### Reducing Incident Energy By Increasing Working Distance Using Insulated Hand Tools For <\$100

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 IEEE 1584 low voltage working distance to face and torso for low voltage ≤1000VAC or ≤1500VDC is 18 inches.

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- <u>Test Instruments:</u>
- Probe extenders.
- Reduces likelihood of occurrence.
- 13 inches long.
- IEEE 1584 low voltage working distance is 18 inches.
- Increases working distance by 12 inches.
- Will reduce incident energy by up to 50% with working distance increase.

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MCC A MAIN BRKR LINE (30in WD ) 0.48 UTIL\_MTRS\_ON VCBB 14 MCC-A (32in WD) 0.48 UTIL MTRS ON VCBB 14 VCBB 14 MCC A MAIN BRKR LINE (32in WD) 0.48 UTIL MTRS ON UTIL MTRS ON 14 MCC-A (40in WD) 0.48 VCBB MCC A MAIN BRKR LINE (40in WD 0.48 UTIL\_MTRS\_ON VCBB 14







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# Specification – Cementex Insulated Hand Tools

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- <u>Test Instruments:</u>
- ASTM F1505 approved.
- 1000VAC.
- Approved mark is double triangle, 1000V.
- Double insulated typical.
- Orange over yellow.
- Pre-use inspect.
- All types available.
- UPS battery work use insulated hand tools to prevent arcing fault.

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## Specification – Cementex Insulated Probe

- <u>Test Instruments:</u>
- Insulated probe.
- 14 inches long.
- Hands do not go into the box to reset.
- IEEE 1584 low voltage working distance is 18 inches.
- Increases working distance by 14 inches.
- Will reduce incident energy by up to 50% with working distance increase.

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Cementex P/N: R15BRT-CG, List Price: \$39.00 USD

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 Incident Energy Reduction By Increasing the Working Distance: Fluke Probe Extenders

				Pay	Pai	Boy				Total			
			Electrode	BOX	ВОХ	BOX	Working	Final	la at	lbf	AFB	Total	
Bus	Nominal kV	Scenario	Configuration				Distance	FCT	FCT	at	(ft-	Energy	
			Comguration	Height (in)	Width (in)	Pepth (in)	(in)	(s)	(kA)	FCT	in)	(cal/cm2)	
							$\sim$			(kA)			_
MCC-A (18in WD)	0.48	UTIL_MTRS_ON	VCBB	14	12	- F	18	0.3	18.5	22.2	2	25.8	3
MCC A MAIN BRKR LINE (18in WD)	0.48	UTIL_MTRS_ON	VCBB	14	12	8		2	18.5	22.2	18'5"	1122	
MCC-A (30in WD)	0.48	UTIL_MTRS_ON	VCBB	14	12	8 🗲	30	0.9	18.5	22.2	<b>6</b> 2"	10.2	3
MCC A MAIN BRKR LINE (30in WD )	0.48	UTIL_MTRS_ON	VCBB	14	12	8		2	18.5	22.2	18'5'	44.5	
MCC-A (32in WD)	0.48	UTIL_MTRS_ON	VCBB	14	12	8 🗲	32	0.3	18.5	22.2	2	9.1	3
MCC A MAIN BRKR LINE (32in WD )	0.48	UTIL_MTRS_ON	VCBB	14	12	8	32	2	18.5	22.2	18'5"	39.6	
MCC-A (40in WD)	0.48	UTIL_MTRS_ON	VCBB	14	12	8	40	0.5	18.5	22.2	8'2"	6.1	
MCC A MAIN BRKR LINE (40in WD)	0.48	UTIL_MTRS_ON	VCBB	14	12	8	40	2	18.5	22.2	18'5"	26.4	

#### **Cementex Insulating Probe**

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Terry Becker, P.Eng., CESCP, IEEE Senior Member Check My BLOG on Website See My Linkedin Profile & Posts

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