



## CANNON® TE-DPV Quick Reference Card (17.5095)

### Specifications

Specifications	Details
Viscosity range and accuracy	30 to 3000 mPa·s (cP) ± 5% OFS
Test temperatures and accuracy	25, 40, 50, 80, 100 °C ± 0.1 °C
Minimum sample volume	135 mL per test
Electrical specifications	100 to 240 VAC, 47 to 63 Hz, 120 watts power consumption
Operating conditions	15 °C to 30 °C, 10% to 75% relative humidity (non-condensing), Installation Category II, Pollution Degree 2
Compliance	CE Mark: EMC Directive (2004/108/EC); Low Voltage Directive (2006/95/EC); HI-POT (1900 VDC, 60 sec.); ROHS

### Setting up the instrument

1. Verify that the TE-DPV power switch is off.
2. Connect the **MAINS AC** power cable to the **~MAINS** input on the back of the TE-DPV.
3. Connect the **TE power supply** to the **TE POWER** output on the back of the TE-DPV.
4. Connect the **TE power supply** to the DC power input on the back of the thermoelectric cooler (round plug).
5. Verify that the **TE control cable** (white cable) is plugged into the **TE UNIT** connector.
6. (Optional) Connect the optional printer to the **RS-232C** connector.
7. Plug the **MAINS AC** power cable into a **MAINS AC** receptacle.

### Loading a sample

1. Fill a clean sample cup to the fill line with the test sample. The fill line is circumscribed around the inside of the sample cup approximately ½" (12 mm) below the top of the cup (~ 135 mL).
2. Slide the TE block tray out on its rails until it is clear of the paddle/spindle.
3. Place the sample cup into the TE block and slowly rotate the sample cup until the notch is facing forward and the pin on the sample cup is seated in the hole in the TE block.
4. Push the TE block tray back until it click into position.
5. Loosen the knob on the front of the sample tray by turning it counterclockwise. Raise the tray until the bearing contact the stop collar on the rail. Lock the tray into position by turning the knob clockwise until the tray is secure.
6. Carefully place the sample cover over the cup. This is required for good temperature control.

## Running a test

The TE-DPV displays dynamic viscosity in mP·s (cP) if the sample density is not provided. To display kinematic viscosity in mm<sup>2</sup>/s (cSt), sample density must be entered before a test is run. Both values cannot be displayed at the same time.

1. To set density in order to display kinematic viscosity:
  - a. Press **SET DENS**, and then enter the sample density. A value must be entered for every character, i.e. a density of .9 must be entered as 0.9000.
  - b. Press **ENTER** to commit the selection.
2. To change the displayed viscosity units:
  - a. Press **MENU**.
  - b. Press **1) Configure Units**. Press **ENTER**.
  - c. Select the desired units. Press **ENTER**.

**Table 1 — Viscosity units**

	cGs	SI
w/o density	cP	mPa
with density	cSt	mm <sup>2</sup> /s

3. To change the test temperature:
  - a. Press **SET TEMP**.
  - b. Select the appropriate test temperature. Press **ENTER**.
4. If a printer is connected, turn it on and verify that it is in active mode, i.e. for a Citizen Model CBM-910 dot matrix printer, the green **SEL** light must be lit.
5. Press **RUN TEST** to start a test cycle.

## Cleaning the instrument



**Warnings** Use appropriate precautions if handling a hot sample cup!

Clean the sample cup, spindle and sample cover after each test to ensure accurate viscosity reading.

1. Allow the sample and sample cup to cool to a safe temperature.
2. Remove the sample cover. Wipe off any sample with an absorbent towel.
3. Lower the TE block tray and remove the spindle from the magnetic coupling.
4. Wipe any sample residue from the spindle. Use solvent if necessary.
5. Empty the used sample from the sample cup into an appropriate waste container.
6. Wipe out the cup with an absorbent towel. If necessary use an appropriate solvent to completely clean the cup.