

## 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  $\mu$ S/cm

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

**Calibration:**

1. PRESET: Factory calibrated to  $\pm 1.5$  %  
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  $\pm 20$  %

**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 $\Omega$

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

**Dimensions:** 26x15x10 cm

**Weight:** 1.8 kg / 4.0 lb.