201.36

^{*}Output protection for open secondary.

Note: Model MN185 are not CE compliant. MN200 & MN300 series are UL approved except MN379. Consult factory for NIST Calibration price.



^{**}Phase shift indicated at maximum rating.

CURRENT MEASUREMENT PROBES

GENERAL PURPOSE PROBES SELECTION CHART

SERIES	MODEL	EL RATIO	MEASUREMENT RANGE		OUTPUT SIGNAL		PHASE	MAXIMUM Conductor Size		OUTPUT	CAT. #
OLINES	MODEL	IIAIIO	AC	DC	CURRENT	VOLTAGE	SHIFT**	Ø CABLE	BUS BAR	CONNECTION	GAI.#
	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
100 min	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
1 00	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
O	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
111	K100	-	0.1 mA to 3 A	0.05 mA to \pm 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	0.18 in (4.5 mm)	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°	0.63 in (16 mm)	N/A	Leads	2153.05

^{*}Output Protection for open secondary.

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





^{**}Phase shift indicated at maximum rating.

CURRENT MEASUREMENT PROBES

AMPFLEX® AND MINIFLEX® PROBES - SELECTION CHARTS

SERIES	MODEL	RATIO	MEASUREMENT RANGE	OUTPUT SIGNAL	MAXIMUM Conductor Size	CAT. #
PA	MF 300-10-2-10-HF	_	(30 / 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
80	MA114	-	(3 / 30 / 300 / 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 / 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 / 1000) A	10 mV/A, 1 mV/A	7.48 in (190 mm)	2112.98
	1000-36-2-1	-	(100 / 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 / 3000) A	10 mV/A, 1 mV/A	7.48 in (190 mm)	2113.05
	3000-48-2-1	_	(300 / 3000) A	10 mV/A, 1 mV/A	15 in (381 mm)	2112.01
	6000-36-2-0.1	-	(600 / 6000) A	1 mV/A, 0.1 mV/A	11 in (280 mm)	2113.21
	30000-24-2-0.1	_	(3000 / 30,000) A	1 mV/A, 0.1 mV/A	7.48 in (190 mm)	2113.33
6	24-3001	-	300 A / 3000 Aac	10 mV/A, 1 mV/A	7.48 in (190 mm)	2120.81

Consult factory for NIST Calibration price.

OSCILLOSCOPE & BNC TERMINATED PROBES

MODEL	MEASUREMI	ENT RANGE	OUTPUT SIGNAL	PHASE SHIFT*	MAXIMUM C	ONDUCTOR SIZE	OUTPUT	
MODEL	AC	DC	VOLTAGE	SHIFT*	Ø CABLE	BUS BAR	CONNECTION	
SL261 cUL us	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 c UL us	(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 x 0.19) in (20 x 5) mm	10 ft (3 m) Lead w / BNC	
	(0.005 to 6) A (0.1 to 120) A	-	200 mV/A 10 mV/A	≤ 4 ° ≤ 2.2 °	0.78 in (20 mm)	(0.78 x 0.19) in (20 x 5) mm	10 ft (3 m) Lead w / BNC	
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. Consult factory for NIST Calibration price.

