

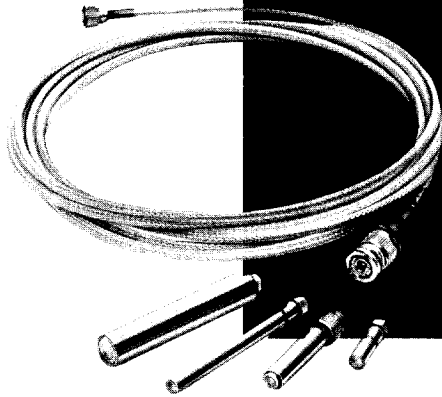


Wayne Kerr CORPORATION

22 Frink Street, Montclair, New Jersey 07042 • (201) 746-2438

Innovations in Instrumentation ■ Measurement ■ Analysis ■ Synthesis ■ Control

Capacitance Probes



General Construction Includes
Three Concentric Metal Elements

Wayne Kerr's typical capacitance probe consists of three concentric metal elements, electrically isolated from one another by some type of insulating material.



The center-most element called the *sensing tip* is one plate of a capacitor whose second plate is the well-grounded electrically conductive object under observation. Variation in the thickness of the air gap between the sensing tip and the test object causes a linear change in the output voltage of the detection circuit.

The second element called the *fringing shield* is required to assure a uniform field between the sensing tip and the test object. The fringing shield is maintained at the same potential above ground as is the sensing tip. Grounding the fringing shield will make the detection circuit inoperative. To eliminate this problem, the third element called a *ground guard* is used.

Probes for room temperature to 400°F. operation are standard. Information on probes suitable for temperatures to 1400°F. is available on request.



DIMENSIONS

Model No.	Probe Range (mils)	Length (inches)		Maximum Temp. (°F.)	O.D. (inches)	
		Min	Max		Norm	Min*
WK400A	1	1/16	5	400	1/4	.075
WK400B	5	1/16	5	400	1/4	.180
WK400C	10	1/16	5	400	1/4	.191
WK400C-2	20	1/16	5	400	7/16	.359
WK400C-3	30	1/16	6	400	7/16	.359
WK400C-5	50	1 1/16	7	400	5/8	.496
WK400D	100	1 5/16	8	400	7/8	.790
WK1000C	10	1/16	5	1400	1/4	.191

Explanatory Notes:

1. Probes are complete with electrical cable attached or detachable, plus terminal connector.
2. The 400°F probes include an 8 foot cable, and the 1400°F probe includes 3 feet of rigid cable.
3. Special connectors, mounting brackets, threaded mounts, or other special probe construction are available.

* Probes of minimum instead of normal O.D. are available upon request.
Unit prices will be approximately 50% higher than normal diameter probes.

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