



Low Voltage Dielectric oil tester

LDTR

TECHNICAL SPECIFICATIONS



General information

Vettiner, with nearly 90 years of expertise in high-precision measurements since 1933, introduces the LDTR, a 10V low voltage tester for Tan δ measurement specifically engineered for dielectric oils with ultra-low losses. The very low voltage makes the test easier without any high voltage protection for the cell or operator.

Main applications

Testing of ultra-low-loss dielectric oils
Oil quality control
Oil ageing test
Laboratories, Production & Maintenance

Calibration

Easy check & easy calibration
Complies with IEC 61620
Vettiner calibration certificate included (BNM Traceable)*

**External laboratory calibration (ISO 17025,...) under request*

Benefits

HMI 10" Touch screen PC Control & sturdy controller base
PC Benefits & Built-in CSV conversion
Easy use, very intuitive, & built-in interactive manual
Customizable software
Total operator safety & ease of use
10 years of After Sales Service guaranteed.
Sturdiness & reliability over time
No or reduced maintenance over time

Environment

Operating temperature: -0°C up to $+40^{\circ}\text{C}$
Storage temperature: -0°C up to $+60^{\circ}\text{C}$

Measurement

Main Measured Values (All displayed)

	Ranges	Resolution	Accuracy
Voltage (*)	10V	-	$\pm 1.0\%$
Capacitance (*)	10pF - 2nF	1 pF to 0,01 pF	$1.0\% \pm 1 \text{ dgt}$
Conductance (*)	4E^{-6} - 400E^{-17} S	1E-10 à 1E-17 S	$1.0\% \pm 1 \text{ dgt}$
Tan Delta - Tan d	Calculated from Capacitance & conductance		
Permittivity - ϵ_r	Calculated from capacitance		
Temperature	0°C - 150°C	0.1°C	$\pm 0.5^{\circ}\text{C}$

**Can be customized*

Other Tests or interfaces

Software to drive tests, manage tests results...

Interface: USB for results storage or keyboard, LAN connexion, HDMI port...

Some of the above technical data are valid at the above-mentioned date but could change without any notice at any time (Ex. dimensions or weight or else...)

Dimensions & weight

Product

Dimension	364 mm x 386 mm x 200 mm
Weight	8.5 kg

Packing

Dimension approx.	408 mm x 408 mm x 266 mm
Weight	9.5 kg

Option and accessories

Ref	Description	
	Multi-Conductance standard box	On request
	Multi-Capacitance standard box	On request
SCL/SCS	Sample test cell, liquids or solids	On request
SC/SH	Heating Control for self-heating test cells	On request
TRAIN	Eventual training	To be agreed, free in our premises
INSTAL.	Eventual on site setting up	To be agreed
EOR	Eventual other requests	To be agreed, Ex: On site tests

All options and accessories specifications under request