

Dielectric Constant Meter / Permittivity Meter

These pictures show how easy it is to measure the absolute Permittivity (Dielectric Constant) of liquids with our new DCM 470. Here, 5ml of water is examined in a 16mm glass tube. With the calibrating switch in the PRESET position, the device is precisely **factory calibrated**. There's nothing to do but to read the dielectric constant from the display. With the calibrating switch in upper position you can calibrate the meter with **reference liquids** of your choice using the left control for 1.00 adjustment (dry/air) and the right control (wet) for reference liquid adjustment. Both controls can be locked to save **customer calibration**. The easy to disassemble probe should be cleaned carefully after usage with a piece of cloth, if necessary, in a solvent.

Features / Specifications

Liquid required: 5 ml

Probe: 14 x 50 mm, Stainless steel, Teflon

Measuring Signal: High Quality 470 kHz Sine Wave
Level: 350mV rms

Sensitivity high: Dielectric Constant of 1-10

Sensitivity medium: Dielectric Constant of 1-100

Max. Conductivity of Sample:

Range 1-10: 1 μ S/cm

Range 1-100: 10 μ S/cm, (<0.05 mM 1.1 electrolyte)

Calibration:

1. PRESET: Factory calibrated to ± 1.5 %
with Deionized Water at 25° C for Range 1-100,
with Dichloromethane at 25° C for Range 1-10
(Values from CRC Handbook of Chemistry and Physics)

2. REF LIQUID CAL: Variable ± 20 %

Accuracy: 1,5 % absolute, at excellent repeatability and linearity.

Operating Temperature: 10...40° C ambient temperature

Display: 13mm LCD

Analog Output: 1-10V DC Rout = 1 k Ω

Power: 115/230 VAC, 50/60 Hz, 3.0 VA

Dimensions: 26x15x10 cm

Weight: 1.8 kg / 4.0 lb.