Electrical Testing Instruments
from ADWEL International Ltd.

Capacitance DF Bridge
Model TCB-100

- *A compact instrument for precise determination of capacitance and dissipation factor (power factor).*
- *An important tool for preventive maintenance, production testing, cable fault finding.*
- *Extremely useful for measuring dielectric properties of power transformers, bushings, cables, motors and breakers.*
- *Wide Range (10pF - 100µF)*

Description

By the use of a well proven transformer ratio-arm design, we have produced a bridge which performs measurements in conditions that are beyond the scope of most conventional Capacitance Bridges.

Test sites such as high voltage switch yards, transformer stations, and production areas with a high presence of electrostatic interference present no problem to this instrument. Measurements on three or four terminal devices can be done without calculation by the use of the GUARD system.

The low voltage test set is designed to test electrical insulation qualities in the laboratory, substation or maintenance shop, without the dangers associated with a high voltage test set.

Readings are in “pF” with decimal multiplication only. A unique selector switch allows selection of all possible combinations without changing the initial hook-up connection on the item under test.

An extremely sensitive NULL Detector is sharply tuned to the test frequency. It also rejects line frequency interference completely.

The test set is easy to use, and requires no calculation or complicated multiplication of readings.

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Features

- Digital readout
- Guarded bridge circuit
- 100 Hz test frequency to eliminate line interference (83.3Hz in 50Hz mains)
- Solid state double tuned Null Detector
- Tests grounded and ungrounded specimen
- 5 position test mode selector
- Capacitance: 10 pF to 100 µF in 4 ranges
- Dissipation Factor: 0.01 - 40%
- Portable in sturdy fiberglass case

Specifications

Power input	120V or 230V, 50/60 Hz	
	Sensitive Circuit Breaker to protect instrument	
Ranges	Capacitance - 10 pF to 99.99 µF in 4 ranges	
	Dissipation Factor - 0.00 to 9.99% direct reading	
	+30% added in steps of 10%	
Accuracy	Capacitance - ±0.2% of range ±10 pF	
	Dissipation Factor - ±1% or reading ±.01% DF	
Resolution	Capacitance - 0.01%	
	Dissipation Factor - 0.01% DF	
Test Frequency	100 Hz (80 Hz on 50 Hz models)	
Null Detector	Highly sensitive solid state sharply tuned to the test frequency	
	Maximum rejection of line frequency	
Test Voltage	60 VAC	
Housing	Sturdy self-storing fiberglass case with lid and carrying handle	
Dimensions	38 x 38 x 24 cm (15 x 15 x 9 1/2") including lid	
Weight	15 Kg. (33 lbs.) including leads	
Environmental	Operating temperature	0°C to +40°C
	Storage temperature	-20°C to +60°C
	Relative humidity	0-95% FH (non-condensing)
	EMC	EN61326
Approval	Safety	EN61010-1
	CE	

specifications subject to change without notice

Optional Accessories

- Transit Case
- Custom Lead Lengths
- Calibration Standard

Represented by:

TCB-100 Kit Contents

Contents: *all contained in one foam lined carrying case*

- Test Leads -
  1 line cord, 1 ground lead
  2 coaxial measuring leads 12 m. (40ft.)
- Vinyl Zippered Carrying Pouch
- Operator's Manual
- Optional Foam Lined Transit case (as Shown below)

ADWEL

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